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NAVAL STAFF MONOGRAPHS
(HISTORICAL).

FLEET ISSUE.

VOLUME XIII.

HOME WATERS—Part IV.

From February to July 1915.

October 1925.

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NAVAL STAFF MONOGRAPHS
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VOLUME XIII.

HOME WATERS—Part IV.

From February to July 1915.

Monograph No. 29.

NAVAL STAFF,
TRAINING AND STAFF DUTIES DIVISION,
October 1925.

HOME WATERS, PART IV.**THE FIRST PHASE OF THE SUBMARINE ATTACK
ON SHIPPING IN HOME WATERS, FEBRUARY TO
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HOME WATERS, PART IV.
February to July 1915.

Introduction.

The action off the Dogger Bank on 24 January 1915 marks an epoch in the naval war. It was the third of the battle cruisers raids across the North Sea carried out under Admiral von Ingenohl; its disastrous results lost him his command. It brings to a close the bombarding raids which had been the keynote of the operations since November 1914; the balance of gain and loss in these raids was so adverse to Germany that von Ingenohl's successor, Admiral von Pohl, put aside the possibility of repeating them.

The period treated in this volume covers the first five months of his command, a period in which the minor forces were to be the protagonists, and the objective no longer directly military. Fleet operations, though the object of aspiration (under favourable circumstances), contended with commerce-warfare for the control of the available material, and in the end retired into the background of the war plan.

Though sorties of the High Sea Fleet fill a large part of the ensuing narrative, the story is really one of submarine and anti-submarine, of minelaying and minesweeping, an incessant warfare, on the fringes of which the battle squadrons make brief irruptions and as rapidly disappear.

The volume begins, on the British side, with large offensive plans for the employment of the fleet and army, schemes which gradually dwindle to nothing. The overwhelming advantage we possessed in our ability to read the enemy's signals, coupled with his strangely free use of wireless telegraphy, had the effect of leaving the initiative largely to him; again and again operations, small though they were, were postponed because intercepted signals implied an approaching German movement, and it seemed better to wait till this was more definite; and thus it came about that the movements of the Grand Fleet were dictated, all unknowingly, by Admiral von Pohl. The submarines advertised their movements less freely than the High Sea Fleet, though occasionally they let slip information which enabled us to prepare for their arrival. The minelayers were the most stealthy of the German forces; and the volume closes with the disquieting discovery that the submarine minelayer, whose existence had been discredited, was an active reality of unknown powers.

Note on Sources.

The sources from which this volume has been compiled are the same as those which were used for Volume III of this series (C.B. 960*b*). The War Registry telegrams for the period are contained in H.S., Vols. 87, 94, 98-108, 112-117, 122-127. Telegrams based on, or connected with, the German wireless messages we decoded are separately bound in H.S. 203.

The principal published source is the official German Naval History, *Der Krieg zur See, Nordsee*, Band IV.

Operations of the French forces in the English Channel are described in *La Guerre Navale dans la Zone des Armées du Nord*, by A. Thomazi, Capitaine de Vaisseau de Réserve (Payot, Paris, 1925).

The more important telegraphic orders to the British Fleet are reproduced in Appendix A at the end of this volume. The principle adopted in selecting from the 31,000 telegraphic orders and reports in the War Registry volumes mentioned above has been to include no reports which did not produce an immediate order of importance; the only orders given in the Appendix are those which radically alter the routine in force. A few telegrams of intrinsic value have been added. Even with this drastic method of exclusion it has been considered necessary to print over 500 telegrams. The other appendices explain themselves.

HOME WATERS, PART IV.

February to July 1915.

CHAPTER I.

SUBMARINE ACTIVITY AT THE END OF JANUARY 1915.

1. **Return of the Forces after the Dogger Bank Action.**—By noon January 24 the Commander-in-Chief became aware that the action between Admiral Beatty's battle cruisers and the German force under Admiral Hipper had come to an end, and that the enemy were retiring. He was proceeding to support Admiral Beatty, and had with him the 1st, 2nd and 4th Battle Squadrons; the 1st, 2nd and 6th Cruiser Squadrons; the 2nd Light Cruiser Squadron; and the 2nd and 4th Destroyer Flotillas. The newly formed 7th Cruiser Squadron (*Minotaur*, *Hampshire* with *Cumberland*, temporarily) was on its way westabout to join him at sea. He continued steering southward, and at 3.30 p.m. overtook the 3rd Battle Squadron and 3rd Cruiser Squadron, whom he kept in company. An hour later he established visual touch with the battle cruisers, which were retiring northward for Rosyth with the 1st Light Cruiser Squadron and Commodore (T's) destroyers. The position was 54° N, 4° E. The Commander-in-Chief then turned the battlefleet northward, detached the 2nd and 4th Flotilla to assist in protecting the damaged *Lion* against expected destroyer attacks, and attached the 2nd Light Cruiser Squadron also to Admiral Beatty.

At 8 a.m. January 25 he detached the 3rd Battle Squadron and 3rd Cruiser Squadron to Rosyth, their base. On the way the *Britannia* grounded on Little Hermit Shoal, and though she was soon got off, she grounded again, and was not finally afloat till noon, January 28. The dreadnought battle squadrons reached Scapa before dawn of the 26th after cruising in the North Sea during the 25th. The battle cruisers and the 1st Light Cruiser Squadron reached Rosyth on the 26th. Shortly after the battle squadrons parted company, the *Lion's* speed had begun to decrease till it seemed she would stop altogether. Admiral Beatty ordered the *Indomitable* to take her in tow, and in this way she reached Rosyth safely. The expected destroyer attack did not take place, and as soon as she was within the precincts of the port Admiral Beatty sent away the Grand Fleet destroyers, the 2nd Flotilla to Scapa and the 4th to Cromarty.

The cruisers went back to their former bases. The 1st Squadron reached Scapa at midnight, January 25-26; the 2nd Squadron went to Cromarty; the 3rd to Rosyth; the 6th to Scapa; the 7th to Cromarty; the 1st Light Cruiser Squadron to Rosyth. The 2nd Light Cruiser Squadron was ordered to Scapa by Admiral Beatty at 2 p.m. on the 25th, but the *Falmouth* went into Cromarty to have a high-angle anti-aircraft gun mounting completed.

Thus by the 26th the whole fleet was again in harbour. The Commander-in-Chief, however, was not with them. On the way back to Scapa he had parted company, and with the *Iron Duke* and *Centurion* had gone to Cromarty, where he was to have a short spell ashore and undergo a slight operation. It was arranged that, should it be necessary to take the fleet to sea before he was well again, Admiral Burney should command it; but in the view of the reverse the Germans had sustained it seemed unlikely that they would at once resume active measures. The *Iron Duke* went into dry dock, and the *Centurion* stood by, ready to hoist the flag if necessary, meanwhile carrying out small repairs of machinery defects.

Although it was true that the Germans had lost a battle cruiser, they did not consider the casualties resulting from the Dogger Bank action to be so entirely one-sided as we thought them to be.

They were under the erroneous impression that we had lost the *Tiger*. A fire had been observed on board her. It was not realised that it came from two boats on the upper deck, without in the least impairing her fighting efficiency; and when the scouting airship reported only four battle cruisers in sight, her statement confirmed those of many independent witnesses in the *Moltke* that torpedoes fired at the *Tiger* shortly after noon had taken effect, and that she had gone down after a violent explosion.¹ On cooler investigation it now appears that what they had seen was the hit on the destroyer *Meteor*, which was in the direct line of sight. The explosion was that of one of her oil-driven boilers, and since, when the fumes from it had cleared away, only four battle cruisers were visible—for the *Lion* had dropped so far astern as to be out of sight—observers jumped to the rash conclusion that the *Tiger* had sunk. Her injuries were, however, slight; she had not been torpedoed, and after a fortnight's repair was able to rejoin her squadron. The *Lion's* damages were more serious, and it was not till April that she was again fit to take part in an action.

The crippled *Meteor* was taken in tow by the *Liberty* and escorted by the *Broke's* half of the 2nd Flotilla into the Humber, where she arrived at 8.50 a.m. of the 25th, the *Broke's* half-flotilla then returning to their base at Rosyth.

¹ German Official History, *Der Krieg zur See, Nordsee*, Band III, pp. 223, 236, 244.

2. Changes in Command, von Ingenohl relieved by von Pohl.—

The action which had just concluded was not to pass without its casualties in the higher commands. In German naval circles it was felt that Admiral von Ingenohl's dispositions disregarded the strong probability that at least some portion of our battlefleet would be at sea, and that the *Blücher* need not have been abandoned if Hipper's squadron had had closer battleship support. The Admiralstab reviewed the whole conduct of the war since the High Sea Fleet had been in Admiral von Ingenohl's hands, and came to the conclusion that he had not realised the truth that dissipation of forces is always disastrous, particularly for the weaker side. The only possibility of guarding against further disasters appeared to be a change of command. Moreover, the confidence of officers in their leader had been shaken, and this mistrust might spread to the nation, with serious results. In view of these opinions, it was decided to relieve both Admiral von Ingenohl and also his Chief of Staff, whose extraordinary capabilities were becoming clouded by continual ill-health.¹

Admiral von Ingenohl urged in his defence the ambiguous and often contradictory operational orders he had received, and the frequent occasions on which his proposal to take an advanced position with the High Sea Fleet had been refused by the Admiralstab. Against this was set the outcome of an interchange of memoranda on the future strategy, just prior to the Dogger Bank action. The Chief of the Admiralstab, Admiral von Pohl, had recommended to the Kaiser that the Commander-in-Chief of the High Sea Fleet should be given general permission to act more on his own initiative than had hitherto been allowed. The Kaiser's assent was qualified by the proviso that the main portion of the fleet must be preserved as a political instrument, and that any advances on a large scale should be reported beforehand. To von Ingenohl this permission was of doubtful value; he did not propose to advance so far as British waters, being convinced that it was suicidal to go beyond the radius of action of his destroyers. The German Fleet, he considered, was designed to fight only within reach of its bases, and he did not intend to allow himself to be inveigled into carrying an offensive up to the British coasts. With him, as with Admiral Jellicoe, the capacity of his destroyers tended to become the ruling factor both in strategy and tactics.² His defence was unavailing, and on February 2 he hauled down his flag. His fault appears to be that he had taken too great risks with part of his fleet and too little with the other.

The appointment of Admiral von Pohl in his place did not necessarily mean any wide change of policy in the employment of the High Sea Fleet. To those with inside knowledge it was apparent that the fleet was still to be held back, and that no action between the main forces was likely to result from the

¹ *Nordsee* III, pp. 243, 244.

² The correspondence between von Pohl and von Ingenohl is given in Appendices IV and V to *Nordsee* III.

instructions to Admiral von Pohl. The High Sea Fleet was not now so completely prepared for action as at the outbreak of war. The *Derfflinger* and *Seydlitz* were under repair, and the latter could not be ready till April. The 3rd Squadron, now under Vice-Admiral Scheer, was exercising in Kiel Bay, though hampered by the reports of British submarines in that area. The continuous presence of British submarines in Heligoland Bight made the firing practices of the High Sea Fleet very difficult, and without them the ships would be inefficient. Besides the refits, which alone taxed the resources of Wilhelmshaven to its utmost limits, other structural alterations in certain ships had been shown to be necessary by the capsizing of the *Yorck* after striking a mine in Jade Bay; and the Dogger Bank action proved that directors and instruments for firing at long ranges must be fitted in the later ships before another serious battle could be risked. Another large piece of work was the alteration of the boilers of the destroyers to enable them to use combined oil and coal burning in order to increase their endurance at high speeds. These varied technical matters all reduced the possibility of Admiral von Pohl being able to adopt a more forward policy than his predecessor.¹

On our own side it was felt that mistakes had been made, more particularly that Admiral Moore, by rigidly adhering to the orders he believed he had received, had shown himself deficient in some of the qualities requisite in an officer commanding battle cruisers in action. With this in view, another appointment was found for him,² the command of Cruiser Force I in the Canary Islands area, which he took over a month later.

It will be remembered that the failure to destroy the German battle cruiser squadron in the action of the Dogger Bank had been, to some extent, due to the difficulty experienced by Admiral Beatty in signalling the exact nature of the situation. In fact, the signal book did not at the time contain the necessary hoists. This deficiency was redressed on February 27, when the following additions were made:—³

- (a) "Engage enemy more closely."
- (b) "Admiral unable to make signals by W/T."
- (c) "C.-in-C. transfers the command" (may be used if C.-in-C. or his flagship is disabled temporarily or otherwise.)
- (d) "Flag officer making the signal is disabled."
- (e) "C.-in-C. has resumed command."

3. Another Air Attack on Cuxhaven Zeppelin Sheds Projected.—The Admiralty intended to resume the air raid on the Cuxhaven sheds which had been stopped by the Dogger Bank action. While the damaged *Lion* was still being escorted into port by Commodore Tyrwhitt with 49 destroyers, they ordered him to send the 1st and 3rd Flotillas to Harwich when they could be

¹ *Nordsee* IV, p. 11.

² H.S. 305, pp. 195, 196, 212.

³ G.F.O. and M. H.S.A. 205, p. 782.

spared from their escort duties, and to come himself to the Admiralty to consider the plan of operations.¹

The Commodore reached Harwich in the *Arethusa* shortly after 10 p.m. on January 27 with the *Aurora*, the 1st Destroyer Flotilla and the "M" class destroyers. The *Undaunted*, with the 3rd Flotilla, arrived next day; they had made a sweep round the eastern side of the Dogger Bank and thence to Harwich via Ymuiden, where submarines had been sighted.²

The operation orders decided upon were an amended form of those submitted by the Commodore on January 16.³ The raid, called Plan Z2, was to take place at dawn on January 30. The new plan was for the force under Commodore (T) to be divided into two parts; Force A, comprising the three seaplane carriers with an escort of two light cruisers and sixteen destroyers; and Force B to comprise one light cruiser and twelve destroyers standing by, some 30 miles to eastward of the rendezvous for picking up the seaplanes, ready to assist Force A if it should be attacked. Two of the seaplanes were definitely told off to keep station over Force A and drive off any Zeppelins which might come to attack it. Four submarines were to be in position watching the Ems River and the swept channel at Norderney; and the *Lurcher*, *Firedrake* and four other submarines were to cover the vessels picking up the seaplanes and protect their retreat. Two battle cruisers, accompanied by the 1st Light Cruiser Squadron, were to be in support 40 miles to westward during the picking up process, in a position only 40 miles to the north-westward of Borkum. If the Commodore should signal for assistance the light cruisers were to be sent to him; but the battle cruisers were not to approach within 40 miles of Heligoland or 20 miles of Borkum.

Apart from its details, the plan differed from its predecessors in that it was a two-day operation. The seaplane carriers were to be detached and return home independently from 53° N, 4° E, and on the second day at daylight the Commodore was to go into the Bight again and attack the German flotillas returning from their night extended patrol; the battle and light cruisers, having cruised north of 56° N during the day after the air raid, were to come south to a position roughly 80 miles WNW of Heligoland and remain in support⁴ there during the attack on the flotillas.

Having ascertained from Admiral Beatty that the 1st Light Cruiser Squadron and all the battle cruisers except the *Lion* were ready at four hours' notice,⁵ the Admiralty ordered the *Princess Royal* and *Tiger* to be ready by the night of January 28 to leave Rosyth with the 1st Light Cruiser Squadron and support the

¹ H.S. 87, pp. 1109, 1166.

² H.S. 87, p. 915.

³ See Monograph, *Home Waters* III, Section 119.

⁴ The operation orders are in M. 010053/15. A telegraphic summary is given in Appendix A 18.

⁵ H.S. 88, p. 409.

Commodore's force. The Commander-in-Chief, however, substituted the *Queen Mary* for the *Tiger*, which, though efficient, ought not to be exposed to bad weather.¹

The operation started early on the 29th. The *Princess Royal* and *Queen Mary* left Rosyth soon after midnight; the *Lurcher*, *Firedrake* and submarines and Commodore Tyrwhitt with the seaplane carriers and escort sailed from Harwich at daybreak. Before long it was obvious that the weather was unsuitable for air operations; although the Commodore at first thought of waiting till 3 p.m. before abandoning the operation, by 1.30 p.m. the weather had become so much worse that he decided to return. Informing Commodore (S) and the *Princess Royal* of his decision he turned, and by 6 p.m. was back at Harwich. He intended the postponement of the air raid to be only temporary, and proposed to sail again on the 31st to carry it out. But a German message had been read which had the result of at once dismembering his force, and the course of events which followed made it impossible for some months for the Harwich Force ever to contemplate raids into the Bight.

4. **Forces in the South and West, January 28.**—There were indications in the German wireless messages we had intercepted that several submarines were out on long-distance voyages. On the 26th it was learned that *U.21* was passing westward off Ostend. Another message mentioned two others, and a third spoke of four submarines being absent from the Bight on service. On the 27th a message sent via Norddeich gave information to a submarine at sea with regard to Barrow-in-Furness; and at 8.40 p.m. that day the Admiralty warned all the Senior Officers in the west that a German submarine was proceeding down Channel to go up the Irish Channel to operate off Barrow.² The accuracy of the inference was soon to be proved.

On the presumed route of the submarine lay many attractive targets for its torpedoes. The transport of troops from Southampton to France had continued without intermission. Already 460,000 officers and men had been landed in France from British ports, the transports in which they and their horses and stores were embarked having made 1,200 voyages to French ports. Troopships from Southampton to Havre were each escorted by one or two destroyers, and, when possible, horse ships also were escorted. The XXVIIIth Division had just finished crossing. Its escort during the four days of passage, January 15 to 18, had strained the resources of Portsmouth even with the *Beagle* class and four "L" class destroyers sent specially from Harwich for escort duties. On the night of the 16th the five transports ready to sail were held up on account of submarines reported off Sidmouth and in Christchurch Bay. The Admiralty for safety had ordered the transports to sail after dark singly at half-hour

¹ A. 16, A. 17.

² A. 15. I.D.H.S., Vol. 857. Nos. 1455, 1466, 1470, 1485A.

intervals, each escorted by a destroyer; but when so many vessels had to cross during one night this made it impossible to complete the voyage in darkness or to avoid delay on arrival. Some of the transports were slow old boats, and the masters of them did not always appreciate the dangers they ran. The day before the *Formidable* was torpedoed the Senior Officer of the escorting destroyers had to report that the transports went only 8 or 9 knots, and were incompletely darkened; they stopped some distance off Havre to discharge and pick up pilots in deep water, where, if torpedoed, they would sink, and the French destroyers, which should protect them in their own waters, were slack in coming out. The Principal Naval Transport Officer at Southampton¹ instructed the masters to pay strict attention to the orders of the escorting destroyers; but the delay caused by dropping pilots could not be avoided, as there were not enough to proceed in the ships. The lack of facilities at Havre for berthing the large number of ships arriving every day led to further delay; on January 19, indeed, the master of a transport informed his escorting destroyer at 7 p.m. that his orders were that he was not to arrive before 7 a.m., making 12 hours for the passage across the Channel.² The transports, therefore, would seem an easy and attractive target for German submarines.

An additional danger at Portsmouth was brought about by the effect of the alteration in navigational marks in the Channel, carried out on December 10 to make the passage dangerous for submarines. The result was so much congestion at the Nab, where the specially instructed pilots could be obtained, that there were sometimes as many as 40 vessels waiting for the 12 pilots available; and since all transports had to pass the Nab, these merchant vessels afforded a lurking place and a screen for submarines. The question of shifting the pilot station to either the Start or Dungeness was considered; but, after discussion, it was thought better to keep to the present arrangement, and meet the difficulty by increasing the number of pilots, allowing, at congested times, one pilot to lead several vessels.³

Besides the Extended Defence Flotilla, which covered the passage from Portsmouth as far as the Nab, nearly the full complement of armed trawlers allowed in the scheme of auxiliary patrol had arrived. Portsmouth was known as Area XII of this patrol, and should have three auxiliary patrol units—that is, three armed yachts and 18 armed trawlers or drifters. By January 27, though none of the yachts had arrived, all except one trawler were at work. Their routine was to patrol along the transport route; but more often than not they were called from this duty to search special areas in which submarines had been reported. On the 27th, for instance, one whole unit was ordered to work between the Needles and Anvil Point to catch a submarine

¹ Captain H. Stansbury, R.N. (retired).

² Papers titled A. 2173/15 "Cross-Channel Transports."

³ Papers titled A. 1131/15, "Congestion of Shipping off Portsmouth."

reported in Christchurch Bay. Further west, Portland (Auxiliary Patrol Area XIII) had 12 armed trawlers, but, so far, no yachts. Devonport (Area XIV), to which three units had been allotted, had received only 12 trawlers.

The Western Channel Patrol maintained by Cruiser Force G¹ had for some time been considered by the Admiralty to be exposed to the risk of submarine attack, and they proposed to limit the area to be patrolled to a strip only 20 miles wide across the mouth of the Channel. Admiral Wemyss, in command of the patrol, however, considered that so narrow a zone was more dangerous than the one in force, since it prevented the line of patrol from being much varied; he preferred his own proposal, that the actual patrolling should be done by his four armed boarding steamers, in conjunction with the auxiliary patrol vessels of Area XIX, backed up by one or two cruisers, while the rest remained ready in port. He came to the Admiralty to discuss the matter, and, so far as can be ascertained, carried his point.² His cruisers had been escorting the outward and homeward-bound convoys of troops to and from India. At the moment the *Talbot* was on passage from Gibraltar with three transports bound for Southampton. As submarines were expected in the Channel the Admiralty ordered her to take them to Plymouth, taking care to cross the Channel and arrive during the dark hours. However, another transport, the *Neuralia*, with troops for Bombay, left Southampton at 4 p.m., and proceeded unescorted to Gibraltar, keeping in mid-Channel till well to the westward of Ushant, to which, as submarines had been recently reported there, she was instructed to give a wide berth. She arrived safely at Gibraltar.

Another possible target for submarines was the Channel Fleet. On January 6 the Admiralty ordered this to remain in Portland Harbour. Vice-Admiral Bethell assumed command of the Channel Fleet on January 17 and at once endeavoured to find a safe spot in which he could continue the firing practices which had been interrupted by the torpedoing of the *Formidable*. He suggested Quiberon Bay, but had no destroyers, since all those in the Channel were engaged in escorting transports. The proposal that he should use Quiberon Bay was welcomed by the French, who offered to put an officer and four destroyers at his disposal during the practices. The 5th Battle Squadron³, except for the *Vengeance* and *Irresistible* (in dockyard hands at Chatham and Sheerness), left Portland at midnight, January 23-24, and zigzagging during the light hours of the 24th, carried out target practice on the 25th and 26th in the Bay of Biscay. They went

¹ *Euryalus, Bacchante, Eclipse, Talbot, Diana*, and the four armed boarding steamers, *Sarnia, Rowan, Snaefell, Carron*.

² *Home Waters* III, Appendix A 456, 458, 462.

³ *Lord Nelson, Agamemnon, Cornwallis, Implacable, London, Prince of Wales, Queen, Diamond, Topaze*.

into Quiberon Bay at 10 a.m. on the 27th and were received by Admiral Favereau in the *Marseillaise*, who, having been given no rendezvous, had sent no destroyers to screen the battleships while at target practice. The squadron, which had been joined by the *Cornwallis*, carried out some firing in Quiberon Bay, and on the 30th proceeded with a French destroyer escort to sea again.

5. **The Patrols round Ireland.**¹—The west coast of Ireland had its cruiser patrol, acting principally for the control of trade and prevention of the passage of contraband. It consisted of Cruiser Force E, to which four armed boarding steamers had recently been attached.² The squadron, based on Queenstown, operated in the main on the south and south-west coasts of Ireland, where, since the prohibition of the passage by the north of Ireland, most of the American traffic passed. One cruiser and one armed boarding steamer, as a rule, patrolled the north-western corner of Ireland. Here the boarding steamer *Heroic* sustained considerable damage from the storm of January 15; she was not yet ready for service again.

Up to the present time the Bristol and Irish Channels had been considered less likely to be visited by submarines than most other areas, owing to their distance from Germany; but they contained the ports of Avonmouth, Cardiff, and Liverpool, which, since Southampton was closed and the East Coast become dangerous from mines, had grown to be the principal ports of the Kingdom. A constantly increasing number of ships used them, and it was recognised that they offered special inducements to enemy action. Though submarines had seemed unlikely visitors, it was felt we had to guard against surface minelayers masquerading as ordinary commercial craft. The idea that the Tory Island minefield had been laid by one of these still persisted in spite of the official German denial, and it was one of the duties of the auxiliary patrol vessels to be on the look-out for them. Auxiliary Patrol Area XV (base, Milford Haven), which extended from the north coast of Devon to the line Wicklow-Bardsey Island, and thus included the Bristol and St. George's Channels, had, in addition to four trawler units, four minesweepers which were occupied in keeping clear the approaches to Cardiff. The officer in command of this area was Captain F. K. C. Gibbons, R.N., Captain-Superintendent, Pembroke Dock. To the area was attached the armed railway steamer *Scotia*, but at the moment she was engaged in a three-weeks' refit.

The central section of the Irish Channel between the Wicklow-Bardsey Island line and the southern exit from the North Channel formed Area XVI and contained Liverpool, Belfast, and Barrow.

¹ Details from "Positions and Movements of H.M. Ships, 27 January 1915."

² *Sutlej* (Flag), *Juno, Isis, Venus*, and the boarding steamers *Partridge, Woodnut, Hazel, Heroic*.

This area had four auxiliary patrol units, one at Liverpool, two based on Kingstown, and one at Belfast. All four were under the Senior Naval Officer, Liverpool, Rear-Admiral H. H. Stileman, though there were local Senior Officers of lower rank.

The North Channel, and as far west as Malin Head, formed Area XVII (base, Lough Larne). Here there were three units, with Commander Berkeley as Senior Naval Officer. The armed railway steamer *Tara* assisted in the patrol of the North Channel. The *Kaphreda* group of 11 minesweepers, under Lieutenant Sir J. Domville, engaged in clearing the Tory Island minefield, also worked from Larne. The routine work of the Larne Patrol had been much interfered with throughout January by the Commander-in-Chief's orders for it to combine with the *Kaphreda* group in sweeping for mines on the route which was to be taken by the *Conqueror* on her way to Liverpool for her repairs after her collision. Continuous bad weather in the middle of the month delayed both her voyage and the sweeping ordered; she had to miss the spring tides, and it was finally decided on January 22 to give her temporary repairs at Cromarty. Two days later the Larne trawlers resumed their ordinary patrol duties in the North Channel.¹

The west coast of Ireland was considered to come last in importance as a probable field for submarine activity. The two extremities, Lough Swilly (Area XVIII), which guarded the approaches to Liverpool and the Clyde, and Queenstown (Area XXI), through which passed overseas vessels making for Liverpool, had each three units, with an extra unit at Berehaven. The areas on the intermediate coast, Blacksod Bay (Area XIX) and Galway (Area XX), each were to have a unit when available.

The method of working the trawler patrols was left to each individual Senior Officer, and the principle at this earlier period was in general for a unit to cruise in a likely place until a submarine or suspicious vessel was reported there or elsewhere, upon which all the available force would search the suspected neighbourhood.

Now, for instance, that it seemed probable a submarine was making for Barrow, the Admiralty ordered one of the Larne Auxiliary Patrol units out of its own area to Morecambe Bay, to work there under the Senior Naval Officer, Liverpool, and attack the enemy when he appeared.²

6 A German Submarine off Barrow and Liverpool, January 29 and 30.—There were several reports of submarines sighted in the English and Irish Channels throughout January 28, after the warning that one was expected. A supposed submarine was seen at 11 a.m., 28th, 7 miles WNW from the Longships; another report placed a submarine in Christchurch Bay, west of Portsmouth; at 3 a.m., 29th, a steamer, the *Laplant*, passing the South Stack coastguard station on Anglesey, signalled that two or three submarines, with an oil vessel, were 10 miles north

¹ M. 0322, 0728, 0924/15.

² Sent 12.40 p.m., 28.1.15.

of Bardsey Island. This was unpleasantly close to Liverpool, and Admiral Stileman thought it better to delay the departure of one of the 10th Cruiser Squadron ships, which had finished coaling and was about to sail. A transport, the *Vaderland*, from Canada with reinforcements, was due at Liverpool the following morning; the Admiralty instructed the Admiral Commanding Cruiser Force E to divert her to Queenstown if met.¹ At 3 p.m., January 29, there came from Walney Island Signal Station the message: "Submarine, apparently German, sighted 5 miles WNW of signal station. Walney battery opened fire on her."

So far, the reports were only of the kind with which the Admiralty were familiar, and from their actual wording might or might not refer to real and not imaginary boats. However, they fitted in so well with the route and destination of the expected submarine that they now sent the *Vaderland* orders by wireless to proceed with all despatch to Avonmouth. Simultaneously with the issue of this order came a telegram from Admiral Stileman: "Harbour master at Barrow reports enemy submarine sighted 1.45 p.m.; fired at by the forts; submarine returned fire, but shots fell short." This was definite; an imaginary submarine could not fire guns, and it was now clear that the interior of the Irish Sea, that area the most distant from Germany, could no longer be considered an unlikely scene for the operations of hostile submarines.

The submarine, *U.21*, was first sighted from Walney Island battery at 1.30 p.m.; she was on the surface, and the men on her deck could be seen to be making some sort of observations directed at the airship shed close to the battery. The battery commander knew that a German submarine was expected; but uncertain whether so bold a craft could be hostile, although her appearance agreed with the block sketches of German boats with which he had been supplied, he telephoned to Vickers' works, on the mainland, to ask if they had any submarines practising in the bay. Two representatives at once came over to look at the craft, which, meanwhile, quietly continued her measurements; when, however, they reached the battery and could see her they knew at once she was German, and the battery commander prepared to fire. She had now been undisturbed for half-an-hour; her observations were complete, and she began a deliberate shelling of the airship shed. This seems to have decided the battery commander. He ordered his 6-in. guns to commence. The submarine replied, but after a few minutes quietly sank out of sight. The fort had fired 11 rounds at about 6,000 yards; they all seemed to be "overs," and though, as is usual, a hit was claimed by a gunner, the battery commander was very doubtful of the success of his firing.²

¹ A 29; H.S. 88, pp. 843, 853, 872, 894, 898, 937, 945.

² War Office Account in M. 01080/15.

It may seem remarkable that the German had made his long voyage to Barrow unmolested by any of the numerous patrol vessels along his route, especially as these had been specially warned of his voyage. Moreover, he seems to have been unobserved, though possibly he had been sighted by one of the Milford Auxiliary Patrols. This vessel, the drifter *R.R.S.*, patrolling between Wicklow Head and Bardsey Island about 8.30 p.m., January 28, made out the outline of a submarine, and a little later observed a second; both were carrying two vertical white lights, the same lights being carried by a vessel looking like an oil tank, which was steaming apparently in company with the submarines. Shortly afterwards other craft wearing the same lights appeared. The drifter put on all speed; she had a gun mounted, but it was night, and she did not seem near enough to open fire. Unfortunately, hot bearings developed, and at 10.30 she stopped with a jerk and the suspicious vessels gradually disappeared. An hour later a large steamer came up. This proved to be the *Laplant*, bound for Liverpool. Hoping to get a report signalled through her, the drifter, which had no wireless, called her up by flashing lamp. The *Laplant*, in accordance with the regulations in force for merchant vessels, had taken down her aerial; but, by order of the Commanding Officer of the drifter, rigged an emergency set and called up the shore stations. The drifter, whose engineer by this time could get a few knots, went back to the spot where the submarines had been seen. Once more she caught sight of two submarines and the supposed oil tank; but they disappeared in a southerly direction.¹ This last circumstance makes it doubtful that any of the objects seen by the drifter was *U.21*; but from such evidence as is at present available it is not improbable that the submarine might then have been in that position.

She sailed from the Ems on January 23 with orders to attack warships reported in Mounts Bay, St. Bride's Bay and Wexford Bay, and then to interfere with navigation on the west coast of England by sinking some steamers there, as a considerable volume of shipping was reported to have been deflected from the east coast and channel ports to those in the west, especially Liverpool. *U.21* was also to make a surprise attack on Vickers' shipbuilding yard and the docks and oil tanks at Barrow-in-Furness. In pursuance of these orders *U.21* passed the Eddystone westbound on the 28th; finding none of the reported warships in Mounts Bay, Lieutenant-Commander Hersing made for the Irish Sea without delay, and was off Barrow on the morning of the 29th.²

Submarines in the English and Irish Channels were likely to interfere with several movements in progress. The newest

¹ Report from *R.R.S.* titled *Pembroke Yard*, 2 February 1915. The Admiralty informed the Commanding Officer of *R.R.S.* that he should have opened fire.

² *Nordsee* IV, p. 4.

dreadnought, the *Queen Elizabeth*¹, was to carry out trials in the mouth of the Channel, and the *Irresistible* from Sheerness was to join the *Majestic* at Portland, the two then to sail for the Mediterranean. The *Cornwallis* had sailed for the same destination on the 29th. The Channel Fleet from Quiberon Bay required to be escorted into Portland. It was thought from the Barrow report and that of the *Laplant* that there were three submarines near Liverpool, and there, also, there was much to defend. Two large liners were due from America with 70-ton guns in their cargo. They were diverted to Queenstown by wireless. Two of the 10th Cruiser Squadron were on passage to Liverpool; these were ordered in to Loch Ewe, which then became the temporary coaling base of the squadron. Four of the armed merchant cruisers were at Liverpool ready to sail; they were held back till the submarines should have been driven away.

For a hunting squadron and for the escorts required the Harwich destroyers were the most obvious force to draw upon; at 2.40 p.m., January 29, Commodore (T) was ordered to send one division to the Irish Channel, another to Sheerness, and a third to Portland; the Irish Channel Division was to hunt submarines, the others were for escort.² The division he chose for Portland consisted of the *Hornet*, *Jackal*, *Sandfly*, *Acheron*. They proceeded on the 30th and on arrival at Portland put out to sea to meet and screen in the Channel Fleet. The division for Sheerness consisted of the *Ferret*, *Defender*, *Druid*, *Hind*; they sailed with the *Irresistible* at night on the 30th, and screened her down channel to Portland. As regards the division for the Irish Channel, the Commodore at first suggested that the *Beagles* from Portsmouth should hunt there instead of his destroyers; but learning that the *Beagles* were too busy with escort work³ he despatched the *Laforey*, *Liberty*, *Landrail* and *Lysander* at noon, January 30. The Grand Fleet also was to send a destroyer division to work down from the north as far as Holyhead. A Dutch motor-schooner, the *Angelina*, had just left Liverpool with fuel oil and petrol on board; she was looked upon as a possible supply ship for the submarines and the *Tara* was told to look out for her.⁴ The Canadian transport *Vaderland* was now ordered by wireless to go in to Avonmouth, but in accordance with the regulations she had dismantled her aerial, and did not get the messages. She arrived safely at Liverpool during the night of the 29th.

Various other reports of submarines sighted came in, and by 2.30 p.m., January 30, the Admiralty concluded that there were six of them in Liverpool Bay, and that they would probably work

¹ *Queen Elizabeth*: Captain G. P. W. Hope, 27,500 tons, 25 knots, 8—15-in., 14—6-in. guns.

² A 25, 29.

³ A 31.

⁴ H.S. 58, pp. 865, 901. She was arrested and found to be quite innocent.

up northwards towards the Grand Fleet.¹ As we now know, there was only one submarine there, and she had no intention of moving north.

After her curious duel with the guns on Walney Island, *U.21* made her way southward to attack the shipping in the neighbourhood of Liverpool, having spent the night on the bottom. At 10.30 a.m. on January 30 she appeared in front of a small Admiralty collier, the *Ben Cruachan*, coming from Scapa, and ordered her to stop. The position was 15 miles NW of the Northwest Lightship, and out of sight of land; no patrols were near. The crew were given 10 minutes to leave the ship, which was then sunk by a bomb. A sailing trawler was in sight; Lieutenant-Commander Hersing sent the crew over to her and watching her sail away towards Fleetwood, waited for another victim to approach.²

This turned out to be the *Linda Blanche*, a tiny steamer of 199 tons from Manchester for Belfast. She was stopped at 12.20 p.m. She also was sunk by a bomb, after her crew had been given 10 minutes to leave her. Another fishing vessel was requisitioned to take them to Fleetwood.³

An hour later a third small steamer, the *Kilcoan*, carrying privately owned coal for Belfast, suffered similar treatment. In this case, her crew were accommodated on the submarine's deck, while the master was sent back for his papers; when he returned they were re-embarked and sent across to another steamer which had been stopped and ordered to take them to Douglas, Isle of Man.⁴ Lieutenant-Commander Hersing's operations off Barrow and Liverpool were characterised by the same coolness which had marked his conduct off Havre on his previous cruise.⁵

The first report of the raid on Liverpool shipping reached the Admiralty at 5.28 p.m., and in the course of the next hour it was clear that certainly two, and possibly four, steamers had been sunk, close to Liverpool Bar.⁶ The Senior Officer at Liverpool, Admiral Stileman, had only one trawler unit with which to tackle the situation; as their speed was only 8 knots he had asked for a destroyer division, but these had not yet arrived. On the 28th a trawler unit from Larne had been ordered to Liverpool, but these did not sail till the morning of the 30th.⁷ These two trawler units were obviously unable to harry the enemy, and at 7.5 p.m. Commodore (T) was ordered to send 12 destroyers and a light cruiser with a Captain (D) to the Irish Channel. He had been hoping to carry out the Plan Z1 with the destroyers left after, despatching those called for in the first order;⁸ but this was now impossible, for nearly all his destroyers were taken to deal with the submarines in the south and west. He chose the *Undaunted*

¹ A 36.

² Deposition of Master of *Ben Cruachan*.

³ Deposition of Master of *Linda Blanche*.

⁴ Deposition of Master of *Kilcoan*, M. 16538/15.

⁵ See *Home Waters* III, Sections 59, 60.

⁷ A 41; H.S. 88, pp 539, 925.

⁶ A 38.

⁸ A 31, 35.

(Captain F. G. St. John), which left Harwich 10.50 p.m., 30th, with eight "L" class destroyers.¹ By Admiralty orders Captain St. John took charge of all the destroyers in the Irish Channel, including the four to be sent down from Scapa Flow, and arrangements were made for all intelligence of submarines to be passed direct to him.²

The presence of *U.21* off Liverpool put a stop to the movements of shipping in the northern part of the Irish Channel. Learning that the ports of Belfast, Dublin and Derry had been closed by the local military authorities (though this report, it appears, was not true) and that nine cross-channel steamers and 14 colliers were being detained,³ the Admiralty sent out a general order to all Senior Naval Officers that shipping was to be held up only in cases of extreme urgency. They pointed out that the Government insurance scheme was designed to cover losses and keep ships running; and if vessels sailed at dusk and made their ports at dawn, utilising for their voyage all the shoal water possible, submarines would find it difficult to attack them.⁴

From Liverpool *U.21* continued her course southward, and at 9 a.m. February 1 came across the armed yacht *Vanduarda* about 33 miles NW of Fishguard. The yacht was flying no flag and Lieutenant-Commander Hersing apparently thought she was unarmed, for he tried to head her off. The *Vanduarda* then hoisted her flag, and steering direct for the submarine opened fire at 3,000 yards. *U.21* immediately began to submerge and had disappeared by the time the *Vanduarda* had closed to 2,000 yards at her speed of 10 knots.⁵ The submarine made no attack.

At the moment of the engagement with the *Vanduarda*, the *Undaunted* had just arrived at Milford Haven with 12 "L" class destroyers.⁶ The *Vanduarda*'s report reached Captain St. John an hour later. He despatched four destroyers to the spot erroneously reported by the *Vanduarda* as 20 miles west of Fishguard; but they found nothing. The *Faulknor* and four destroyers from Scapa⁷ arrived on February 2 and were followed later by the *Cameleon*'s Division.⁸ Captain St. John had now 20 boats as well as the *Faulknor* and *Undaunted*; he arranged that each day one division should sweep northward from Milford towards Liverpool, another southward from Liverpool towards Milford, a third should sweep Liverpool Bay, while the fourth rested at Milford. The *Cameleon*'s division he based on Barrow-in-Furness to operate from there; but the other divisions took turn and turn about for the remainder of his scheme.⁹

¹ *Lawford, Lydiard, Lucifer, Lookout, Loyal, Laurel, Laertes, Llewellyn.*

² A 46, 47, 50, 52.

³ H.S. 89, p. 600.

⁴ A 58.

⁵ *Vanduarda*'s report, titled *Pembroke Dock*, 1.2.15.

⁶ *Laertes, Llewellyn, Lookout, Lucifer, Laforey, Liberty, Landrail, Lysander, Laurel, Loyal, Lydiard, Lawford.*

⁷ *Achates, Owl, Hardy, Ambuscade.*

⁸ *Cameleon, Larne, Rifleman, Ruby.*

⁹ Letter from Captain St. John, dated 8.2.15, titled Cap. S, 112/15.

This was slightly interfered with on the 5th when Captain St. John was ordered to use two of his destroyers in escorting the important Cunard liner *Transylvania* from Queenstown to Liverpool. The weather that day was too bad for destroyers to operate, and when this was reported to the Admiralty they gave the Admiral, Queenstown, permission for the liner to proceed without escort. Before this permission was acted upon, however, there was sufficient improvement in the weather for the *Liberty* and *Lysander* to carry out the escort duty. Meanwhile, a second liner, the *Ausonia*, was added to the convoy and caused some delay in starting from Queenstown. The convoy reached Liverpool in the afternoon of February 7, the *Liberty* being then recalled to Milford. The *Lysander* had to go back to Chatham for repairs of damage resulting from her experience in the rough weather.¹

During Captain St. John's search of the Irish Channel there were numerous reports of submarines sighted, but though in the flotilla it was thought there were as many as nine boats destroying commerce,² none of the destroyers succeeded in finding any. In fact, *U.21*, after her meeting with the *Vanduaara*, proceeded out of the Irish Channel; and by the time Captain St. John's flotilla had begun their hunt the quarry had gone home. *U.21* spent a day off Havre, but no merchant ships were passing; continuing her passage she reached the Ems in the forenoon of February 7.

7. "U.20" in the English Channel.—Meanwhile, *U.20*, Lieutenant-Commander Schwieger, was operating in the Channel, having sailed from the Ems on January 26. Lieutenant-Commander Schwieger, however, was of a different calibre from that of his colleague in Liverpool Bay. Moreover, his orders were that he was to operate off Havre against warships and transports; during operations in the Channel large steamers observed approaching Havre, Dieppe, Dunkirk, Boulogne or Cherbourg at night were to be sunk without notice.³ They were "to be torpedoed unless in exceptional circumstances it should be possible to employ the methods used hitherto against merchant ships." All steamships approaching northern French ports might almost certainly be regarded as transports carrying troops or war material, but hospital ships were only to be regarded as transports if definite observation established the fact that they were being used as such. One of the conditions permitting attack without warning, according to the German view, was the presence on the deck of a ship of a large number of troops visible from the outside; it was this which had led to the torpedoing of the *Amiral Ganteaume*, crowded with Belgian refugees of both sexes.⁴

¹ H.S. 90, pp. 358, 419, 481, 546. Signal Logs *Liberty* 22280, 22284; *Lysander* Signal Log 17939.

² *Liberty* Signal Log 22284, February 1st.

³ Order from Chief of Admiralstab to High Sea Fleet and Flanders Command, 15.1.15. *Nordsee* IV, p. 3.

⁴ See *Home Waters*, Vol. II, Section 88.

The first revelation of the presence of *U.20* was experienced by the S.S. *Tokomaru* coming from New Zealand with a general cargo including frozen meat for France. About 7 miles from Havre she was steaming slowly when at 9 a.m., January 30, the mate on watch saw a torpedo approaching him. The torpedo struck the vessel and she began to sink. It was not till all the crew had boarded the boats that anything was seen of the assailant, and then a periscope appeared for a few minutes. There was only a French minesweeper in sight; she embarked the shipwrecked crew and brought them to Havre.

Shortly after noon, another vessel, the *Ikaria* of the Leyland line from South America, stopped 25 miles north-west of Havre for a pilot. She also was struck by a torpedo from an unseen submarine. Another French minesweeper was in sight and to her the crew were transferred. The *Ikaria* remained afloat and was towed into Havre; but she was badly berthed and sank at her moorings.

Both these ships were torpedoed without warning; luckily without loss of life. But of a third vessel there was a different story. The *Oriole* of the General Steam Navigation Company from London with clothing and stores for the British Army was due at Havre that day. She never arrived, and all that is known of her is that two of her lifebuoys were picked up some days later near Rye, and that a bottle was found containing the words "Oriole torpedoed—sinking." Her crew of 21 all perished. There can be little doubt that this also was the work of Lieutenant-Commander Schwieger.¹

The news of the loss of the *Tokomaru* reached the Admiralty at 5.45 p.m. and of the *Ikaria* a short time later.² There was at first some doubt whether these casualties were due to a submarine or to mines, as the ships had been torpedoed without warning and with no visible sign of a submarine; but a French trawler thought she had seen a submarine in the neighbourhood, and the French destroyer *Timgad* going out from Havre at the time of the casualty to the *Tokomaru* distinctly saw the tracks of two torpedoes approaching her. The French increased the destroyer guard at Havre, but the Admiralty countermanded the sailing of transports, especially as the moon was full that night.³

The presence of submarines in both the Irish and English Channels threatened homeward bound shipping as well as the cross-channel transports; and the Admiralty ordered the Senior Naval Officers at Devonport, Queenstown and Gibraltar and of Forces E and G to warn ships to display the ensign of a neutral country or show no colours at all.⁴ It had so far been the practice for men-of-war of all civilised countries to ascertain at least the

¹ Depositions of Masters of *Tokomaru* and *Ikaria* are in papers titled *Foreign Office*, 3.2.15; these also contain some information *re Oriole*. See also H.S. 90, p. 634. *Nordsee* IV, p. 5, states that Lieut.-Commander Schwieger sank three steamers off Havre, January 30.

² A 39.

³ H.S. 89, pp. 175, 206, 220, 224.

⁴ A 44, 49.

real nationality of a merchant vessel before taking hostile action ; and the wearing of false colours, a well-known *ruse de guerre*, might enable many vessels to pass unharmed. The instructions, though confidential and made by wireless in code, were taken in and decyphered by the German Army Command. They were passed by German wireless to *U.21* on February 2.¹

The cruisers of Forces E and G on the west coast seemed also in danger. Force E, off the Coast of Ireland, was ordered to keep 100 miles from land ; and Admiral Wemyss, Commanding Force G at the mouth of the Channel, was instructed, first to attend to the defects of his cruisers while the moon was light and submarines active, and later to keep his cruisers in harbour ready at short notice, leaving sea work to his armed boarding steamers.²

Besides the transports to France there were other movements in progress in or near the area in which *U.20* was operating. The Channel Fleet left Quiberon Bay at noon, January 30, for Portland. At a rendezvous on the way they were to be met by the *Majestic*, then at Portland, and by the *Irresistible*, which left Sheerness that day with her own escort,³ the *Ferret's* division, increased for the passage down Channel by the *Undaunted* and the eight " L " class destroyers from Harwich. The *Irresistible* arrived at Portland at 3.30 p.m., January 31, the *Undaunted* having gone on with the " L " class destroyers. The *Hornet's* division, which was to escort the *Majestic*, was already there. The two battleships left Portland at 8 p.m., February 1, and meeting the Channel Fleet at the rendezvous, went on unescorted to the Mediterranean, while the Channel Fleet returned to Portland with the eight escorting destroyers.

Two transports with territorial regiments to garrison Malta and Gibraltar left Portsmouth during the evening of February 1.⁴ The Extended Defence Flotilla specially patrolled the area south and west of the Nab, and the transports had destroyers to escort them as far as mid-channel ; south of Ushant they were picked up by the *Diana* which took them on to the Mediterranean. All these movements proceeded without interference ; for *U.20* was waiting for prey to the eastward of the Portsmouth-Havre line.

On February 1, Lieutenant-Commander Schwieger, not content to be the first submarine officer to torpedo an unarmed merchant vessel without warning, made a still less legitimate attack. At 5 p.m. he fired a torpedo at the hospital ship *Asturias*, duly registered, reported and marked as such. The ship was 15 miles NNE of Havre transporting wounded from Havre to Southampton, and being fully lighted up was an easy target for *U.20*, which was only half a mile off. By some good fortune the torpedo missed her ; a second was not fired, and Germany was spared for some time the ignominy of having sunk a hospital ship. The French Ministry of Marine communicated an official report of the

¹ *Nordsee* IV, p. 4 and I.D.H.S., Vol. 858.

² A 54, 55 ; H.S. 89, p. 265.

⁴ *Grantully Castle, Galeka*. Papers T. 10457/1915.

³ A 40.

occurrence to the Press ; the German Commander-in-Chief of the High Sea Fleet, apparently disbelieving it, inquired of *U.20* by wireless whether it was true. Her answer is not known ; but on March 11 the German Foreign Office issued a statement that Lieutenant-Commander Schwieger had mistaken the *Asturias* for a troop transport and desisted from further attack as soon as he recognised her real character. This was his last exploit on that cruise, though he remained out some days longer. On February 3 he found himself entangled in a net running north and south in 49° 51' N, 0° 5' W, about 10 miles north of Havre. He freed himself from this with great difficulty by going astern submerged and then proceeded for home, which he reached early on the 7th.¹

No net is known to have been in the position specified and no such incident was reported by the French. However, a vessel fired 20 rounds at some trawlers a few miles to the westward of Dieppe at 4 p.m., February 1.² The discrepancy of time and place shows that the incidents were not connected.

During her whole cruise *U.20* had been hampered by bad weather and low visibility, so that out of 137 hours off the mouth of the Seine the boat had to remain submerged for 111 hours ; and, of these, 70 hours were spent under way.³

Besides these submarines which had revealed their presence in the west and in the Channel there was another, *U.29*, which, though intended for operations at this time, was unable to accomplish anything. She arrived at Zeebrugge on January 27, but was on the same day damaged in collision with a small steamer and had to proceed to Ostend for the repair of her diving and oil tanks. A subsequent short trip from here to the westward had to be abandoned on the first day owing to heavy weather and the illness of her commander, so that by noon the boat was in Zeebrugge, and on February 3 left for Emden again.⁴

The passage of the Straits of Dover presented little difficulty to the submarines, in spite of the Dover Patrol, whose principal duty it now was to prevent such passages. But Admiral Hood's force was beginning to feel the strain of the continuous work. On February 5, out of the 24 destroyers of his flotilla 11 were in dockyard hands, 2 were escorting the telegraph steamer which was laying buoys for the new minefield, 4 were off Thornton Ridge with the net drifters, 1 was outside the eastern entrance of Dover Harbour owing to the absence of the boom defence, and 1 was at Dunkirk, leaving only 4 to carry out the day and night patrol of the Straits. The destroyer at Dunkirk had been stationed there by the Admiralty on account of an intelligence report that the Germans were planning to send an expeditionary force in motor-boats to land behind the Allied lines at Nieuport. Admiral Hood considered a landing there unlikely and grudged having to send one of his few available destroyers to Dunkirk, but direct

¹ H.S. 89, pp. 770, 917, 950 ; I.D.H.S., Vol. 3011.

² H.S. 89, p. 809.

³ *Nordsee* IV, pp. 5, 6.

⁴ *Nordsee* IV, p. 6.

Admiralty orders obliged him to do it.¹ With only four destroyers on patrol in the Straits it was no difficult matter for the submarines to pass.

The net drifters at Thornton Ridge were there specially to catch the submarines returning from the Irish and English Channels.² Five drifters went out from Dover on February 3 and proceeding to buoys which had been laid round the southern side of Thornton Ridge shot their nets during the day, boarding them each night. On the 5th they were bombed by two aeroplanes but were not hit. That day a yacht brought out more nets till there were altogether 37 nets, each of 30 feet, out between Thornton Ridge and the Belgian coast. Admiral Hood was evidently still unaware that the very district his drifters were netting had been mined by us on November 3. Although the mooring ropes of the mines were in the habit of parting and there had been severe gales, it would seem that there were still some of the mines in position, for one of the escorting destroyers saw a line of them awash at low water close to the drifters' rendezvous in 51° 32' N, 3° 6' E, that is, the actual position in which they had been laid. Luckily, the little flotilla returned on February 6 to Dover undamaged, and, in fact, completely ignorant that they had been for three days manœuvring in a mined area. Though they had failed to see any submarine, they had to report the loss of five nets carried away by fouling some obstruction.³

CHAPTER II.

IMPORTANT STRATEGIC DECISIONS: THE DARDANELLES AND THE SUBMARINE BLOCKADE.

8. The Dardanelles as a New Objective.—The war was now six months old and there seemed to be no movement in progress likely to bring success to the belligerents. The rush of the German Army had been stopped; French attempts to break through it had failed. The two fleets were withdrawn; not indeed "for a spring," but rather in the attitude of "waiting for something to turn up." There had been for some time a feeling amongst some of the more active brains at the Admiralty that the passive rôle so long accepted by the Navy as a whole, could, with advantage, be exchanged for something more likely to help towards a decision.⁴

¹ M. 01053/15.

² A 56.

³ The report from Captain H. Bowring in charge of the operation is in Dover Packs, Vol. XVI. There were 300 mines laid between 51° 35' 30" N, 3° 1' 30" E, and 51° 33' N, 3° 12' 40" E.

⁴ First Lord to First Sea Lord, 21.12.14:—"Our situation is as you justly say, that of waiting to be kicked and wondering when and where." (Winston Churchill: *The World Crisis* II, p. 43.)

Lord Fisher, in particular, advocated an advance of the Fleet into the Baltic; but he had so far produced no definite plan for operations to make that feasible. It was felt that the first step towards this must necessarily be the blocking or blockading of Heligoland Bight so as to deny the North Sea to the High Sea Fleet. Lord Fisher thought this could be effected by extensive minelaying; but in other quarters it was realised that there were two great defects to such a scheme—one, that we had far too few mines, and the other, that the Germans would very soon sweep exits through them. Another plan for preventing the High Sea Fleet from coming into the North Sea was that of a close blockade of Heligoland Bight. This was, in fact, the old War Plan which after the Agadir crisis had been abandoned in favour of the distant blockade.¹ An essential preliminary to a close blockade was the seizure under cover of naval bombardment of an advanced base, either at Borkum or Sylt, from which the submarines and squadrons of the blockading forces could continuously operate in the Bight. Our possession of such an island would force the enemy to make desperate attempts to recover it; it would probably bring on a major action and give us the chance of naval victory. The seizure of the island could not be contemplated till sufficient first-class regular troops should be available; meanwhile all that could be done was to train the bombarding force and its commander for the great event. The plans in force for the seizure of Borkum had been revised in 1913 by Admiral Sir Lewis Bayly, and when there seemed some probability of carrying them out it was he who was chosen to put them into force. It was for the command of the bombarding squadron that he had been transferred from the Grand Fleet to the Channel, and it was because the loss of the *Formidable* was thought to prove him insufficiently alive to the dangers of the enterprise that he was removed from that same command. Nevertheless, the idea had so far progressed that the War Council of the Cabinet agreed on January 17 in principle to the operation if and when circumstances made it desirable.²

Meanwhile Zeebrugge and Ostend, known to be the bases of the submarine which had sunk the *Formidable*, might be seriously damaged or blocked from the sea. Plans for such an operation were drawn up and February 1 suggested for it;³ but these were put aside in favour of a larger scheme. The whole Belgian coast could well be captured by a combined naval and military expedition if only troops could be obtained to co-operate with the naval squadron. Unfortunately, the French Commander-in-Chief, with whom appeared to rest the final decision as to the disposal of the British Army, was opposed to the idea. For the British Army to act on the coast implied dispossessing the Belgians from the supreme command in their own country; moreover, for political

¹ See *Home Waters* I, Section I.

² Winston Churchill: *The World Crisis*, II, Chapter II.

³ M. 010052/15.

reasons, the French Government disliked any close communion between the Belgians and British, and determined to separate them by interposing a French army between them. From this followed the curious position of our Army in a sector in the middle of the French line; the British Navy was precluded from co-operating with any troops but Belgians and French, whose ideas of using it seemed confined to futile and dangerous manifestations intended only to unmask the shore batteries.

It is possible that the real importance of the German bases on the Flanders coast was not fully realised by our Allies. But the enemy clearly understood their value. During December and January, responsible German authorities had in particular devoted constant attention to the question of intensifying the operations against British transports in the Channel, and the Naval Corps in Flanders had proposed the immediate transfer of a half-flotilla of submarines to Flanders as the most effective measure. It was also hardly possible to dispense with submarines for the defence of the coast against attacks from seaward, so long as the coast defence batteries were still under construction. As early as December 1914 there had been, consequently, an intention to place a half-flotilla of five submarines for coast defence duties under the orders of the Admiral Commanding the Naval Corps in Flanders. This transfer was not in any way to limit the use of Flanders ports by submarines of the High Sea Fleet or to prevent Flanders submarines from co-operating with the High Sea Fleet.¹

Admiral von Pohl, as Chief of the Admiralstab, on January 7, 1915, wrote in a memorandum:—²

"Zeebrugge and Ostend are in course of development as bases for operations in the Channel, which play an important part in hostilities against Great Britain.

"In Zeebrugge, seven 4·1-in. and three 6-in. L/35 guns have already been mounted, and in Ostend six 4·1-in. and four 6-in. L/40 guns. During January the placing of additional 6-in. and 8·4-in. and 11-in. guns and howitzers will be completed.

"It is intended to carry on submarine and mining operations in the Channel from Zeebrugge. The mining of the shipping route in the Downs and off the Thames is of great importance, but it can only be done by destroyers and minelaying submarines, as these routes are so strongly patrolled that the ordinary minelayers would inevitably be sunk by the enemy.

"Some submarines have already been transferred to Zeebrugge; the transfer of the destroyers, which could only be effected in connection with an advance of the High Sea Forces, is inadvisable until the construction of the defence works has been completed.

"The war in the Channel is in the nature of guerilla warfare, and its value must be estimated accordingly. It can be carried on by submarines and fast minelayers. Its results will depend on taking skilful advantage of darkness and mists following on air reconnaissances.

"No more important results can be expected until the small destroyers and minelaying submarines now under construction have been completed."

¹ *Nordsee* IV, p. 1.

² For text of the whole of the memorandum, see *Nordsee* III, Appendix 4.

The Commander-in-Chief of the High Sea Fleet was also of opinion that it would be premature to form a Flanders flotilla until the special small submarines and torpedo boats designed for employment in Flanders were ready for service, because the frequent refits required by large submarines detached to Flanders would necessitate such a constant exchange of boats as to make it undesirable, on administrative grounds alone, for large submarines to be placed under the orders of any other authority than the High Sea Fleet Command. It would also have been difficult to detach more than three submarines to the Naval Corps in December, as there were at that time altogether only 18 boats with the High Sea Fleet, of which, on an average, not more than nine were ready for sea at any time, and of these at least six were required for the defence of the Bight as part of the defence against British attacks.

Even so, the despatch of further submarines to Flanders would have been agreed to, had the sinking of troop transports been a practical proposition under the limitations then ruling. Visit and search of vessels in the Channel by submarines was an impossibility, owing to the enemy's counter-measures. This last objection was removed on January 15, when the Naval Corps in Flanders and the Commander-in-Chief of the High Sea Fleet received the following instructions from the Chief of the Naval Staff:—

"During operations in the Channel, large steamers observed approaching Havre, Dieppe, Dunkirk, Boulogne, or Cherbourg at night should be sunk without notice."¹

The German Staff, therefore, intended to make the bases on the Flanders coast as useful to them, and as unpleasant for us as they could.

That the Belgian coast ports were capable of becoming important enemy bases for submarine operations, and likely to be a serious menace to our command of the Channel and the Thames Estuary, was quite well understood in the Admiralty. Their plan of dealing with the danger was to suppress it by dispossessing the enemy of these important points of advantage; and it was for this that they were endeavouring to secure the co-operation of the War Office and of the Belgians and French. Though throughout December and January, and well into February, the Admiralty nursed the hope that all obstacles would be overcome, and a combined British operation for the re-capture of the Belgian coast be definitely set on foot, the hope gradually receded as the troops were consumed in unsuccessful attacks on other objectives; and the position had to be faced that the Germans were to be left in undisturbed possession of their valuable advanced bases on the Belgian coast. Thus the two projects of combined operations at Zeebrugge and Borkum remained

¹ *Nordsee* IV, p. 3.

embalmed at the Admiralty till the military authorities should see fit to allocate to them the troops which alone could give them life.¹

There was a third area in which combined operations on the enemy's coast were possible. The entry of Turkey into the war opened a promising theatre for amphibious attack, and the Admiralty was in favour of an attempt to seize the Gallipoli peninsula; once this was in our hands Constantinople would be in danger, and with Russian assistance there was every possibility of securing the Dardanelles and perhaps the surrender of Turkey.² The War Council, at first, suggested a naval attack on the Austrian fortified positions in the Adriatic in the hope of deciding Italy to join the Allies. This the Admiralty considered a sterile operation, involving a waste of matériel which could be employed to better purpose on the Dardanelles forts; and on January 13 they received from the War Council authority to prepare for a naval expedition in February to bombard and take the Gallipoli peninsula with Constantinople as its objective.³

Before the end of January the British Government had definitely decided upon the operation.⁴ The ships the Admiralty intended to employ in this operation were those they would have used for the capture of Zeebrugge or Borkum, if either of these projects had received active support. The *Majestic* and *Irresistible* had already gone to the Mediterranean, to be joined by the other old battleships which had been acting as supports for the cruiser forces engaged in protecting overseas trade.

Throughout 1915 the safeguarding of the passage of vessels engaged in the Dardanelles operation became a very serious drain on naval resources in the situation which speedily began to develop as a result of an alteration in Germany's fundamental strategy.

9. **The New German Strategical Plan.**⁵—A new plan had been for a month or more under consideration in the Admiralstab. On December 27 the Kaiser called for a staff memorandum which should set forth their views as to the future employment of the whole of the German naval resources; it was to take into account the attack on Scarborough and the Hartlepoons, and the British air raid of Christmas Day.⁶ Admiral von Pohl's Chief of Staff, Captain Zenker, drew up an appreciation of the results achieved up to date, as follows:—

“ In spite of the successes of our submarines and minelaying vessels off the enemy's coast, no appreciable damage has been done to his heavy forces. The detrimental effect of our mining operations on enemy trade has not been sufficient to cause the British to try and

¹ Winston Churchill: *The World Crisis*, II, Chapter III.

² See *The World Crisis* for details and documents.

³ This is the wording in which the decision of the Council was recorded; it is quoted in *The World Crisis*, II, p. 111.

⁴ C.B. 948A, Monograph 21, *The Mediterranean*, Section 83.

⁵ Based on *Nordsee* III, Chapter VI, and *Nordsee* IV, Chapter I.

⁶ For accounts of these see *Home Waters*, Vol. III.

block the German Bight in order to catch our commerce destroyers as they come out. The two cruiser attacks on the English coast resulted in no appreciable gain of a purely military nature, and in spite of their great political effect they have caused no change in the naval strategy of the enemy.

“ The methods hitherto adopted, *i.e.*, submarine and mining operations, and occasional attacks on the English coast, will, in all probability, prove still less effective in the future, and will result in greater losses to us.”

Arguing from this, he considered that no equalisation of forces before the decisive action, and no change in the British attitude could be expected so long as German naval warfare continued to be conducted on the plan then in force of not risking the High Sea Fleet at all. The policy he advocated was that of employing every endeavour to bring the British Fleet to action, in detachments if possible, but if not, in full force. He adduced several arguments in favour of sending the High Sea Fleet more often and further to sea, and proposed as bases for the future conduct of the war:—

- (a) Concentration in one area of all High Sea forces which might be of service in a decisive action, so that it would be possible for each portion of the Fleet to give tactical support to another portion at any moment;
- (b) Retention at sea of the High Sea Fleet to become a principle;
- (c) All naval aircraft to be employed primarily in reconnoitring for the Fleet;
- (d) Ocean-going submarines to co-operate tactically with the Fleet.¹

Admiral von Pohl adopted Captain Zenker's views as regards (a) and (b), and proposed to the Kaiser that the Commander-in-Chief of the High Sea Fleet should be given general permission to act more on his own initiative. This received so qualified an assent that the Admiralstab considered it had been definitely refused.²

As regards the employment of the 12 airships, Admiral von Pohl considered that, allowing for all the aerial reconnaissance normally required, there would still be four available for air raids on England. Dealing with the question whether the bombardment of London by aircraft was permissible by International Law, he wrote:—

“ Doubts have been expressed as to whether the bombardment of London by aircraft is permissible by International Law. These doubts are not justified. According to Article 2 of the Hague Convention all establishments that might be used for military purposes are liable to bombardment, even when in undefended places.

¹ The full text of Captain Zenker's memorandum is given in *Nordsee* III, Appendix 3.

² The Kaiser's decision read:—“ Yes. But it must not be lost sight of that the main portion of the High Sea Fleet must be preserved as far as possible as a political instrument in the hand of the All-Highest War Lord. Advances on a large scale into enemy waters must be reported beforehand to His Majesty.”

"London is to be regarded as a defended place in the sense of the Hague Convention, as mines have been laid off the harbour, guns have been mounted to repel air attacks, and the shore defences south of the city, consisting of 3 forts and 10 redoubts, are within 7 miles, and, together with the fort on the north side, must be regarded as making London a defended city.

"Further, London contains the most important military establishments, among them the Admiralty building, from which the movements of the fleet are directed by wireless; it also contains barracks, ammunition depôts, oil tanks, dockyards and docks, etc."

On the strength of this argument he urged that only London and the Thames should be selected for air attacks, since elsewhere the results would not be worth the risk.

But this the Kaiser would not allow; his ruling was:—

"London itself not to be bombarded at present; attacks are to be confined to dockyards, arsenals, docks (those near London also), and military establishments of a general nature (also Aldershot camp, if there are no German prisoners there)."

The last part of Captain Zenker's memorandum dealt with the submarines only from the point of view of using them to attack warships. But for a long time, even before the war, the suggestion that they could be employed in commerce destruction had been discussed not only in the offices of naval staffs, but publicly in the Press of both England and Germany. Admiral von Pohl now definitely asked the Kaiser for permission to declare a blockade of Great Britain, and enforce it by the submarines. His argument in favour of it ran:—

"Experience has proved that damage caused to the British naval forces by our submarines will not enable us to impose our will on our chief enemy at sea. Chance plays a large part in submarine successes. The British forces are not restricted to certain harbours or routes; the numerous harbours on their coasts cannot be kept permanently under observation by our submarines. We have now been waiting a long time since our last submarine success was recorded.

"We have in our efficient submarines a weapon which would enable us to declare a blockade of the British coast, thus cutting off her commerce from which she derives her superiority and her powers of resistance; we should thereby exert pressure on her such as might be of decisive importance on the outcome of the war. It is necessary to begin the commerce blockade¹ soon, as Great Britain will be laying in stocks of grain and raw materials in anticipation of this measure.

"The submarine blockade² must be effectively seconded by simultaneous offensives by the High Sea Forces and energetic prosecution of minelaying operations.

"The Chancellor, whom I have consulted on the question of the submarine blockade, agrees that, in view of the maxims applied by Great Britain in her conduct of the war, and in view of the relentless pressure she exerts on neutrals under the pretext of preventing traffic in contraband, we should adopt those measures of warfare best adapted to bring hostilities to a speedy end. He draws attention, however, to the fact that the proposed submarine blockade will harm not only Great Britain but neutral countries also. Although these countries yield to British terrorism and have become participators in Great Britain's contravention of International Law by submitting to her

¹ *Handelsblockade.*

² *U-Bootsblockade.*

coercion, their anger is being aroused, but we may turn that anger against ourselves, and increase the hostile feeling against us.

"What the Chancellor fears most is that America, Italy and Roumania may turn against us while the military situation on the Continent is still uncertain, and while many neutral countries harbour doubts as to whether Germany will long be able to withstand the numerical superiority of her enemies.

"Further, the Chancellor believes that the submarine blockade would interfere with the Belgian grain imports, which are essential for feeding the population of that country.

"The Chancellor's misgivings are not caused by the legal aspect of the case, but are solely due to military-political considerations. In his opinion the submarine blockade cannot be instituted without dangerous consequences until our military position on the Continent is so secure that the issue is beyond doubt, so that the danger of neutral countries going over to our opponents is no longer to be feared.

"I am unable to share his misgivings, for if we declare the blockade 14 days before the date fixed for its commencement, and issue a general warning to neutral shipping regarding the dangers of proceeding within British waters, we shall deprive neutral countries of all good grounds of complaint. The Belgian imports can be assured by vessels from America taking the route round the north of Scotland.

"I look upon the submarine blockade as one of the most effective means of attaining our military aims against Great Britain."

The Kaiser, however, refused then to sanction a commerce blockade by means of submarines, though he gave permission for the boats to be prepared for that kind of work. The date of these decisions was January 9. Since then a change had come over the situation. The disastrous result of the raid on the Dogger Bank fisheries had tightened the Kaiser's restraining grip on the High Sea Fleet; but he had succumbed to pressure from other directions, and had now given his consent to the declaration of the submarine blockade.

10. German Announcement of intended Attack on the Transport Route, February 2.—The first definite intimation that Germany was intending some more active operations reached the Admiralty on February 2. On that date there appeared in the "*Reichsanzeiger*," the official German gazette, a statement signed by the Chief of the Admiralstab to the effect that large shipments of troops and war material were about to take place from England to France, and that the German Navy would use every means possible to prevent this; ordinary merchant ships would run the risk of being mistaken for transports and should, therefore, keep away from the English Channel. The same warning was sent out by German wireless with advice that all shipping for neutral North Sea ports should proceed by the north of Scotland.¹

The German announcement that the passage of large numbers of troops was about to take place possibly referred to the move of the Territorial Army, which after six months' training, was in process of joining the Expeditionary Force in France. Several battalions and some divisions had already crossed the Channel. By midnight, February 1-2, a grand total of 461,996 officers and

¹ A 60; H.S. 89, pp. 887, 894, 988, 1000.

men, and 127,151 horses had been transported from England to France, representing, with their stores and vehicles, 1,800 cross-channel voyages, which from England to France alone now averaged ten a day. In addition, over 90,000 overseas troops had been landed at British ports; some 60,000 territorials had left to take their places; and 100,000 sick, wounded and refugees had been brought from Belgium and France to England.¹ It was only among the last that any loss of life had resulted from enemy action.

That Germany should make a serious attempt to stop the flow of this vast movement was so much to be expected that the necessity of preventing or dealing satisfactorily with such attempts had strongly influenced not only the opening movements of the British Fleet but also the subsequent dispositions of the forces based in southern waters. If any reminder of the danger to the transports had been needed, it had been given by *U.20* and her torpedoing of the three small steamers off Havre.

11. Germany Declares British Waters a Military Area.—It would seem that the declaration of February 2 that Germany intended to stop the transport of troops by all means in her power was not connected with the Admiralstab's determination to carry out a commercial blockade; it may have been the result of intelligence reports on the movements of British troops, and, particularly, of one received from Dunkirk on February 1 that 700,000 British troops had already crossed to France, and 200,000 more were soon to follow. This report, which exhibits the exaggeration customary to statements by spies, was, nevertheless, considered sufficiently trustworthy to be passed on to the Marine Corps in Flanders for the benefit of the submarines acting from Zeebrugge.²

The commercial blockade was a large matter affecting a wide area. So far Germany had employed her forces in home waters mainly against the British Navy in pursuance of her policy of attrition. The policy had failed. The mining programme, from which the Germans had hoped so much, secured an unexpected windfall in the *Audacious*; but, otherwise, it had resulted in a serious loss to Germany's strategic position. It was essential, if the mines were to achieve any success, for them to be laid in unannounced positions, the inevitable result being that neutral ships were generally the first to suffer in each new field. Consequently, when Great Britain announced that the North Sea should be considered by neutrals as a military area in which they could no longer roam at will, the Dutch and Scandinavian Powers were inclined to agree, and, henceforth, the regulating by Great Britain of the routes of shipping became increasingly easy, an

¹ Extracted from a periodical return concerning the Transport and Maintenance of the Expeditionary Force rendered by the Admiralty to the Committee of Imperial Defence, now bound under the title H.S.C. 8.

² I.D.H.S. 3011, February 1, 0330.

immense advantage to a belligerent intent on stopping contraband. Thus the German mining policy had not only been countered, but had been turned to England's benefit. A recognition of this fact can clearly be seen to underlie Admiral von Pohl's memorandum to the Kaiser, quoted above, where it is described as "British terrorism" and "Britain's coercion."

Although Admiral von Tirpitz urged that the blockade, in order to avert the anger of the United States, should not go beyond the Thames and its approaches,¹ the decision was for a full blockade; and on February 4 appeared the following announcement:—²

"Berlin, February 4.

"1. The waters round Great Britain and Ireland, including the entire English Channel, are hereby declared a military area. From February 18 every hostile merchant ship found in these waters will be destroyed, even if it is not always possible to avoid thereby the dangers which threaten the crews and passengers.

"2. Neutral ships also incur danger in the military area, because, in view of the misuse of neutral flags ordered by the British Government on January 31 and the accidents of naval warfare, it cannot always be avoided that attacks intended to be made on enemy ships, may also involve neutral ships.

"3. Traffic northwards around the Shetland Islands, in the east part of the North Sea, and a strip of at least 30 sea miles in breadth along the coast of Holland, is not endangered.

" (Signed) VON POHL,

"Chief of the Admiralty Staff"³

The declaration by its wording claimed for Germany the right to dispense with the customary preliminaries of visit and search before taking action against merchant vessels, and, in fact, to adopt a procedure hitherto limited to savage races making no pretence at civilisation as understood in Europe. In a long memorandum issued simultaneously with the declaration, the German Government gave what it evidently considered to be the justification for its intended new method of warfare. The memorandum began by alleging that Great Britain had carried on a mercantile warfare against Germany in a way that defied all the principles of International Law by, amongst other things, abolishing the difference between absolute and conditional contraband, and declaring the entire North Sea to be a military area. The neutral Powers were arraigned for having too readily acquiesced in these British measures, and for putting export embargoes on goods intended for Germany, thus accepting Great Britain's plea that her vital interests were sufficient excuse for every method of warfare. Arguing from these premises, Germany claimed that her own vital interests forced her to retaliate by attempting to destroy every enemy merchant vessel found in the waters round Great Britain and Ireland. Furthermore, since

¹ Tirpitz: *My Memoirs*, II, Chapter XIX.

² Translation from the *Times Documentary History*, Vol. VII.

³ Von Pohl became Commander-in-Chief of the High Sea Fleet on February 2. Presumably he signed this announcement before that date, while still Chief of the Admiralstab.

Great Britain had ordered her own vessels to hoist neutral flags, such flags would no longer be respected, and even neutral ships in those waters ran serious danger of falling victims to attack intended for British ships. The fortnight's notice should enable neutral Powers to make plans accordingly, and thus show consideration for the vital interests of Germany; and it was pointed out to these Powers that their interests would best be served by ending the war as soon as possible. Although not specifically stated in the memorandum, it is clear that Germany wished to convince the neutral Powers that a speedy conclusion of the war, with Germany victorious, was what they should aid in securing.¹

The decision then taken to use the German submarines in commerce warfare rather than for the destruction of hostile armed vessels had its effect upon the part played by the High Sea Fleet. From this time onward, submarines, with few exceptions, became no longer available for purely military operations, and this came about before ever an opportunity had occurred for testing their value when working in close tactical co-operation with the Fleet. For the time being the Fleet was thus robbed on many occasions of a weapon which, apart from its great value for strategical reconnaissance, might in time and with fuller experience have been successfully employed tactically as a counterpoise in a fleet action to the British numerical superiority. There can also be no doubt that this lack of submarines for purely military operations adversely affected the undertakings of above-water forces. It is true that the instructions of February 4th regarding submarine warfare against merchant ships emphasised the importance of supporting the submarines in their operations by transferring a half-flotilla of torpedo boats to Flanders at an early date, by operating against trade on the North Atlantic trade routes, by air raids, and, in particular, by offensive operations in the North Sea on the part of the Fleet. Moreover, the Kaiser, by a decision made about the middle of January, empowered the Commander-in-Chief of the High Sea Fleet to use his own discretion in regard to undertaking more frequent raids into the North Sea; but the appointment of Admiral von Pohl to the command of the Fleet was an indication to those with inside knowledge that the policy of holding back the High Sea Fleet was not only to be continued, but that the change to submarine warfare against merchant shipping as the principal form of warfare at sea would also increase the objections to staking all on a fleet action. Lastly, Italy's uncertain attitude made it impossible to take political decisions, although this was just the time when increased fleet activity would have seriously hampered the British in combating submarine warfare effectively, and have influenced neutrals in favour of Germany.²

¹ The text of the Memorandum is in the *Times Documentary History*, VII, pp. 203 to 206.

² *Nordsee* IV, Chapter I.

CHAPTER III.

PREPARATIONS TO MEET THE THREATENED BLOCKADE, FEBRUARY 4-18.

12. **Anti-Submarine Suggestions from the Fleet.**—By this time a certain amount of experience in combating the submarine had been gained, and various anti-submarine weapons were under experiment. As early as 4 December 1914 the Admiralty had called upon the Commanders-in-Chief afloat and ashore, Commodore (S), the Admirals of Patrols, and of the Dover Patrol, for reports on the methods they had used, and proposals for active attack upon enemy submarines.¹ Most of the replies were of a defensive character, and concerned themselves with methods of attacking a submarine which had been located in an area occupied by our own forces. In the Grand Fleet the method was for destroyers to make for the position in which the submarine had been sighted, and search a circular area whose radius was equal to the distance the submarine would have travelled submerged since being seen.² This method was not well suited for constricted areas, and, in fact, had not been adopted by Admiral Hood, who preferred his scheme of stationing destroyers in the sections of his command.³ Most of the other officers limited their remarks to the necessity of improving the anti-submarine weapons such as the modified sweep and the indicator nets, or of keeping a continuous patrol of trawlers and destroyers at important landfalls to catch the boats when they came to the surface. Admiral Jellicoe, in addition, advocated deep minefields in places where submarines were likely to rest or shelter. Practically all the other suggestions as regards weapons or devices were in use or being developed; and those for the employment of trawler flotillas were covered by the auxiliary patrol which was in process of reorganisation and development on a large scale.

On the offensive side several officers, including the Commander-in-Chief, advocated mining Heligoland Bight. Admiral Beatty wrote:—

“Hitherto the menace has only been met by ultra-defensive measures on the part of the coastal patrols. These measures have met with so little success that the large number of vessels so employed have not justified their existence

“To act offensively against enemy submarines one is limited to two places:—

“(a) His point of departure;

“(b) The area in which he is likely to operate.

“Taking the point of departure—he can be attacked only through the medium of mines laid at varying depths, and in large quantities.

¹ A.L.G. 01694/14 of 4.12.14. This letter and the replies to it are in Papers titled *Admiralty*, 28 November 1914.

² See Appendix B: Method of search for submarines.

³ See *Home Waters*, III, Section 58.

"For this form of attack there is much to be said. If carried out thoroughly and effectively, it would necessitate large sweeping operations on the part of the enemy which would provide an object for attack by our small craft, as such operations can only take place in daylight. This would necessitate covering action on the part of the enemy, which might easily lead up to an offensive action on a large scale"

For attacking submarines in the area in which they were likely to operate he suggested, like the others, that probable landfalls should be patrolled by trawlers backed up by destroyers.

Admiral Sir Lewis Bayly was for a bolder scheme. "An evil is best cured by cutting at its root," he wrote; "the submarine menace should be attacked at its start, viz., at the ports they issue from." His suggestions¹ were:—

- (a) Zeebrugge to be blocked by ships sunk in the canal;
- (b) Borkum to be seized or, if this were thought too difficult, a constant patrol of light cruisers to be maintained off the Ems, the exits from which should also be barred by sunken blockships;
- (c) The German rivers to be mined;
- (d) The Skagerrack to be watched by a light cruiser patrol covered by heavier ships;
- (e) The North Sea to be forbidden to all except warships, or merchant vessels convoyed by neutral men-of-war;
- (f) Our own shores to be actively patrolled by flotillas of trawlers and destroyers.

These proposals did not then (17 December 1914) all commend themselves to the Admiralty. It seemed inadvisable to block Zeebrugge; the channel was reported to be silting up² and, moreover, there was a strong probability that the Army would soon begin an advance which would be hindered if the port were blocked. The seizure of Borkum would not, in itself, prevent submarines from getting in and out, and the maintenance of our hold on it would entail the landing of an army and the services of a squadron to support the army. Mines would soon be swept up and light cruisers torpedoed; and in view of our experience of patrolling Dover Strait, a watch on the 60-mile wide Skagerrack would require at least 54 light cruisers, and even then would offer no certainty that submarines could not pass. The final conclusion of the Admiralty was that "destroying the enemy submarines off German ports is not practicable."³

There remained, therefore, the alternative of attempting to destroy them in our own waters; and it was for this purpose that the Submarine Attack Committee, with Captain Donaldson as President, had been studying the various weapons then employed

¹ His memorandum and the Staff's comments on it are in Appendix C.

² The Russian Intelligence Service, on February 12, stated that Zeebrugge had been blocked by the recent bombardments; that five submarines were imprisoned there; and that it was no longer a submarine base. H.S. 91, p. 771.

³ Papers titled *Admiralty*, 28 November 1914.

or in course of development.¹ By the end of 1914 the modified sweep was carried by 53 destroyers and 135 trawlers; but it had not yet succeeded in accounting for any submarine. A special type of bomb attached to a wooden shaft and fitted to fire only on contact with a submerged object was under experiment; this was the "bomb lance" intended more particularly for use by motor boats, which from their high speed were considered to have a fair chance of closing a submarine to 36 ft., which was the average distance a man could throw this type of bomb. A larger bomb to be dropped from a boat or aeroplane on a submerged submarine was also under experiment. This type of weapon then went under the name of "cruiser mine"; in its later form it became the "depth charge."

The chief means of countering the threatened submarine attack in February 1915 was, however, considered to be the "indicator net." Some sort of detachable net for incommoding a submarine caught in it had been the subject of experiment since 1904. The idea even then was not new. A net, in detachable sections of large mesh, had been observed some 50 years before in use in Japan for catching whales.² The experiments in the Navy had largely to be theoretical, since practical tests under real conditions were extremely hazardous for the submarine conducting them. But by the end of 1914 the device had been developed, till its official description was as follows:—

"The indicator net consists of a light wire net of 12-ft. mesh, made in 100-yard lengths and 60 ft. deep; the net weighs about 75 lb. per 100 yards, and has a flexible float. The object of the net is to indicate the presence of an enemy submarine, and it has been most successfully tried by running a submarine against it.

"The net can be used either as a drift net or a moored net; in either case it is necessary to have armed patrol vessels close to the net, so as to deal with the enemy submarine. The sections of the net should be very lightly stopped together until a satisfactory connection is devised, if the nets are not supplied with these connections.

"It will also be necessary to extemporise an indicator buoy for the time until proper buoys are supplied. The indicating buoy should be kept as small as possible, and should be so arranged that it unreels when the net goes away on the submarine.

"The object of having the net in sections is that, if the net is run into, that section will break off, and having an indicator buoy to each section will indicate the presence of the submarine.

"The nets can readily be joined together, and should be quite easily laid out from a trawler, drifter, or torpedo-boat destroyer. If required to moor the net it should be moored from the head and not the foot."

Even in February the indicator net was still in the experimental stage; a practicable clip, sufficiently strong to hold one section of net to the next and yet weak enough to part under the pull of

¹ The remainder of this section is based upon C.B. 1515 (4): "Anti-Submarine Development and Experiments Prior to December 1916."

² See *The Wild Coasts of Nippon*, by Captain H. S. St. John, R.N. (Admiralty Library Ca. 287).

an entangled submarine, had not yet been devised; nor was there a satisfactory buoy which could be towed along with the net and indicate the movements of the submarine by day or night.

13. Indicator Net Bases Instituted.—Having in the indicator net what seemed a promising weapon, the Admiralty set on foot measures to utilise it. It was soon realised that the herring drifters, being fitted already with the necessary winches and manned by crews accustomed to use drift-nets, were the best craft from which to lay out the indicator nets. On 7 January 1915 it was decided to base drifters at Scapa, Cromarty, the Firth of Forth, Yarmouth, Dover, Portsmouth, Portland, and Devonport, and allocate four drifters to each base for the sole purpose of working the new nets. The four drifters for Dover had already been ordered there from Lowestoft.¹

A week later a large extension of the net base idea was decided upon. Poole and Falmouth were established as bases each for 150 drifters; Captain V. E. Phillimore, R.N., was put in charge at Falmouth, and Captain E. C. Carver, R.N., at Poole, with orders to communicate direct with the Admiralty and not through a Commander-in-Chief. The drifters were ordered to these bases direct from their fishing ports; they retained their fishing numbers and did not change their painting; nor did their crews wear uniform; they flew the Red Ensign.² Poole and Falmouth were the main training schools of the net drifters.

Dover was considered the most important of the stations, since it was hoped the nets would help to make the straits impassable to submarines. On January 13 the urgency and importance of getting the drifters to work in Dover Straits was impressed upon Admiral Hood, who had been asking that in the congested state of his harbours the four drifters sent him for trials of the nets should be transferred to another port. Arrangements had been made to deliver 30 miles of net a week at Dover; and not only was he to retain the four drifters, but he was to obtain from Lowestoft more boats till he always had enough to work all the net supplied him.³ He responded by asking Lowestoft for 30 boats. He also arranged that they could enter Calais by day, if necessary; but he requested that the drifters should be properly equipped at Lowestoft before being sent down to him. The 30 boats arrived on the 16th.⁴

Great efforts were made to secure an adequate supply of net; several firms were employed, and by January 27 750 miles were on order, the supplies received being distributed to the various net bases, Dover receiving a large proportion. The Admiralty were not relying entirely on the nets at Dover; they had given orders for an extensive minefield to be laid across the eastern entrance to the Channel.

¹ M. 15436/15, 0139/15.

² M. 0418/15.

³ Tel. 47 to R.A., Dover Patrol, 13.1.15.

⁴ *Dover, Progress Reports, Indicator Nets*, bound as H.S. 174.

14. A New Minefield Laid East of Dover Strait.—The sinking of the *Formidable* off Portland had been followed by a crop of reports that submarines were present in that area.¹ "The German submarines," wrote Lord Fisher in a memorandum dated January 17,² "now infest the English Channel, and are so unchecked in their roamings that our heavy ships are shut up in those few harbours that are submarine-proof, and our transport of troops to France greatly endangered." He, therefore, proposed further mining of the Straits. "This is obligatory for another important reason beyond deterring submarines," he continued in the same minute, "and that is our Southern Force is necessarily weak, and, owing to lack of berthing accommodation in any submarine-proof anchorage, it cannot be concentrated, and so the great point is to deny the Dover Straits to the passage of German ships." The Chief of Staff, the First Lord, and Sir Arthur Wilson were all doubtful of the benefit that might be expected from more minefields. The mines already laid had a habit of breaking adrift; and since the passage by the Downs was very congested, and not safe at low water, the new field would effectually close the Straits against battleships and heavy draught vessels at certain stages of the tide. However, Lord Fisher again urged his proposal, and it was eventually adopted.

The site chosen for this new barrage was across the route of boats coming along the Belgian coast; at first it was intended to lay the mines between the Ruytingen Shoal and Braek Bank, but in the event the plan was extended to include the route north of the Ruytingen Shoals as well. Since the area selected lay between Calais and Nieuport, and the minefields might hinder French operations, on January 23 the Admiralty enquired whether the French had any objections to the proposed plan if a passage from Dunkirk to Nieuport was left open. None were put forward, and the details of the exact spots in which the mines should be laid were settled by the two Admiralties in consultation.³ As a further defensive measure the French coast lights between Dieppe and Calais were reduced from the 28th onwards to a range of visibility of 10 miles.⁴

The Captain-in-Charge of Minelayers proposed to commence the operations, which would be extensive and required several days, by laying buoys on January 27, and the first of the minefields on the 30th. For escort he asked for two destroyer divisions, these to arrive at Sheerness on the 28th and remain with him till the operations were complete. None of the Harwich destroyers were available; but arrangements were made for four boats of

¹ Submarines were reported on 25 different occasions in the Channel between January 1 and 27 (Daily Returns of Movements of German and French Ships in Home Waters).

² M. 0737/15.

³ *Home Waters* III, Appendix A 473, 487.

⁴ A 12.

the Nore Defence Flotilla to act as escort. By the 27th the telegraph steamer *Alert*, which was to lay the buoys, was ready at Dover; but on the 28th the Admiralty deferred the whole operation till February, when they expected to have Harwich destroyers at their disposal after the projected Cuxhaven air raid.¹ This air raid had to be abandoned when so many Harwich destroyers were sent to the Irish Channel to hunt submarines there.

The barrage was to consist of 17 lines of mines; the operation would require the services of the whole minelayer squadron for several days, since the mines could be laid only at slack water half-flood in the daytime, or on exceptionally bright moonlight nights.²

The *Miranda* and six "M" class destroyers³ arrived at Sheerness on January 31 to act as escort throughout the operation, which was expected to be complete by February 10. A succession of stormy days prevented the laying of the buoys for the minefield till February 4.⁴ The operation then commenced, and each day the squadron went out to lay part of the field under the escort of the destroyers, except that fog prevented any work on the 7th; on the 9th the "M" class destroyers were relieved in the duty of escorting the minelayers by eight of the 3rd Flotilla,⁵ but they did not immediately return to Harwich to rejoin Commodore (T). They were required to participate in an air raid on the Belgian coast which was to be made on the 11th. The "M" class boats were back at Harwich on the 13th.

The barrage was not complete till February 16. Altogether 3,390 mines were laid. It was aimed more particularly at vessels on the surface; no mining action was taken against submarines travelling submerged, and the southernmost field was laid actually on the surface.⁶ In addition to the mines an obstruction intended to hinder minesweeping was placed in front of every tenth mine in the northern lines. Each obstruction consisted of a ton of pig-iron connected by a span to a 5-cwt. sinker, both being joined by a 3½-in. wire mooring buoyed by an empty 76-lb. mine case, adjusted to 6 ft. below L.W.O.S. Below the mine case was secured a jagged iron claw intended to catch and break a sweeping wire.⁷

In the laying out of this minefield the new minelayer *Paris* was used. She was the Newhaven-Dieppe steam packet belonging to the London, Brighton and South Coast Railway, and was the only small merchant ship in the world of more than 25 knots speed.⁸ Although she had only a small radius of action and her

¹ A 2, 13.

² H.S. 89, p. 860.

³ *Manly, Morris, Minos, Matchless, Milne, Murray.*

⁴ H.S. 89, pp. 811, 1100, 1114.

⁵ *Attack, Defender, Druid, Forester, Goshawk, Lapwing, Ferret, Phoenix.*

⁶ Details of each line laid are given in Lockhart Leith: *History of British Minefields.*

⁷ M. 01337/15, "Report of Mines Laid, February 4-14."

⁸ The other two ships of this speed were the *Mauretania* and *Lusitania*.

speed was considerably reduced when her armament and mines were on board, she had been taken up at the end of 1914 and fitted out at Blackwall to carry 140 Elia, Mark VI, mines on the upper deck. She commissioned on 14 January 1915 (Commander Lockhart Leith, R.N.), and this was her first operation. The two zigzag lines north of Dunkirk were laid by her.

No sooner was the minefield laid than the mines began to detonate spontaneously as well as break adrift. From February 10 onwards explosions were heard from the lines nearest the coast and were duly reported to the Admiralty by Admiral Hood,¹ in whose area they were occurring.

15. Inauguration of the Netted Area in Dover Strait.—The old scheme of patrolling the Straits by destroyers in a series of occupied areas had been interfered with by the new minefield, and Admiral Hood now devised a plan for utilising the nets as his main weapon. Since January 15 they had been the subject of continual experiment at Dover. The nets had been tested both drifting and moored; difficulties had been experienced with the clips securing one net to another, with mooring ropes and floats, with the indicating buoys: in fact, with every part of the equipment; but progress was being made² and on February 7 Admiral Hood put forward his ultimate proposals.³ A line of moored nets was to extend 5 miles out from the South Galloper and 2¼ miles out from the west side of Ruytingen Shoal. Between these a quadrilateral area occupied by drifters with nets would block the Channel to south and west, so that shipping would be forced to pass within 2 miles of either shore where the water was so shoal as to be dangerous for enemy submarines. Channel traffic was to be given a special route, avoiding the various obstructions. The passage through the Downs was to be blocked by moored nets with a gate between them. In the daytime he proposed to station two destroyers inside the drift-net quadrilateral and one near the French coast; at night, when signals could be more easily seen, he detailed one near the South Goodwin, one near the NE Varne Buoy, one between Gris Nez and Calais, and one on patrol between the North and South Forelands. The drifters in the quadrilateral were unarmed; he asked for them to be supplied with two rifles each. He had two auxiliary patrol units; one of these kept guard from the Downs to Folkestone, the other worked with the Downs Boarding Flotilla. He asked for 20 armed drifters, half to complete the guard of the coast from Folkestone to Dungeness and half to cruise off the northern entrance to the Downs. The stations he had formerly assigned to his submarines were now no longer tenable. He proposed to organise them in three groups: one group always to be near the Varne, a second to be ready at Dover, and the third, as soon as an alarm

¹ M. 01346/15.

² H.S. 174, "Progress of Indicator Nets."

³ M. 01082/15. See also G. 0256/15 and Papers titled X. 2381/15.

was received, to spread for 5 miles on the line Dungeness—Cape Alprecht, to the SW of the net quadrilateral, while the French submarines covered 15 miles of the same line from the French coast.

The scheme was discussed at a conference held at the Admiralty on February 10. The depth of water and strength of the tide prohibited the use of a chain of moored nets right across the Straits of Dover, and Admiral Hood's principle of a drifting quadrilateral was accepted.¹

On February 10, 2½ miles of net were out, on the 11th, 6½ miles, and on the 12th and 13th, 16 miles. The nets were boarded by night, and there were as yet no lights for the indicator buoys. On the 13th a strong SW gale sprang up and in the heavy sea several sections of net were carried away either by the weather, through fouling submerged buoys, or by a passing Norwegian steamer. It was found also that the clips securing one section of a net to another were too light to stand in any but calm weather, and the sections had to be fastened together by spun-yarn—an expedient which destroyed their indicating principle, since the root idea of that was that a submarine fouling a net would carry away one section with its buoy, the movements of which would indicate the position of the entangled submarine.² In spite of the manifest insufficiencies of what was still an experimental design of net, the Admiralty had faith enough in it to order all the officers in charge of all the net bases to work their nets continuously, when weather permitted, in places frequented by submarines or channels suspected to be used by them.³

The guard of the northern entrance to the Downs was taken over by armed drifters, based from February 12 on Ramsgate. These armed drifters, on the arrival of the net drifters at Dover, had been distributed between Sheerness and Portsmouth, since Dover Harbour could not accommodate all the craft collecting there. The Ramsgate Patrol was commanded by Captain H. E. Grace, R.N., under the orders of the Admiral, Dover Patrol.⁴

The Downs was now so much better protected a rendezvous than Dover that at Admiral Hood's suggestion merchant vessels requiring pilots or charts of the east coast swept channel were ordered to obtain them at the Downs instead of Dover, which had been the pilotage station.⁵

16. Redistribution of Destroyers.—In view of the steady increase in number of passages of transports the Admiralty concluded that there must be more torpedo craft permanently stationed in the Channel to escort transports. This led to a

¹ M. 010031/15, "Decisions *re* Auxiliary Patrol, Net Drifters, etc., 11.2.15."

² H.S. 174, pp. 108, 109, 121.

⁴ M. 01564/15.

³ M. 01020/15.

⁵ M. 01164, 01374/15.

considerable alteration in the disposition then in force; the new arrangement¹ was:—

- (a) Four Scapa destroyers (two "C" class and two "E" class), to be detached to form a permanent patrol in the North Channel in the immediate charge of the Commanding Officer of H.M.S. *Tara*.
- (b) The 1st Destroyer Flotilla to move from Harwich to Rosyth and come under the immediate orders of the Vice-Admiral Commanding the 3rd Battle Squadron, relieving the eight destroyers at Rosyth to return to Scapa;
- (c) When two divisions of the 1st Flotilla had arrived at Rosyth, seven of the "E" class destroyers at Scapa to be detached—three to Dover, two to Avonmouth, two to Plymouth; those for Avonmouth and Plymouth to be used solely for escorting transports;
- (e) In consequence of the reduction of his force the southern limit of the command of the Admiral of Patrols was fixed at Winterton, the area from Winterton to the Naze coming under the Commodore, Harwich;
- (f) The eight *Beagles* not to join the 10th Flotilla; they were to remain at Portsmouth, and be employed solely in escorting transports;
- (g) The 10th Flotilla to be formed, as soon as practicable, of the *Aurora*, *Dido*, and the "M" class destroyers, except the *Meteor* and *Miranda*, which were to act as second in command of the 1st and 3rd Flotillas respectively.

Three of the destroyers for the North Channel Patrol—*Garry*, *Thorn*, *Dove*—left Scapa on the 16th; the fourth, *Dee*, was in dock at Glasgow, and joined later.

The Admiral of Patrols reorganised his command on February 18. He abandoned the base at Yarmouth, which was now outside his command, and kept two divisions of destroyers (eight boats) and the *Skirmisher* in the Humber, ready day and night, with the *Forward* at Hartlepool. Further north, he maintained eight boats in the Tees and five in the Tyne, the cruiser *Patrol*, with Captain (D), being in the Tyne. These, with two or three boats refitting, and his own cruiser *St. George*, constituted the whole of his command. Those of his torpedo boats which were not under repair arrived at their new stations by the 18th.

The *Fearless* and eight destroyers of the 1st Flotilla—*Acheron*, *Ariel*, *Attack*, *Badger*, *Beaver*, *Jackal*, *Lapwing*, *Sandfly*—reached

¹ M. 01270 of 15.2.15.

Rosyth by the 18th. Their departure left the condition of the Harwich Striking Force as follows:—¹

Arethusa repairing at Chatham.
Penelope at sea.

1st Flotilla.

Ready at Harwich.—Four destroyers.
Defective.—Five at Chatham, three at Harwich, *Meteor*
(second in command) at Southampton.

3rd Flotilla.

Ready at Harwich.—*Undaunted* (Captain (D)), *Miranda*
(second in command), 13 destroyers.
Defective.—Three at Chatham, two at Glasgow, two at
Harwich.

10th Flotilla.

Ready at Harwich or patrolling.—*Aurora* (Captain (D))
and four destroyers.
Defective.—One at Chatham, two at Harwich, one at
Southampton.

There was some delay in carrying out the rest of the programme. The Commander-in-Chief did not immediately order the Rosyth destroyers back to Scapa; he waited for executive orders from the Admiralty, who in turn expected him to arrange the move. Even by the 24th nothing was done till the Admiralty made enquiries; learning that no start had been made with the move, they pointed out that troop movements were being delayed for want of the expected destroyers² and ordered the Commander-in-Chief to despatch them from Scapa without waiting for relief. By an earlier arrangement of the Commander-in-Chief, the defence flotillas of Rosyth and Cromarty had been composed of "C" and "D" class boats, mixed. It was only the "C" class which were to return to Scapa, and now that the 1st Flotilla ("I" class) were to be at Rosyth, the "D" class boats were to concentrate at Cromarty. The weather caused further delay, and it was not till the morning of the 27th that the *Exe*, *Teviot*, *Ure*, *Boyne*, and *Foyle* sailed from Scapa for Dover and Devonport east-about.³

The function of these destroyers was mainly to act as escorts, and in view of the enormous increase in the passages of transports it was clear they would have little opportunity of hunting submarines or of carrying out lengthy searches. This duty largely devolved upon the Auxiliary Patrol, which was now considerably expanded.

17. Expansion of Auxiliary Patrol and Use of Indicator Nets in Irish Waters.—The idea of supplementing the East Coast Patrol Flotillas by armed trawlers, which was one of the first

¹ A 189.

² A 274.

³ A 261, 274, 294.

products of actual war conditions, had been continually expanding.¹ By 22 December 1914 this trawler fleet had grown till it covered the coastal waters of the whole British Isles; and on that date was issued the scheme on which it was worked.² The waters round Great Britain and Ireland were divided into 23 areas, 21 of them designated by a number, the other two by the name of the estuary they covered. The whole formed the Auxiliary Patrol, which in the scheme was to consist of 74 yachts and 468 trawlers or drifters, aided in the more sheltered waters by motor boats; the whole forming a large fleet of imperfectly disciplined craft, the affairs of which were administered in the Admiralty by a newly created department called Yacht Patrol, controlled by Commander H. S. Lecky, R.N., under the Fourth Sea Lord.³

The Auxiliary Patrol was directed against minelayers, submarines and spies, and since it was important to secure the rapid transmission of intelligence gained by the Auxiliary Patrol, the base of each area was fixed as near a naval centre as possible. The yachts and trawlers were armed; but great difficulty was experienced in securing enough guns for the drifters, and though every effort was being made to remedy the defect, the drifters in most cases had no means of attacking submarines except by attempting to ram them.

The Auxiliary Patrol was now organised in units, each to consist of six trawlers or drifters and a yacht, at least one trawler having wireless apparatus. At first, when the trawlers were regarded as merely adjuncts to the East Coast Patrol Flotillas, they were under the Admiral of Patrols; but when the scheme was extended to the whole British Isles, Senior Naval Officers were appointed to the Auxiliary Patrol Bases and the Admiral of Patrols retained direct command of the units based on the Tyne and Humber only.

On the east coast of England, from Dover Straits to the Farne Islands, the Admiralty anticipated that, except for large mining operations undertaken to cover a raid, the enemy would be unlikely to lay mines in the war channel, owing to the injury he would do to himself by checking continental trade. Considerable care had to be exercised in this section to avoid attacking our own submarines. Eleven units worked in this section, the standard unit consisting of one yacht, or leader, and six trawlers or drifters. The vessels at first were under the Admiral of Patrols except as regards those of the Nore Area (one unit), but on February 3 the vessels at Harwich and Lowestoft were placed under the Commodore at Harwich and Captain-in-Charge respectively. Two more units aided the R.A., Dover Patrol.

¹ See M. 02370/14, 03815/14, 04013/14.

² M. 04483/14, "Areas for Auxiliary Patrol Vessels."

³ Commander Lecky was appointed in charge of the Yacht Patrol on 21 October 1914.

With regard to Scotland, the indentation of the coast, the sparseness of the population, and the fact that the enemy was not impeded by self-interest from offensive operations rendered a close watch necessary. Motor boats could be extensively employed in watching the inlets. For the Clyde area one unit was allotted; Rosyth was given three units, while Cromarty, Peterhead and Granton each had four units.

The section thought to require closest watching was the north coast of Scotland, Orkneys, Shetlands, Hebrides and Minch. There were Auxiliary Patrol Flotillas in the Shetlands (three units), Orkneys (eight yachts and 72 trawlers), and Loch Ewe and Stornoway (six units). The Orkneys Flotilla was to cover the requirements of the Commander-in-Chief, and four yachts and 48 trawlers of the flotilla formed a movable force which he could move to any particular area he wished.¹

In the section embracing the north and south coasts of Ireland and the St. George's and Bristol Channels there were special inducements to enemy minelayers in the frequented trade routes, although, owing to the distance from the enemy bases, submarines were less expected than in most other areas; 13 units guarded this section, and formed so effective a bar to the Irish Channel that in this section a unit each at Liverpool and Belfast, and two at Kingstown, were considered sufficient. The west coast of Ireland, along which no specially important ships passed, seemed of less importance, and a unit each at Blacksod and Galway sufficed to search the coast and inlets.

In the English Channel the extended defence of the dockyard ports was supplemented by Auxiliary Patrol vessels, three units each at Portsmouth and Devonport, and two at Portland. The Admiralty did not anticipate minelaying elsewhere in the Channel than off the dockyard ports, as more extensive minelaying would interfere with the enemy sources of supply.

The creation of the Auxiliary Patrol rendered necessary an expansion of the system of distribution of naval intelligence. The organisation on the outbreak of war had covered merely the east and south coasts, the coastguard stations from Cape Wrath to Selsey Bill remaining manned, whilst, in addition, territorial cyclists watched the coast from Lunan Bay, Forfarshire, to Porthleven in Cornwall.² The territorials were unreliable, insufficient in numbers, and ignorant of everything to do with the sea.³ The personnel had been withdrawn from the other coastguard stations to the number of 1,500 petty officers and men, and drafted to the fleet. It had eventually been found necessary to reopen the coastguard stations on the coasts of Scotland and

¹ For the organisation and work of the Orkneys Flotilla, see M. 19144/15, M. 04483/14, "Orders for Auxiliary Patrol Vessels."

² See *Home Waters* II, Section 79.

³ M. 04008/14, "Coast Watching on the North and North-west Coasts of Scotland; Report of Arrangements made."

the north coast of Ireland, and the necessary coastguard ratings had gradually been withdrawn from the fleet; but the shortage of active service ratings had precluded the withdrawal of the entire coastguards, and a great deal of reliance had to be placed on voluntary, untrained effort.¹ At the end of 1914 the coastguard stations throughout Ireland had been reopened, the coastguard petty officers being withdrawn from the fleet to take charge of local men.² Coast watching by civilians had been organised on certain parts of the coast, in the Orkneys and Shetlands, at Queenstown, on the entire coasts of Scotland³ and on the coasts of Devon and Cornwall.⁴ The coast watching scheme was not associated with the Auxiliary Patrol, except as regards passing information under the slow system in force at the outbreak of war.⁵ To pass information rapidly from the coast watchers to the naval centres and to the sea patrols, and vice versa, eight small W/T stations were equipped early in 1915 to maintain touch, at St. Kilda, Loch Boisdale, Fair I., Peterhead, Lowestoft, Fishguard, Aultbea, and Ballycastle.⁶ The officers in charge of naval centres were in touch with the Senior Naval Officers of sections of Auxiliary Patrol. Intelligence gained was made known to Senior Officers of Auxiliary Patrol vessels without passing through the Admiralty. All information gathered by the Auxiliary Patrol vessels was reported to the naval centres. At the outbreak of war Collectors of Customs on the east coast forwarded intelligence obtained from incoming vessels to the Admiralty and to the naval centres and officer commanding the destroyer patrol in port through the nearest war signal station. In November 1914 the system was extended to all ports in the United Kingdom.⁷ Special arrangements were made by which the Commander-in-Chief of the Grand Fleet could learn information of hostile or suspicious vessels or mines gathered by the war signal stations. Such intelligence was passed to Aberdeen, weighed by one of the two officers stationed there for the purpose, and passed to the Commander-in-Chief if necessary by W/T. A new group of war signal stations was established extending from Cape Wrath to Ardnamurchan Point, with its centre at Aultbea. Early in 1915 the principal light vessels of the east coast of England were connected by telephone to the shore.

The belief still persisted at the Admiralty that hostile submarines were obtaining fuel supplies from agents at lonely places

¹ Papers titled B. 793/1914.

² Papers titled L. 571/1915.

³ On 30 October 1914. See Papers titled X. 3994/1914.

⁴ 14 January 1915. See Papers titled B. 793/1914.

⁵ See "Instructions for the Distribution of Naval Intelligence." O.D. No. 4.

⁶ M. 04145/14, "Scheme for coast watchers acting in conjunction with sea patrols under R.A., Aultbea."

⁷ Papers titled X. 4007/1914.

on the coast. The Irish, particularly, were suspected of assisting the enemy in this respect.¹ Arrangements had been made with the various railway companies to report movements of oil or petrol, and shipping companies reported any abnormal shipments. Track was kept of the sales of petrol by means of reports which the vendors had to furnish. In March 1915 rewards were offered for information leading to the detection of persons supplying fuel or stores or communicating with enemy craft.²

Rewards had been authorised in September 1914 for submarines captured or sunk by or through the agency of trawlers. On 1 January 1915 the rewards were extended to cover information of mines and intelligence of submarines whether leading to detection or not, if proved to be accurate and delivered at the earliest possible moment.³ The difficulty was to convince trawler skippers of the necessity of bringing in their information at once, and special mileage rates were paid as an inducement. In February 1915 rewards up to a maximum of £100 were offered to persons on shore for information concerning hostile vessels, mines washed up, and intelligence of such definite nature.⁴

Rear-Admiral Stileman, Senior Naval Officer, Liverpool, in the scheme of 22 December 1914, had the control of all the Auxiliary Patrol vessels in the Irish Channel, as well as the duty of supervising the supply of the 10th Cruiser Squadron. While there were few patrol vessels and little likelihood of the incursion of submarines, the arrangement had worked well enough; but the new scheme would put in the Irish Channel so many vessels and bases that it was necessary to relieve him of most of the responsibility attaching to their control. On February 18 his command was limited to the area inside the line joining Walney Point and Great Orme's Head, for the patrol of which he was allotted two Auxiliary Patrol units. To the other areas formerly under him three Admirals were appointed: to Area XV (Milford), Rear-Admiral C. H. Dare, M.V.O.; to Area XVI (Kingstown), Rear-Admiral E. R. Le Marchant; to Area XVII (Larne), Admiral C. J. Barlow, D.S.O., who, in addition to having charge of the Larne area, was also in general control of the Auxiliary Patrol vessels in Areas XVI and XV, and of a squadron of six armed yachts, which was to be formed and based on Belfast. Captain Gibbons, previously commanding at Pembroke, was transferred to the Tyne, where he acted under the Admiral of Patrols.⁵

¹ Papers titled *L.* 156/1914.

² M. 18036/15; G.F.S.P., Vol. XXVI; and Papers titled *Treasury*, 14 January 1915.

³ War Orders, A.W.O., 1.1.15.

⁴ War Orders, No. 239, 19.2.15.

⁵ M. 01323 of 18.2.15 in Papers titled *X.* 8706/15.

The allocation of patrol units to the various bases is shown in the following table:—

Area.	Projected. Units.	Arrived by February 18. Units.
I.—Stornoway	6	5½
II.—Shetlands	3	3
III.—Orkneys	12	12
Clyde	1	¾
IV.—Cromarty	4	4
V.—Peterhead	4	4
VI.—Rosyth	3	3
VII.—Granton	4	4
VIII.—Tyne	2	2
IX.—Humber	2	2
X.—Yarmouth and Harwich ..	6	3
Nore	1	½
XI.—Dover	2	2
XII.—Portsmouth	3	3
XIII.—Portland	2	2
XIV.—Devonport	3	3
XV.—Milford	4	3
Liverpool	2	1
XVI.—Kingstown	3	2
XVII.—Larne	3	3
XVIII.—Lough Swilly	3	2½
XIX.—Blacksod Bay	1	½
XX.—Galway Bay	1	1
XXI.—Queenstown	4	4

Besides keeping a trawler patrol in the Irish Channel the Admiralty arranged to have it extensively netted with the indicator nets. As early as February 11 Captain Phillimore at Falmouth was ordered to send 25 of his drifters to Larne, and though only four of these had the indicator net, the rest carried their ordinary drift nets, which would, at least, have some effect in incommoding a submarine caught in them. A further 25 drifters for Larne left Poole a few days later.¹

A similar force of drifters for working indicator nets was to be based at Milford to bar the southern entrance to the Irish Channel. Since the boats were entirely unarmed, they were not to work alone, but were to be used in conjunction with the trawlers and other vessels of the Auxiliary Patrol, the general principle adopted being that one or more armed vessels were to be in company with each batch of drifters, and, therefore, ready to deal with any submarine which might foul the nets and come to the surface.² The net drifters in the Milford Area were to be increased to 50; they had a sub-base at Rosslare, and were put under the immediate orders of Commander S. A. Pidgeon, controlled by Admiral Dare. Those at Larne were under Commander G. Ward; the number of them was to be increased as soon as convenient

¹ A 124, 130, 131, 149, 162.

² M. 01224 of 13.2.15, "Draft Orders for Steam Drifters at Larne and Milford Haven."

to 80, and the intention was to arm half of them.¹ By February 18, however, none had arrived at Milford, and only 31 at Larne.²

18. Stoppage of Daylight Cross-Channel Passenger Services.—

The cross-channel mail steamers of the South-Eastern and Chatham Railway, plying from Folkestone to Boulogne, Calais and Dieppe, were being run just as in peace time; they made their passage in daytime at fixed hours and by fixed routes; it appeared even that the Boulogne steamer was in the habit of turning round and backing into the harbour at the same time and place every day. These steamers were used by the War Office for the passage of officers and men proceeding to and from leave, and they seemed to the Admiralty to be obvious and easy marks for enemy submarine attack. It was, therefore, suggested to the South-Eastern and Chatham Railway Company that the steamers should run only at night, a suggestion which called forth a protest from the Company that, owing to the light draught and speed of the steamers, and the fact that they zigzagged, the risk from submarine attack was in fact less than that of crossing at night, since the Channel was unlighted, and there was a minefield adjacent to the course the steamers must follow. So great did this last risk appear that the Company thought the services must be entirely discontinued if the Admiralty adhered to their decision not to let the steamers run by day.

The Admiralty's decision was firm, and on February 18 the Company was told to discontinue daylight sailings forthwith. To assist the steamers in keeping out of danger during their nightly passages Dungeness light was re-lit, and arrangements were made for Folkestone light to be shown whenever required by the local steam packet agent.³

19. General Instructions to and Arming of Merchant Vessels.—

It had been part of the Admiralty policy in peace time to supply certain ocean-going liners with a defensive armament in order to give them some chance of standing up to enemy armed merchant cruisers on the high seas.⁴

The general shortage of guns in face of the innumerable demands for them, combined with the refusal of certain neutrals to treat such vessels otherwise than as warships, had limited any extension of this principle; but now, with the German threat impending, the Admiralty decided to arm about 50 vessels plying in home waters, where the objections of neutral countries did not apply; half the vessels selected were to be Admiralty colliers and store carriers, the remainder were local coast traders. On February 14 the Senior Officers at Cardiff and Newcastle were

¹ M. 01323 of 16.2.15, "Auxiliary Patrol Areas XV, XVI, XVII; New Arrangements."

² Positions and Movements, 19.2.15.

³ T. 0685/15.

⁴ See Historical Monograph 22, C.B. 956, *The Atlantic Ocean*, Section 16.

ordered to put one 12-pdr. gun aft on board each of seven named Admiralty colliers, two Royal Marine gunners being supplied for each gun; and the Senior Naval Officer, Liverpool, was instructed to report the names of suitable coasters plying to Liverpool.¹

That day also our Intelligence Officers abroad, to whom masters of ships were accustomed to go for instructions and advice, were ordered to give warning confidentially to British ships that submarines were operating in the English and Irish Channels. The masters were to be told that they should make their landfall after dark and approach port at dawn; they were on no account to stop if ordered to do so by a submarine, but were to turn their stern towards her, looking out for and avoiding the trains of bubbles which would indicate the path of an approaching torpedo. They were assured that if the submarine opened fire she could do little damage to an iron ship with its crew below decks, and even if torpedoed they would have ample time to man the boats. This same advice was to be passed by signal stations to merchant vessels approaching; by the Admirals at Devonport and Queens-town; and it might even be sent by wireless in the M.V. code, provided it was differently worded each time, and steps taken to avoid compromising the code.²

Havre was the port of call for so many vessels that frequently a large number were watching their turn to enter; after a conference with the French it was now arranged that ships from the westward should wait at Cherbourg, and those from the eastward at Spithead, till the port was signalled free for entering. In any case they were not to stop in deep water off Havre, but to wait for pilots south of the Whistle Buoy, where the water was too shallow for submarines to dive.³

Not only at Havre, but also at all the British defended ports, efforts were made to accelerate the proceedings of the examination service in order that merchant vessels should be exposed to submarine attack for as little time as possible while the examination and preparation for it were in progress.⁴

A set of general instructions for the guidance of masters of British merchant vessels,⁵ an amplified version of those telegraphed, was printed for the confidential use of masters and owners of vessels over 300 tons register. The Customs arranged the distribution of these instructions to ships already in home waters, 5,000 copies of the document being sent them on the 13th for issue through their collectors at the various ports. In each case the recipient had to sign a receipt, declaring himself a British subject. Another 2,500 copies were sent to the Committee of

¹ A 136, 137, 138 and Ship Branch Docket, S. 0113/15.

² A 142, 196.

³ A 133, 147, 191; H.S. 92, pp. 1020, 1122.

⁴ A 115A. For details of measures taken, see Papers titled A. 1523/15.

⁵ These were based to some extent on proposed rules drawn up by Lieut.-Commander T. F. P. Calvert, of the *Iron Duke*. See Papers titled X. 6195/15.

Lloyds at the same time for issue to shipowners. This was most expeditiously done, and on the 15th Lloyds was able to report that 720 British shipowners had received the general instructions.¹ The document distributed to masters and owners read as follows :—

Confidential.—

NOTICE.

IN NO CIRCUMSTANCES IS THIS PAPER TO BE ALLOWED TO
FALL INTO THE HANDS OF THE ENEMY.

This paper is for the Master's personal information. It is not to be copied, and when not actually in use is to be kept in safety in a place where it can be destroyed at a moment's notice.

All previous orders on this subject are hereby cancelled.

Such portions as call for immediate action may be communicated verbally to the officers concerned.

10 February 1915.

INSTRUCTIONS FOR OWNERS AND MASTERS OF BRITISH
MERCHANT SHIPS ISSUED WITH REFERENCE TO THE OPERATIONS
OF GERMAN SUBMARINES AGAINST BRITISH SHIPPING.

SECTION 1.—INFORMATION RESPECTING SUBMARINES.

A.—British and French submarines have orders not to approach or communicate with merchant vessels (other than fishing vessels) within the following area :—

Latitude 43° N to Latitude 63° N ;
Longitude 4° E to Longitude 13° W.

Within these limits any submarine which shows by her action that she is attempting to close or communicate with a merchant vessel should be treated as hostile.

B.—Block sketches of British, French and German submarines will be found in a pamphlet entitled "Submarines in Home Waters," issued confidentially to British ships through the Board of Trade. Every vessel navigating in home waters should have a copy of this pamphlet on board.

C.—French submarines are likely to be met with off the French ports. British submarines may be met with east of Portland or south of Aberdeen ; also off Devonport and in the Firth of Clyde. Beyond these limits the probability is that any submarine seen is German.

D.—The speed of a German submarine on the surface exceeds that of the average merchant ship, but the speed under water is low. A submarine cannot see under water. When submerged she is obliged at frequent intervals to put up a long tube, known as a periscope, in order to see where she is going. Some submarines are armed with a gun, but this is an inferior weapon, incapable of inflicting serious injury upon an iron steamer manned by a resolute crew.

All submarines carry torpedoes, but their supply is limited, and they will be very averse from firing them at merchant vessels. It is very difficult for a submarine to hit a moving ship with a torpedo, especially if she is kept nearly end on, and experience has shown that a great many torpedoes are fired without any result. In case the ship is struck by a torpedo, there will generally be ample time for the crew to escape in the boats, if the latter are kept ready for service.

SECTION 2.—PROCEDURE IF AN ENEMY SUBMARINE IS SIGHTED.

A.—No British merchant vessel should ever tamely surrender to a submarine, but should do her utmost to escape. A vessel which surrenders is certain to be sunk, and the crew cast adrift in their boats. A vessel

¹ M. 01180/15.

which makes a determined attempt to escape has an excellent chance of doing so. Even should she fail, and be unlucky enough to be struck by one of the enemy's torpedoes, the crew will, in most cases, have ample time to man their boats.

B.—If a submarine is seen at a distance and on the surface, or if a periscope is sighted, alter course to bring the boat astern and proceed at full speed. If the boat follows you on the surface, make for the nearest land or shallow water, always keeping your stern towards her. If the boat opens fire with a gun continue on your course at all costs—if you stop you will certainly be torpedoed. Gunfire from most submarines is not dangerous. When under fire the crew should go below, and be ready to plug any shot holes near the water line. If the submarine does not fire you may assume she has no gun, and in this case she cannot injure you if you keep your stern towards her, and keep a sharp look out for any torpedo. With the submarine in this position a touch of the helm will enable you to avoid the torpedo, the trail of which can be seen by a line of bubbles on the water.

C.—If a submarine comes up suddenly close ahead of you with obvious hostile intention, steer straight for her at your utmost speed, altering course as necessary to keep her ahead. She will probably then dive, in which case you will have ensured your safety, as she will be compelled to come up astern of you.

Arrange with your engine room staff to have a turn of speed ready for emergency. A few minutes may be sufficient to save your ship.

D.—A ship which is being pursued by, or is escaping from, a submarine, should fly the largest ensign available half-mast at the foremast head or triatic stay.

E.—No ocean-going British merchant vessel is permitted to go to the assistance of a ship which has been torpedoed by a submarine. Small coasting craft, trawlers, and other small vessels of light draught should give all the assistance they can.

F.—Any vessel in the submarine area which is observed to be making signals of distress without obvious cause should be treated with suspicion, and approached with caution, as it is possible she may be acting as a decoy for a submarine.

SECTION 3.—APPROACHING OR LEAVING BRITISH OR FRENCH PORTS.

A.—Between latitude 43° N and latitude 63° N and east of longitude 13° W a sharp look-out should be kept for submarines, and vessels navigating in this area should have their boats turned out, provisioned, and ready for lowering. The danger is greatest in the vicinity of the ports and off the prominent headlands on the coast. Important landfalls in this area should be made after dark whenever possible.

B.—Submarines do not willingly operate by day in shallow water. Advantage should be taken of this whenever possible. At night submarines are likely to be found close in shore in sheltered water, and vessels are advised to keep well out.

C.—So far as is consistent with particular trades and state of tides, vessels should sail at dusk and make their ports at dawn. If obliged to wait outside a port, keep under weigh, steam fast, and alter course at short intervals.

SECTION 4.—LIGHTING, COLOURS, ETC.

A.—At night it is important that British ships should as closely resemble neutrals as possible. Navigation lights should not exceed the brilliancy prescribed by statute. No bright lights should show about the ship, but in most cases it will not be advisable to darken ships completely. Should neutral ships adopt any particular system of lighting this should be copied by British vessels.

B.—The use of false colours and disguises by merchant vessels attempting to escape capture is a well-established custom in the history of naval war. It is not in any way dishonourable. Owners and masters will, therefore, be within their rights if they use every device to mislead the enemy and induce him to confuse British vessels with neutrals. Exceptional methods of painting and conspicuous funnel marks, not resembling those of neutrals, should be avoided.

In cases where the build of the vessel or the service on which she is employed preclude any possibility of deceiving the enemy no disguise should be attempted, and a foreign ensign should not be worn.

Customs and other officials will be instructed not to interfere with the discretion of masters and owners in altering the appearance of their ships according to their judgment in the manner best calculated to deceive our unscrupulous enemy.

When ordered to stop by a British or Allied warship, or upon entering or leaving a neutral port, the red ensign must be hoisted.

SECTION 5.—WIRELESS TELEGRAPHY.

Hitherto British ships have not been allowed to use wireless telegraphy, or hoist their aerials, in British or Allied territorial waters.

In the interest of safety this prohibition will be relaxed in the case of particular ships, and subject to the following conditions:—

- (1) When within 100 miles of any part of the British coast no wireless signals are to be made unless the ship is in grave danger either from the enemy or from natural causes;
- (2) A constant listening watch is to be kept as far as is possible with the operators on board.
- (3) A British ship fitted with wireless telegraphy which is attacked by a submarine, and in need of assistance, should make the S.O.S. signal, followed by a series of S's, to differentiate the call from a signal of distress due to natural causes.

On the receipt of this signal armed assistance will be sent, but large British merchant ships should not approach the vicinity.

Ships which desire to avail themselves of this privilege, must make application to the Admiralty, when permission will be granted, subject to the condition that a switch, controllable only by the master, is fitted in the power leads of the wireless telegraphy apparatus in such a manner that no message can be sent from the ship without the master's knowledge and approval.

Ships to which this privilege is granted will be allowed to hoist their aerials shortly before clearing from British ports, and when homeward bound will be permitted to retain their aerials aloft until their arrival in port.

SECTION 6.—LIST OF PORTS AT WHICH ARMED ASSISTANCE IS USUALLY AVAILABLE, AND TO WHICH MERCHANT VESSELS CAN RETREAT IF PURSUED BY A HOSTILE SUBMARINE.

England and Wales.

River Tyne.	Dover.
River Humber.	Inside Isle of Wight.
Great Yarmouth.	Portland Harbour.
Lowestoft.	Plymouth Harbour.
Harwich.	Falmouth Harbour.
Sheerness.	Milford Haven.
Ramsgate.	Liverpool.

Scotland.

The Clyde (Ardrossan).	Lerwick (Shetland Islands).
Stornoway.	Peterhead.
Kirkwall (Orkney Is.).	Dundee.
Firth of Forth.	

Ireland.

Queenstown.	Larne Harbour.
Berehaven.	Belfast.
Galway Bay.	Kingstown.
Blacksod Bay.	Rosslare.
Lough Swilly.	

France.

Dunkirk.	St. Malo.
Calais.	Brest.
Boulogne.	Lorient.
Dieppe.	St. Nazaire.
Fécamp.	La Pallice.
Le Havre.	Mouth of Gironde.
Cherbourg.	

In addition to the assistance available at the above-mentioned ports, the narrow seas of Great Britain and France are constantly patrolled by armed vessels, so that effective help in submarine waters is never far distant.¹

20. Battle Cruisers constituted a Separate Fleet.—The Admiralty came to a decision to alter in some measure the organisation of the Grand Fleet, though this decision had no connection with the threatened blockade. The four newest light cruisers, *Galatea*, *Caroline*, *Cordelia*, *Phaeton*,² were either commissioned or nearly ready; with them and the light cruisers ordered home after the destruction of the *Emden* and the German Cruiser Squadron there would be 12 light cruisers available. When also the *Australia*³ and the battle cruisers which had been at the battle of the Falkland Islands had completed their refits, there would be nine battle cruisers, besides the *Lion*. Towards the end of January, therefore, the collection of all the battle cruisers and light cruisers into a self-contained unit was considered, and the final plan was that there should be three battle cruiser squadrons, each with a light cruiser squadron attached to it, the whole to be called the Battle Cruiser Fleet. Admiral Beatty was appointed Vice-Admiral Commanding the Battle

¹ These instructions were circulated to the Fleet as C.I.O. 152.

² *Galatea* (Captain James R. P. Hawksley, M.V.O.); *Phaeton* (Captain John E. Cameron, M.V.O.), 3,750 tons, speed 28½ knots. Armament: 2—6-in., 6—4-in., 2—6-pdr. A.A., 2 torpedo tubes. *Caroline* (Captain Charles J. Wintour); *Cordelia* (Captain Arthur V. Vyvyan), 3,750 tons, speed 28½ knots. Armament: 2—6-in., 8—4-in., 1—3-pdr. A.A., 2 torpedo tubes.

³ *Australia* (Captain Stephen H. Radcliffe), 18,800 tons, speed 25 knots. Armament: 8—12-in., 16—4-in., 1—3-in. A.A., 2 submerged torpedo tubes.

Cruiser Fleet, under the Commander-in-Chief, Home Fleets, his letter of appointment being as follows:—

M. 01032 15.

Confidential.

8 February 1915.

Sir,

I am commanded by My Lords Commissioners of the Admiralty to acquaint you that they have selected you to be, under the Commander-in-Chief, Home Fleets, Vice-Admiral Commanding the Battle Cruiser Fleet, the organisation of which is shown in the enclosure.

2. Captain Osmond de B. Brock, R.N., H.M.S. *Princess Royal*, has been appointed Commodore, 1st Class, and will fly his Broad Pendant in that ship as Commodore in command of the 1st Battle Cruiser Squadron under your orders.

3. Captain E. S. Alexander-Sinclair, M.V.O., has been appointed Commodore, 2nd Class, to fly his Broad Pendant in H.M.S. *Galatea* as Commodore in command of the 1st Light Cruiser Squadron attached to the 1st Battle Cruiser Squadron.

4. Rear-Admiral Sir A. G. H. W. Moore is being appointed to the command of Cruiser Force "I," vice Rear-Admiral J. M. de Robeck. Until the return of the battle cruisers shown in brackets in the enclosure, Vice-Admiral Sir G. E. Patey will, under your orders, command the *Australia*, *New Zealand*, and *Indomitable*, and the 3rd as well as the 2nd Light Cruiser Squadron will be under his orders until the 3rd Battle Cruiser Squadron has been constituted under a flag officer.

5. A copy of this letter has been sent to the Commander-in-Chief, Home Fleets, Vice-Admiral Patey, Rear-Admiral T. D. W. Napier, and Commodore Goodenough.

I am, Sir,

Your obedient servant,

(Signed) ALEX. FLINT,
for Sec.

VICE-ADMIRAL SIR DAVID BEATTY, K.C.B., M.V.O., D.S.O.,
H.M.S. *Princess Royal*.

BATTLE CRUISER FLEET.¹

VICE-ADMIRAL SIR D. BEATTY, K.C.B., ETC.

Flagship—H.M.S. *Lion*.

<i>1st Battle Cruiser Squadron.</i>	<i>2nd Battle Cruiser Squadron.</i>	<i>3rd Battle Cruiser Squadron.</i>
Commodore (1st Class) O. de B. Brock.	Vice-Admiral Sir G. Patey (temporarily).	(Vacant temporarily).
<i>Princess Royal</i> (Broad Pendant).	<i>Australia</i> (Flag).	<i>Indomitable</i> .
<i>Tiger</i> .	<i>New Zealand</i> .	(<i>Invincible</i>)
<i>Queen Mary</i> .	(<i>Indefatigable</i>).	(<i>Inflexible</i>).
<i>1st Light Cruiser Squadron.</i>	<i>2nd Light Cruiser Squadron.</i>	<i>3rd Light Cruiser Squadron.</i>
(Attached to above).	(Attached to above).	(Attached to above).
Commodore (2nd Class) Alexander-Sinclair.	Commodore (2nd Class) W. E. Goodenough.	Rear-Admiral T. D. W. Napier.
<i>Galatea</i> (Broad Pendant).	<i>Southampton</i> (Broad Pendant).	<i>Falmouth</i> (Flag).
<i>Caroline</i> .	<i>Birmingham</i> .	<i>Gloucester</i> .
(<i>Cordelia</i>).	<i>Lowestoft</i> .	<i>Liverpool</i> .
<i>Inconstant</i> .	<i>Nottingham</i> .	<i>Yarmouth</i> .

The vessels shown in brackets will join later.

¹ This new organisation came into force at 6 p.m., February 21. H.S. 93, p. 621.

21. **Appreciation of the Number and Capacity of German Submarines.**—

The German announcement of the intended operations against merchant shipping was received with calm in the Admiralty, where it was doubted that the enemy had the means to make effective any wide measure of blockade. No appreciation of the situation appears to have been demanded from the Chief of Staff, nor by him from the Intelligence Division.¹ The only information supplied by that division ran:—"About 35 submarines were probably available in October 1914, and others may now be available or approaching completion."² Before the end of January it was known that *U.34*, the latest boat and one of a new type, had been completed. She was credited with a radius of action of 3,000 miles, and a nominal surface speed of 17 knots, attributes which would enable her to reach enemy bases in the Mediterranean and operate there, or even to attack the trade routes in the Atlantic. Since Germany had been able to organise supplies for her cruisers abroad, and was thought to have arranged some system of correspondence with submarines, and, probably, supplies also, on the coasts of the British Isles, it would not be beyond her power to furnish submarines abroad with their requirements for maintenance. On February 9 the Admiralty, therefore, warned Senior Naval Officers in the Atlantic and Mediterranean to be prepared for the operations of submarines, and, through the Foreign and Colonial Offices, urged the Reporting Officers in the Intelligence areas of Gibraltar, Malta and St. Vincent³ to keep watch over all embarkations of liquid fuel suitable for submarines, and to take steps to secure information from outlying places where submarines might meet supply ships. At the same time a set of "Instructions to Masters of Transports concerning Precautions against Submarines" was despatched for issue to transports sailing from abroad or passing through the Mediterranean.⁴ These, after warning the masters that submarines might be met a long way from home waters, proceeded:—

"Masters of transports must, therefore, at all times observe a constant vigilance in open waters as well as in straits or the neighbourhoods of ports of call and destination, and especially after entering the Mediterranean or passing Sierra Leone to the northward. A wide berth is to be given to Cape Verde and the Canary Islands, unless obliged to call there. Unless specifically ordered to call at ports which are used by H.M. ships, transports are invariably to give such ports a wide berth.

"In approaching harbours by daylight, transports should maintain a high speed as long as navigation permits, and make frequent alterations of course in order to render it difficult for a submarine either to take up a position for attack, or to aim her torpedoes.

¹ See Tg. 2460/1924.

² This statement appears on p. 3 of the "Daily Return of Movements of German and French Ships in Home Waters." It remained unaltered throughout 1915.

³ For the functions of these Reporting Officers, see Monograph 22, C.B. 956, *The Atlantic Ocean*, Section 8.

⁴ Papers titled *War Office*, 11 March 1915.

“Increased vigilance is necessary in the neighbourhood of harbours.
“Neutral flags, preferably American, should be used, particularly in the Channel approaches.”

There was a report from the Hague that, according to a Norwegian engineer, who had been in the yard at Kiel on February 15 and 16, Germany had 22 submarines of new type, of a range of action of 11 days, and fitted with 20 to 25 torpedoes, as well as about 10 torpedo-like projectiles controllable by wireless. Eight of these boats were to leave Kiel singly on the 18th for a rendezvous off the Belgian coast; a second flotilla of 10 boats was under orders to leave on the 22nd for the Shetlands, a replenishing station having been established to the south-east of Iceland; the last four boats were to proceed for the Belgian coast also on the 22nd. In two months' time another 12 submarines would be turned out.

The dirigible torpedo was viewed with scepticism in the Admiralty; but there was nothing improbable in the report in so far as it related to submarines. The range of action was known to be greater than as stated by the Norwegian.

His report and the remarks on it, dated February 21, are the only record in the Admiralty of any examination of the capacity of Germany to carry out her double threat of cutting our communications with France, and preventing the movements of merchant shipping in the waters round the British Isles.¹

As a matter of fact, the total number of submarines with the High Sea Fleet, capable of long sea voyages, was only 18, and of these there were, on the average, not more than nine ready for sea at any time. So long as there was any possibility of a British attack on the German Bight, at least four were required for the defence of Heligoland, and two for the Ems, so that there were never more than three boats available for all the High Sea Fleet requirements. In December the most recently commissioned boat was *U.32*. The 32 boats were distributed as follows:—Eight in the Baltic; *U.1* and 2 not fit for service; *U.3*, 4, 23, 25, 26 and 31 attached to the submarine school; *U.13*, 15, and 18 lost; three more boats attached to the Naval Corps in Flanders. According to the experience gained, 51 per cent. of the boats was the average number refitting at any time.²

Three more boats, *U.33*, 34 and 35, completed their trials on January 12³ and were then attached to High Sea Fleet flotillas. But even with this addition the submarine strength of Germany was as yet only small in view of the programme before it of cutting off Great Britain from sea communication.

¹ M. 01377, 01484/15; N.I.D. 3831/15; Tg. 2460/24.

² *Nordsee IV*, p. 2.

³ I.D.H.S., “A Contribution to the History of German Naval Warfare,” Vol. II, Cap. V.

CHAPTER IV.

OPERATIONS AND MOVEMENTS IN THE FORTNIGHT FEBRUARY 4–18.

22. Transport of the Canadian Division by a New Route.—The next large move of troops was that of the 1st Canadian Division, which had arrived in England in October and was now ready to leave for France. The War Office asked that transport should be provided to convey the division from Southampton to Havre on February 8, 9 and 10. This request brought to a head a feeling in the Admiralty, more especially held by the First Lord, that as the Southampton–Havre route had been attacked by and was presumably well known to the enemy, greater safety for the troops would be secured by using other ports in spite of the longer voyage entailed by the greater distance. The final decision as to route and time of sailing rested with the Admiralty, who chose St. Nazaire as the port for landing the troops; but since it made little difference which of the western ports was used for embarking the troops, they telegraphed to the War Office, “Admiralty request that all arrangements be made to send the Canadians from Plymouth or Avonmouth to St. Nazaire. Havre is too much beset to be used for this. Please state which port is to be used for embarkation.”¹ The War Office replied, “Avonmouth will be used for embarkation.”

The Canadian Division to be transported consisted of 17,500 men, 6,000 horses, with guns, wagons, etc., and it was decided that these should leave Avonmouth on February 8, 9 and 10. The majority of the transports were sent round empty from Southampton, arriving between February 7 and February 10; three were available from Dublin. Two tugs were also sent round from Southampton on February 5, and the Transport Officer at Avonmouth applied for three additional officers and a sufficient number of horse and passenger brows.² The transport *Anglo-Canadian* proceeded from Havre early on February 6 for St. Nazaire with the necessary brows; the Naval Transport Officer at the latter port had been unable to obtain local tugs, but by February 10 three had been sent from Havre to the Loire, and the Transport Officer was instructed to obtain a fourth from Nantes if necessary.³

The first transports were to leave Avonmouth during the night of February 7–8, and the move would take several nights. There

¹ Sent 4.45 p.m., 4.2.15.

² The transport arrangements are in Ministry of Shipping Docket 40777 of 13.2.18.

³ *Ajax*, *Vulcan* and *Hercules*. The crews of these tugs refused to leave Havre, but through the intervention of the Governor, naval ratings took them round to St. Nazaire where other crews were engaged.—T.E.F. 1664 in Docket 40777.

were ample naval forces in the neighbourhood, since Captain St. John with the *Undaunted*, *Faulknor* and 20 destroyers was still sweeping the Irish Sea, half his force being based on Milford Haven. According to the programme two transports were to leave at 2 a.m. February 8 and four at the same time next night. Captain St. John was ordered to sweep the Bristol Channel on the 7th and escort the transports on each occasion with four destroyers. The transports, after passing Lundy Island, were to keep well to the westward, out of sight of the Cornish coast, and were to round the Scillys at 35 miles distance. They were to maintain full speed until they were south of Ushant, and all signs of their character as transports were to be removed. If the weather were too bad for destroyers, no escort need be provided, since in such circumstances there would probably be safety from submarines; in any case the escort was to part company with the transports at the meridian of 6° W, which they should reach about nightfall. Though they would thus have to cross the mouth of the Channel unescorted in daylight, the greatest danger from submarines was evidently expected to be in the Bristol Channel, possibly because that was nearest to the Irish Channel, in which, at the time the orders were issued, submarines were thought to be still operating. The French were asked to guard the Loire approaches with destroyers.¹

The Bristol Channel was swept by the division under the *Laertes* on the 7th, and the *Faulknor*, *Contest*, *Hardy* and *Christopher* went out to act as escort. But the transports did not sail that night, the two that were to have left being added to the second batch. This now consisted of seven ships, and the Admiralty ordered the escort to be increased to eight destroyers.² During the 8th the *Laertes* division searched both sides of the Bristol Channel, especially near St. Govan Head where three submarines were reported, before taking up escort duty, and at 5 p.m. *Laforey's* division sailed from Milford Haven to pick up the transports off Avonmouth. There was a strong westerly gale and such heavy seas that it seemed impossible for submarines to operate. The Senior Officer of the escort in the *Laforey* waited off Breaksea, but in the gale the escort failed to pick up any of the transports, the first of which left at 10.30 p.m. By 1 a.m. the Senior Officer of the escort, having seen nothing of his convoy, exercised his discretion and withdrew to Milford. The transports³ made their whole voyage entirely unescorted.

Three more sailed during the night of February 9-10.⁴ The gale had calmed down and they were escorted by the *Faulknor's* division, passing Lundy Island about 9.30 a.m. and reaching the meridian of 6° W at 5 p.m. There the *Faulknor's* division parted company and proceeded north to be based on Barrow until they

¹ A 92, 97, 98, 113.

² A 105.

³ *Pancras*, *Allantian*, *Architect*, *Blackwell*, *African Prince*, *City of Edinburgh*, *Huanachaco*.

⁴ *Courtfield*, *Rosetti*, *City of Benares*.

should rejoin the Grand Fleet, relieving the *Laurel's* division to join the rest of the 3rd Flotilla at Milford.

The Admiralty had instructed the Commander-in-Chief on February 10 to recall four of his destroyers at once and the remainder after the passage of the *Magnificent* and *Hannibal*, which were coming south for the Dardanelles operations, and the *Conqueror*, which was to be repaired at Liverpool.¹ It was intended that the *Faulknor* division should be the one to return at once; but various delays took place, and it was not till the 13th that the boats were due at Barrow to oil. As the *Owl*, *Hardy*, *Contest* and *Christopher* approached the lock gates in a north-easterly gale on a flood tide they unexpectedly sighted the signal forbidding entrance, on account of a vessel coming out. The channel is a narrow one; and, in trying to turn, the *Owl*, *Contest* and *Christopher* ran ashore and remained aground till next day. The *Owl* then went in to Barrow for repairs and did not leave till the 16th, when she proceeded for Aberdeen to exchange her propellers, which had been damaged. She rejoined her flotilla on the 26th. The *Christopher* and *Contest* were repaired in the Clyde and reached Invergordon early on the 22nd.

The *Cameleon's* division, which had remained behind to escort the *Conqueror*, brought her in to Liverpool on the 14th and then went in to the Clyde. Of the division, the *Larne* was the only boat able to continue the journey to Scapa. The *Rifleman* and *Ruby* were leaking and had to dock, while the *Cameleon* damaged herself against the wall at Greenock and had to be repaired. The *Ruby* reached Scapa on the 18th and the other two destroyers on the 24th.

The Harwich destroyers were more fortunate. The Admiralty on the 9th had given permission for one division to return to Harwich;² but though Captain St. John selected the *Laforey* division to be the first to go, there was more escort work to be done before they could proceed.

Five ships sailed from Avonmouth on the night of February 10-11.³ For these the *Laertes* division served as escort. The last batch, numbering six ships⁴ was escorted by both the *Laertes* and *Laforey* divisions. The latter, after leaving the transports at the meridian of 6° W, which was reached at 3 p.m. February 12, struck away southward for Portsmouth and Harwich.

This concluded the work of escorting the Canadian Division through the Bristol Channel, and the 3rd Flotilla was recalled to Harwich.⁵ It is not known whether any French destroyers were sent to escort the transports in to St. Nazaire; the periodical reports of the disposition of French destroyers mention none in that district.⁶ In spite of the fact that the transports were

¹ A 116.

² A 114.

³ *Dalecrest*, *Lake Michigan*, *Archimedes*, *Cardiganshire*, *Kingstonian*.

⁴ *City of Dunkirk*, *Novian*, *Australind*, *Mount Temple*, *Maidan*, *City of Chester*.

⁵ A 122.

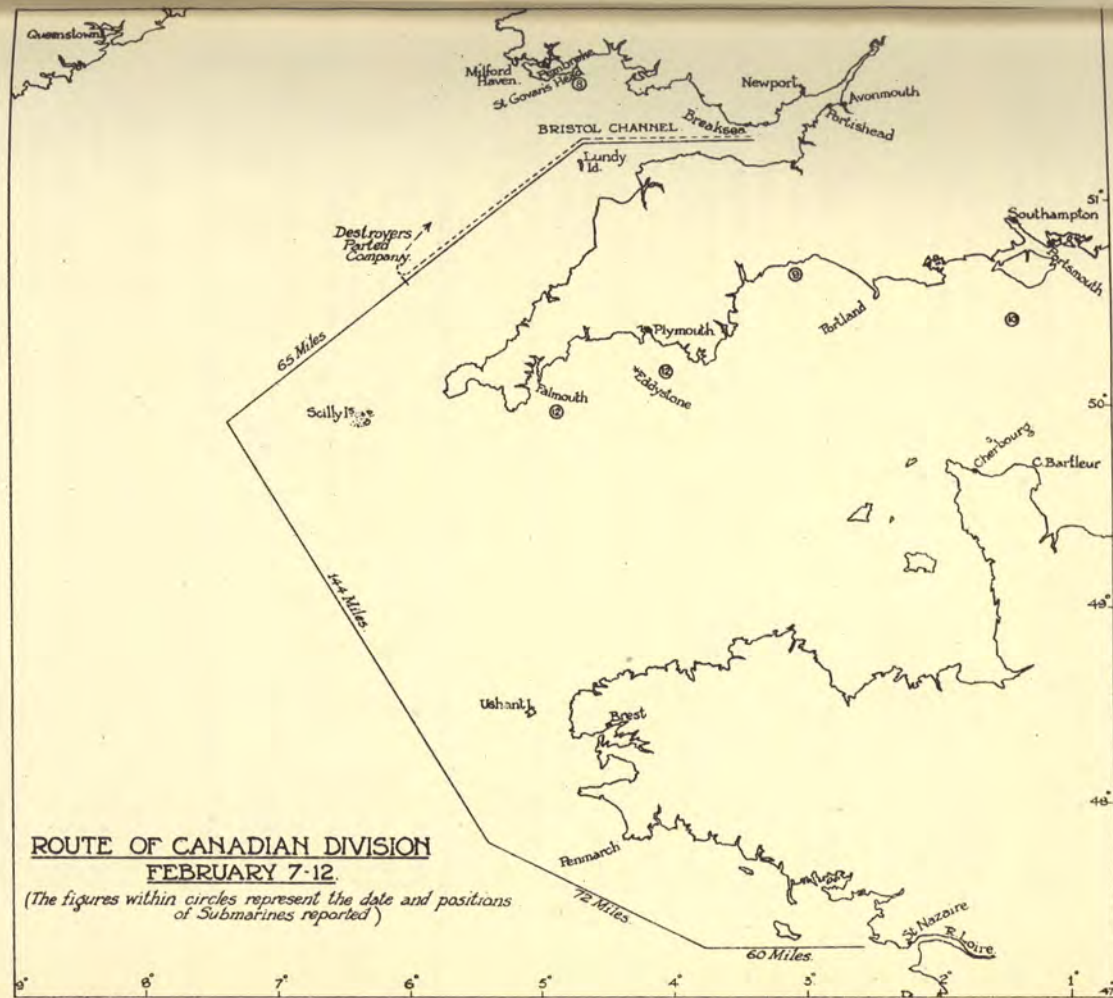
⁶ See A 103, 135.

unescorted for the greater part of their voyage the whole move was effected in safety. It seems to have been undiscovered by the Germans, who had received from their spies information that the Canadian Division was to proceed from Folkestone to Boulogne, and it was, therefore, on that end of the Channel that most of the enemy's attention was concentrated. Though during the passage of the Canadian Division other transports were moving in the Bristol Channel, no special instructions regarding these were sent to Captain St. John. The transport *Devanha* for India left Newport on the 10th; and on the 13th the *Themistocles* and *Grantully Castle* arrived at Avonmouth with troops from Gibraltar and the Mediterranean, no escort having been provided for any of the three transports. The Irish Channel, however, was considered too dangerous for the battleship *Mars* which, leaving Portland on the 9th for Belfast, where she was to pay off, was sent round the west of Ireland, being given the following route from Portland: Mid-channel till west of 6.30 W, then 50 miles clear of the Fastnet and outside the 100-fathom line to 56° N, then east (true) to 7° 30' W and Oversay, making the passage from Oversay to Belfast in the dark hours.¹

When St. Nazaire was suggested for a port of disembarkation there was a certain opposition to it in the Admiralty. The Director of Transports put forward the suggestion that, from the point of view of the War Office, it was of great importance to have short lines of communication; he also doubted that there would be less danger in using the western instead of the northern French ports, observing that, owing to the ascertained radius of the German submarine, the longer the transports remained at sea the greater would be the risk. In his opinion the present danger on the Southampton-Havre route would be greatly reduced by the use of fast light-draught steamers for the conveyance of troops, and these were being got ready with all possible despatch, while it would be out of the question to send small paddle steamers into the Bay of Biscay.

These fast light-draught steamers would not be ready within 10 days, however, so the decision to send the Canadian contingent to St. Nazaire remained in force; but the arguments put forward by the Director of Transports in combination with other circumstances made almost inevitable the abandonment of this route. The distance from Southampton to Havre is just over 100 miles, which made practicable the escort of the transports for the entire journey, whereas the route followed from Avonmouth to St. Nazaire was about 470 miles, and adherence to it would have opened up difficult problems with regard to escort, in view of the prevailing shortage of destroyers. On this occasion there happened to be a sufficient force of destroyers in the neighbourhood, but a continuance of this route would have forced on the Admiralty the alternatives of allowing the transports to proceed unescorted,

¹ H.S. 90, p. 985.



**ROUTE OF CANADIAN DIVISION
FEBRUARY 7-12.**

(The figures within circles represent the date and positions of Submarines reported)

or of stationing a special force of destroyers at Avonmouth or Pembroke. Even in the specially favourable circumstances on this occasion the departing vessels were accompanied only as far as the meridian of 6° W, a distance of some 135 miles. It will be seen that the adoption of Devonport, the alternative port of embarkation given to the War Office, would not fundamentally have altered the difficulties of the situation, though it would have lessened them to a certain extent.

Altogether it is not surprising that, for the next transport operation on a large scale, that of the North Midland Division, the Admiralty decided to return to the Southampton-Havre route, a number of the fast packet transports being then available. The brows, etc., which had been sent to St. Nazaire from Havre were returned in the transport *Kingstonian*, and St. Nazaire ceased once more to be a disembarkation port for the British Expeditionary Force. Even its temporary use on this occasion had resulted in keeping away from Harwich most of the destroyers of the Striking Force, which now found themselves performing duties entirely foreign to those contemplated when war broke out. Instead of sweeping the Hoofden as far as Borkum Reef Light Vessel, as laid down in their original orders, and reconnoitring for approaching enemy vessels, they were now escorting transports and battleships to the west of Portsmouth and protecting them from enemy submarines, craft which are not even mentioned in those orders.

23. Harwich Destroyers in the Channel, February 2 to 18.—On February 3 the *Prince George*, which could make only 8 knots, was to sail from Devonport for the Mediterranean. There were Harwich destroyers at Portland which had been screening the Channel Fleet on its way back from Quiberon Bay. The Admiralty ordered two of these destroyers to meet the *Prince George* outside Devonport and escort her clear; she was to sail at 11 p.m., escorted by the *Druid* and *Hind*. The weather then was so bad and the fog so thick that when she sailed the Commander-in-Chief, Devonport, decided that escort was unnecessary. The *Ferret* and *Defender* left Portland at 7.30 p.m. with the *Implacable*, whose guns were to be changed at Devonport. The *Hornet*, *Jackal*, and *Sandfly* proceeded from Portland direct for Harwich; followed next morning by the *Acheron*, which had been delayed a day by defects.¹

Another man-of-war requiring escort was the *Collingwood*, on the way down from Scapa to refit at Portsmouth. The four destroyers of the *Ferret's* division met her at a rendezvous 20 miles south of Bishop Rock at 8 a.m., February 6, and escorted her as far as St. Catherine's. From there they returned to Harwich.²

¹ H.S. 89, pp. 1024, 1026, 1047, 1061, 1069, 1130; H.S. 90, p. 26.

² H.S. 89, pp. 1047, 1083, 1143.

It would seem that the Admiralty considered the western part of the Channel comparatively safe. On February 6 two transports,¹ with Marines for the Mediterranean, left Devonport after nightfall. They were not escorted; their orders were to proceed independently at full speed, passing 40 miles off Ushant and 30 miles west of the usual track, and they were to sail soon after dusk, so as to get away before moonrise.² They made their passage safely.

It was at the Dover end of the Channel that more danger was anticipated. Two important ammunition transports were about to leave Woolwich for the Mediterranean. The first of these was escorted by the *Badger* and *Beaver* during the night of February 5-6 from the Thames as far as the Casquets, the two destroyers going in to Portland on the 7th, the *Beaver* with 24 hours' defects. The second ammunition ship sailed late on the 8th under the escort of the *Sandfly* and *Jackal*; the *Sandfly* went on to Portland in spite of permission to make for port in view of the bad weather, but the *Jackal*, with leaky condensers, left the convoy and put into Portsmouth. Both left for Harwich on February 11.³

Meanwhile, the War Office demands for the transport of troops by the Southampton-Havre route had increased rather than diminished.⁴

February 13 looked to be a heavy day for the Portsmouth escorting vessels. The *Collingwood* was to leave to rejoin the 1st Battle Squadron; the *Europa*, now flying the flag of Rear-Admiral Sir A. G. W. Moore, was to sail to become flagship of Cruiser Force I; and the unusually large number of six transports

¹ *Braemar Castle*, *Cawdor Castle*.

² H.S. 90, p. 143.

³ H.S. 89, pp. 1106, 1129; H.S. 90, pp. 23, 30, 138, 372, 463.

⁴ WAR OFFICE REQUIREMENTS FOR TRANSPORT OF TROOPS FROM SOUTHAMPTON TO HAVRE AND ROUEN.*

(Excluding Canadian Division.)

Date of Crossing.				Number of Officers and Men.
February 4	..	..	..	531
" 5	..	..	..	119
" 9	..	..	..	4,037
" 10	..	..	..	786
" 12	..	..	..	3,477
" 13	..	..	..	2,516
				140 from Avonmouth to Rouen.
" 14	..	..	..	3,090
" 15	..	..	..	574
				193 from Avonmouth to Rouen.
" 16	..	..	..	1,588
" 17	..	..	..	4,961
" 18	..	..	..	1,776

* Compiled from transport Papers T. 52536/1915.

were to make the Southampton-Havre passage. The Commander-in-Chief asked that he might be given temporarily four more destroyers for that night; but the Admiralty, with the mine-layers from Sheerness and the Canadian Division from Avonmouth to protect, had none to spare. He was told to detain the *Europa* and two of the transports till the following night, so that four of his *Beagles* might escort the *Collingwood* and the other four accompany each a transport. As it happened, the *Laforey's* division, the operations in the Bristol Channel being complete, was on its way to Harwich and by stress of the very bad weather of the 13th was compelled to put in to Portsmouth for shelter. The Commander-in-Chief immediately obtained Admiralty permission to utilise these four destroyers, dropped as it were from the skies, for the escort work of the night. The *Europa* was the first to sail; she was escorted no further than the Nab; beyond that destroyers could not face the sea. Consequently neither the *Collingwood* nor the transports could sail, and when this was reported to the Admiralty they allowed Admiral Meux to keep the *Laforey* division to supplement the eight *Beagles*.¹ The *Collingwood* left for Scapa westabout next night, escorted by the *Laforey* division, while the two days' accumulated transports were taken across by the *Beagles*.

On the 15th there were four transports to cross, two for Boulogne with 15-in. howitzers and two with troops for Havre.² The Commander-in-Chief, Portsmouth, at first arranged that the *Laforey* division should take them; but the *Defender* and *Druid* arrived that morning with a vessel carrying important stores, and they were detailed to escort the two transports for Boulogne. However, only one of these transports could sail that night; the two destroyers escorting her.

So far the reports of submarines in the Channel had been open to doubt; but on the 15th it was clear there was a genuine submarine operating off the mouth of the Seine; a collier bound for Rouen was torpedoed without warning about 6 miles north of Cape d'Antifer. This fact was not reported to Portsmouth in time for any special warning to be given or precautions taken with the transports crossing that night; but of those sailing on the 16th the three requiring escort were given two *Beagles* each.

Commodore (T) had not been informed why the *Laforey* division was retained at Portsmouth; and when the *Undaunted* arrived at Harwich on the 15th with only 8 out of the 12 destroyers he had sent to the Irish Sea he made inquiries, whereupon the Admiralty ordered the *Laforey* division also to Harwich, in spite of the undoubted presence of a submarine on the transport route.³ The *Landrail*, however, was to refit at Glasgow and advantage was taken to use her to escort the important storeship on to Devonport; the *Landrail* continued to the Clyde. The rest of *Laforey's* division took the second of the 15-in. howitzer transports to Boulogne and then returned to Harwich.

¹ A 140.

² A 145.

³ A 152.

By this time four of the "packet-transport" were available.¹ Their main disadvantages were that being of light draught they could not be used in bad weather, and they could carry only half the men that could be embarked in the heavier type of transport; but it was hoped they would run less risk of destruction by submarine attack on account of that same light draught and more especially because of their speed. Oil-tank steamers had been suggested for the conveyance of troops, and though a conference held on January 27 reported adversely against them, ten of these were taken up for experimental purposes. They proved costly and inefficient and were paid off six months later.²

The actual departures and numbers did not agree exactly with the War Office programme, since there were sometimes delays in arrival or embarkation of the troops, or on account of the weather.

The executive order for the sailing of any particular transport rested now with the Commander-in-Chief, Portsmouth, who in practice delegated it to the Principal Naval Transport Officer at Southampton.

24. Air Raids on Flanders Submarine Bases, February 3-16.—

The British seaplanes under Commander Samson at Dunkirk kept up a succession of air raids on Zeebrugge. On February 3 nine bombs were dropped there in a midnight raid. Again on February 8 ten bombs were dropped at Zeebrugge at night on a submarine, and it was reported that the boat was destroyed. A more formidable air raid by all available machines was in contemplation. At Commander Samson's suggestion it was not to be concentrated on one point but to include Zeebrugge, Ostend Harbour, and Middelkerke simultaneously. The raid was carried out on February 11, six "M" class destroyers attending on the aircraft. In the early forenoon 34 machines started from Dunkirk along the coast. Unfortunately, the weather was bad; fog was encountered and a heavy snowstorm. Only four machines reached their objective; but Ostend, Zeebrugge, Blankenberghe, and Slype received 660 lb. of bombs. The principal result was that Ostend Harbour Station was set on fire and practically destroyed, and the power station at Zeebrugge was hit.³ The *Maori* and *Mohawk*, of the Dover Patrol, waited at a rendezvous 3 miles NE of the peace position of the Wandelaar Light Vessel in heavy rain to assist the seaplanes if required. The shore batteries opened fire on them but all the shot fell short. From 2 p.m. to 4.30 p.m. enemy seaplanes made a succession of attacks on them; the *Maori*, by altering course, foiled the attacks, but the *Mohawk's* steering gear broke down for a short time and she was in danger. Neither destroyer had any weapon suitable for beating off air attack; and it was clear that if within range of aircraft

¹ *Queen Alexandra, Queen Empress, King Edward, Balmoral.* For details see Papers T. 1567/14.

² T. 58047/1915.

³ M. 02498/15.

destroyers could not be relied on to remain on a rendezvous. Nor could they use a modified sweep against submarines, since charges on deck would be liable to be exploded.¹ Next day 12 aeroplanes and 1 seaplane dropped 1,820 lb. of bombs on Ostend, Zeebrugge, Middelkerke and Slype. The fifth raid of this fortnight of air activity took place on the 16th, when 16 aeroplanes and 4 seaplanes from Dunkirk dropped 1,620 lb. of bombs on Mariakerke, Ostend and Middelkerke. This time four pilots were lost.²

These air attacks had secured at least one success. Early in February the submarine *U.14* arrived at Zeebrugge to begin attacks on transports in the Channel. No sooner had she secured alongside than three bombs were dropped on her, though without actually hitting her. At midnight, however, a second air attack was more successful; she was hit aft and had to go in to Bruges for temporary repairs. These concluded, she proceeded for Ostend to complete her repair. On passage she was bombed again; while she was at Ostend also the Dunkirk air flotilla interfered with the work on her so much that she had to be hidden under canvas screens. Finally, on February 12, just as she was once again ready for sea three aeroplanes wounded nine of her men before they could gain a bombproof shelter. She then sailed for Germany, arriving at Wilhelmshaven on February 14.³

25. Attempts to Clear the West Deep of Mines.—Operations against the Flanders submarine bases by surface craft, submarines, or even seaplanes, were seriously hampered by the minefield laid by the Germans in the West Deep off Nieuport in the middle of January. The French made attempts to clear it, but their mine-sweep, being a sort of toothed rake towed by the sweeping vessel, was unsuitable for such shoal water as the West Deep. Its object was to cut the mine's mooring rope and bring it to the surface, the drifting mine being then sunk by rifle fire. As it was impossible to be sure of seeing the mines except in a good light, sweeping by the French method was possible only in daylight; there was, therefore, no guarantee that an area supposedly swept by day would not be mined overnight, especially as the French did not seem to think it necessary to have a patrol out.⁴

Although the Admiralty furnished the French with a copy of our own confidential "Instructions for Minesweeping," which contained a complete description of British methods,⁵ the presence of the minefield and the obvious difficulties that prevented efficient sweeping of it put a stop to any effective co-operation between Admiral Hood's force and the army on shore. It also rendered more hazardous the air raids from Dunkirk, since a large part of the water to be crossed was dangerous from mines.

¹ Papers titled X. 4656/1915.

² M. 02498/15.

³ *Nordsee* IV, p. 7. The raid in which she was hit must have been that of February 3.

⁴ See Appendices D and E: Letter from R.A., Dover Patrol, to C.O.S., 28.1.15, and letter from Captain Marescaux to Admiral Hood, 3.2.15.

⁵ M. 01087/15.

After the raid of February 11, Flight Commander White, who had taken part in it, fell into the West Deep with his machine; he was rescued by a French minesweeper, the machine being salvaged by the *Bustard*. Next day another flying officer fell with his aeroplane into the West Deep; he was saved by the *Excellent*.¹

26. Dispositions to Prevent an Anticipated Mining Operation.—

In neither of the German announcements or accompanying memoranda had there been any statement of the instrument Germany would use to carry out the proposed interference with the transport of troops to France, and the import of goods into England. The Admiralty expected submarines to be employed, but it was equally probable that extensive minelaying was to be anticipated. A report to that effect came from Stockholm,² but though apparently official, it was too vague to serve as a basis for action. On the 16th, however, Scandinavian steamers arriving at Hull stated that there were 30 German steam trawlers in the Kattegat, loaded with mines, and ready to sail on the 18th, the date of the commencement of the blockade.³ The idea that Germany employed trawlers for minelaying was still held, not only in the Admiralty War Staff, but by the Commander-in-Chief also. The Hull report seemed to him likely enough to be true, and he at once issued orders designed to intercept the suspected trawlers before they could mine in the Grand Fleet. The 3rd Light Cruiser Squadron was already at sea, having proceeded on February 15 for gunnery exercises to the west of the Orkneys. The Commander-in-Chief ordered three ships of the squadron to remain at sea till the 20th, cruising to the west of the Orkneys, the fourth ship to coal and then relieve another to coal. East of Fair Island Channel he stationed a division of the 2nd Flotilla, and east of the Pentland Firth another division; here also the fleet sweepers were to work. In the approaches to Cromarty and off Buchan Ness divisions of the 4th Flotilla were to keep guard. The 1st Cruiser Squadron was to patrol about 60 miles east of Buchan Ness by day, retiring to a position about 100 miles east of Fair Island at night. The entrance to the Forth to be guarded by two light cruisers from Rosyth, with four fleet sweepers; these should also serve to secure safe entrance for the *Australia* and *Tiger*, shortly due there.⁴

These dispositions seemed to the Admiralty to be insufficient when what might be considered a corroboration of the existence of the mine-carrying trawlers came in, this time from Copenhagen. They were now reported to be leaving Warnemunde in the Baltic during the night of February 17-18; but an additional item of intelligence gave eight mine barges as having passed northward

¹ Dover Packs, H.S.A. 311, pp. 445-453.

² "Swedish Government has received new note from German Government warning them that German Admiralty intends to mine sea all round British coasts." H.S. 92, p. 433.

³ A161.

⁴ A 163.

through Flint Channel in the Baltic on the 12th.¹ The Admiralty hereupon ordered a sweep of four or more light cruisers from the Forth, the ships to keep in visual touch and to be each accompanied by a destroyer to examine vessels met. At the same time two of Commodore (I)'s light cruisers were to patrol off the English coast, each with a destroyer. The Commander-in-Chief altered his orders in accordance.² In the evening of the 17th it was further reported that 30 German trawlers had passed the Skaw going westward.³ The 1st Cruiser Squadron left Scapa after dark on the 17th, to cruise between latitude 59° 50' N, longitude 1° 0' E, and Utvoer Light, keeping out of sight of land by day, and to the east of the 100-fathom line by night. At 3.30 p.m., on the 18th, the squadron swept in the direction of the Skaw till 8 p.m., and then returned to the patrol line, and in the afternoon of February 19 were ordered to fall back to the north of Muckle Flugga at night, sweeping to the east by day, and returning to their base in the morning of February 21.⁴

The 2nd Light Cruiser Squadron left Rosyth in pairs on February 16 and 17. They were joined at sea by four destroyers of the 4th Flotilla, and proceeded in company to a position in 57° N, 2° 30' E, which the Commander-in-Chief had chosen as the concentration point for the battle cruisers and battle squadrons, should a fleet action be imminent.⁵ From this point the 2nd Light Cruiser Squadron and destroyers swept to the southward as far as latitude 55° N, examining suspicious vessels. On that day the *Fearless* and two divisions of the 1st Flotilla were *en route* to Rosyth from Harwich. At 4.45 p.m. they received orders to proceed to latitude 57° N, longitude 3° E, and join the 2nd Light Cruiser Squadron at noon, February 19, at a rendezvous ordered by the Commodore, who detached the destroyers of the 4th Flotilla on being joined by those from Harwich. The forces cruised in the North Sea, and returned to Rosyth in the morning of February 21.⁶

While the 2nd Light Cruiser Squadron was carrying out this examination of suspicious vessels as far south as latitude 55° N, two light cruisers from the Harwich Striking Force, accompanied by two destroyers, were extending the search to latitude 52° N, and as far east as 5° 30' E. The orders for the Harwich light cruisers at first were that they were to return to Harwich during the night of February 19, but later their period of patrol was extended to the 21st. An air reconnaissance was ordered at the same time, the aircraft to be attended by Harwich destroyers, but a strong easterly gale rendered this impossible.⁷

¹ A 164.

² A 178, 193.

³ G.F.O. and M. Various, February 26 to March 10.

⁴ G.F.N. of date. The 1st Flotilla was henceforth based on Rosyth, the *Woolwich* and the remaining destroyers following later. See A. 167.

⁷ H.S. 92, p. 758. A. 167.

The *Bellona*, *Blanche* and *Boadicea* left Scapa after dark on February 17 for latitude 57° 30' N, longitude 0° 30' W, thence to cruise on a line 60 miles N 37° E from this position, sweeping to SE by day and patrolling the line at night. At 3.30 p.m., on February 18, they received orders to sweep in the direction of the Skaw till 8 p.m., and then to return to the base line. They were joined on February 19 by the *Blonde*, and returned to their base in the morning of February 21.¹

The 7th Cruiser Squadron left Scapa during the night of February 19-20, and patrolled on a line from 10 to 60 miles 330° from Noup Head to watch for minelayers, returning to Scapa in the morning of February 22.

The 3rd Cruiser Squadron continued the movement, leaving Rosyth on the 23rd with four destroyers of the 1st Flotilla; they were to meet the fleet sweepers at 57° N, 2° 30' E, and sweep for mines in a southerly direction. The sea was too heavy for sweeping that day. The squadron remained patrolling till the 25th, when sweeping for mines became possible. They returned to Rosyth early on the 27th, having swept the track from 57° N, 2° 30' E, inwards.²

This completed the dispositions against the expected mine-laying operation. No minelayers had been met, and it would seem that none had been despatched. Germany had no intention of using trawlers to lay mines in British waters, and the vessels reported as minelayers in the Kattegat were ordinary fishing vessels, a fact which was discovered on the 26th. The origin of the story of the Warnemünde minelayers has not been discovered.

27. Operations and Movements in the Hoofden, February 4-18.

—A study of the intercepted German messages passing early in February led Captain H. W. W. Hope, in charge of the decoding staff, to the deduction that the Third Squadron of dreadnought battleships might pass from the Elbe to the Jade at high water, February 6 or 7. Accordingly, *E.5* was ordered to the mouth of the Elbe, *E.11* to the mouth of the Weser, and *E.12* to the Western Ems. They were to be in their stations shortly after dark on February 6, and to withdraw shortly before daylight on the 8th. *E.5* and *E.11* left Yarmouth at 5 a.m. on February 5. Finding the weather very heavy in the Bight, *E.5* went no further than Heligoland. *E.11* grounded on Scroby Shoal, near Yarmouth, on the way out, and remained there three hours. Proceeding, she passed 4 miles west of Heligoland, and reached the Elbe to watch for the 3rd Squadron. It was bitterly cold on the 7th; an easterly gale was blowing and the spray froze as it swept the bridge, till the ice had to be scraped away before the conning tower would close. In the mixed river and sea water of the estuary great difficulty was experienced in keeping the boat under control while submerged, owing to the varying densities.

¹ G.F.N. of date, H.S. 93, p. 196.

² H.S. 93, p. 152, and G.F.N.

She saw nothing to be attacked throughout that day or the following morning. She waited till after high water, and then at 6.45 a.m. proceeded for Heligoland and Yarmouth, reaching it safely. *E.12* left Yarmouth at 4.30 a.m. on the 6th; the weather was too heavy for her, and at Terschelling she gave up the attempt, and returned to Harwich.¹

Just at this period the submarine service at home lost Commodore Keyes, who was appointed Chief of Staff to the Admiral Commanding at the Dardanelles. He was succeeded on February 9 as Commodore (S) by Captain Sydney S. Hall, C.B., though with a slight change in the nature of the appointment. Commodore Hall was to be more of an administrative than an executive officer, and the direct command of the submarines of the Harwich Striking Force rested with Captain Arthur K. Waistell, who was appointed Captain (S) and flew his pendant in the *Maidstone*. Commodore Tyrwhitt was to provide Captain Waistell with a light cruiser when required.²

Captain Waistell received his first operational order from the Admiralty direct on February 16. He was then instructed to send one of the *E* boats to the vicinity of the Maas Light Vessel to watch for and attack German submarines; she was to avoid all merchant vessels, including enemy merchantmen, and was to return after keeping watch for 48 hours or at any time should the weather be bad. *E.13* went on this mission, and arrived near the Maas at 6 a.m., February 17, in weather so bad that at noon she commenced to return. She saw no enemy vessels to attack, but on her way back was herself taken at 3 p.m. for a hostile submarine by the Great Eastern Railway steamer *Colchester*. The weather remained unpropitious, and no other boat left till the 19th, when *E.14* went over to keep the watch; it was uneventful, and she returned after her spell of duty with nothing to report.³ Besides the submarine watch at the Maas, the Harwich force went out on two occasions to sweep the area between the British and German minefields as far as the North Hinder. Three enemy submarines were reported in this district late on February 15, whereupon the *Fearless* and 10 of the 1st Flotilla went out at dawn of the 16th. They saw no submarines, but the *Fearless* was attacked by a seaplane near the North Hinder. The *Aurora* and 10th Flotilla arrived to take over the search on the 17th; but found nothing.

Though these searches failed to locate any boats of the enemy, the two German announcements of the impending submarine attacks naturally produced a fine crop of reports from agents. A Danish friend supplied the information that in a week after the first announcement there would be more than 20 submarines in the Channel to cut communications between England and France. A more credible friend in Holland reported that two

¹ H.S.A 270, Comm. (S) War Records, pp. 84-91.

² A 111; H.S.A. 270.

³ A 160. Comm. (S) War Records, II (H.S.A. 270), p. 93.

submarines left the Ems on the 4th; and, acting on this, the Admiralty warned Admiral Hood to be on the alert for them. He was, at that period, endeavouring to patrol his eight areas; at the moment 11 of his destroyers were in dockyard hands, four were guarding the nets off Zeebrugge, one was at Dunkirk, and three were on escort duty; but he guaranteed to do his best with what remained of his force. They saw nothing of the expected submarines, and, in fact, none were on the way. An even more grandiose report came from Rome via Petrograd that 110 submarines were about to be sent from Germany into English waters to sink everything they saw. Such statements as this received no credence.¹

The German intercepts afforded the only truly reliable information. On February 1 intelligence was received in this way that *U.35* was leaving Heligoland at noon to the south-west and west,² and on February 3 it was learned that *U.14* had been damaged by an aeroplane bomb, and was forced to proceed to Ostend for repairs, after which she would proceed home to the Bight.³ Having made good temporary repairs she left Ostend on February 12, arriving at Schillig Roads in the evening of the 14th, and proceeding the following day to Kiel for repairs.⁴

On February 7 was received the report of *U.20's* cruise, and the following day that of her return to the Ems in the afternoon of the 17th. She had got caught in a net, but had succeeded in getting clear while submerged. She had proceeded both ways by the North Hinder without sighting mines, and reported the presence of the Dover Patrol.⁵ On the 8th reports were received of the return of *U.21* to the Ems, and of the incidents of her cruise.⁶

On the 9th, shortly before 11 p.m., it was learned from an intercept that *U.16* had left Heligoland for operations on the north coast of France. No special orders were issued from the Admiralty, and it does not appear that any information was given to the French Naval Attaché, who had an office in the Admiralty building, and was the liaison with both the Ministry of Marine in Paris and the French Commander-in-Chief at Cherbourg. On the 11th another intercept when decoded implied that a submarine, thought to be *U.28*, had been ordered to the Channel. It was already known that *U.21* on the way home had made the Varne Lightship and buoy, and it seemed likely that the expected *U.28* would do the same.⁷ Accordingly, a warning was sent to

¹ A 71, 72, 76, 85.

² 2256/1 February, in Vols. 857 and 3011, I.D.H.S.

³ 0600/3 February (No. 1627), in Vols. 858 and 3011, I.D.H.S.

⁴ 1041/12 February (No. 1810), in Vols. 858 and 3011, I.D.H.S.; 2347/17 February (No. 1928), in Vols. 858 and 3011, I.D.H.S.

⁵ 0959/7 February (No. 1693), in Vols. 858 and 3011, I.D.H.S.; 1319/8 February (No. 1695), in Vols. 858 and 3011, I.D.H.S.

⁶ 2236/8 February (No. 1705), in Vols. 858 and 3011, I.D.H.S. 0230/8 February (No. 1697), in Vols. 858 and 3011, I.D.H.S.

⁷ The submarine in question was really *U.30*, T.S.D.D.

Admiral Hood, and the Auxiliary Patrols in the Channel were ordered to cruise to 20 miles to seaward on the look-out for submarines. The net drifters remaining at Falmouth after those for Larne had left were to cruise off the Lizard; and those at Poole were to work their nets between St. Alban's Head and St. Catherine's for 20 miles out to sea.¹ The French withdrew Havre Lightship, as it would serve as a leading mark for the enemy. The seaplanes at Portsmouth and an airship, all armed with bombs, were made ready to cruise to look for the submarine, special precautions being taken to inform them of the position of our own and the French boats.²

On the 12th an intercept gave intelligence that *U.8* would be leaving the following morning, first with a southerly, and then with a westerly course. She was next located by her report on the 14th that she had arrived at Zeebrugge.

28. Escape of a Merchant Ship from a Submarine.—During the period of suspense before the German announcement should come into force, an encounter took place which strengthened the Admiralty view that a well-handled merchant ship had a good chance of escaping from a submarine, even under fire. On February 10 the *Laertes*, of the Ocean Steamship Company, from Java for Amsterdam, was ordered to heave to by a submarine when about 12 miles ENE of the Schouwen Bank Lightship. The master, Mr. W. H. Propert, refused to comply with the signal, and putting on all possible steam, continued his voyage, keeping the submarine astern by altering his helm. Although the submarine kept up a constant fire with a Maxim gun, making many hits on the superstructure, the *Laertes*, being totally unarmed, could make no reply. Yet Captain Propert had no intention of surrendering his ship. Twice he hoisted the answering pendant, hoping the submarine would slacken her speed, but the *ruse* did not achieve its object, and the chase continued for nearly an hour. The pursuer then seemed to be in difficulties; she gave one long-continued discharge from her machine gun and began to fall astern in a cloud of steam. She made one last effort to get the *Laertes* with a torpedo, but the watchful master saw it coming, and putting his helm hard-a-port, managed to make it pass astern. His dogged determination not to surrender had its reward, for the submarine disappeared from view astern in the dusk, and he was able to reach Amsterdam without further molestation.

Feeling that recognition was due for so good an example of courage and of the way to thwart the threatened submarine attack on merchant shipping, the Admiralty, after granting Captain Propert a commission in the Royal Naval Reserve, secured for him the Distinguished Service Cross; all his officers received gold watches, and each member of the crew was awarded £3.³

¹ A 123, 124, 125, 126, 127.

² H.S. 91, pp. 688-691, 927.

³ Papers titled: *Treasury*, 20 February 1915, "Damage to the *Laertes* by German Submarine."

The submarine was *U.16* (Lieutenant-Commander Klaus Hansen), on the way from Germany to the English Channel; she fired about 360 rounds from her machine gun, and after 45 minutes' chase was compelled to desist, as her battery was empty.¹ The German History makes no mention of her firing a torpedo; and, indeed, it seems unlikely that she would expend one in a stern chase.

29. Submarine Activity off North Coast of France, February 15 and 16.—After the escape of the *Laertes* no definite encounters with submarines were reported, though there were numerous statements, more or less circumstantial, that submarines had been seen. From the 11th to the 15th inclusive they were reported in 21 different places, ranging from Loch Ewe to Heligoland Bight,² but in most cases these reports were of momentary glimpses of something seen which might or might not have been a submarine. One vessel, the *Churston*, reported that she had been chased near the Hebrides, and fired at by a submarine disguised as a trawler; it was soon found that the supposed enemy was not a submarine but an auxiliary patrol vessel.³ On the 15th, however, it was evident that there was once more a submarine operating in the vicinity of the Southampton-Havre route.

At 6.30 p.m., February 15, the British collier *Dulwich*, bound for Rouen with a cargo of 4,675 tons of coal, consigned to the Paris gas works, was torpedoed without warning 27 miles N 23° E from Cape La Hève, at 6.30 p.m., February 15. She began to sink immediately. The crew boarded her two boats and, pulling away from the sinking ship, saw for a moment a submarine on the surface; it was flying no flag, and the night was too dark for its number to be seen. Rockets fired by the master of the *Dulwich* brought up at 8.20 p.m. the French destroyer *Arquebuse*, which embarked the men from the master's boat and brought them into Havre. The other boat pulled into Fécamp, and it was then discovered that two men, British subjects, were missing.⁴

The submarine was *U.16*, Lieutenant-Commander Klaus Hansen. When he left Germany on February 9 for the Channel to operate against transports on the north coast of France he carried with him the following instructions:—

"1. In order to avoid endangering merchant ships at sea which have not received the published warning, only ships about to enter French ports or which appear to be transports are, up to February 15 inclusive, to be destroyed without previously removing the crews. Every large vessel approaching a French port at night may be assumed to be a transport.

¹ *Nordsee* IV, p. 16.

² Daily Return of Movements of German and French Ships in Home Waters, February 1915.

³ H.S. 92, pp. 884, 939.

⁴ Papers titled "*Board of Trade, 18 February 1915*" and H.S. 92, pp. 500, 642.

"2. From February 16 onwards all ships found near the French coast are to be sunk, if from their size and appearance and the circumstances under which they are met, they are, presumably, carrying troops or war material.

"Hospital ships are to be spared, except when they are obviously carrying troops from England to France.

"A neutral flag is, in itself, no proof that a ship is harmless, as the British Government has recommended the use of neutral ensigns to its ships."¹

She did not remain long off the entrance to Havre, but moving westward, at 2 p.m. on the 16th stopped the French collier *Ville de Lille*, 8 miles from Cape Barfleur, sinking her later by bombs. The French Ministry of Marine had ordered their Channel patrols to recommend Allied vessels for Havre to hug the coast between Barfleur and Havre.² The *Ville de Lille* was conforming to this advice, but it had not saved her, though, after she had sunk, a French destroyer came up and gave chase to *U.16*, which dived and disappeared 10 miles N 20° W of Barfleur.³

This submarine, after her unsuccessful chase of the *Laertes* on February 10, had grounded on the 12th at the entrance to the Channel at Cape Blanc Nez, and only with difficulty escaped destruction by two or three destroyers which had observed her plight. She suffered considerable damage, which prevented her from proceeding westward beyond Cherbourg. The *Dulwich* and the *Ville de Lille* were the only two successes out of several attacks carried out by her off Havre and Cape Barfleur on February 13, 15 and 16. Lieutenant-Commander Hansen had behaved humanely in his attack on the *Ville de Lille*. He distributed food and blankets to the boat's crews and towed them towards the shore, only slipping them on the approach of French torpedo craft.⁴

The submarine had failed to interfere with a large move of troops from England to France. During the week ending February 14 some 15,000 officers and men had crossed to Havre and Rouen. The heaviest period of this movement was in the last three days, when in addition to the usual stream of details for the regiments already in France, eight infantry battalions⁵ and a brigade of Royal Field Artillery were landed at Havre and Rouen. The first three battalions crossed on the 12th in five ships sailing singly, each escorted by one of the *Beagles*. For the two battalions and the R.F.A. brigade due to sail on the 13th, six transports were detailed, three to be the fast packet steamers; but the weather proved too rough and though the troops for the packets were embarked in a large slower craft, they were unable to sail till the 14th; on that night the unusually high number of

¹ *Nordsee* IV, pp. 15, 16.

² A 88.

³ H.S. 92, pp. 686, 688, 793, 949.

⁴ *Nordsee* IV, pp. 16-17.

⁵ 4th and 5th South Lancs., 5th Loyal North Lancs., 1st and 3rd Monmouth, 5th Cheshire, 1st Cambs., 5th Royal Lancaster—total 8,240 officers and men. (T. 52536/15 at 9.2.15.)

seven troop transports crossed, all of them slow ships.¹ They were escorted by seven out of the eight hard-worked *Beagles*, who would have had four more ships to take the following night had it not been for the providential arrival of the *Laforey* division to take the duty for them and give them one night's rest. On the 16th, after the news of the torpedoing of the *Dulwich* reached Portsmouth, Admiral Meux gave an escort of two *Beagles* to each of the three transports crossing that night, although two of them were packets. On the 17th four packets went across. They all reached port unmolested. So far there seemed to have been no real effort on the part of Germany to carry out her threat to use every means in her power to stop the transport of troops from England to France.²

29a. **German Movements.**—The High Sea Fleet continued throughout the fortnight in expectation of a British attack, and operations were chiefly in the direction of clearing passages for its exit, should they become necessary. The weather for some time had been unfavourable for minesweeping, and after nearly a fortnight's compulsory retirement in harbour the minesweepers began work on the Amrum Bank field on February 12. Before they took up their station there, the area was well reconnoitred by *L.6* and several aeroplanes, and to seaward of the minesweepers were stationed five boats of the 9th Flotilla. When these came in on February 12 it was discovered that one of the five, *V.25*, was missing. A search for her brought to light some wreckage 10 miles north of Heligoland. It was thought at the time that she and her crew of 79 had been lost as a result of British submarine attack, especially as two other boats of the Half Flotilla had thought they saw a periscope. No British

¹ *Algerian, Chyebassa, Glenarm Head, Kelvingrove, Oxonian, Caledonian, Manchester Importer.* (T. 52536/15 at 14.2.15.)

² TRANSPORT FROM ENGLAND TO FRANCE.

	Officers and Men.	Horses.	Ships (including Stores and Vehicles.)
Total to midnight, December 27-28 1914	409,440	120,754	1,516
Week ending midnight—			
January 3-4	2,804	1,168	47
" 10-11	7,984	33	51
" 17-18	18,539	3,053	71*
" 24-25	15,080	1,355	57*
" 31-February 1	8,149	788	55
February 7-8	8,552	779	54
" 14-15	32,976	6,740	69†
" 21-22	11,666	1,161	69†
" 28-March 1	18,848	3,106	80‡

* Including XXVIIIth Division.

† Including Canadian Contingent.

‡ Including part of XLVth (North Midland) Division.

submarine is known to have been there, and the probability is that *V.25* was mined, not torpedoed.

A more serious casualty was suffered on February 17. An attempt was to be made by a steamer named *Rubens* to break the blockade, and carry ammunition to East Africa, where the German garrison was successfully defending German East Africa. Before the ammunition steamer left an extended reconnaissance was carried out by airships and aeroplanes in the direction of the Skagerrack. Soon after the airships *L.3* and *L.4* had started the wind began to get up. *L.3* had a breakdown in one of her motors, which so much reduced her speed that she could not fight against the rising gale. She called for help and a flotilla was sent out, but she was wrecked on the coast of Denmark, breaking in half as she struck the ground. *L.4* was no more fortunate; she pushed on as far as the Norwegian coast and turned there to make her way home in the rising gale. She also was wrecked on the shore of Denmark; four of the crew reaching the land, but the airship and the remaining four men drifted out to sea, and nothing more has been heard or seen of them. The *Rubens*, however, left on February 18, the reconnaissance to the northward considered so necessary being performed by submarine *U.9*, which went as far as 30 miles to the westward of List. The *Rubens* encountered no difficulties in her passage through the supposed British patrol lines and reached her destination safely.

Another loss, though not of warships, occurred just as the submarine blockade opened. Two American steamers, the *Evelyn* and the *Carib*, bringing large cargoes of cotton from the United States, struck mines near the mouth of the Ems. These American cotton steamers, whose loss seriously affected Germany's manufacture of ammunition, had been directed to take the northabout route round Scotland, and to enter the German Bight by the eastern channels, but had been met *en route* by British cruisers, and directed through the English Channel. After this accident a warning was sent from the wireless station at Norddeich addressed to all merchant vessels to the effect that they should avoid the western entrance into the Bight.¹

¹ *Nordsee IV*, pp. 29-35.

CHAPTER V.

THE FIRST MONTH OF THE SUBMARINE BLOCKADE :
DOVER AND THE CHANNEL.

30. **Difficulties with the Dover Nets.**—The day before the opening of the new German campaign, the First Lord urged Admiral Hood to have nets down at night, especially on the night of the 17th.¹ As we have seen, the nets were unworkable in bad weather; on the 17th there was a south-westerly gale, which carried away the eastern boom defence of Dover,² and was so heavy that the drifters had to be kept in harbour. Nevertheless, a number of drifters went out on the 18th in the morning when the gale eased up; late that afternoon a net was carried away by some submerged object and towed about 3 miles; whether or not a submarine had taken it could not be ascertained, owing to the approaching darkness and the heavy weather. At 8 p.m. the drifters were compelled to board their nets and come in for shelter. Early on the 19th relief divisions went out, only to lose many nets and buoys through the sea, or through fouling submerged obstructions. In fact, the loss of material and damage to the boats' gear was so great that Captain Bowring, in charge of the drifters, suggested that the nets should not be shot at all if the weather were worse than fair, and should not be down at night unless conditions were really favourable, with a wind and sea not more than 2 to 3. Between February 19 and 21, the sea still being boisterous, 61 nets and 26 indicator buoys were lost; the rate of expenditure was now greater than that of supply, and Admiral Hood could keep only 9 miles of net in the water. Even these nets had to be secured by spun yarn instead of the clips supplied, since these were found too weak to hold the nets at all in a rough sea.³

A further contributing cause to the inefficiency of the barrage, such as it was, was the absence of signalmen in the drifters. There were none to be supplied; every intelligent man or boy that was available was being trained in signals or wireless, but such numbers as could be found to train were barely sufficient to meet the requirements of the Fleet.⁴

Though occasional disturbances in such nets as were down implied that submarines were about, none had been seen. One of the Dunkirk aircraft flying over the Belgian coast on the 17th observed two submarines off Zeebrugge Mole, and another off Knocke, and from the Hague it was learned that eight new boats were about to leave Kiel for a rendezvous off the Belgian coast. In view of this the Admiralty instructed Admiral Hood

¹ A 169.² A 180.³ Dover Patrol Operation Packs, Vol. XVII (H.S.A. 311).⁴ D.M.D.'s Minute on M. 01466/15.

to send two destroyers to patrol for a few days north-east of the minefield during daylight to force submarines to dive into it instead of passing over it. Destroyers were sent; one of them, the *Tartar*, on the 19th sighted a submarine, and forced it to dive into the mined area.¹

Two ships were blown up in the Straits themselves. The *Dinorah*, chartered by the French War Office, was apparently torpedoed off Dieppe at 2 a.m. on the 18th, but managed to reach port; on the 19th a Norwegian tank ship, the *Belridge*, sank near the Varne Light Vessel after being struck by what was first thought to be a mine, but later, from fragments found on board, was considered to have been a torpedo.² This also was the work of *U.16*, on her way home. She had been obliged to cut her cruise short, owing to a breakdown in the steering engine.³

About 7.40 a.m. on the 20th the *Viking*, patrolling in the netted area, saw indicator buoys being towed at 5 miles an hour in a north-easterly direction. Assuming that the cause must be that a submarine was entangled, the *Viking* put over a single T.N.T. charge, and stood by ready to explode it should any definite signs of the enemy be observed. The destroyer could not get out her modified sweep, since to do this it was necessary to stop, which, in the foggy weather prevailing, would mean that she would lose sight of the moving buoys. However, she called up the *Afridi*, instructing her to get out her modified sweep. Soon after the latter arrived the buoys sank; but by this time the spot was surrounded by 20 drifters with their nets out, and five destroyers with modified sweeps out were circling round the party, all of them waiting eagerly for the buoys to reappear. When at last this happened, a sweep was exploded as well as nine T.N.T. charges. Nothing came to the surface, and after a little time the buoys and nets were hauled in. Their condition revealed no special evidence that a submarine had been caught in them.⁴ It cannot have been *U.16*, for she passed through at night.⁵

The Admiralty, who had hoped that any submarine caught in the netted area would have very little chance of getting clear away, enquired how many nets were laid, and what armed vessels were watching them. It then transpired that on the 20th 8 miles of nets were laid, and were being watched by three destroyers and one armed yacht; of the other Dover destroyers at sea, two were patrolling outside the minefields, one was in the Downs, three were on escort duty, and one watching the traffic between Dover and Dungeness.⁶ In his disappointment at this failure of the

¹ A. 184. H.S. 92, pp. 928, 953; H.S. 93, p. 102.² Papers titled X. 6268/15.³ *Nordsee* IV, p. 17.⁴ H.S.A. 311, pp. 31, 32.⁵ *Nordsee* IV, p. 17.⁶ A 215.

indicator net at its first authentic trial the First Lord was inclined to blame Admiral Hood for his management of the problem of the netted area. "The efficacy of the net depends on each net being readily detachable," he telegraphed, "this is the main principle of the device and your method vitiates it and very likely lost a good chance of a capture. In future you are to endeavour to keep a line of nets across the Channel day and night, unless the weather is too bad; each net readily detachable and each section of eight nets to be watched by its own trawler . . . You are to regard the maintenance of the indicator nets line as a most important part of your duties at the present time, and you must get it into complete and thorough order." The imputation that he was not doing his utmost seemed so unfair to Admiral Hood that he could only conclude that the difficulties attending on the upkeep of the barrage were not fully understood in Whitehall. He asked for definite instructions whether or not the nets were to be laid with spun yarn or to wait for clips, but received only the vague reply that he was to use his own judgment and get as much net out as possible, which is what he had until then been doing.¹

31. Details of the Dover Netted Areas.—The patrol north of the Downs was carried on by the armed drifters under Captain Grace, which had been in station there since February 12. He found Ramsgate a most convenient harbour for the purpose. The patrol worked in three divisions, two always being out in any reasonable weather. At first, while there were only 12 boats, no more than one line could be maintained, and he asked for and obtained 10 more, so that any submarine diving under the first line might, on emerging, be caught by the second.² Captain Grace considered the area NE of the Elbow Buoy a most likely place for submarines to attack the vast volume of shipping which passed through the Downs, and he instructed his patrol to give special attention to that area.³ A Norwegian collier, the *Regin*, on her way from the Tyne to Bordeaux, was blown up 5 miles NW of the North Foreland just as she was weighing at 6.30 a.m. on the 23rd, after spending the night at anchor. It was considered at the Admiralty that she must have been torpedoed; but Admiral Hood, after investigating the facts on the spot, came to the conclusion that she had got on to the British minefield NE of the Elbow Buoy.⁴

By the 27th the armed drifters had increased to 20, supported by a torpedo-boat. They patrolled the area between latitudes 51° 19' N and 51° 24' N and longitudes 1° 29' E and 1° 36' E. In this area they operated night and day.⁵

¹ A 225, 230, 232, 239.

² M. 01564/15.

³ Papers titled X. 4045/15, "Report on Work of Armed Drifters at Ramsgate."

⁴ M. 17767/15, "Loss of Norwegian S.S. *Regin*," and H.S. 93, p. 1056.

⁵ Dover Patrol Operation Packs. Vol. VIII. (H.S.A. 303), p. 338.

As regards the Straits the difficulties in maintaining the netted area were gradually being overcome. Lighted buoys were laid as follows:—

No. 1—	Lat. 51° 9' 0"	long. 1° 31' 30"
No. 2—	„ 51° 7' 30"	„ 1° 37' 0"
No. 3—	„ 51° 6' 45"	„ 1° 42' 45"
No. 4—	„ 51° 6' 0"	„ 1° 48' 0"
No. 5—	„ 51° 3' 0"	„ 1° 47' 15"
No. 6—	„ 51° 0' 0"	„ 1° 41' 30"
No. 7—	„ 50° 54' 30"	„ 1° 31' 30"
No. 8—	„ 51° 4' 30"	„ 1° 18' 15"

These, with the existing Ruytingen No. 7 and NE Varne Buoys, enabled the net drifters to keep within the netted area, which was bounded by:—

- A line parallel to and 2 miles off the English coast;
- A line parallel to the French coast and 2 miles outside Les Quenocs Bell Buoy;
- From No. 8 Buoy on the line NE Varne to Cape Gris Nez;
- Line South Goodwin to No. 7 Ruytingen Buoy.

A Confidential Interim Order, No. 160, was issued on February 23 prohibiting ships from crossing the netted area.

So far no nets for the moored lines had been received, when they became available they were to be fixed in two lines:—

- From lat. 51° 11' N, long. 1° 32' E, on a line 93° for a distance of 10,000 yards, and
- From Ruytingen No. 7 Buoy to lat. 51° 3' 30" N, long. 1° 53' 45" E, a distance of 4,500 yards.

With his destroyers Admiral Hood endeavoured to maintain nine patrols both day and night.

No.	Destroyer Patrols.	
	Day.	Night.
1	With drifters on English side of net area.	Between NE Varne and No. 8 Buoy.
1a	With drifters in the middle of the net area.	Between Varne and No. 7 Buoy.
2	With drifters on French side of net area.	Between No. 2 and 3 Buoys.
3	S. Goodwin to Ruytingen Buoy Light Vessel.	Between net area and French coast from Ruytingen to No. 7 Buoy.
4	In northern part of the Downs from Gull Light Vessel to a little north of latitude of N. Foreland.	As by day.
5	In southern part of Downs from Gull Light Vessel to S. Foreland.	As by day.
6	Near Dover to line Varne-Hythe	As by day.
7	From Varne-Hythe line to Dungeness.	As by day.
8	Near Beachy Head. . . .	As by day.

Armed trawlers patrolled within 3 miles of the shore from Sandgate to Walmer Castle by day; at night three patrolled within a mile south and west of the Gull Light Vessel, and one on each side of the South Goodwin Light Vessel.¹

32. Inception of the Folkestone–Gris Nez Boom.—In addition to the quadrilateral of drifting nets the Admiralty decided to place a more solid obstruction in the path of submarines attempting the passage of Dover Straits. On February 23 the First Lord presided over a conference on the subject, and a decision was reached that a submarine net defence should be placed across the entire length of the Straits. On March 1 the Treasury sanctioned an expenditure of £400,000 for the work. The actual line of the obstruction was to run outside the net quadrilateral, from Copt Point, Folkestone, via the Varne and Ridge Shoals, to Cape Gris Nez, a distance of over 19 miles. The project was recognised as difficult, and one which would require very large quantities of material. Orders for this were placed at once, and schemes were drawn up for commencing the work simultaneously from Folkestone and Boulogne. It was then considered the time required for completion of the proposed boom would be at least four months;² as events proved, this was a very sanguine estimate.

33. Seaplane Raids on the Thames Estuary, February 21–26.—On February 21 the destroyer *Zulu*, patrolling to the northward of the netted area, was attacked at 11 a.m. by a hostile aircraft which dropped four bombs, without hitting the destroyer.³ This was the first of a series of air attacks on the various patrols off the mouth of the Thames. That same evening an enemy machine came in over Clacton at 7.45 p.m. and dropped two bombs at Braintree, one at Coggeshall, and a fourth near the artillery barracks at Colchester. It disappeared out to sea again at 9.42 p.m. to the east of Manningtree and was lost to sight before any action had been taken to interfere with it.⁴

Next day a group of minesweepers employed in clearing away the line of British mines laid on October 5 had two bombs dropped on them by two German seaplanes. The minesweepers were not damaged, and though there was no anti-aircraft gun in the flotilla the party considered that they had driven off the enemy by rifle fire. As an example of the manner in which the British mine of that period was liable to disappear it should be noted that of the 400 mines laid on October 5, only one was found in position, and this one was discovered awash at high water.⁵

¹ These details of the arrangements in Dover Straits come from Admiral Hood's letter 351/020 of February 27, a copy of which is in H.S.A. 303, pp. 336–339.

² M. 01705/15, etc., titled *Admiralty*, 25 February 1915.

³ A 219.

⁴ "Aeroplane and Seaplane Raids," compiled by G.H.Q. H.F. (I) June 1917.

⁵ Bi-Weekly Mining Statement, No. 33. Also H.S. 93, pp. 735, 745, 752, 754.

It was not only the mines laid in October that were missing. Those laid in February were breaking adrift, and between January 28 and March 10, 101 British, 17 French, and 19 German mines were washed ashore on the coast of Holland alone. The First Lord's comment was, "The British mines have established a record for inefficiency and uselessness."¹

There was an alarm of a bigger aeroplane raid on the 23rd, when the *Hearty* reported seven German aeroplanes passing over the Maplin Lightship at 4 p.m., flying very high. The R.N.A.S. station at Eastchurch sent up a machine, but she found nothing and returned with a negative report. No bombs were dropped, and it is doubtful whether the reported aeroplanes were other than crows.²

Three days later, on February 26, two German aircraft attacked a fleet auxiliary escorted by the *Fervent*, one of the destroyers of the Patrol Flotillas, about 2 miles west of the Sunk Light Vessel. The attack did no damage and was not repeated; the two planes separated, one going NE and the other NW. About an hour later half a dozen bombs were dropped on vessels near the Shipwash; again no damage was done. The aircraft seem to have limited their attacks entirely to shipping; they did not come over the coast. Two British seaplanes went up from Felixstowe and patrolled out to sea, returning with nothing to report. The only further news of the raiders that transpired was brought by a Lowestoft trawler which, off the Dutch coast, found the German seaplane No. 203 in a sinking condition; the trawler rescued the two German air officers from the plane and brought them in to Lowestoft. It was learned that originally three machines had started from Ostend to raid the coast of Essex; of the three, No. 203 had fallen into the sea through engine trouble, and its two officers, after a night of bad weather and snowstorms, were almost at the end of their resources when rescued.³

Several weeks passed before a renewal of this form of attack on shipping. On March 15 five bombs were dropped on a steamer near the Elbow Buoy; the drifter *Paramount*, of the Ramsgate Flotilla, fired her 6-pdr. gun and the attacking seaplane disappeared to the eastward in the mist.⁴

34. Passage of Troops before the North Midland Division.—The use of the Avonmouth–St. Nazaire route for the passage of the Canadian Division to France had been only a temporary expedient until sufficient fast packets should be ready for transport work on the Southampton–Havre route, any deviation from which had a tendency to embarrass military transport arrangements in France. When, on February 15, the Director

¹ M. 02352/15.

² "Aeroplane and Seaplane Raids."

³ "Aeroplane and Seaplane Raids," A 280, 292, 309.

⁴ H.S. 100, p. 998.

of Transports guaranteed that in a week's time he would have nine of the light shallow-draught steamers available, which could accommodate half of a division, the consent of the Chief of Staff to a return to the Havre route was readily obtained.¹ Requisitions for transport for regiments and details in addition to the North Midland Division came in daily from the War Office. The embarkation of the division was to commence on the 25th² and would last several days. Meanwhile, the stream of reinforcements to the divisions already in France continued in face of the German threat to interfere with it. On the 18th there were 1,767 troops to convey; on the 19th, 3,197; on the 20th, 440; on the 21st, 1,030; on the 22nd, 207. The packet transports could carry on an average 500 men apiece; consequently, on the 19th there were six transports to be escorted, each by a *Beagle*. The dangers of the passage were still imperfectly understood by the masters of the transports, and the destroyer escorting one of them saw her convoy burn flares and make signals for a pilot while still in deep water off Havre.³

The four torpedo boats, Nos. 14, 16, 21 and 22 arrived at Portsmouth on the 20th to increase the number of escorting craft; but they were not available that night to assist with the two transports crossing, each of which had two *Beagles*; nor did they participate in the passages of the next night when three troopships had to be escorted by six *Beagles*.

So far, no special attempt seemed to have been made by the Germans to stop the passage of troops. Indeed, during the week ending February 21, 11,666 officers and men had crossed; 69 troop transports and store ships from Great Britain had safely made the passage to French ports. By this time T.B.s 1, 2, 3 and 5 had arrived at Newhaven to carry out the Admiralty's decision to escort the store ships sailing from there; these had till then been unprotected.

The 22nd was a quiet night with only two transports, but the heavy work of taking the North Midland Division in addition to the customary reinforcements was about to begin. The transport of the reinforcements themselves was by no means a small problem; they were increasing rapidly, though irregularly, in numbers. On the 23rd as many as 4,800 reinforcements had to be got across before the new division. They went in six of the packets and two transports of the slower type, taking for their escort seven of the *Beagles* and one of the old coastal destroyers of Portsmouth Extended Defence. But just as the first batch of the North Midland Division was embarking at Southampton a fresh submarine attack took place in the Channel, and further complicated the difficult problem of ensuring a safe passage for the troops.

¹ T. 52536/15, "E.F. Moves, January and February 1915."

² A 226.

³ Portsmouth Base Records 001/29.

35. Five Ships Sunk off Beachy Head, February 23 and 24.—

The Admiralty collier, *Branksome Chine*, from Grimsby for Portsmouth, at 2.15 p.m. on the 23rd was about 6 miles W by N $\frac{3}{4}$ N of Beachy Head, when she suddenly blew up and began to sink down to her decks. The fact that this collier was sinking was known to the Admiralty at 3.40 p.m. through an intercepted wireless message made by a passing steamer to the *Adventure* at Dover, and from other intercepts it was clear that all the Senior Officers in the Channel were aware of the occurrence. Newhaven despatched T.B. 1 to the spot, and the *Maori* from the Dover Patrol hurried there at 30 knots. She arrived to find a second vessel in distress. This was the *Oakby*, proceeding from London for Cardiff in water ballast; at 3.55 p.m., when 4 miles E by N of the Royal Sovereign Lightship she also was struck; the master observed what he thought was the track of a torpedo just before the explosion, but saw nothing of a submarine. The crew were in the boats for half an hour before any help came; they were then taken on board by a Ramsgate smack, and by another of the Portsmouth armed trawlers, which also made an unavailing attempt to tow the sinking *Oakby* in to Dover.¹

Admiral Hood had, meanwhile, sent the *Ghurka* from Dover to join the *Maori* in hunting for a possible submarine; she passed Dungeness at 6 p.m. The two destroyers remained for the night off Beachy Head, where they were joined shortly before midnight by T.B. 5 from Newhaven. The Admiralty issued no special orders beyond instructing the Officer in charge at Newhaven to use any torpedo boats not required for escort duty in patrolling for submarines off Beachy Head. Two of Commodore (T)'s destroyers were ordered to Sheerness to escort an ammunition ship leaving shortly for Portsmouth; but this was now almost a matter of routine and not due specially to the danger off Beachy Head.²

That the enemy had not been frightened away by the patrolling craft was clear next day. At 3.15 p.m. on the 24th, the collier *Rio Parana* from Newcastle for the Mediterranean was passing 4 miles SE of Beachy Head when there was a terrific explosion, and the ship began to sink. No submarine or periscope was seen either then or when, half an hour later, the crew were picked up by a torpedo boat.³

Just about this time a ship, which was in sight approaching from the eastward, blew up in the same way. She was the *Western Coast* from London, with a general cargo for Plymouth and Liverpool, a small vessel of the registered tonnage of 487 tons. She went down in seven minutes. A third ship, the *Osceola*, heard the explosion and made for the spot, in spite of the danger of suffering the same fate, whether the cause were a minefield or a submarine; it was she who rescued the *Western Coast's* crew.

¹ Master's deposition, M. 18068 and 17858/15.

² A 251, 254; H.S. 93, pp. 1058 to end.

³ Deposition of Master of *Rio Parana*, M. 17941/15.

In the Admiralty instructions to merchant vessels of February 10 there was a clause, "No ocean-going British merchant vessel is permitted to go to the assistance of a ship which has been torpedoed by a submarine. Small coasting craft, trawlers and other small vessels of light draught should give all the assistance they can."¹ Under the impression that the *Osceola* was an ocean-going ship the Admiralty at first refrained from commending the courageous action of the master, and refused to be party to any reward to him; but being informed that the *Osceola* was of only 161 tons net, and, therefore, not subject to nor supplied with the instructions of February 10, they concurred in an award by the Board of Trade to the master.²

Still a third merchant vessel was sunk that day. The *Harpalion*, from London to the United States, when 6½ miles W of No. 8 lightship near Beachy Head, was blown up at 5.20 p.m., the explosion killing three firemen. A Dover destroyer saw the explosion; she was the *Syren*, which was hunting for some floating tanks seen a few days before between Dungeness and Beachy Head.³ She closed, ordering the crew to abandon ship. Just then a periscope was reported by one of the crew. The *Syren* proceeded at full speed in the direction indicated, and continued cruising till the *Harpalion's* boats had shoved off. She then embarked the crew, pilot and master out of the boats, and took them into Newhaven, thinking it inadvisable to potter about if a submarine was near at hand. The *Amazon*, another Dover destroyer which had come up, stood by the derelict, which seemed in no immediate danger of sinking, to warn shipping and guide salvage tugs which the *Syren* called up from Newhaven. It appears that the *Amazon* lost touch during the night, and the tugs did not find the *Harpalion*. However, a passing steamer took possession of her next day, and attempts were made to tow her into Havre; but the weather was bad and she sank.⁴

The cause of all these losses off Beachy Head was *U.S.*, which had left Heligoland on February 14 to operate in the area between Southampton and Havre. Bad weather forced her to shelter at Ostend for two or three days, but she entered the Channel on the 22nd, choosing the French side of Dover Strait. She had an action with an armed trawler off Etaples next morning before crossing to the English coast; each night she went to rest on the bottom. On the 25th her gyro broke down, and she had to return to Ostend. All the ships she attacked were torpedoed; and in no case did she come to the surface, so that she did not reveal her presence.⁵

Thus, although the crews of the ships struck had seen what they believed to be periscopes, it was thought they might have

¹ See Section 19.

² Papers titled *Board of Trade*, 26 February 1915, "Western Coast."

³ H.S. 93, pp. 62, 81, 111, 183.

⁴ Papers titled *A.* 1088/1915.

⁵ *Nordsee* IV, p. 18.

been mistaken. It was not improbable that the cause of loss was a minefield, and *T.B. 1* on return to Newhaven so reported it. Admiral Hood stationed two destroyers off Beachy Head to warn ships from the westward to hug the coast, and the Admiralty sent out a general warning to all ships, centres and bases. They ordered the minesweepers, clearing the southern lines of the old British field, to leave that and proceed to Beachy Head; Admiral Meux sent some minesweepers; so also did Admiral Hood, though he was strongly inclined to attribute the damage to submarines only.¹

By the 27th, after several exploratory sweeps had failed to bring to light any evidence that the area had been mined, the Admiralty announced to all ships that it was thought there were no moored mines in the vicinity. The paddle sweepers, which had been brought down from the British minefield, returned to it, leaving any further sweeping to be done by the Portsmouth group. The Admiral of Minesweepers shared Admiral Hood's opinion that the ships had more probably been torpedoed than mined.² If this conclusion proved correct, the transports conveying the North Midland Division to France were in danger.

36. Passage of the North Midland Division.—The move was in full progress. The first vessel to leave was one carrying part of the mechanical transport of the division on the 23rd; according to the usual routine, this was embarked at Avonmouth and delivered at Rouen. Transports making coastwise voyages such as this were now instructed to keep in shallow water where possible; if there were no extent of shallow water, as in the neighbourhood of the Start, Lizard, or Land's End, they were to keep right out to sea off the usual track, maintaining a good look-out for submarines on moonlight nights, and following the directions of February 10 to merchant ships should a submarine be sighted.³

For the troops, who were to make the passage by the route from Southampton to Havre, some of the non-packet transports would have to be used. Several of these were extremely slow, of speeds between 7 and 9 knots; and Admiral Meux considered them easy victims for submarines, even with two destroyers each. As it happened, the large number of reinforcements crossing on the night of the 23rd had employed all the packets available; and the first batch of the North Midland Division, three complete regiments and other details, crossing the following night, had to be embarked in four slow ships. Seeing this, and in view of the probable presence of a submarine in the Channel, the Admiralty ordered each to have three destroyers, any ship to be detained for which sufficient escort could not be provided. The result of this would be that only two could go that night, the remainder to be added to the next day's already heavy programme. Serious

¹ H.S. 94, pp. 170, 184, 187, 195, 202, 205, 212.

² A 317; M. 01653/15, 01776/15.

³ A 243.

congestion appeared to be looming; but the moon was bright, and the Admiralty felt they could not allow slow or moderate speed transports to cross with less than three destroyers each. Later in the day, Admiral Meux telegraphed that the Transport Officer wished to send eight moderately fast transports (11 to 13 knots) and three packets on the 25th; as there were only eight destroyers available he asked for instructions. On this, the Admiralty allowed the packets to go without any escort at all, their speed of 19 knots being thought sufficient to secure them from attack, but the orders for three escorts to each slow ship still held good. The defect in this order was that it did not recognise one of the disadvantages of the fast packets as transports. They were paddle steamers; the noise of the paddles could be heard a long way off and would attract the attention of a submarine, which, guided by the sound, could lie in wait for them and choose the moment to fire a torpedo. Realising this, Admiral Meux suggested that each packet should have one destroyer escort, and the slow screw steamers two. His modification was adopted, and remained the rule for a long time.¹

On the 26th, at a very congested period when, in addition to nine transports embarking troops to leave that night, there were three others which had been held up by the bad weather of the previous night, the two Harwich destroyers, *Hydra* and *Lizard*, escorting the ammunition ship, put into Portsmouth. The Admiralty had given Admiral Meux permission to use them for escorts; but no sooner were they in port than they were ordered to go on with their convoy to Devonport. Arrived there, they were told off to escort a vessel containing the Mediterranean Armoured Car Squadron; they were to take her 100 miles out to sea, and then go on to Liverpool to pick up and bring on another auxiliary bound for Rosyth. They belonged to the 1st Flotilla, for which Rosyth was now the base. Their visit to the Channel was thus of no use to Admiral Meux, who had only the *Beagles* and the four torpedo boats to do the whole of the escort work of the Expeditionary Force. By midnight on the 28th the troops conveyed across for the week amounted to 18,848 officers and men, only part of which were from the North Midland Division. That night five packets sailed for Havre carrying 3,258 men, and four slower transports with both men and horses. Endeavours were being made to obtain more of the fast steamers; Admiral Jellicoe was asked to give up the *Anglia* and *Cambria* if they were replaced by slightly slower vessels, and a similar request for fast vessels was made to the French. It appeared, however, that the only suitable French vessels were being used by them to transport their own troops.² In the end the proposal to bring the *Anglia* and *Cambria* to Portsmouth was not carried through.

The four torpedo boats at Newhaven had been sent there to escort the store ships sailing nightly to all the northern French

¹ A 244, 259, 260, 269, 271, 291.

² A 303, 313, 316.

ports. In the bad weather prevailing at the end of February they suffered so much that their Commanding Officer reported to Admiral Meux that they were totally unsuitable for the work; in any case he asked that they might be increased to six to allow of four running continuously as required by the Transport Officer. This could not be done; and even more work had to be put upon them. A packet for military purposes was crossing nightly between Folkestone and Boulogne. This now was escorted; at first the intention was to employ Dover destroyers, but on the 27th two of the Newhaven torpedo boats were transferred to Folkestone to run the service while the moon was bright, the store ships from Newhaven on the night of the 27th having to sail without escort. The torpedo boats were soon found too small for such work. Admiral Hood, therefore, suggested they should take the place of his destroyers watching at Beachy Head, so that he could use these for escort; the Admiralty, however, preferred that when the weather was too bad for torpedo boats to keep up with the packet, it should go unescorted. At first it was thought that February 28 would be the last time this packet would run, as leave from France was then stopped, but as the men on leave in England had to be taken across it continued running till March 9, and had to be escorted by Dover destroyers. On March 3 the Newhaven torpedo boats were put definitely under Commander-in-Chief, Portsmouth, who had authority to call upon them to escort Southampton transports in preference to Newhaven ones as he thought fit. A ruling was given that in future the only vessels running from Newhaven which required escort were those carrying ammunition or such ordnance stores as related to armament.¹

On March 3 the Admiralty laid down the principles to govern the provision of escort to the Southampton transports for France. It was realised that to get the troops across in sufficient numbers some risk must be taken, and the risk chosen was the reduction of escort in preference to taking more destroyers permanently from other places. Slow ships carrying vehicles, horses and small numbers of men must have two destroyers each; fast packets with troops were to have one destroyer each when the moon was bright, but if they could make the whole passage in moon-darkness they need have no escort, but must zigzag their course. These were the principles on which the transport was now managed. It put a severe strain on the destroyers, as Admiral Meux pointed out. "Recently," he wrote on March 5, "the escort flotilla has been running at its full numbers with almost no regard for the wear and tear of the vessels and the strain on their crews, which is really severe, as it is all night work, involving return voyages by day, and of an anxious sort. The *Beagle*, for example, had fires alight for 26 days of the 28 in February."²

¹ A 293, 302, 308, 315, 318, 331, 335.

² M. 01831/15.

Nevertheless, by careful arrangements for refit and for the necessary cleaning and repairs, he hoped to have always six to eight boats out of his flotilla¹ fit for duty; and there were now also at his disposal the four Newhaven boats to be called upon when they were not already detailed for ships carrying ordnance cargoes.²

During the week March 1-7, 18,317 troops crossed to France, and the passage of the North Midland Division was completed. Though submarines had been reported on the transport route on several occasions, especially on March 5, no untoward incident had occurred.

37. A Submarine Rammed by a Merchant Ship.—Though for several days after the loss of the three ships off Beachy Head no more were sunk there, submarines continued to be reported in the eastern part of the Channel. In the forenoon of the 25th they were seen off Hastings and Cape Gris Nez, and a hospital ship 10 miles out of Boulogne was chased.³ On the 26th they were reported off Boulogne and Dover, and half way across from Havre to Southampton. Next day one was seen off Calais, and once again by the hospital ship in the same place as before. On the 28th they were reported off Dover on two separate occasions. All these reports were of mere glimpses; but that day a definite encounter took place.

The small steamer *Thordis* at 9.30 a.m. on the 28th was passing 10 miles SE by S of Beachy Head when she sighted a periscope very close, and almost immediately observed the track of a torpedo. The master, Mr. J. W. Bell, with ready resource, turned his bows directly towards the periscope. It was so close that he was on it before it could dive or avoid him, and he had the satisfaction of feeling a crash as he passed over it, and looking astern saw oil bubbling up in his wake. Nothing more was seen of the submarine. When the *Thordis* put into Portland and reported this occurrence she was taken in to dry dock at Plymouth to ascertain whether the damage she had sustained justified the belief that she had destroyed the submarine. Meanwhile the editor of the well-known paper "Syren and Shipping," who had offered a reward of £500 to the master of the first British ship to succeed in sinking a submarine, asked if the Admiralty were satisfied that this had been done, receiving the reply that it was, in all probability, the case. However, Commodore (S), after a careful examination of the detailed report of the damage to the hull of the *Thordis*, came to the conclusion that though the periscope may have been

¹ *Beagle, Bulldog, Foxhound, Harpy, Pincher, Rattlesnake, Savage, Scourge*, T.B.s 14, 16, 21 and 22.

² M. 01831/15.

³ Admiral Hood reported that this hospital ship, *St. Andrew*, was chased (H.S. 94, p. 447). The German account states that the submarine made no attempt at attack. (*Nordsee* IV, p. 19.)

smashed, there was not much chance of anything worse having been done to the submarine, a view which was confirmed by a quasi-official statement in the German Press that she had returned to port.¹ However, the Admiralty granted the master a commission as Lieutenant, R.N.R., and awarded £200 to be divided by the owners among the officers and crew. Most of the latter had deserted at Plymouth, and were considered undeserving of reward, but the master and officers and certain of the remaining crew shared in the Admiralty's £200. The editor of "Syren and Shipping" looked upon the German statement that the submarine had returned home as certainly untrue, and, unhesitatingly, presented his £500 to Lieutenant Bell, who, also it would seem, received a further £660 subscribed by various persons for presentation to the first merchant captain who sank a submarine.²

The submarine was *U.6*, which on February 25 had proceeded from Germany to relieve *U.16* in the Southampton-Havre district. On the 27th in the morning she sighted Cape Gris Nez in a southerly gale and crossed over to Hastings. There she had a slight mishap; diving hastily to avoid a destroyer she bumped on the bottom in 12 fathoms, and was a little discomposed. Next morning, while she was preparing to attack a steamer, it suddenly turned and ran into her, damaging her periscope so much that she felt she must go home. The steamer was the *Thordis*, whose unexpected and, from the German point of view, unwarrantable action, though it did not finish the career of *U.6*, brought her cruise to an untimely end before she could reach the transport route.³

38. Troops Crossing, March 8-14.—No sooner had the North Midland Division safely crossed to France than another, the XLVIIth, began to embark, raising the usual problems as to its escort. The method by which they were met can be seen in the following table:—

TRANSPORT, SOUTHAMPTON TO HAVRE.

Date.	Fast Packets.	Slow Ships.	Destroyer Escort.
March 8	1	—	Unescorted; very heavy sea.
" 9	5	2	2 to each slow; 1 each to two last fast.
" 10	3	1	2 to slow; 1 to last fast.
" 11	4	1	2 to slow; 1 each to two last fast.
" 12	1	1	2 to slow; 1 to fast.
" 13	—	1	To Dieppe, 2 escorts.
" 14	2	3	2 to each slow; 1 to last fast.

Total for week:—21,084 troops, 3,586 horses.

¹ *The Times* newspaper, 8.3.15.

² Papers titled *B. 485/15* and *Misc. Office*, 11.3.15.

³ *Nordsee*, Vol. IV, pp. 19, 20.

Besides these 25 troop transports there were many other voyages of store ships during the week, the total distribution being approximately:—

Southampton to Havre and Rouen	35
" Dieppe	2
Newhaven to Boulogne	11
" Dieppe	6
" Havre and Rouen	12
Avonmouth to Rouen	7
Liverpool to Boulogne	4
" Rouen	2
London to Boulogne	2
" Havre	1

It will be seen from this that the tracks of the store transports crossed the Channel in so many places that a submarine would have many opportunities of interfering seriously with the supply and reinforcement of our Army in France. Yet, though nearly six weeks had elapsed since Germany's declaration that the transport to France would be interrupted by every means in her power, the British Navy had succeeded in landing in France every man and every pound of baggage that the War Office had ready. The only losses were those of ships returning empty.

39. Submarine Activity in the Eastern Channel, March 9.—On the day the XLVIIth Division began to embark for France a submarine became active in the neighbourhood of the transport route. At 6.10 a.m., March 9, the collier *Blackwood* from Blyth for Havre, passing in a snow storm 18 miles SW by S of Dungeness, was suddenly blown up by something which struck her amidships on the port side. She sank in 20 minutes; the crew by then had boarded her two boats and escaped. Five minutes after the explosion a submarine came to the surface and made off after another vessel which was in sight. As the *Blackwood* sank the master saw what he thought was another submarine of the *U.9* to *U.12* class; this one dived till her periscope disappeared. No vessel either of the Fleet or Auxiliary Patrol was seen by the shipwrecked crew, who were eventually picked up at 9 a.m. by a Ramsgate fishing boat and taken in to Newhaven.¹

It is not known what was the other steamer, and none is known to have been attacked about that time. However, another vessel on arrival in the Thames reported that at 11.45 a.m. she saw a large submarine 7 miles SSW of Beachy Head. She signalled this to a British destroyer, but the latter took no notice.² This destroyer was probably one of the Newhaven torpedo boats, which had been sent out as soon as it was known that a submarine was in the vicinity. That night a trawler brought into Newhaven the crew of the French trawler *Grisnez*, which had been shelled by a submarine, thought to bear the number *U.9*, from 1 p.m. to 4.30 p.m., when she finally sank, 20 miles WSW of Beachy Head.

¹ Deposition of Master, M. 18613/15.

² H.S. 99, p. 827.

During the process no torpedo boats or destroyers had appeared.¹ This is remarkable, since Admiral Hood had sent out the *Exe*, which passed Beachy Head going westward at 2.39 p.m. This destroyer, with the *Ure*, had arrived at Dover on March 2 to assist the Dover Patrol in denying the Straits to the passage of submarines. The sinking of the *Blackwood* and *Grisnez* was the work of *U.35*, Lieutenant-Commander Kophamel, despatched to operate off Southampton. She proceeded as far west as Cape de la Hague, was off Cape Antifer on March 12 and cruised during the next few days between Beachy Head and Dungeness.²

40. Destruction of a Submarine by the Dover Patrol.—Although it was evident that, in spite of the efforts of the Dover Patrol, submarines succeeded in passing the Straits, at least one had failed to get through in safety. On March 2 the *Afridi* went into the netted area to pass an order, and was about to return to Dover when she sighted one of the drifters flying a ball and No. 6 pendant, and evidently trying to attract attention by waving and whistling. "The only meaning attached to the ball and pendant which could be discovered," reported Lieutenant-Commander Stanley, of the *Afridi*, "was the long-distance signal, 'You are standing into danger.' It was presumed that we were threatening her nets and course was altered away from her. Happening to observe one of the drifter's men waving a megaphone, I stopped and the drifter closed. Their only method of communication was verbal, and it was understood that they had had their nets towed away in a SSE direction. The nets had finally disappeared." By the time the destroyer had discovered the reason for the drifter's excitement it was too late, and though a search was made that afternoon by three destroyers and a drifter, nothing more was found of the object which had carried away the nets. Admiral Hood was doing all he could to improve communications. The signal for a submarine in the nets was the firing of a detonating rocket; unfortunately, on this occasion only the leader of the division of drifters in question had a rocket, and this, though fired, was not observed by the *Afridi*. In a few days all the drifters would carry rockets, which it was hoped would enable the destroyers to reach the spot with less delay.³

Two days later, on March 4, the Dover barrage was to have its first success.⁴ There were five destroyers out on patrol, one being the *Viking*, Commander E. R. G. R. Evans. Shortly after noon a submarine was sighted about a mile away just rising to the surface. The *Viking* steered direct for the submarine, which dived, passing over the spot. Commander Evans observed a series of "swirling pools" moving to the north-west, and followed them.

¹ H.S. 99, pp. 737, 738. Casualty Return is in M. 18550/15.

² *Nordsee* IV, p. 20.

³ Dover Patrol Operation Packs, Vol. III, pp. 174, 175.

⁴ The rest of this section is based on Papers titled X. 9293/15 with further details from Dover Packs III, pp. 176-234.

Meanwhile, the drifter *Roburn* had observed curious and irregular movements in a line of pellets supporting her nets 6 miles NE of the Varne Buoy. Information of this reached Captain C. D. Johnson (Captain (D) of the 6th Flotilla) at about the same time as the *Viking's* report of sighting her submarine, and he thought it probable that the two reports referred to the same boat. He had ordered the patrolling destroyers to join the *Viking*, and he now went out in the *Maori*, which was one of the boats standing by at Dover. At 2.17 p.m. the *Kangaroo* reported that a buoy was in sight moving rapidly N 80° E. As the *Kangaroo* had no modified sweep Captain Johnson ordered the *Nubian* and *Leven*, who carried it, to close her. The other destroyers standing by at Dover—*Ghurka*, *Syren*, *Mohawk* and *Ure*—he ordered to search in conjunction with the *Viking*, with whom he himself in the *Maori* also got in touch. The track of swirling pools seemed to Captain Johnson more probably a tide rip than due to a submarine; but he ordered the *Viking* to fire her sweep over it in case it might be as Commander Evans confidently affirmed. The sweep was exploded N 30° E and 4½ miles from the NE Varne Buoy; but failed to bring to the surface any definite proof of the presence of a submarine.

The *Maori*, however, which had gone off to the *Kangaroo* some 3 miles to the southward at 3.22 p.m., sighted a periscope and at once steamed over it, signalling to the destroyers to readjust their search to this as the central position instead of the *Viking*. Twice more the periscope was seen, and Captain Johnson now ordered the *Ghurka* to get out her sweep and run it across the submarine's track. At 4.40 p.m. the periscope again appeared, showing that the submarine was keeping to the estimated course. Two more destroyers got out their sweeps in readiness for action; but their services were unnecessary. At 5 p.m. the *Ghurka* fired her sweep, and a submarine broke surface at an angle of 45°. The waiting destroyers put a couple of shots into her conning tower, and then there emerged from it men holding up their hands in token of surrender. The whole crew of 25 men and four officers, all practically unhurt, were rescued. The *Ure* attempted to take the damaged submarine in tow, but it sank in a few minutes. Its name was ascertained from its late crew to be *U.8*, Lieutenant-Commander Stoss. She had left Ostend that same day.

Although Admiral Hood was not convinced that the nets had materially contributed to the destruction of the submarine, at his suggestion the Admiralty stretched a point and allowed him to distribute a reward of £500 among his drifter fleet. "I can assure Their Lordships that this reward has been well earned," he wrote, "they are a rough and keen lot of men, and I think they get discouraged at the apparent want of success of their efforts."

This was the first success of the modified sweep, an unwieldy arrangement, to get out which seven minutes was a short time.¹ At Admiral Hood's suggestion a short account of the incident was circulated to all trawlers and destroyers who carried the awkward implement to let them know that at least one modified sweep had destroyed a submarine. Furthermore, one in every four of the armed drifters based on Ramsgate was fitted with the modified sweep to enable them better to deal with the submarines that were constantly being reported near the Downs, where there was no longer any gunboat, since the *Harrier* was now attached to the Mediterranean Fleet.²

The Admiralty did not recognise the torpedoing of merchant vessels without warning as a legitimate act of war, and this being a marked feature of the operations of German submarines they intended to put the crew of any captured submarine on trial for piracy. The crew of *U.8* was transferred to the detention quarters at Chatham to be treated as accused persons awaiting trial and fed as men under detention,³ a method of treatment which led to severe reprisals by the Germans, and had eventually to be abandoned.

No attempt was now being made to keep the Dover nets down at night. So many were lost on the occasions when they had been out in the dark hours that on March 3 the Admiralty ordered the nets to be boarded at night until further experience had been gained.⁴ But on the 8th, there being indications that a German submarine to replace *U.8* would pass through the Downs that evening, the drifters were ordered to use their nets that night if possible, and seaplanes were sent out to scout.⁵ Unfortunately, the weather that day was unusually severe, and the drifters had to seek shelter from noon onwards, but they were out next day and night,⁶ on patrol, though not with their nets down. In the absence of a reliable buoy to indicate in the dark Admiral Hood thought it useless to have the nets out at night, since the boats could see nothing, and did not know if their nets were taken away.⁷

On the 10th Commander Evans, in the *Viking*, again observed a chain of swirling pools similar to those he had seen on March 4. They seemed to indicate a submarine beneath the surface endeavouring to round a line of nets which were to the eastward. When the pools finally settled down to a steady course the *Ghurka*, which had been following, also exploded her sweep, whereupon the pools ceased to rise. Nothing was seen of any submarine, and Commander Evans made no claim to have destroyed one.⁸

41. Submarines again off Beachy Head, March 15.—In the area between the Dover net and the Southampton-Havre transport route there was a continual succession of reports of submarines

¹ Dover Packs, III, p. 204.

³ A 342.

⁵ A 351, 352.

⁷ H.S.A. 311, p. 62.

² M. 01867/15.

⁴ H.S. 174, p. 135, and A 334.

⁶ H.S. 174, p. 147.

⁸ M. 01997/15.

sighted, in addition to the loss of so many merchant ships. These had been sunk without warning, and only in a few cases had so much as a periscope been seen, giving rise to the supposition that a minefield had been laid at the important landfall of Beachy Head; but exploratory sweeps had brought no mines to light, and the Admiralty on March 1 definitely announced that there was no minefield off Beachy Head. Nevertheless, they reiterated the warning that vessels should avoid prominent headlands and keep well in mid-channel, and when this warning appeared to be not well observed, they gave orders for the Auxiliary Patrols in the Channel and south-west approaches to divert shipping which was too close to local points.¹

After March 9 there was a lapse of nearly a week before any further loss occurred in this section of the Channel, though there were numerous reports of submarines sighted in it.

On March 15 the steamer *Hyndford* bringing wheat and oats from Bahia Blanca for London was struck at 3.50 p.m., 12 miles south of Beachy Head, presumably by a torpedo, since a periscope and the wake of an approaching torpedo were seen just before the explosion. The ship's head began to sink, and some panic ensued among the crew, struggling to board the boats, which had been swung out since the ship passed Cape Finisterre. The master succeeded in calming the panic and rescuing one of the two men who had fallen overboard, and finding the ship would still float and steam, proceeded to the Downs and the Thames.²

No patrol of any kind was seen by the *Hyndford's* crew, but it would seem the Portsmouth Auxiliary Patrol occasionally visited the locality; that day one of the armed trawlers, when 10 miles SE of the *Royal Sovereign*, picked up a torpedo marked U.35. This was the highest numbered submarine of which we had any knowledge; the latest, and, probably, of the class which had a radius of 3,000 miles. No destroyer from Dover was near; in fact, the Dover Patrol had only just returned from an operation on the Belgian coast.

The submarine was U.35. She had been cruising for the last few days between Beachy Head and Dungeness, but had met with no success since the shelling of the *Grisnez*. Lieutenant-Commander Kophamel was under the impression that the *Hyndford* must sink, and the German Official History records that he destroyed a ship that day.³

On March 16 U.35 started for home, reaching Heligoland on the 20th. She attributed her comparative non-success to the failure of her torpedoes to run satisfactorily, a complaint from which other submarines also suffered at this time.

42. Proceedings off Nieuport, March 10-13.—The British Army in France was about to make an attack, and Sir John French asked that a demonstration might be made by ships on the Belgian

¹ A 322, 327, 333.

² Master's deposition, M. 20909/15.

³ *Nordsee* IV, p. 20.

coast, in order to prevent troops being moved southward against him. The Admiralty readily agreed to make the demonstration, though the preparations for it involved some dislocation of work in progress. On the 9th the paddle minesweepers, which were at work finishing the clearing away of the line laid on October 4 in 51° 25' N, 2° 10' E, were ordered to Dover, where they would be wanted for sweeping ahead of the bombarding squadron. The principal bombarding vessel was to be the *Venerable*, which with six destroyers and the minesweepers hastened during the night of March 9-10 to the West Deep, only to find that the firing was not required on the 10th as originally arranged, but on the 11th. The *Excellent* and *Bustard* had, meanwhile, been sent to operate off Coxyde. The appointed day was foggy which confused the fire, not only of our ships, but of the enemy batteries. Hostile aircraft dropped a few bombs on the squadron without doing damage. On the 12th the fog was thicker still, and no firing was possible. Next day Military Headquarters ashore asked specially for firing, and though the weather continued thick, both battleships engaged the batteries ashore. This ended the demonstration; during the night of March 13-14 the *Venerable* returned to Sheerness, and the destroyers to Dover, after having been 96 hours in the West Deep. It was a matter of astonishment to Admiral Hood that no submarine attack had been made on her by the Flanders Flotilla; in anticipation of it he had caused the destroyers to patrol round her day and night without ceasing.

In Admiral Hood's opinion the whole operation had been dangerous for the ships and expensive in ammunition in excess of any moral effect obtained. Moreover, during the four days it lasted the removal of the destroyers from the Dover Patrol had prevented the proper watching of the Straits, of the Downs, and of the indicator nets. There had been a commotion in the net in the Downs, but whatever caused it had escaped through the weakening of the patrol, and the consequent delay in getting a destroyer to the spot in time.¹

One useful result of the visit of British ships to Dunkirk was that Admiral Hood was able to arrange with the French that they would patrol the West Deep, assisted by the Dover gunboats, in order to prevent the laying of mines.²

43. Restoration of Navigational Aids in the Channel.—The alteration and removal of lights and buoys in the Channel which had been in force since December 10 had not apparently had much effect in hindering submarines from navigating in these waters, though it would seem that these preferred to operate off the French coasts, where the only alteration had been a reduction in power of the lights between Dieppe and Calais.³ But the fact

¹ M. 02098/15, *Report of Proceedings off Nieuport*; and A 355, 356, 357, 358, 364, 366, 373.

² H.S.A. 311, p. 61.

³ Papers titled *Trinity House*, 29.11.14.

that all eastbound vessels in the Channel had to call for pilots at St. Helens frequently resulted in serious congestion there. On February 15, for instance, there were nine large ships waiting off the Nab, and 30 of moderate size at St. Helens, offering a most favourable opportunity for submarine attack.¹ On March 1 there were 35 steamers waiting between the Nab and Zeebrugge. At Dover, originally another of the pilot stations, much trouble was caused by big ships stopping to pick up a pilot after the net barrage had been instituted, in consequence of which that pilot station was shifted to Deal.² The disadvantages resulting from this anti-submarine measure seemed greater than it was worth, and on February 25 it was decided to restore the lights and buoys in the Channel to their peace positions, and move the pilot station at St. Helens to Deal. Trinity House was requested to relight Beachy Head, and to replace the Owers, Royal Sovereign, Varne and South Goodwin Light Vessels. By March 6, in spite of delays through stormy weather, this had been done. The pilotage station was moved to Deal, and ships were free to navigate the Channel, except for the restrictions due to the Dover net. Cruiser Forces E and G at the western entrance to the Channel, and the Commanders-in-Chief at Queenstown, Devonport and Portsmouth were instructed to inform shipping to that effect. A Notice to Mariners was also issued.³

After the Dover net the next obstruction was a boom across the Gull Passage. This could not be commenced till March 10, on which date two drifters were anchored to mark the gate through it, and by a Confidential Interim Order all traffic had to pass between them. South-bound merchant ships were to stop for examination at the North Goodwin Light Vessel, and north-bound traffic at the South Goodwin.⁴ The introduction of compulsory pilotage through the Downs on that date enabled Admiral Hood to begin work on the moored nets which were to complete the Dover net barrage. He had had 12 nets ready since March 5.⁵

¹ H.S. 92, p. 310. M. 01500/15.

² M. 01164, 01374/15.

³ A 346, 347. Papers titled *Trinity House*, 29.11.14.

⁴ C.I.O. 210/15. Papers titled *Trinity House*, 29.11.14.

⁵ A 332, 341, 343

CHAPTER VI.

THE FIRST MONTH OF THE SUBMARINE BLOCKADE: IN THE IRISH CHANNEL.

44. **The Irish Channel Nets.**—When, at the end of January, a submarine appeared off Barrow and was expected to make her way northward from there, Admiral Jellicoe, in his anxiety for the safety of the Grand Fleet, asked that indicator nets and trawlers should be used across the North Channel, between Ireland and Scotland.¹ The suggestion was not immediately adopted, probably for lack of material; but by February 10, enough nets were available to supply a series of bases and the President of the Submarine Attack Committee suggested that, if both Dover Strait and the North Channel could be blocked by nets across them, the netted areas to be extended by minefields, it would be a difficult matter for submarines to get near the large commercial ports of Liverpool, Belfast and the Clyde. Although the suggestion to net the North Channel was accepted at once, the prospect which would result from mining the North Channel was not inviting. Mines drifting from the Tory Island field were already “a nuisance further to northward,” wrote the Chief of Staff, “and necessitate our men-of-war navigating by day at increased risk from submarines. Mines would get adrift in the North Channel and necessitate more day navigation. To lay enough lines of mines in the North Channel to render it secure against submarines would take many more mines than we can spare. We want to save up a large number for offensive operations in the summer.”² The mining part of the suggestion was, therefore, dropped; but the netting of the North Channel became a definite object to be accomplished as soon as possible.

The North Channel is narrowest where the peninsula of Cantyre juts out from Scotland to within 11 miles of the coast of Antrim. Unlike the Straits of Dover, where the depth is fairly uniform and does not exceed 30 fathoms, the North Channel, in its narrowest part, has a depth of over 70 fathoms. The tides are rapid and varying; in the centre of the North Channel 4 knots may be expected, though nearer shore a tide of 6 knots is common. An efficient obstruction between the Mull of Cantyre and Tor Point would bar access to the Clyde, Belfast and Liverpool, to submarines approaching from the westward; and it was in this narrow part that the netted area was to be

¹ Tel. 267 from C.-in-C., H.F., 31.1.15.

² M. 01249/15. *Uses of Indicator Nets.*

established. Orders dated February 20 explained the principle of the scheme to Admiral Barlow, and ran as follows :—

INSTRUCTIONS FOR THE ADMIRAL, LARNE.

The object to be kept in view is the denial of the North Channel to enemy submarines or minelayers.

For this purpose the following forces will be at your disposal :—

Yacht *Clementina* (immediately available).
 Drifters : 80 (of which 40 will be armed).
 Armed trawlers : 18.

In addition, you will have at your disposal a squadron of fast yachts ; it will probably be found best to station half this squadron to cover North Passage, and half on the Milford-Rosslare line. You are free, however, to alter this disposition as experience shows necessary.

Traffic.—The area ABCD is being forbidden to all ships and vessels of whatever size or nationality. Notices to Mariners and other steps will be taken to bring this to the notice of all concerned.

All traffic wishing to pass through the North Channel must pass to the south of Rathlin Island between sunrise and sunset, and they must not be within 4 miles of Rathlin Island between sunset and sunrise.

You are to issue the necessary orders for the control of local traffic, whether passenger, cargo, fishing or otherwise.

Main Operation Area.—You are to operate your nets principally in the main area MNOP, this being sufficient to allow the nets to drift with the tide.

Within this area only drifters operating nets should be employed, with the addition of whatever protecting craft you consider necessary, observing that every line of net must be watched by armed vessels.

Within the area ABCD (other than that of MNOP) and from thence down to the latitude of Lough Larne, and also to the south of Rathlin Island, great activity should be displayed by small craft at your disposal.

Care is to be taken that if nets are laid outside the area MNOP, adequate steps are to be taken to prevent their damage by shipping.

Results.—By carrying out the above scheme with energy, the following results should be obtained :—

- (1) Area MNOP will be impassable to submarines unless they dive to 90 ft. on sighting drifters ; by having several lines of nets and drifters, the submarine can be made to keep at 90 ft. for the whole passage through the area.
- (2) By having advanced patrol lines at both ends of area ABCD, and still further patrols from the south end down to the latitude of Lough Larne, the submarine will be compelled to dive for a still greater distance.

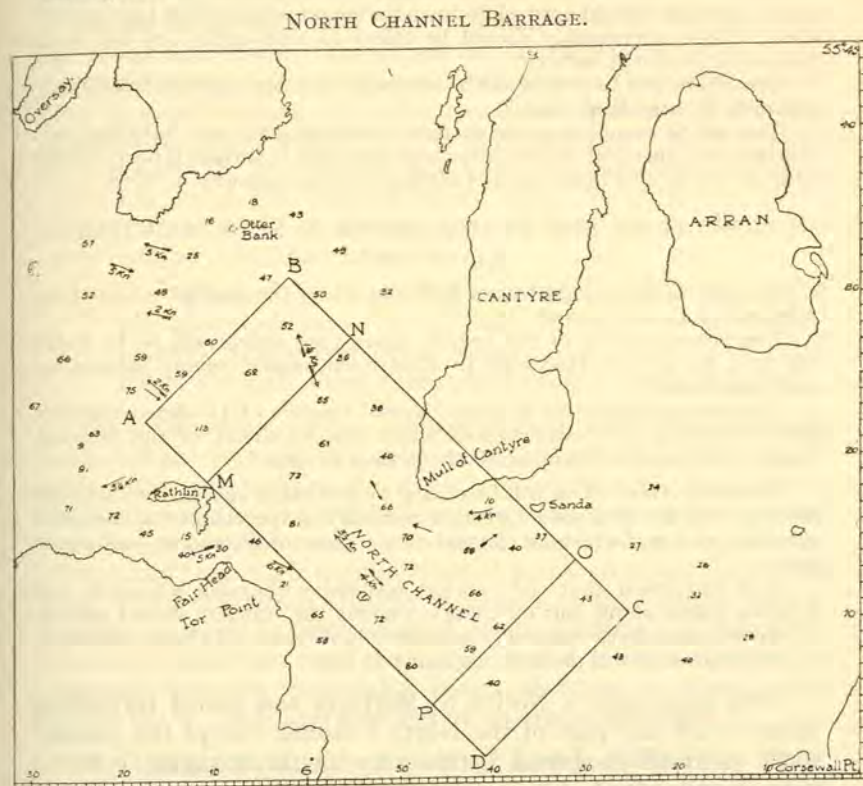
Thus, a submarine will either have to pass through the Channel south of Rathlin Island, or she will arrive in the vicinity of Lough Larne almost at the end of her diving powers.

By patrolling thoroughly the passage to the south of Rathlin Island and by the further use of nets there, this passage should be absolutely denied to any submarine. There remains then the exhausted submarine to deal with that has managed to dive through all obstructions, and this case is evidently met with by numerous strong patrols working up and down both coasts and in the intervening waters.

Working Nets.—The nets can be worked with ease from the holds of drifters up to at least 800 yards per drifter ; the nets when laid are almost invisible at 3 cables in calm water, certainly to a submarine ; they must not be left down more than two or three days, and every opportunity should be taken to dry them thoroughly.

Subsidiary Operations.—You should also net any positions in or near your area that you may consider desirable, either on account of submarines weathering, fuelling or resting there, or for other reasons.

You are to ensure that the system of watching for and reporting submarines and other craft is efficiently organised, and that no avoidable delays occur in the extremely important matter of rapid transmission of intelligence.



INSTRUCTIONS FOR REAR-ADMIRAL C. H. DARE, M.V.O., MILFORD HAVEN.

The principal duty of the vessels under your orders, based on Milford Haven or Rosslare, will be to watch the southern end of the Irish Sea and Bristol Channel against enemy submarines and minelayers.

The force at your disposal consists of :—

2 yachts
 18 armed trawlers } to be increased later.
 50 drifters.

And, in addition, any other vessels which the Admiralty or the Admiral, Larne, may place at your disposal from time to time.

Operation Area.—You will be guided by reports of submarines, weather conditions, etc., as to the position where the nets are to be laid, but you should endeavour always to have nets down in positions where submarines may be expected to be making landfalls.

The St. George's Channel should be netted when opportunity offers, whilst if weather is very unsuitable, drifters should operate in any sheltered waters or bays where a submarine might reasonably be.

It is important that the nets be not entirely withdrawn whenever foul weather comes along; also the possibility of being required on occasions to send out every single drifter to shoot their nets across the St. George's Channel must be borne in mind.

Working Nets.—The nets can be worked with ease from the drifters' holds—up to eight or 10 sections at least per drifter. They are almost invisible at 3 cables when laid, certainly to a submarine, even in smooth water, but they should not be left down for longer periods than two or three days; every opportunity should be taken to thoroughly dry the floats when drifters are in harbour.

Great care and discretion will be necessary in order to prevent damage to the nets by merchant vessels.

You are to ensure that the system of watching for and reporting submarines and other craft is efficiently organised, and that there is no avoidable delay in the rapid transmission of intelligence throughout your area.

INSTRUCTIONS FOR REAR-ADMIRAL E. R. LE MARCHANT, KINGSTOWN.

You will be in charge of Area XVI and under the general orders of the Admiral at Lough Larne.

The principal duty of the vessels under your orders will be to watch the mail route from Holyhead to Kingstown against enemy submarines and minelayers.

The force immediately at your disposal consists of 11 armed trawlers, and in addition, any other vessels which the Admiralty or the Admiral, Larne, may place at your disposal from time to time.

Operation Area.—You will be guided by reports of submarines, weather reports, etc., but you should operate normally in the vicinity of the route specified, and in the inshore channel off the coast of Ireland in your patrol area.

It is important that the trawlers are not withdrawn whenever foul weather comes along, but on these occasions the trawlers should operate in any waters or bays where a submarine might reasonably be sheltering.

Indicator nets will probably be sent you later.

Two days later a Notice to Mariners was issued forbidding ships to use any part of the North Channel, except the passage south of Rathlin Island; this they could navigate between sunrise and sunset, but no vessel was to be within 4 miles of Rathlin Island between sunset and sunrise.¹

Some days elapsed before the officers appointed could arrive to take charge of their stations to carry out their instructions. Admiral Barlow reached Larne on the 24th, Admiral Le Marchant took charge at Kingstown that same day; and Admiral Dare at Milford on the 26th.

By the end of February 67 drifters were at Larne, only 47 of them having indicator nets, and of these only 26 having buoys as well. Nets had been shot in the North Channel during daylight of the 22nd, but, a gale getting up, the boats took shelter under the land till dawn of the 24th, when a dozen boats shot their nets, only to lose 31 of them. Another gale raised the blockade on the 26th, but the drifters were out again on the last two days of the month. All the difficulties so well known at Dover were repeating themselves at Larne, except that, from the deeper bottom, wreckage

¹ N. to M. 137 of 22.2.15.

did not project high enough to catch the nets. Here also spun yarn had to be used to reinforce the clips, which could not hold the nets in anything like a rough sea. Rats, a hitherto unreported danger, boarded the drifters from the wharf, and at night gnawed the kapok floats so much as to render them, in some cases, unserviceable.¹

In the Kingstown area the principal work of the Auxiliary Patrol, as laid down in the orders to Admiral Le Marchant, was the guard of the route of the mail steamers to Holyhead. From time to time rumours became current that Germany was about to make a special effort to stop this particular mail service; on February 15, for instance, the City of Dublin Steam Packet Company, which ran these steamers, asked for an armed escort in view of one of these rumours, drawing from the Admiralty the important pronouncement:—

“The policy of escorting individual ships would entail the dissemination of naval force which is, in My Lords' opinion, better employed in patrolling straits and other places through which submarines must necessarily pass.”²

The pronouncement may seem strange in view of the arrangements for the permanent employment of a number of destroyers solely on escort duty, of the recent employment of the Harwich flotillas and of the frequent orders for special ships to be escorted by destroyers.³ Even the slow armed trawlers were constantly being taken from their normal work of patrol to escort individual ships, a practice which steadily increased as the German attack developed. In the Irish Channel itself Admiral Le Marchant found on arrival that four of the nine armed trawlers then of his command were by Admiralty orders escorting a vessel from Barrow to the Clyde, and were out of his area altogether.⁴

45. Another Submarine Attack off Liverpool, February 20.—On the very date when the orders for the three Admirals in the Irish Channel were signed a second submarine attack took place on shipping outside Liverpool. At 11 a.m., February 20, the steamer *Cambank*, 1,990 tons, bringing copper and sulphur ore from Portugal for the chemical factories at Garston, was torpedoed without warning 10 miles east of Point Lynas, in Anglesea. A periscope was seen at about the same time, but nothing whereby the submarine could be identified. In 15 minutes the ship broke in two and sank.

The blowing up of the steamer was seen by the coastguard at Amlwch, and in a short time the Bull Bay lifeboat was out; she took in tow the ship's boat, in which were all of the *Cambank's*

¹ Admiral Larne's Reports, M. 01729/15, 01862/15.

² Adty. to Sec. G.P.O., M. 17348 of 20 February 1915, in Papers titled *Post Office*, 16 February 1915.

³ See A 140, 156, 157, 158, 159, 254, 259, 263.

⁴ Admiral Le Marchant's letter dated 24 February 1915 in Papers titled X. 8706/15.

crew except four men, who had been drowned or killed by the explosion. The pilot, who had been taken on board at Point Lynas, also was saved. After some delay the armed yacht *Oriana* arrived and towed both boats to Amlwch.¹

Point Lynas was the pilot station for ships wishing to enter the Mersey and, consequently, one where vessels must certainly pass. It seemed obviously the place for a patrol. It was now outside the area for which the Senior Naval Officer, Liverpool, was responsible, the boundary of his command being the line from Great Orme's Head and Walney Point. He, however, issued orders for the pilot station to be moved to a position off the Isle of Man between Chicken Rock and Douglas Head. It was to be established by midnight, February 20-21. Meanwhile, he ordered his wireless station to instruct merchant shipping to give Anglesea a wide berth and pick up their pilots at Liverpool Bar. The Admiralty, as on the previous occasion of a submarine attack off Liverpool, dealt with the emergency by sending Harwich destroyers to the spot. Commodore (T) had just reported 20 destroyers ready at Harwich; he was ordered to send a division of the 3rd Flotilla to Devonport to be ready to hunt submarines. At the same time the *Tara* was to send two destroyers from the North Channel Patrol to harry the submarine in Liverpool Bay. The *Dee* and *Dove* were sent². While these orders were going out, the submarine gave chase to the little coasting steamer *Downshire*, 10 miles NW $\frac{1}{2}$ W of the Calf of Man, uncomfortably near the site of the new pilot station. The *Downshire* was of only 125 tons and her sole cargo was 106 bundles of empty cement sacks for Manchester. Nevertheless, she put on full speed and made a brave attempt to escape. However, the pursuing enemy speedily gained on her, firing from time to time with a maxim gun. Seeing escape was hopeless and there being no help in sight, the master stopped his ship and surrendered. The commander of the submarine ordered all the *Downshire's* crew into her two boats and, after ransacking her for provisions, had her blown up by a bomb. Then, leaving the crew in the two boats, he made off. They were picked up about an hour later by two of the unarmed Larne drifters and landed in Ireland. From them it was learned that the submarine was numbered either U.12 or U.21.³

This intelligence was incorrect. The submarine was U.30, Lieutenant-Commander Rosenberg-Gruszczynski. She had left the Ems on February 11 with the blockade orders on board. This was the submarine which, at the time, was thought to be U.28, since the call sign on the intercepted wireless message announcing her departure was interpreted as that of U.28. U.30 entered the channel on the 14th; and in spite of continuous bad weather, reached her blockade station in Liverpool Bay on the

¹ Master's deposition, M. 17678/15 and H.S. 93, pp. 320, 322, 361, 409.

² A 211, 212, 213, 214, 218.

³ Master's deposition, M. 17850/15; H.S. 93, p. 830.

18th. She attempted many unsuccessful attacks, apparently unobserved, before she succeeded in sinking these two steamers on February 20. She then found that shipping traffic, of which there had previously been a fair volume, ceased entirely. No prey was found in the North Channel; and as the weather became worse, she started her return voyage round Scotland on the 22nd,¹ entering List on February 27 and proceeding to Wilhelmshaven the following day.²

The four destroyers ordered to Devonport—*Lance*, *Legion*, *Lennox*, *Loyal*—left Harwich at 9.30 p.m. on the 20th, and arrived at Devonport at 1 p.m. next day. From there they were ordered to the Bristol Channel to hunt submarines, under the orders of their own Senior Officer in the *Lance*; their base for fuel and intelligence was to be Pembroke.³ There were two important transports bringing horses from America for Liverpool. On the 21st, since Liverpool was beset by submarines, the two transports were called into Queenstown, to await escort; and on their arrival two of the *Lance's* division were ordered to take them under convoy.⁴ The *Legion* and *Loyal* were sent, under which escort they arrived unmolested at Liverpool.

46. Despatch of the Royal Naval Division from Avonmouth.—

One of the difficulties which the German submarine campaign would intensify was the safe despatch of the troops which were to co-operate in the seizure of the Dardanelles peninsula. On February 16, the First Lord, after an interview with Lord Kitchener, ordered transport to be prepared for embarking the XXIXth Division at Avonmouth; the Royal Naval Division was expected to go more or less at the same time, but not with the army division. At the War Office, opinion was divided as to the advisability of sending the XXIXth Division, in view of the general military situation; and on the 26th, the Cabinet decided to keep it at home in reserve.⁵

Permission for the despatch of the Royal Naval Division, approximately 8,000 men, had already been given, the date of its embarkation at Avonmouth being fixed for February 27. As in the case of the previous move from Avonmouth, the Harwich force was drawn upon to provide escorts; on the 24th, Commodore (T) was ordered to send four destroyers, and he detailed the *Ferret*, *Forester*, *Defender* and *Druid*. The *Lance's* division also was ordered to be at Avonmouth by sunset of the 27th, in readiness to escort the first batch of transports.⁶

The first to sail was the *Dunluce Castle*, conveying the Headquarters Staff. She was escorted by two destroyers as far as 51° N, 6° 30' W, a position half-way between the Scillies and

¹ *Nordsee* IV, p. 7.

² I.D.H.S. Current Log.

³ A 227.

⁴ A 245.

⁵ See Corbett: *Naval Operations* II, pp. 154-156.

⁶ A 262, 263, 289. For programme described as "Conveyance to the Mediterranean of Royal Naval Division from Avonmouth," see H.S. 111, p. 70.

Waterford, to the north-westward of that in which the destroyer escort had left the Canadian Division; from thence the transports were to keep 50 miles west of the Scillies and of the usual track, as far as the approach to the Mediterranean.¹ The whole route, as laid down, was further from land than that of the Canadian Division; and the escort orders, as on the previous occasion, were based on the idea that, once out of the narrow waters, a transport proceeding alone would be fairly safe. The destroyers, after leaving their convoy, were to return to Avonmouth.

The *Cornwall* (Captain W. Ellerton) arrived at Avonmouth on the 27th to refit and was put in charge. Further detailed orders for the escort arrangements were sent him on the 28th, the position for the destroyers to part company being now set back to 51° N, 6° W; only troop transports were to be escorted, each having two destroyers and, if the weather was too bad for the destroyers, no escort need be provided.²

Avonmouth proved a bad anchorage for the destroyers; on the 27th the *Lance's* division had to slip their cables and go across the Bristol Channel to Barry for a safe anchorage. Milford Haven, though suggested as their base, added too much distance to each escorting trip, already 300 miles long. Four destroyers could be berthed in Avonmouth Docks, while the remainder lay in Alexandra Dock South at Newport, Monmouth, where they were in telephone communication with the Naval Transport Officer at Avonmouth.³

Four transports,⁴ carrying 5,000 Royal Marines, sailed during the night of February 28 and March 1. Next night, three more were to go,⁵ with 3,400 Royal Marines. The destroyers had found on the previous night that, in the heavy sea and weather, the only way of enabling them to keep company with their convoys was to reduce the transports' speed to 8 knots. Captain Ellerton ordered six destroyers to be ready to escort the three transports, but when the Admiralty learned from Pembroke that the weather conditions were too bad for them they instructed Captain Ellerton to send the transports without escort.⁶ This concluded the despatch of the Royal Marines.

There would be more troops leaving for the Mediterranean and the Admiralty did not recall the destroyers to Harwich.

On March 1, the remainder of the 1st Flotilla was ordered to Rosyth, where half the flotilla was already based. Six of the 2nd Half-flotilla were absent from Harwich—the *Ferret's* division at Avonmouth, and the *Hydra* and *Lizard* escorting an ammunition ship in the Channel. These were now recalled to Harwich, the *Ferret's* division on relief by four⁷ more of the Harwich 3rd Flotilla—*Lydiard*, *Lawford*, *Louis*, *Laverock*.

¹ A 285.

² A 306.

³ A 307, 310, 311, 338.

⁴ *Gloucester Castle*, *Grantully Castle*, *Royal George*, *Abwick Castle*, H.S. 94, p. 1013.

⁵ *Franconia*, *Somali*, *Cestrion*.

⁶ H.S. 98, pp. 63, 106, 108, 112.

⁷ A 325, 326, 328.

These were at once called upon for escort work. Three more transports—*Dongola*, *Minnewaska*, *Minnetonka*—were due to sail, each, as before, to be escorted by two destroyers to 51° N, 6° 30' W. A new clause was added to the sailing orders; the transports were now to keep up full speed till they had passed the parallel of 49° N, off Ushant.¹ The *Dongola* sailed at 10.45 p.m. on March 4, escorted by the *Lydiard* and *Lawford*. In the darkness of the Bristol Channel all three went ashore on the Welsh coast and were too much damaged to continue their voyage. The *Dongola* was refloated in the morning and, proceeding in to Barry, discharged her troops ashore, while the two destroyers reached Newport, where they went into dry dock. They were thus unable to do any escort work for more than a week. This was unfortunate, since, in addition to the transports leaving Avonmouth, another contingent of troops from Canada was due and needed to be screened in.

These were in three ships—*Missanabie*, *Megantic*, *Southlands*—which had been brought across the Atlantic by the *Essex* and were delayed at Queenstown till escort could be provided. The cruiser went on to refit at Barrow, being screened in by one of the destroyers of the North Channel Patrol. The *Megantic*, as she carried ordinary passengers as well, had to go to Liverpool, and was escorted there on March 5–6 by the *Legion* and *Loyal*. The *Louis* and *Laverock* escorted the *Lusitania*, the two remaining effective destroyers, *Lance* and *Lennox*, took the *Minnewaska* out from Avonmouth and, leaving her at the position in 51° N, 6° 30' W, proceeded to Queenstown for the *Missanable* and *Southlands*, which they brought to Avonmouth.

By this time the troops from the *Dongola* had been transferred to another transport, the *Tunisian*, which sailed from Barry at 8.15 p.m. on the 7th, escorted by the *Louis* and *Laverock*. That same night two more transports, the *Minnetonka* and *Ayrshire*, left Avonmouth for the Mediterranean, escorted as far as 6° 30' W by two other pairs of destroyers. Another accident reduced the destroyers still further; the *Lance* collided with a tug and was under repair till the 25th. This left only five destroyers available and Captain Ellerton asked for two more to enable him to cope with the escort duties and to search for the submarines that were making their presence felt on the west coast.

47. Submarines in the South-west Approaches and Irish Channel, February 21 to March 11.—Submarines were reported in the Irish Channel and the South-west Approach from time to time after the sinking of the *Cambank* and *Downshire*. On February 21–22, one was apparently off Anglesea; the steamer *Penhale* reported being chased by her.² On the 23rd, it was discovered from an intercepted message that *U.20* and *U.27*

¹ A 336.

² No details of the chase or escape of the *Penhale* are known in the Admiralty.

were under orders to leave the Ems for the Irish Sea. It was later learned in the same manner that they had proceeded on the 25th. Various supposed submarines were reported from day to day, but it was not till March 7 that a ship was definitely attacked in the waters through which the transports for the Mediterranean were passing.

The *Bengrove*, a Government collier from Barry, was blown up at 1.30 p.m., 5 miles off Ilfracombe, without warning of any kind and with no signs of any assailant. A passing ship stopped to pick up the crew and was not attacked; a circumstance which threw some doubt on the assumption that the *Bengrove* had been torpedoed. On the other hand, there was much traffic passing the spot and, since no other vessel suffered, it seemed unlikely that the accident could be due to a minefield.¹ The *Lance's* division from Avonmouth were in the neighbourhood about 5 p.m., having been sent by the *Cornwall* to hunt for the submarine. They found no sign of her. Three other times that day submarines were reported in the Bristol Channel, but on each occasion off the Welsh shore. One was thought to have been seen off North Devon at 10 p.m. on the 8th, but no further loss occurred till the morning of the 9th, when another vessel was lost in Liverpool Bay, again with no sign of an assailant, though the track of an approaching torpedo was seen. This was the coasting steamer *Princess Victoria*, of 432 registered tons, on the way to Manchester with general goods. She sank in 20 minutes. Her crew were picked up from the boats half an hour later by one of the armed drifters of Liverpool Auxiliary Patrol.²

The submarines should have had little difficulty in passing through St. George's Channel, for though 28 net drifters had arrived at Milford, they had no nets and could only be employed on ordinary patrol duties in which, being unarmed, they could not hope to be of much effect. At this period the nets, as delivered by the manufacturers, were being sent to Dover and Larne, where the consumption was great. The possible effectiveness of the Milford Patrol was still further reduced after March 10, when six of the drifters were ordered from Milford to Dover.³

The submarine remained off Liverpool and, at 6.30 a.m. on the 10th, chased another steamer. Efforts were made by signalling, through the local W/T station at Seaforth, to send a destroyer to the rescue, but the message was so much interfered with by the examination vessels that it could not get through. The incident raised the question whether these vessels should be allowed wireless telegraphy; but after discussion between the authorities concerned it was settled that they should retain it, as their messages were of the highest importance, especially

¹ Master's deposition, M. 18480/15 and remarks by A.M.S. in M. 18341/15.

² Master's deposition, M. 18549/15.

³ M. 02109/15 and Milford Weekly Report, H.S. 589, p. 158.

since the appearance of submarines.¹ Seaforth W/T Station was, however, taken over as a naval station.²

The frequent appearance of submarines in the approaches to Liverpool brought about the establishment of an auxiliary patrol sub-base at Holyhead, with two additional units, to work under Admiral Le Marchant. These arrived before the end of the month and gave Kingstown a total of six units, of which two were always to work off Holyhead.³

Another vessel, the *Helen*, was chased on March 11, 8 miles outside the Bar Lightship, and had a torpedo fired at her. Luckily it missed. The *Helen* blew her whistle continuously, the noise attracting one of the Liverpool Auxiliary Patrol, which signalled to the *Dee*, then about 2 miles away. The *Dee* gave chase and opened fire on the submarine at 800 yards; the gunlayer claimed to have hit something at his third shot. Only the periscope was visible and this disappeared when the *Dee* came within 50 yards.⁴ No submarine was seen off Liverpool Bay for a long time; though a few days later a floating tank was energetically engaged by one of the Liverpool Auxiliary Patrol, under the impression that it was an enemy.⁵

It was *U.20* which had sunk the *Bengrove* and *Princess Victoria* and attacked the *Helen*. Lieutenant-Commander Schwieger had been detained at Ostend for repairs until March 4 and, proceeding down the channel, had entered the Bristol Channel from the southward. On March 10, he attempted the passage of the North Channel; but, finding his progress threatened by the anti-submarine patrol, turned about, proceeding again to Liverpool. There, on the 11th, he attacked two steamers, but, as narrated, was driven off. *U.20* then started her return journey southabout.⁶

48. Losses in the Larne Area, March 11-13.—It was in the netted area of the North Channel that the most serious naval loss of the first months of the submarine blockade was to occur. With Southampton closed to ordinary mercantile traffic and Newcastle and London less accessible through the dangers of the North Sea, Liverpool and the Clyde had become the principal mercantile ports of the kingdom, especially for the import trade from the Americas. They were also the bases to which the armed merchant cruisers of the 10th Cruiser Squadron were continually returning for fuel and repairs. Since the attacks off Liverpool at the end of January, the Clyde had become the base for the smaller ships of that squadron, and on March 7 there were five of these cruisers coaling in the Clyde, while three others were repairing either there or at Liverpool.⁷

The North Channel net was intended to bar access to these ports from the north-west. There were now 80 net drifters at Larne, 27 complete with nets and buoys. The wastage of nets in bad weather was quite as great as at Dover; and

¹ M. 02051/15.

² M. 02054/15.

³ M. 01585/15.

⁴ M. 02016/15.

⁵ M. 03055/15.

⁶ *Nordsee IV*, p. 21.

⁷ M. 01946/15.

Admiral Barlow did not intend to keep his nets constantly down, at least until he was sure of a better supply of buoys.¹

In the circumstances, the attempt to close the North Channel was barely yet successful, though, since February 22, its passage had been forbidden to merchant vessels. On March 11 the armed merchant cruiser *Bayano*, one of the five which had been coaling in the Clyde and had left in darkness to catch the tide, was passing Corsewall Point at 5.15 a.m. Her speed had been reduced to 8 knots, in order that she should not reach the netted area before daylight. At this point she was torpedoed and sank so suddenly that there was no time to get out the boats beyond cutting the falls, in the hope that they would float clear. Those who were not drowned were picked up by a passing steamer and later taken on board by the *Tara* which, knowing nothing of the disaster, arrived on the scene at 9.40 a.m. There were only some 50 survivors.²

A few hours later, at the western end of the netted area, the *Ambrose*, another armed merchant cruiser of the 10th Squadron, was three times unsuccessfully attacked by a submarine off Oversay, on the third occasion making what looked like a hit on the enemy's conning tower.³ Two other ships of the squadron coming out from the Clyde had passed Oversay a few hours before but had seen nothing of the enemy. As soon as the presence of a submarine in the North Channel was known, the other merchant cruisers in the Clyde and Liverpool were kept in port till the danger was thought to be over.⁴

The next vessel to suffer in this area was the *Hartdale*,⁵ a collier from Glasgow, with 7,000 tons of coal for Alexandria. At 5 a.m., March 13, when 7 miles SE by E of the South Rock Lightship, between Belfast Lough and Strangford Lough, she was accosted by a submarine and ordered to stop. The master, Mr. Thomas Martin, refused to obey; turning his stern he made for the shore, in the hope of finding assistance, and held to his course in spite of rockets and maxim bullets fired by the submarine. At 6 a.m. the latter fired a torpedo which hit the ship, and created such panic among the crew, that, in spite of Mr. Martin's efforts to calm them, they abandoned the ship in the two boats, leaving the master and some officers without means of escape. The *Hartdale* began to settle and they had to jump overboard. It was the submarine that picked them up; on board it they were hospitably treated, and it is said the German Commander gave Mr. Martin a bottle of brandy to share among the men in the boats, many of whom were half naked. By this time another vessel had come up, the Swedish steamer *Heimdall*, which commenced to take on board the men in the boats. The submarine accosted this new vessel, asking the master in

¹ M. 01985/15.

² *Tara's Report*: M. 02018/15.

³ M. 02086, 03084/15.

⁴ M. 02258/15.

⁵ She had recently changed her name to *Hartdale* from *Bembrook*.

German whether he wanted to be torpedoed too, but he continued the work of rescue; the submarine, after transferring the master and other men she had picked up, at length withdrew. The *Heimdall* hoisted the *Hartdale's* boats and, proceeding to Bangor, County Down, dropped them full of men; disregarding the examination service, she continued her voyage.

As customary with any vessel seen near a submarine, the *Heimdall* was at once suspected of being a submarine tender, and the *Tara* was sent after her, only to find that instead of being a friend to the submarine she had herself been threatened with destruction. On learning the facts the Board of Trade awarded a piece of plate to the master of the *Heimdall*. As regards Mr. Martin, a full examination of the reports showed his conduct to have been of the most courageous and determined description. An ordinary letter of appreciation had been written; but this was felt to be insufficient, and eventually a letter on vellum was sent him, expressing Their Lordships' appreciation; and gold watches were presented to him and his chief officer, who had honourably supported his Captain.¹

In view of the Admiralty arrangements for the patrol of the channels round Ireland, it may seem strange that the *Hartdale's* expectation of assistance met with no response. On Larne at that date were based the *Tara*, three complete Auxiliary Patrol units, and over a hundred drifters; on Kingstown three complete Auxiliary Patrol units and 22 drifters. Belfast was the base of the six armed yachts of the Yacht Squadron, but these had not arrived.² The actual scene of the episode was, however, on the border line between the Larne and Kingstown areas, and no armed patrol vessels seem to have been near. The Admiralty were dissatisfied at the freedom with which submarines operated in an area to which they had given special attention, and they urged on Admiral Barlow the necessity for taking more effective measures to stop it. In particular, they ordered him to keep the nets in constant use in the daylight hours, and to make those drifters for which there were no nets cruise on an organised plan, with orders to run down any submarine they could get at.³

On learning of the disaster to the *Bayano* the Commander-in-Chief sent the *Faulknor* and six destroyers⁴ of the 4th Flotilla to operate between Oversay and the North Channel. They reached Larne at 10 a.m. on the 13th, and were set by Admiral Barlow to patrol the approaches to Belfast and the Clyde and the neighbourhood of Oversay. They remained only a week in the Larne area. The Commander-in-Chief thought the risk from submarines would be less if the armed merchant cruisers of the 10th Squadron, instead of following the route by Oversay in the northern part of the netted area, came through points 10 miles W

¹ Papers titled *Board of Trade*, 15.4.15. *Hartdale*.

² Positions and Movements, March 13.

³ Tel. to Admiral Larne, 5 p.m., 12.3.15.

⁴ *Achates, Ambuscade, Ardent, Fortune, Paragon, Porpoise*.

of Barra Head and 10 miles E of Inishtrahull, and thence south of Rathlin Island. At his request the Larne minesweepers began to work on this new route before its adoption.¹

The submarine which had been operating in the Larne area was *U.27*. She had left the Bight on February 25 bound for the Irish Sea; and proceeding northabout arrived at her station on March 1. She spent 10 days cruising in the North Channel and the Firth of Clyde, obtaining her first success with the loss of the *Bayano* on March 11. After sinking the *Hartdale* on the 13th she returned northabout through the North Channel² and was back in the Bight on March 16.³

49. "**U.29**" in the Western Channel, March 11.—Simultaneously with the attack off the north-east corner of Ireland another submarine was operating in the mouth of the English Channel, and it was soon learned that this was *U.29*. On the 10th a submarine was sighted several times 20 to 30 miles south of the Dorset coast, on one occasion being chased by five of the drifters from Poole.⁴ The next important news of her was brought by a Norwegian steamer which came in to Brixham soon after noon of the 11th, bringing the crew of an Admiralty transport, the *Adenwen*, which had left Rouen empty for Barry. *U.29* challenged the *Adenwen* at 6 a.m. and ordered her to stop. She was flying the United States ensign, and her master, ignoring the summons, turned his stern and endeavoured to escape. After an hour's pursuit, by which time he was 20 miles west of the Casquets, the submarine again came up, and through a megaphone informed the *Adenwen* she would be torpedoed if she did not stop. The master thereupon gave up any further idea of escape; he abandoned the *Adenwen* to *U.29* and saw that several bombs were exploded in her hold. The boats were towed away by the submarine for three-quarters of an hour, and then turned over to the Norwegian steamer, which brought them to Brixham. Luckily the *Adenwen* did not sink; she was found before long by the French destroyer *Claymore*, and after being towed to Cherbourg, was repaired and brought again into service.⁵

The *Adenwen* had been flying the United States flag. In view of possible protests from the United States Government, instructions were issued on March 17 for cross-channel transports to fly no colours, and to obscure their names and ports of registry; transports on regular routes carrying troops or valuable cargo were allowed to fly the Norwegian, Greek or Italian flag in the Bristol Channel and southern part of the Irish Channel.⁶

¹ Tel. 532 from C.-in-C., H.F., 9.47 p.m., 12.3.15.

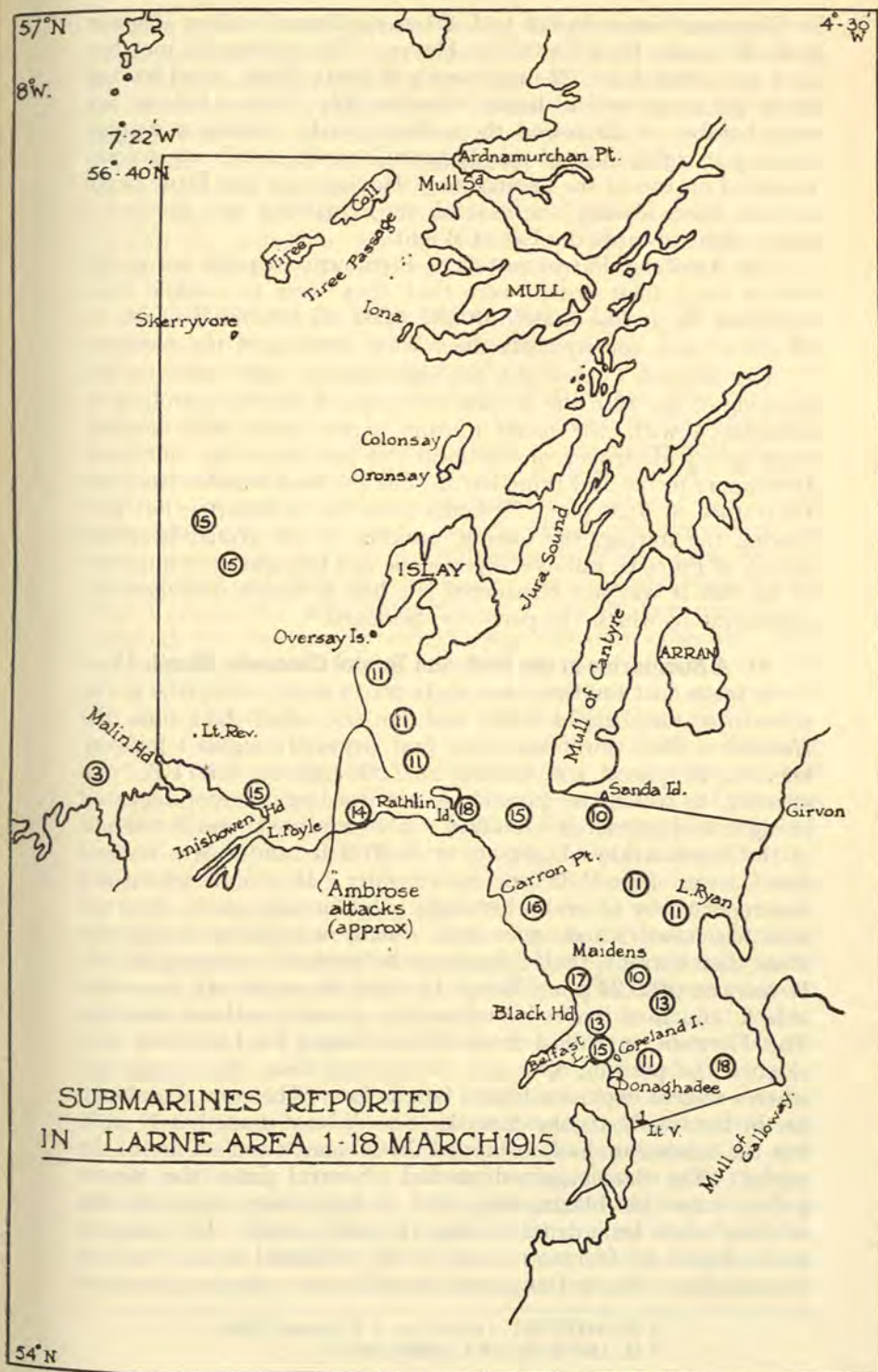
² *Nordsee* IV. p. 21.

³ I.D.H.S. Current Log.

⁴ *Nordsee* IV, p. 21, says *U.29* left Ostend on March 10, so probably this submarine off the Dorset coast was imaginary.

⁵ Papers titled *Board of Trade*, 13.3.15 and 20.3.15. *Adenwen*.

⁶ These printed instructions are in Transport Papers T. 11938/15.



The next victim to fall to *U.29* was a French collier, *Auguste Conseil*, bound from Cardiff to Havre. The submarine met her at 4 p.m., March 11, 22 miles south of Start Point; and having made her stop, and all hands abandon ship, blew a hole in her with bombs. *U.29* towed the collier's boats towards a Danish steamer in sight, most of the *Auguste Conseil's* crew being accommodated on top of the submarine. Having seen the Dane begin to take them aboard, she cast off the remainder and proceeded out of sight towards the Isle of Wight.

The Auxiliary Patrol vessels of Plymouth area did not go far out to sea; their orders were that they were to confine their attention to a close watch off the coast to a distance of 10 to 15 miles,¹ and, consequently, they knew nothing of the incident.

The *Auguste Conseil* did not immediately sink; and on the morning of the 12th the *Rowan*, of Cruiser Force G, patrolling in accordance with the usual routine, came across the derelict. Tugs and a destroyer of the local defence were sent out from Devonport to try and bring her in, but she sank 6 miles from the Eddystone at 7.20 p.m., 27 hours after the submarine left her. During the towing, the *Carron*, another of the armed boarding vessels of Force G, ran over a periscope and brought up a quantity of oil, but it was not considered she had seriously damaged the submarine to which the periscope belonged.²

50. A Submarine in the Irish and Bristol Channels, March 11.—

It seemed at the time that there was a third submarine in the western waters besides *U.29*, and the one which had sunk the *Hartdale*. This third boat was first definitely sighted midway between Holyhead and Dublin, at 7.30, a.m. on the 11th, by a steamer, to which she gave chase, until a larger vessel appeared in sight and attracted her away. She was next seen 9 miles E. of the South Arklow Lightship at 10.30 a.m., and it was noticed that she was of the *U.32* type, or even later. Her course southward was reported by several other ships, who, in some cases, observed near her trawlers and other craft which, in accordance with the ideas then current, they thought to be tenders or decoys for her. It was not till 9.24 p.m., March 11, that she made any successful attack, and then it was by torpedoing a vessel without warning. The *Florazan*, in ballast from Havre, bound for Liverpool, had reached the position 53 miles N by E½E from the Longships, when a violent explosion blew a hole in her. The crew abandoned her in the two boats she carried. She did not immediately sink, but the concussion had unshipped the oil lamps and set fire to the cabins. The flames gained ground. Several times the master pulled round his blazing ship, and at last, seeing that she was settling, made for a drifter fishing two miles away. On boarding her he found the fireman on duty in the stokehold of the *Florazan* was missing. The drifter remained till 3 a.m., steaming round the

¹ M. 01175/15; Orders for A.P. (Area XIV).

² M. 18672/15; N.L. 18765/15.

burning wreck, in the hopes of finding him, but nothing could be seen, and she proceeded for Milford. When 35 miles SW from St. Ann's Head next morning they saw a submarine, but she took no notice of them. There were so many drifters fishing in the neighbourhood of the disaster to the *Florazan* that the master confidently asserted that he had not been mined but torpedoed, though nothing was seen of his assailant.¹

In actual fact the submarine was *U.20* returning; after sinking the *Florazan*, she proceeded up the Channel, called at Ostend on March 14 and reached Emden on the 17th.²

51. "U.29" off the Scilly Islands, March 12.—*U.29* proceeded westward to the mouth of the Channel. About 7 a.m. on the 12th she was seen by the coastguard at St. Mary's, Scilly. There were two trawlers of the Auxiliary Patrol, the *Lois* and the *Ulysses*, at anchor in the harbour; after some time the coastguard by firing rifles succeeded in making them understand that a submarine was in sight. At 8.10 a.m. they proceeded. "About 8.45 a.m." writes the officer in command of the *Lois*,³ "we sighted submarine towing two boats, which afterwards proved to be entire crew of s.s. *Indian City*, Galveston to Havre, cargo cotton. *Ulysses* 1047 picked up the two boats. As soon as the boats were clear I opened fire, 1047 doing the same, but all shots were short, although we were firing above extreme elevation of sights. The submarine was now steering about SE mag. at high speed. On my way out to the submarine I passed a barquentine under small sail about 300 registered tonnage, painted light blue and freshly painted. On our opening fire she hoisted the French flag and set more sail, steering W mag. Although I passed close to her I could not make out her name or port of registry, but as I thought she looked suspicious I took the *Indian City's* crew and boats, and ordered the *Ulysses* 1047 to overhaul her. I proceeded after the submarine, which was just in sight, still steering S.E. About 10 a.m. submarine suddenly changed course to about W. mag., and made at high speed for a steamship on the horizon bearing SW mag. from G.G. watch-house on St. Mary's. I altered course to try and cut him off, but was too slow. The submarine came up with the vessel, which did his level best to dodge, but had to give in. The crew got into the boats, and were just clear when we saw the smoke rise from his No. 3 hatch, but heard no report; 10.43 a.m. passed *Headlands* of Liverpool, with smoke issuing from No. 3 hatch, and a lot of oil and oranges floating about on the water. The *Ulysses* 1047 picked up the boats and crew, and I still proceeding after the submarine, which was now making for another s.s. further west. The submarine overtook him, but he must have been a neutral craft, as he stopped and then proceeded on his journey. She was a vessel of the tramp class, painted light grey with a clipper bow, but I could not distinguish

¹ M. 18691, 18930/15.

² *Nordsee* IV, p. 21.

³ Papers titled B. 557/1915.

her colours; 11.30 a.m. submarine steering NW mag. at high speed. I turned on a parallel course but by noon, 12 o'clock, she was out of sight still steering NW. The *Ulysses* 1047 had to give up the chase after the barquentine, as the wind having freshened she was making good speed to the westward. I also was helpless, as I did not have sufficient speed to overtake her or cut her off either, so I proceeded into St. Mary's Sound, Scilly Isles, dropping anchor about 1 p.m. Lloyd's agent and the skipper of the *Ulysses* came on board and Lloyd's agent took all particulars, and undertook to take both crews on shore and look after them, which he did. I cautioned the crew of the *Indian City* to keep absolute silence after landing, and told the skipper of the *Ulysses* to do the same with the crew of the *Headlands*. The crews of both vessels left for the shore at 1.15 p.m., and at 1.30 p.m. both trawlers hove up and proceeded out to the *Indian City* and picked her up about 3.40 p.m., 20 miles S mag. from St. Mary's. A large s.s., the *Glenstrae* of London, from London to New York, who had wireless, was circling round the *Indian City* with a view to taking him in tow. I advised him of the risk he ran, and gave him the facts, and he then made off at a fair speed on his course."

The *Indian City* had been torpedoed at about 7.30 a.m., after *U.29* had given her master 20 minutes to get his crew clear. This done, the commander of the submarine took the boats in tow and invited the master on board, giving him a glass of wine, and engaging in amicable conversation, in the course of which he said England and Germany should not have been fighting against each other; allied they could beat the world in two months. He stated that it was he who in *U.9* had sunk the three *Cressys* in September, thus establishing his identity as Commander Otto Weddigen. When the *Lois* and *Ulysses* appeared he sent the master back to his own boat and cut the painter. The *Headlands* was torpedoed about 10.25 a.m.

These two did not make up all Commander Weddigen's victims that day. Proceeding westward, at noon in 50° N, 7° W, he hailed the *Andalusian*, an Ellerman steamer, with general goods from Liverpool for Genoa. She also endeavoured to escape, and stopped only when threatened with a torpedo. In this case, the submarine's crew did not blow up the ship with bombs, but compelled her chief engineer to take off the covers of the main injection and other valves, so that she should sink. The crew of the *Andalusian* were taken on to the deck of the submarine, and later turned over to a French sailing vessel.¹ At 3 o'clock another ship came up from the north-west, apparently an ordinary steamer, but really the decoy ship, *Antwerp*, Lieutenant-Commander Godfrey Herbert, R.N. She had left Falmouth early that morning for Pembroke, but at 11.10 a.m. had taken in a signal which induced Lieutenant-Commander Herbert to turn

¹ Papers titled B. 557/1915.

back. He passed the submarine at about 4 miles distance and went up to examine the sailing ship; and finding the crew of the *Andalusian* in her took them aboard his own ship. The submarine was proceeding slowly towards another steamer in the distance, and when Lieutenant-Commander Herbert heard from her master that the submarine seemed to be "out of gear," he decided to chase her, in the hopes of either destroying the submarine or saving the other steamer. It was not till 4.30, when he had come within 4 miles, that he knew the steamer was the *Andalusian*. At this point the submarine dived, and the *Antwerp* thereupon proceeded to St. Mary's, Scilly Isles.¹

Her report received at 8.22 p.m. was the first intimation to the Admiralty that a third steamer had been sunk that day within 20 miles of St. Mary's coastguard station.²

The District Coastguard Officer in reporting on the incident referred to the uselessness of the patrol vessels on this occasion on account of their slackness in looking out for signals, their not being underway at 8 in the morning, their slow speed when engaged, and their waste of opportunity in opening fire at an ineffective range; he suggested that only fast torpedo craft could successfully deal with submarines of the later types, and that such a vessel, or vessels, should be based on the Scillies, and put under the control of the coastguard officer there. This proposal was not entertained; but two Auxiliary Patrol units were sent to the Scilly Isles as a sub-base to Plymouth, and Commander W. O. Oliver, R.N., was appointed in charge.³ The first of these units arrived on March 24.

52. A Submarine on the West Coast of Ireland, March 14.—

Submarines were not seen in or near the Bristol Channel after the 12th for several days. *U.29* did not reappear there; but it was clear that a submarine was proceeding south and west of Ireland, and this might be *U.29*. She was fired on by the *Partridge*, an armed boarding vessel of Cruiser Force E, near the Fastnet at 7 a.m. on the 13th.⁴

Next day at 11 a.m. she was sighted off Inishturk Island by the *Atalanta*, a small coasting vessel of 206 register tons, which only a week previously had been armed with a 12-pdr. gun aft. One of the two Royal Marines who formed the gun's crew, Private Michael Gilgallon, was the first to sight the submarine. It closed rapidly and fired rockets. The *Atalanta's* master would not allow the gun to open fire, giving as his reason that the submarine might be British, and he stopped his ship. At this point the submarine showed German colours. The two Royal Marines would wait no longer and opened fire at about 3,000 yards, which the submarine returned, apparently hitting the *Atalanta*. The ship, not being under way, lay in the trough of the waves, and the gun could not be brought to bear as the submarine drew ahead;

¹ M. 010045/15, *Antwerp*, Proceedings, March 12.

² H.S. 100, p. 457.

³ M. 02175, 02278/15.

⁴ M. 02086/15.

but Private Gilgallon blew away a davit by gunfire, and was thus able to get off three more rounds, forcing the enemy to submerge. By this time panic had set in and the crew scrambled for the boats; only the first mate and the Royal Marines seem to have kept their heads. They, too, were compelled to abandon the ship to the submarine, which set her on fire after taking from her what stores she wanted and removing the gun as a trophy.¹

News of this encounter reached Blacksod Bay, the base of Auxiliary Patrol Area XIX; to this area was allotted one patrol unit, of which only a yacht and the armed trawler *Grackle* had arrived. The *Grackle* went out at 2.15 p.m., and at 4 o'clock, when 4 miles west of Achill Head, sighted the submarine, a black craft twice as long as herself. Nothing daunted, the *Grackle* opened fire with her one 6-pdr. gun. The submarine returned the fire; she seemed to have no gun so big as the *Grackle's*, which at 700 yards apparently made two hits. The enemy stopped, dived precipitately, and made no reappearance. The jubilant crew of the *Grackle* were certain she had sunk never to rise again; but Sub-Lieutenant A. E. Lockington, R.N.R., in command of her, writes soberly: "In my opinion, the submarine was damaged, but disappeared to get away from me."²

His opinion was correct. The submarine must have been *U.29*, since no other submarine was at that time operating on the west coast of Ireland. She reappeared six days later in the North Sea, little, if any, the worse for her encounter with the *Grackle*.

53. Departure of the XXIXth Division to the Mediterranean.—

It was through the submarine-infested waters of the south-western approach to the British Isles that another large transport move was to take place. Although the XXIXth Division had at first been kept back in reserve, there was still hope that later either it or the IIInd Mounted (Yeomanry) Division might be spared for the Dardanelles Operation, and on March 2 the First Lord gave instructions for transport to be got ready for either to go from Avonmouth on March 15. It was decided on March 10 that the XXIXth Division should go, a force numbering 22,688 officers and men, 6,391 horses, and 303 lorries.³

For this move the programme was as follows:—⁴

			1st Day, March 16.	
			Officers and	
			Men.	Horses.
<i>Alaunia</i>	..	..	2,130	—
<i>Haverford</i>	..	..	815	748
<i>Mercian</i>	..	..	503	540
<i>Ausonia</i>	..	..	1,507	—

¹ Papers titled L. 962/1915.

² M. 02228/15.

³ Winston Churchill: *The World Crisis* II, 196, and Transport Papers T. 4728/1915.

⁴ War Office Letter 121/Transports/52 (Q.M.G.2) of 14.3.15 in Transport Papers T. 4728/1915.

2nd Day, March 17.

			Officers and	
			Men.	Horses.
<i>Canada</i>	..	..	1,581	—
<i>Kingstonian</i>	..	..	1,002	800
<i>City of Edinburgh</i>	..	..	594	376
<i>Andania</i>	..	..	1,858	—

3rd Day, March 18.

<i>Dongola</i>	..	..	1,479	—
<i>Tintoretto</i>	..	..	181	490
<i>Marquette</i>	..	..	1,030	623

4th Day, March 19.

<i>Knight of the Garter</i>	..	..	270	492
<i>Verdala</i>	..	..	465	429
<i>Manitou</i>	..	..	1,019	635
<i>Campanello</i>	..	..	—	—
<i>Arcadian</i>	..	..	547	—

5th Day, March 20.

<i>Aragon</i> ¹	..	..	1,973	—
<i>Caledonia</i>	..	..	2,110	—
<i>Southland</i>	..	..	1,360	—
<i>Harmatris</i>	..	..	154	767

Any remaining troops were to leave later in the *Melville*.

The escort orders, issued on March 13, the day the *Hartdale* was torpedoed in the Irish Channel, were that, as before, each transport was to have two destroyers. The route was taken slightly further out to sea than in the case of the Royal Naval Division; the transports were now to pass midway between Lundy Island and St. Govans Light, and steer to make a position in 51° 10' N, 5° 41' W, where the destroyers would part company. From this point the transports were to pass through 50° N, 8° W, and 60 miles west of Cape Finisterre; they were to keep 50 miles west of the usual track to Gibraltar.²

The first batch of this large transport move—*Alaunia*, *Haverford*, *Mercian*, *Ausonia*—left Avonmouth on the night of March 16–17. The *Lance* was still under repair, leaving only seven destroyers—*Legion*, *Loyal*, *Lennox*, *Laverock*, *Lawford Louis*, *Lydiard*—to provide the pairs of escorts. In the circumstances, the Admiralty allowed the *Mercian*, as she carried fewest men, to have only one destroyer,³ although a submarine had been seen in St. George's Channel that day. The enemy was boldly attacked by the net drifter *Rival*, which, totally unarmed, made every endeavour to ram, narrowly missing the submarine on two occasions and ultimately forcing her to dive.⁴

¹ Including Army Headquarters.

² A 372 and Sailing Orders for Transports in T. 4728/1915.

³ H.S. 101, pp. 182, 237.

⁴ Milford Reports, H.S. 589, p. 165. The *Rival* received a letter of appreciation and £25 reward, M. 03834/15. The submarine cannot be identified from German sources and possibly the object attacked was not a submarine but a blackfish. T.S.D.D.

On the 17th¹ the *Lookout* arrived at Avonmouth after a refit at Chatham, and thus enabled the four transports for that night each to have a double escort. On the 18th the *Dongola* and *Marquette* sailed with their escorts, but the *Tintoretto* was not ready. The 19th was a day of rest for the destroyers. On the 20th the *Tintoretto* left with a single escort, the *Laverock*; as did also the *Arcadian* with the *Legion* and *Lennox*, the *Manitou* with the *Lydiard* and *Lawford*, and the *Campanello* with the *Lookout* and *Louis*. On the 21st the *Caledonia*, *Aragon*, and *Verdala* sailed each with two destroyers, and the *Harmatris* with one escort. On the 22nd only one troop transport, the *Southland*, left, and was escorted by the *Lydiard* and *Lawford*; three ships carrying stores for the XXIXth Division sailed that night, but were not given escorts. On the 23rd the *Melville* and *Knight of the Garter* left, concluding the original programme.

By this time the *Cornwall's* refit was complete. She left Avonmouth at 10.20 p.m., March 23rd, and proceeded for Sierra Leone, escorted till 3.35 a.m. by the *Lydiard* and *Lawford*.

Of the XXIXth Division all the officers and men had now been despatched, though transports carrying stores continued to leave at intervals throughout March; the Admiralty, on the 24th, recalled four of the destroyers which had been working the escorts, leaving four to remain in the Bristol Channel until relieved.² Another heavy piece of transport work was in prospect, the despatch of the IInd Mounted Division for the Mediterranean.

CHAPTER VII.

THE FIRST MONTH OF THE SUBMARINE BLOCKADE: NORTH SEA AND GRAND FLEET.

54. **Anti-Submarine Defences in the North Sea.**—The provision of efficient anti-submarine defences at ports was a subject of continual exertion, as has been related in earlier volumes. Those in the North Sea, protecting the improvised bases of the fleet, were regarded, in view of their proximity to Germany, as more urgently required than those in the west. They were in all stages of development, from the first draft on paper up to full completion. For the Downs a special net of light character had been designed to be moored across the Gull Stream. About 1½ miles of this net was required, and the work of construction was to be done at Harwich. It was not in place, however, on the opening day of the blockade.³

¹ This paragraph is based on *Cornwall's* Signal Log 33923. ² A 412.

³ C.S.D. Reports, Submarine Defences, Vol. 2, February to March 1915. The series of C.S.D. reports on submarine defences gives very detailed information on the subject, with charts showing the state of the defences at different ports on various dates. The information in this section is from these reports unless other references are given.

At Sheerness the designed defence consisted of a boom with a gate across the fairway, and piles from the shoal water to the western shore. The boom and gate were complete on the 18th: the piling was in progress. The defences of the West Swale River were still incomplete.

Off the Thames estuary the East Swin, Middle Deep, and SW Reach Channels were to be blocked by a system of booms across these channels and in Barrow Deep. The East Swin was to be closed completely, while gaps in the booms permitted shipping to utilise the Middle Deep and SW Reach. On February 18 these defences were incomplete, and it was not until March 21 that Rear-Admiral Napier, the Senior Naval Officer at the Naval Base, Gunfleet, reported them to be in place. They consisted of nets of 10-ft. mesh made of 2-in. wire. These defences provided a safe anchorage for squadrons. The question was raised of patrolling the defences, but it was decided that the matter could wait until such time as a squadron required to use the anchorage.¹

At Harwich the defence was to consist of a boom and submarine nets across the entrance. These nets were not yet in place on February 18.

At the Humber the defence was to consist of two booms with gates: the western one off Sunk Island; the eastern one to the east of Grimsby. Both these booms were incomplete on February 18.

On that date the Tyne defences were only in preparation. With regard to the latter, there was a difference of opinion between the Admiral of Patrols and the Admiralty officers who had visited the Tyne on February 14 to look into the question of the proposed defences. Admiral Ballard suggested that the boom and gate would create difficulties with regard to shipping entering the port, and considered that it would be practically impossible for a submarine to ascend the Tyne with her periscope submerged. He doubted, in fact, whether there was any necessity to provide a boom at all. This view, however, did not prevail at the Admiralty, and the plan for the Tyne defences was put into execution.²

The Firth of Forth was defended by an outer system of booms, stretching from Cramond Island, through Inch Mickery, Oxcars and Inchcolm, to the northern shore, with a gate to the south of Inchcolm. By February 18 these defences were in place, except for the nets between the gateships and for some of the netting of the south span, which had recently been torn away by some heavy obstruction. By March 16 an inner system of defences was in place, consisting of submarine nets under the Forth Bridge. The Cromarty defences were in place by February 18, consisting of a boom and gate across the fairway.

¹ Papers titled X. 8456/1915.

² Papers titled X. 8127/1915.

In the designed defence to Scapa all the entrances to the Flow were blocked by sunken ships, wire hawsers, or booms, with a minefield between Hunda and South Ronaldsay; gates admitting of entrance into the Flow through Hoxa Sound and Hoy Sound. Although some damage had been done by recent gales, on February 18 these defences were complete, save for one of the booms at the entrance to Hoy Sound. At Loch Ewe, however, the planned system of booms and gates had not yet been commenced.

Two special-service paddle steamers, the *Queen Victoria* and *Prince Edward*, were commissioned on February 6, but on February 18 were not yet quite ready for sea. Each paddle steamer was able to lay 4,680 ft. of specially designed heavy net, with sinkers and buoys complete. When completed, trials were carried out in laying out nets both by day and by night, after which these vessels were based at Harwich.¹

Systems of observation minefields were at this time in process of development to reinforce the boom defences at different ports. On January 22 the Admiral Commanding Orkneys and Shetlands had suggested the following positions for observation mines to defend the anti-submarine booms at Scapa:—

- (a) In Cantick Sound between Crow Taing Point and Point of the Pool (Switha Island). Three lines of E.C. mines were suggested, with an observation hut at Crow Taing.
- (b) Two lines of observation mines to be laid about east from Som Skerry Shoal, i.e., about 1 mile west of the proposed Hoy boom, between Houston Head and Scad Head, with an observation hut and two searchlights on the mainland. These proposals were approved on February 5. There were sufficient E.C. mines available for Cantick Sound; the mines for Hoy Sound being available towards the end of the month.²

In accordance with the suggestion of the Commander-in-Chief, Grand Fleet, and with the concurrence of the Admiral Commanding Coast of Scotland, it was decided on February 15 to lay a third minefield in the Firth of Forth, to consist of five lines, each of three observation mines, 7 cables north-east of Inch Mickery.³ At about this time it was further decided to add to the defences of the Firth of Forth by placing guns and searchlights at Inchkeith.⁴

In the Humber there were difficulties involved in the laying of an observation minefield, due to the strong tides; it was decided in February not to lay such a field, but to make preparations so that, when the east boom was near completion

¹ Papers titled *Admiralty*, 27 January 1915.

² Papers titled *X. 2373/1915*.

³ Papers titled *D.N. Ordnance*, 10 February, comprising M. 01281/15.

⁴ Papers titled *X. 2376/1915*.

mines could on emergency be put down at once to protect the boom.¹ Mines were laid at the beginning of March at the mouth of the Tay, under the direction of Commander Glennie.²

The development of observation minefields raised the question of the organisation of the personnel involved, and on February 12 a scheme was brought into force for the organisation of R.M. submarine miners for service with minefields in the following localities: Scapa Flow, the Firth of Forth, the Tay, Blyth, the Tyne, Sunderland, the Humber, Harwich, the Crouch, and elsewhere as required.³

Shortly after the end of the first month of the submarine blockade, on March 22, it was decided to duplicate all anti-submarine booms, commencing with that at Hoxa. This was as the result of a report from prisoners from *U.12*, that German submarines were being fitted with net-cutters.⁴

The use of searchlights at defended ports was a matter on which at this period there appears to have been disagreement between Senior Naval Officers and Military Authorities. On January 3 the Commander-in-Chief, Grand Fleet, submitted that the instructions issued by the War Office to Military Officers on this matter might be amended.⁵ These orders reversed the procedure which was followed at Cromarty and Scapa after five months of war experience, the instructions being to keep searchlights continuously exposed in clear weather, and only as required in thick or foggy weather, when they would be the only guide by which hostile vessels could find their way into the harbour. The Cromarty searchlights were visible in clear weather up to 35 miles, marking the entrance distinctly, besides affording a mark for minelayers, while the Scapa searchlights distinctly showed the Hoxa entrance to any vessel between Pentland Skerries and Dunnet Head.⁶ Towards the end of January the Commander-in-Chief, Devonport, found himself inconvenienced by the War Office regulations with regard to searchlights, and the Chief of Staff wrote in a minute that the War Office was at variance with the Admiralty on this question, and had several times declined to meet the wishes of Senior Naval Officers. This position could not continue, and a conference on February 16 settled up the points of divergence. At this conference it was understood that, as a general principle, searchlights were to be kept obscured, and that Garrison Commanders should draw up instructions in conformity with the opinion of local naval authorities, as the only competent judges of the naval situation.⁷ On the east coast, however, there was difference of opinion

¹ Papers titled *X. 9083/1915*.

² H.S. 98, p. 119.

³ Papers titled *War Office*, 6 February 1915.

⁴ H.S. 102, p. 337.

⁵ These instructions will be found in C.I.O. 275.

⁶ M. 0125/15, M. 0469/15, M. 0932/15.

⁷ Papers titled *B. 920/1915*, Searchlights at defended ports.

between naval authorities themselves. The Senior Naval Officer in the Tyne was for burning the searchlights continually, while the Admiral of Patrols, on March 28, pointed out the disadvantages of such a procedure. The likelihood of a destroyer attack was remote, while from admissions of German prisoners searchlights had proved a valuable aid to the night navigation of submarines. Admiral Ballard's view prevailed, with the same application to the Tees.¹

Early in January information had reached the Admiralty that the British submarine *E.3* would probably be raised by the Germans. It was necessary to consider what steps should be taken in view of the confidential matter that would thus fall into the enemy's hands. Among these papers was "O.D.17—Swept channels at defended ports," and the Senior Naval Officers of the respective ports were ordered to submit proposals for rendering the compromised intelligence of no use to the enemy. As a result of these reports no changes were made in the arrangements off the Thames, Queenstown, Berehaven, Dover, the Clyde, Cromarty, the Humber, the Tyne, and Plymouth. With regard to the Firth of Forth, Admiral Lowry was of opinion that in such estuaries, which had frequently been visited by hostile submarines, a buoyed channel might be a positive danger, and, if used constantly by H.M. ships, might become an excellent guide for hostile submarines to take up a suitable position for lying in wait. It was decided, therefore, that in the Firth of Forth H.M. ships, when outward bound, should follow the channel only as far as Inchkeith. At night they should steer varying courses, entering or leaving, when outside Inchkeith.

Modifications were also made in the procedure at Milford Haven, Portland, and Portsmouth.²

With regard to Harwich, Commodore Cayley, the Senior Naval Officer, was of opinion that the Germans might be expected to mine the approaches with a line of mines cutting across both the swept channels. He thought that no advantage would be gained by adopting new channels, and proposed to meet the menace by a daily sweep between the Sunk and the South Shipwash, in addition to the routine sweeping of the channels, and by putting into operation the following armed trawler patrols:—

- (1) Orfordness to Shipwash Light Vessel.
- (2) Hollesley Bay and Orfordness.
- (3) Shipwash Light Vessel to Outer Gabbard.
- (4) Rough Buoy to Sunk Light Vessel.
- (5) Sunk Light Vessel to Longsand Head.
- (6) Sunk Light Vessel to Galloper.
- (7) and (8) Harwich harbour mouth.

¹ M. 02506/15. Working of searchlights at certain defended ports. (Tyne and Tees.)

² Papers titled *A.* 1669/1915.

The Commodore's proposals received Admiralty approval.¹ These modifications had already come into force at the opening of the submarine blockade.

It was also found necessary at different ports to make alterations in the examination service, to minimise the danger from submarines. Thus on February 11 the Admiral Commanding Coast of Scotland submitted modifications in the existing arrangements for the regulation of traffic in the Firth of Forth. These were approved, and resulted in a Notice to Mariners issued on March 4. The pilot station at May Island was abolished. Vessels were permitted to enter the Forth only during daylight, to the north of May Island, and examination vessels and pilots met incoming vessels about 2 miles to the north-east of Inchkeith. The examination anchorage was transferred to a position off Leith Roads. This new anchorage was covered by the *Ringdove*, anchored at the south-east corner, by new 12-pdr. batteries in the line Cramond Island—Inchcolm—Inchmichery, by the *Vulcan's* armoured train at Leith, and by a torpedo boat patrolling to the west of Inchkeith.²

On March 14 modifications were made in the procedure of the examination service at Harwich, also with the intention of minimising the risk of submarine attack. Among other alterations, it was arranged that well-known vessels were not to be stopped; if not known, ships would be sent in to the examination anchorage to be boarded, but speed was not to be checked until the vessel had reached her allotted berth. Arrangements were further made for collectors of customs to obtain all possible information about the enemy from masters of ships.³ On March 16 the Hartlepool examination anchorage was extended, to speed up the examination service.⁴ In both these cases the suggestions for the change came from the War Office.

At the end of 1914 it had been submitted that Stornoway would be a far more convenient base for Area I than Loch Ewe, owing to the isolated position and lack of supply and repair facilities at the latter place and at the adjoining village of Aultbea. This view held, and Rear-Admiral Reginald G. O. Tupper, C.V.O., was appointed as Senior Naval Officer of Patrol Area I, from January 7, to fly his flag on shore at Stornoway. For a short time, therefore, there was a Rear-Admiral, Stornoway, and a Rear-Admiral, Aultbea, but it was realised that, until Loch Ewe was adequately protected and became a base for the Fleet, there was scarcely room in Area I for two flag officers. Commander Cecil Watson was therefore appointed to be in charge of the Naval Centre and Senior Naval Officer, Aultbea. A W/T station was fitted at Aultbea for the use of the Auxiliary Patrol, and was

¹ M. 0475 of 16 January 1915. Harwich Mining Operations.

² Papers titled *X.* 7051/1915. Examination Anchorage, Firth of Forth. Proposed change in position. Notice to Mariners, No. 154 of 1915.

³ M. 01785/15 titled *War Office*, 4 March 1915.

⁴ M. 01928/15 titled *War Office*, 9 March 1915.

working on February 26; while the Aultbea Naval Centre, transferred from Cromarty, commenced working on March 1.¹

55. Defensive Measures for H.M. Ships and other Shipping.—Experiments were made in January in the Firth of Forth to ascertain whether cork float lines could be made to afford any measure of safety to a ship at anchor against an enemy submarine; the idea being that these lines should foul the periscope of the attacking vessel. A trial was made with the two submarines, *C.26* and *C.27*. The latter failed in her attack, but, nevertheless, the lines were not considered successful, as a submarine could dive under them and, even if they succeeded in fouling a periscope, they could not be relied on to adhere to it. The constant patrols in the Firth rendered them unsuitable there; it was decided, however, to give them a further trial and, for this purpose, 100 lines each were despatched to Portsmouth, Devonport, Scapa Flow, Cromarty and Loch Ewe.²

On March 23 the Commander-in-Chief, Grand Fleet, notified the Admiralty that he had directed ships in the Grand Fleet to brace their yards forward, in order to mislead an attacking submarine and suggested that the principle should be extended to other commands.³

It frequently occurred that when a submarine was sighted, a vessel in the neighbourhood fell under suspicion of co-operation with the hostile craft, and it was evident, if such was the enemy's policy, that fishing craft were peculiarly suitable for its execution. To ensure the safety of the fleet with regard to this menace the Admiral Commanding the Orkneys and Shetlands issued orders in January restricting fishing off the north coasts of Sutherland and Caithness, and round the Orkneys and Shetlands, to small open fishing boats (on no account to trawlers or drifters) and then only during daylight hours, in an area not more than two miles from the coast. He considered it of the utmost importance for the safety of the fleet that all approaches to Scapa Flow should be kept absolutely clear of fishing craft during hours of darkness.⁴

The general instructions to merchant shipping have already been dealt with. At the beginning of February a prohibition was still in force to the effect that no Atlantic traffic was to pass to the north of Ireland. This order had been issued before the development of this phase of submarine warfare, and its cause was the danger to shipping of the Tory Island minefield.⁵ From time to time, according to circumstances, special instructions

¹ Papers titled *X. 6804/1915*. Proposal that Area I should be based at Stornoway instead of Loch Ewe.

M. 01473/15. Completion of W/T station at Aultbea.

M. 01588/15. Aultbea Naval Centre to commence working on 1 March 1915.

² Papers titled *L. 959/15*. Cork float lines.

³ *A. 411*.

⁴ *M. 0631/15*. Fishing off North Coast of Scotland.

⁵ *H. S. 89*, pp. 946, 1022, 1030.

were issued to merchant shipping and fleet auxiliaries to meet special cases. Thus, on February 26, the Commander-in-Chief, Grand Fleet, suggested that colliers from Cardiff to Scapa should pass west of Ireland and the Hebrides, 30 miles off shore, to avoid submarines, and that all fleet auxiliaries should have a foreign name and port substituted, with corresponding colours.¹ The Admiralty gave consent to his suggestion as to the colliers and issued instructions accordingly, but ordered the Commander-in-Chief to take no steps for the time being with regard to his latter suggestion, as the matter was under consideration.²

On February 27 Admiral Jellicoe requested that, in view of the insecurity of Loch Ewe against submarines, only two colliers, with 4,000 to 6,000 tons of coal, be retained there; the remainder coming to Scapa.³

56. Supposed Replenishing of Supplies by German Submarines.—At this time it was still believed in the fleet, not only that German submarines made use of secret bases far afield from their own ports, but that they worked in conjunction with supply ships. It was also thought possible that they replenished supplies of fuel from moored casks.

On February 22 the R.F.A. *Aro* reported that, on the 17th, she had sighted a moored cask off Nun Island in the West Hebrides. Orders were given to search the locality.⁴ She later sighted several such casks whilst on passage north. On February 25, the *Amsterdam* discovered a line of iron drums 70 miles east of Pentland Firth, among them a 40-gallon oil cask, which burst when fired at and was found to contain thick oil. This line was 20 miles long. It appeared probable to the Commander-in-Chief that these lines were oil positions for hostile submarines, and he therefore despatched trawlers to watch the line off the Orkneys and suggested that trawlers from Larne should watch reported lines in their area;⁵ while on March 2 and 4 destroyers carried out another search for drums, on passage from Invergordon to Scapa Flow and vice versa.⁶ From time to time throughout this period of the war the patrols were warned to look out for vessels which had fallen under suspicion of acting as supply vessels.⁷

This current belief in the use of supply ships by German submarines resulted in a suggestion for the use of a special type of decoy, which was made by Captain Candy of the *Dolphin*, and forwarded by the Commander-in-Chief, Portsmouth, on February 23. The plan was to fit out an armed ship with a submarine bell for making signals and to send her to ply in frequented areas; the idea being that these supposed supply ships might utilise submarine bells. In commenting on this

¹ *A. 288*.

² *H. S. 94*, p. 908.

³ *H. S. 93*, p. 952.

⁴ *H. S. 93*, pp. 773, 891.

⁵ G.F.N. of date.

⁶ *See H. S. 90*, p. 445; *H. S. 91*, p. 776.

proposal, Commodore (S) pointed out that there was no evidence of German submarines obtaining supplies and that they were able to carry oil and stores up to the limit of endurance of the crews, and no action was taken on Captain Candy's suggestion.¹

57. Development of Indicator Nets and Inception of Microphone Detectors.—By February 14 the indicator net system had been developed, so that bases were established at Scapa, Cromarty, Peterhead, the Firth of Forth, Yarmouth, Harwich, the Nore, Dover, Portsmouth, Poole, Portland, Devonport, and Falmouth, besides those in Irish waters. Instructions were issued to the Senior Naval Officers concerned, to work their nets continuously, whenever weather permitted, in places known to be frequented by enemy submarines and in channels suspected of use by these vessels. Orders were given that the nets should not be left out for lengthy periods and that when laid they should be watched by an armed vessel, to attack the enemy submarine if caught in the net, and to prevent fouling by friendly shipping.²

In January the Senior Naval Officer, Harwich, had submitted that he should be supplied with sufficient drifters to lay 8 miles of nets; he could then, on the report of a submarine in the vicinity, lay nets in the exits open to her.³ One of the problems in connection with the laying of indicator nets was to ensure that they were not fouled by merchant shipping and, on February 20, the Admiralty called on Senior Naval Officers to submit proposals as to the best means of ensuring this, so far as their own area was concerned.⁴ The Senior Naval Officer, Harwich, replied by giving a survey of the movements of merchant shipping in the Harwich area, which explained the reasons for the principles he proposed to adopt in the use of indicator nets. With the exception of a comparatively small number of vessels who actually entered the port, by far the greater proportion of whom consisted of fleet auxiliaries, shipping passed outside the Shipwash shoal; pilots, if required, being picked up near the Sunk Light Vessel. From Orfordness to the Sunk and thence onward to the Foreland, and vice versa, there was a large stream of shipping, of which considerable numbers anchored at night, especially between Orfordness and the Sunk. He recommended, therefore, that shipping should be urged to pass through the Shipway and that the position for picking up a pilot should be in the triangle bounded by the Mid Bawdsey, North-west Shipwash and West Shipwash Buoys. With the adoption of such a position enemy submarines would be tempted to enter shoal and confined waters where patrolling could be more efficiently carried out and indicator nets laid with greater chance of success. The proposed principle for laying nets in the Harwich area was to

¹ M. 01567/15.

² M. 01020/15. Instructions to Indicator Net Bases.

³ M. 0588/15. Trawlers for laying Indicator Nets at Harwich.

⁴ M. 01249/15. Uses of Indicator Nets.

guard the north and south ends of the Shipwash shoal and the approaches to Harwich at the Rough Buoy, these positions being watched by the trawlers which actually laid the nets, which would be taken up at dusk and laid again just before dawn. If shipping were warned that trawlers were in position to advise them as to their course, no difficulty was anticipated in guiding vessels clear of the nets.¹

The Captain-in-Charge of the Naval Base at Lowestoft, in his report to the Admiralty on the use of indicator nets in his area, dated February 27, stated that it was not proposed to lay nets in any much frequented channel in the area unless a submarine had been seen to enter, in which case special arrangements would be made to warn shipping. For the time being it was intended to lay nets occasionally in the vicinity of Haisborough Light Vessel and Smith's Knoll Pillar Buoy, with at least two vessels stationed to watch them.² At daylight, on March 2, the drifters watching these nets off Smith's Knoll found that 12 of them had disappeared in the night, one only of which was subsequently recovered. There had been no calcium containers available, so their disappearance was not noted at the time, and there was no certainty as to whether they had been carried away by a submarine or by the combined force of tide and sea.³

The Admiral of Patrols suggested on March 1 that, in addition to the nets provided for the Humber and Tyne, lines of nets should be laid in an approximate north and south direction, at a distance of about 20 miles true east from Flamborough Head and Longstone. He was of opinion that, while no patrolling arrangement appeared to have any effect in dealing with submarines, such lines of nets might prove very useful as submarine traps. To be effective they should each be not less than 10 miles long, and a depth of 30 ft. would probably suffice. Most of the traffic off Flamborough Head and the Longstone passed at a distance of inside 10 miles from the shore and, save for the operations of trawlers, it was not considered probable that nets 20 miles to the eastward would suffer much from shipping. These trawlers could be kept clear by an auxiliary patrol.⁴

On February 18 a request was forwarded from the Rear-Admiral, Peterhead, asking for three more drifters to work indicator nets; ultimately 40 nets were to be supplied at that base. On March 3 a letter was despatched to the Admiral Commanding Coast of Scotland, giving assent to this. These drifters were not to be armed or commissioned as Trawler Reserve.⁵ Trials also took place with indicator nets at Rosyth on February 27.⁶

¹ M. 01614/15. Use of indicator nets.

² M. 01666/15. Laying of indicator nets.

³ M. 01969/15. Reporting loss of 11 indicator nets.

⁴ M. 01721/15. Allocation of indicator nets.

⁵ M. 01546/15. Drifters for working indicator nets at Peterhead.

⁶ H.S. 94, pp. 312, 376.

On March 1 the Commander-in-Chief requested to be supplied with materials for indicator nets, which would be manufactured by fleet labourers and laid out in places best calculated to intercept submarines proceeding round the north of Scotland. The Admiralty replied that all available material was allocated to manufacturers and that nets would be supplied to the Grand Fleet as soon as deliveries made it possible to do so, but that, in view of the importance of Dover and Larne it had been decided to give them precedence with the supplies of netting.¹ The following week Admiral Longhope, requested that four more drifters should be sent to his base for service in the Orkneys. This was approved.²

By the beginning of March the term "Net Drifter Flotillas" was in use to designate units of drifters working indicator nets, or other anti-submarine devices.³

In February a method of combating submarines was developed in the use of microphone detectors. On February 20 Commander C. P. Ryan was appointed to the Admiralty to supervise the development of this device. Arrangements were made to fit two microphone detectors in connection with the nets in the Downs and Straits of Dover, and early in March it was decided to attach a steam drifter to the Naval Base, Granton, for microphone service in the Firth of Forth.⁴

58. Early Operations of the Decoy Ship "Vienna."—The fitting at Portsmouth of the *Victoria* as the first decoy ship and her subsequent operations in the Channel have been dealt with in a previous volume. The intensification of German submarine warfare brought about a development of this means of combating the German menace. The second British ship to be fitted as a decoy was the Great Eastern Railway Company packet *Vienna*, of 1,767 tons gross. Her choice as a decoy was suggested by the attack on another Great Eastern Railway packet, the *Colchester*, which took place on 11 December 1914. The *Vienna* commenced her special service as a decoy on January 27 and was placed under the command of Lieutenant-Commander Godfrey Herbert, R.N., of the submarine service. She operated on the Harwich-Hook of Holland route, as if she were still employed on her old packet work. However, while the *Vienna* retained her original appearance, alterations had been made in that of the remaining packets; furthermore, working as she did from Harwich, indiscreet speech was said to have taken place between her crew and that of other packet vessels, as a result of which, by February 12, her real function was said to be known in Rotterdam, and it could be taken for granted that from there the intelligence would be passed to the enemy.

¹ A 324.

² H.S. 99, p. 712; H.S. 100, pp. 60, 176.

³ M. 01747/15. Net drifter flotillas.

⁴ Papers titled *Admiralty*, 20 February 1915, comprising M. 01444/15 and M. 01592/15.

The *Vienna*, therefore, ceased to ply on the Harwich-Rotterdam route; her appearance was altered, her name changed to *Antwerp*, and she was sent to Pembroke to work with another decoy ship, the *Lyons*, joining her in the beginning of March.¹

59. Early Activity in Northern Waters and on the East Coast.—

The opening of the submarine blockade did not synchronise with any marked activity in northern waters, or on the east coast outside of the Hoofden area. In the first weeks in February, before the blockade commenced, there had been a few submarine alarms, apparently without foundation. Thus, on January 30, there had been an alarm in the Firth of Forth, a submarine having been reported inside Oxcars. Ships were, for the time being, forbidden to enter or leave harbour, but by the following day the report was doubted.² Further reports made it appear possible that submarines were working their way northabout to the west, for on January 31, at 1.35 p.m., submarines were reported in St. Catherine's Point Bay, in Stronsay Firth, steering west,³ while on February 5 there was an alarm of two submarines off Stornoway and another off Loch Roag in the Island of Lewis.⁴ On February 12 there was another alarm of a submarine to the south of Stornoway⁵ and the following day the collier *Churston* reported that she had been chased between 1 and 2.30 a.m. off Canna Island in the Hebrides, by a submarine rigged like a trawler, who fired five shots over her bridge; she also sighted two supposed submarines off Loch Ewe.⁶ As a result of these reports the imitation Dreadnoughts at Loch Ewe received orders not to leave harbour.⁷ Investigation, however, made it seem probable that these craft were in reality only trawlers.⁸

A number of alarms and rumours during the week preceding and the few days succeeding the opening of the blockade were likely to give a false impression in the fleet that there was instantly to be considerable activity in northern waters; thus, at this time rumours were current in the Press, from Norwegian sources, that ten German submarines had been battered by the weather and driven into Norwegian ports.⁹ At about the same time, on February 13, a submarine was reported 6 miles to the east of May Island;¹⁰ on the 16th, the trawler *Epworth* reported that a torpedo had been fired at her in Nairn Bay, Inverness;¹¹ the following day an alarm was received from shore watchers of no fewer than five submarines in the Minch, west of Island Bulgie;¹² while on the 22nd an armed boarding steamer reported that, at

¹ M. 010044/15. Steamers to attack submarines. Paper marked *D.O.D. Misc.* 62 of 8 February 1915. Paper marked *D.O.D. Misc.* 65 of 9 April 1915. Paper marked *Vessels employed on Special Service ('Q' Ships)*, 1914-18.

² H.S. 89, pp. 188, 310.

³ H.S. 89, p. 428.

⁴ H.S. 90, pp. 397, 424.

⁵ H.S. 91, p. 897.

⁶ H.S. 91, pp. 1103, 1126.

⁷ H.S. 92, p. 71.

⁸ H.S. 92, pp. 884, 939.

⁹ H.S. 91, p. 715; H.S. 92, p. 329.

¹⁰ H.S. 91, p. 1094.

¹¹ H.S. 92, pp. 566, 570.

¹² H.S. 92, p. 917.

7.30 p.m., off the coast of Caithness, a torpedo had been fired at her, missing by half a ship's length.¹ Previous to this, on February 18, a report was received from the Hague that, on the 20th, ten submarines of the 2nd Flotilla would be proceeding to the Shetlands,² while on the 20th it was stated that several submarines had been sighted off the Faroes.³ Three days later the Admiralty was informed by the French Naval Attaché that Dr. Jean Charcot was in possession of information relating to places in the Faroes which could serve as submarine bases.⁴ Dr. Charcot later offered his services to proceed personally to conduct a search for these bases. The Admiralty accepted this offer, and, on March 28, it was arranged that the French Government should charter a whaler for the expedition.⁵

It is now clear that all these reports were incorrect, for there is no record of any German submarine movements which could be made to fit any of them. Indeed, the only German submarine to traverse the area north-west of Scotland at this time was *U.30*, which started her return from Irish waters on February 22, arriving at List five days later; while of submarines operating from the Bight in the North Sea, apart from the cruise of *U.27* at the end of the month, none went further afield than about 100 miles from Aberdeen and the Longstone.

60. Encounter between the Trawler "Alexander Hastie" and a Submarine, February 23.—On February 23, at 3 p.m., the trawler *Alexander Hastie* was fishing 105 miles east-north-east of Longstone, when a submarine was sighted, the top of the conning tower, periscope and bridge rails being visible. Shortly afterwards she submerged altogether, apparently steering to pass astern of the trawler. The submerged vessel fouled the wires of the trawl, the resulting shock being felt on board the trawler; and shortly afterwards she appeared on the surface, either upside down or on her beam ends, for neither conning tower nor periscope was visible. The vessel remained in this position for about 20 minutes and then suddenly sank, quantities of oil appearing on the surface. The skipper of the trawler showed a curious apathy in not examining the craft more closely during the time that she was afloat.

This case raised questions as to the construction of German submarines. Commodore (S) stated that the metacentric height of these craft was unknown, but was believed to approximate to that of the British "V" class which, in its worst condition, might be only 5½ in. In these conditions a pull of 8 tons, or even less, would almost certainly start pulling the vessel over, and a shifting of weights, which would be probable, would rapidly decrease the necessary force required to pull her over. The trawler wires

¹ H.S. 93, p. 904.

² H.S. 92, p. 1057.

³ H.S. 93, p. 394.

⁴ H.S. 93, p. 1104.

⁵ H.S. 102, p. 460; H.S. 103, p. 365. After considerable delay a whaler was specially built; but the proposed search was not carried out (M. 06384/15).

would be capable of exerting a pull of about 40 tons before breaking. Opinion at the Admiralty favoured the supposition that the submarine was destroyed. It seemed likely that the pull on the periscope would have strained the glands through which it passed into the hull, thus producing a leak which caused the submarine to sink in 20 minutes. A reward of £100 was granted to the *Alexander Hastie*.¹

61. German Submarine Operations in the North Sea.—There is no record from German sources, however, of any submarine having been lost at this time in the vicinity, and it seems probable that the submarine encountered by the *Alexander Hastie* was *U.34*. This vessel had left Wilhelmshaven for Heligoland on February 17² and on the 20th had proceeded out to the north-west.³ At 11 a.m., on the 23rd, a German submarine was sighted in lat. 56° 52' N, long. 2° 19' E by a Norwegian steamer,⁴ this reported position being approximately 49 miles from the reported position of the *Alexander Hastie*'s encounter four hours later, which, when plotted, is found to be lat. 56° 45' N, long. 0° 50' E.⁵ On the 25th *U.34* reported that, having advanced as far as lat. 56° 57' N, long. 1° 38' E, she had been unable to reach the position ordered and had given up the undertaking due to bad weather.⁶ The proximity of these positions, together with the absence of any record from German sources of another submarine in the vicinity at this time, makes it appear extremely probable that it was *U.34* which was encountered by the *Alexander Hastie*. German submarine commanders at this period of the war were generally very communicative by W/T, and the remainder of *U.34*'s signal is of interest. Her high pressure air-pump was damaged. She had seen only neutral vessels on the line Lindesnaes—St. Abb's Head,⁷ but, nevertheless, conjectured that there was probably a trawler patrol on that line.⁸ This cruise of *U.34*, having proved completely abortive, is not dealt with in Volume IV of the German Official History. Assuming that it was this submarine which encountered the *Alexander Hastie*, it appears that the German commander saw no reason for reporting the incident to the authorities. On the same day that *U.34* made the signal quoted above, orders were sent to her

¹ Papers titled X. 5471/1915. Report of sinking of submarine by steam trawler *Alex. Hastie*.

² 2241/17 February (No. 1923) in Vols. 858 and 3011, I.D.H.S.

³ 0330/20 February (No. 2004) in Vols. 858 and 3011, I.D.H.S.

⁴ Entry: England—East, No. 38 in Vol. 733, I.D.H.S.

⁵ As the report does not specify whether the bearing from Longstone is true or magnetic, it has been assumed that it is the latter. It must be borne in mind that both the trawler's and the Norwegian steamer's reported positions may have been several miles in error, and consequently they may have been considerably closer than the reports seem to show.

⁶ 2055/25 February (No. 2108) in Vols. 858 and 3011, I.D.H.S.

⁷ The reported position of the *Alexander Hastie*'s encounter is some 10 miles to the north of this line.

⁸ 2055/25 February (No. 2108) in Vols. 858 and 3011, I.D.H.S.

by wireless to the effect that in the area bounded by the Faroës-Lindesnaes Lighthouse-Hanstholm Lighthouse—lat. 55° 0' N, long. 0°, and the east coast of England, ships under neutral flags were under no circumstances to be attacked for the time being.¹

Another cruise in these waters was that of *U.27*. She proceeded on February 25,² reporting her position several times on that day and the next.³ It was probably this submarine which was reported to the north-west and west of the Orkneys in the forenoon and afternoon of February 27.⁴ A signal made to her on February 26, with regard to British Admiralty restrictions and prohibitions in the Irish Sea, left no doubt as to her destination.⁵

On the east coast of England, outside the Hoofden area, the record of active submarine warfare is practically blank for the month of February. In the course of the month there were three reports of submarines; on the 9th, 41 miles E by N of Spurn Head; on the 27th, 30 miles NE by E of Longstone; and on the 28th, off Shipsea, Bridlington Bay;⁶ all the submarines reported were imaginary.

On February 5, the patrols were warned to look out for the Dutch *Ary Scheffer*, suspected of acting as a submarine supply ship.⁷ On February 24, the s.s. *Deptford* was sunk off Scarborough, the crew being brought to North Shields in the *Fulgens*. A report was in the Press that she had been torpedoed; in reality, she had struck a mine.⁸ On February 25, the Admiral of Patrols was told that two or three armed trawlers from Area X might occasionally cruise near the Swarte Bank for submarines.⁹

The Germans were far more communicative by W/T from the Bight than they were from the Flanders base, and at this period of the war submarine movements from the Bight were nearly always known. A note on one of the decoded signals of February 1915¹⁰ shows that 10 knots was the estimate at this time for the average speed of a *U*-boat on passage. From the Ems to Dover Straits is about 262 miles, and from the Ems or Heligoland to Fair Island about 445 miles, so the Admiralty would expect an outgoing submarine off Fair Island some 44 hours after she had left the Bight, while a westward-bound submarine would be expected off Dover after some 26 hours, if on passage from the Ems, or after

¹ No. 44/25 February (No. 2101) in Vols. 858 and 3011, I.D.H.S.

² 0331/25 February (No. 2112), Vols. 858 and 3011, I.D.H.S.

³ February 25 and 26, Vols. 858 and 3011, I.D.H.S.

⁴ H.S. 94, pp. 1049, 889.

⁵ No. 51/26 February (No. 2158), Vols. 858 and 3011, I.D.H.S.

⁶ Daily Return of movements of German and French ships in Home Waters.

⁷ H.S. 90, p. 445.

⁸ H.S. 94, p. 248. Merchant Shipping (Losses), H.M. Stationery Office, 1919.

⁹ H.S. 94, p. 444.

¹⁰ 0330/11 February (No. 1777), Vol. 858, I.D.H.S.

some 32 hours, if from Heligoland, unless she first proceeded to Ostend or Zeebrugge.

62. Operations in and near the Hoofden.—On February 19, units of the Harwich Striking Force encountered a submarine outside the Hoofden area. The *Penelope*¹ was on patrol, with the *Morris* and *Minos*, when at 9.10 a.m., in lat. 54° 3' N, long. 4° 28' E, the Captain of the *Penelope* sighted a submarine at about 1,000 yards distance, two points on the bow, with the deck just awash, showing the conning tower and periscope. She submerged in about 10 seconds and the *Penelope* failed in her attempt to ram her at full speed, nor was anything revealed by a subsequent search by the three vessels. The Captain of the *Penelope* thought that the submarine was getting into firing position and was forced to rise as high as she did and to break surface in order to see over the tops of the short steep waves. He did not think any torpedo was fired.²

On February 20, in the evening, a submarine was sighted three times by the *Brazen*, half a mile NE by N from the Shipwash Light Vessel, while what was considered to be a second submarine was fired on by a trawler north of the Shipwash. Two trawlers cruised over the spot and the following morning the area was carefully patrolled and 1,200 yards of detector net were laid to the southward of the South Shipwash, while all shipping was warned against anchoring in the locality. The enemy submarines were not sighted again off the Shipwash,³ but that afternoon (the 21st) a pilot boat reported a submarine 2 miles NNE of the Sunk Light Vessel, and the *Hydra* patrolled on the spot.⁴

Captain (D), 3rd Flotilla, in the *Undaunted*, proceeded with destroyers from Harwich in the morning of February 20 and, steering between the minefields, patrolled up and down off the Dutch coast. A submarine was sighted by the *Linnet* about 3 miles to the NNW. The position of the enemy was in about lat. 52° 40' N, long. 4° 10' E. She dived before the *Linnet* could get at her. The force was on a course S 18° W, at 15½ knots, and when sighted the hostile craft was on an approximately parallel course. At 3.33 p.m. she was sighted again and the destroyers made for her at full speed and opened fire. However, she dived at 3.45 p.m. and was not seen again.⁵

E.15 had been sent out to the Maas Light Vessel with the same orders as had been given before to *E.13*.⁶ She returned on February 22 with nothing to report.⁷

¹ *Penelope*: Captain Hubert Lynes. 3,500 tons; 28½ knots. 2—6 in.; 6—4 in.; 2—6-pr. A.A. guns.

² H.S. 93, p. 53. M. 01557/15. H.M.S. *Penelope*, Report on meeting with submarine and sinking of mines.

³ H.S. 93, pp. 448, 579.

⁴ H.S. 93, p. 592.

⁵ Deck Log and Signal Log of *Undaunted*, February 21. H.S. 93, p. 641.

⁶ See Section 27.

⁷ H.S. 93, p. 760.

In the meantime, the recently laid British minefields in the South Hoofden area were proving singularly ineffective against German submarines. This was partly because in some cases the mines were visible on the surface at low water. Warning was sent out on February 2 of the Ruytingen minefield, the mines of which had been seen by *U.16*¹ and on the 26th a general signal was made detailing the positions of the West Hinder-Fairy Bank-Ruytingen lines of mines. Vessels were ordered to pass this area only in good weather and at low water,² which gives the measure of the extent to which the Germans found these minefields formidable. At about this time German submarines received warning of a supposed system of hunting. Two trawlers were said to tow a net, while a third stood by to ram the enemy.³

On February 25 *U.20* proceeded from the Bight; next day she went into Zeebrugge for small repairs. On the 27th she continued her journey to the Channel. *U.8*, which had arrived at Zeebrugge from the Bight on February 14, received orders on the 17th to hold herself in readiness for the submarine blockade. It was not till the 20th that she was told to commence operations, sparing vessels under the American and Italian flags, unless definitely recognised as hostile. Before she left she was warned of steel nets at a depth of 10 metres, which were believed in many cases to form part of the British harbour defences. She proceeded out from Zeebrugge on the 20th and operated in the Channel; but her compass broke down and she was forced to return on February 26.⁴

63. Sinking of "U.12" by the "Ariel," 10 March 1915.—

There were numerous reports of submarines sighted in northern waters after February 18, none of special credibility, and they did not have any particular effect on fleet movements. The many stories of minelayers coming out from Germany to mine the route the Grand Fleet would take in the event of proceeding for a fleet action showed the desirability of keeping this route clear of mines. On February 23 the 3rd Cruiser Squadron went out from Rosyth with four destroyers, to protect the fleet sweepers, which were to sweep to the south-eastward from a rendezvous in 57° N, 2° 30' E, but there was too heavy a sea for sweeping till the 25th, and after two days the squadron returned to Rosyth, the track from the rendezvous to Rosyth having been swept.⁵

The lack of facilities for exercise and recreation at Scapa seemed likely to tell on the men of the fleet, and it was decided that the battle squadrons, as well as the cruiser squadrons, should

¹ No. 39, Norddeich to all ships, February 21 (No. 2037), Vols. 858 and 3011, I.D.H.S.

² No. 48, Norddeich to all ships, February 26 (No. 2157), Vols. 858 and 3011, I.D.H.S.

³ 1155/23 February (No. 2079), Vols. 858 and 3011, I.D.H.S.

⁴ I.D.H.S. Current Log.

⁵ H.S. 93, pp. 327, 607, 1065; H.S. 94, pp. 504, 772; G.F.N.

be based on Cromarty in turn. In accordance with this, the 2nd Battle Squadron left Scapa at 10.30 p.m., February 23. As the passage was made entirely in the dark hours, the battleships were not accompanied by destroyers; they arrived safely at 6 a.m., February 24, bringing the force there up to one battle squadron, two cruiser squadrons (the 2nd and 6th) and the 4th Destroyer Flotilla.¹

An increase of German messages with regard to the patrol arrangements in Heligoland Bight led the Admiralty to expect movements of the High Sea Fleet early in March; in consequence they warned the Commander-in-Chief, on March 1, to keep the Grand Fleet in readiness for immediate action during the next three weeks.² This order did not prevent the 6th Cruiser Squadron from patrolling off the Norwegian coast between 62° and 62° 30' N, to intercept German iron ore carriers from Sweden and neutral vessels with contraband. They were joined by an armed merchant cruiser from the 10th Cruiser Squadron, to assist in boarding work. The patrol was maintained till March 9, but did not find any ships to arrest.³

This was the last operation of the 6th Cruiser Squadron, which now consisted of the *Drake*, *Leviathan* and *Cumberland*.⁴ It was disbanded on March 10, the *Drake* being paid off and the *Cumberland* transferred to Cruiser Force I, operating off the west coast of Africa. Rear-Admiral W. L. Grant relieved Rear-Admiral Pakenham in command of the 3rd Cruiser Squadron; and Admiral Pakenham went to the 2nd Battle Cruiser Squadron, Admiral Patey having been appointed Vice-Admiral Commanding the North American and West Indies Station, with the *Leviathan* as his flagship. These changes took place on March 10,⁵ the *Leviathan* sailing for Bermuda on the 11th.

For some days it had been recognised that the anticipated German movement was unimportant, nothing more than exercises in the Bight, and Admiral Jellicoe, having obtained permission to exercise the whole Grand Fleet east of the Shetlands, went out from the 7th to the 10th; the Battle Cruiser Fleet from Rosyth simultaneously exercising to the southward of the Grand Fleet. During their absence it was clear that a submarine was working her way down the Scottish coast towards the Firth of Forth. The enemy was first sighted and chased by the armed trawler *Duster*, at 6 p.m. on March 6, in lat. 57° 0' N, long. 1° 18' W. Two days later she was sighted to the south-east of Buchan Ness and, from that time, a series of reports established that she was proceeding southward along the coast. The yachts and trawlers of the Auxiliary Patrol kept up a sustained hunt in which the

¹ G.F.N.

² A. 323.

³ H.S. 98, p. 753; H.S. 421, p. 24; G.F.N.

⁴ The 7th Cruiser Squadron now comprised *Minotaur* (flag), *Hampshire*, *Donegal* and *Lancaster*, the last being in Dockyard hands.

⁵ M. 01659/15; H.S. 99, p. 358; G.F.N.

destroyers of the 1st Flotilla, with the *Fearless*, later joined.¹ At 12.30 p.m., March 9, the *Fearless* and the 1st Flotilla left Rosyth and patrolled to the north in search of the submarine, but apparently passed her submerged. At 5.30 p.m. the *Leviathan*, of the 6th Cruiser Squadron, on her way from the Norwegian coast to Rosyth, where she was to hoist Admiral Patey's flag, sighted the submarine on the surface a few miles east of Bell Rock, being chased by an armed trawler. Survivors from *U.12* stated that they fired a torpedo at the *Leviathan*, which missed,² and were preparing to discharge a second, when chased off by the fire of the trawler. On receiving the report from the *Leviathan* the destroyers were recalled south and Captain (D), 1st Flotilla, arranged to sweep the area off the Firth of Forth on the morrow. At 9.15 a.m., March 10, the receipt of two different reports as to the position of the submarine caused him to divide his forces, sending the *Acheron's* division to the vicinity of the one and himself proceeding with the remaining two divisions to the other.

It was the report from the trawler *May Island*, L.H. 105, which was the immediate cause of the destruction of *U.12*; she sighted her at 9 a.m., when only a few miles from the destroyers and passed on the report without delay; Captain (D) was thus enabled to make the dispositions which resulted in the sinking of the submarine. At 10.15 a.m., the *Acheron*, *Attack* and *Ariel* were proceeding at 20 knots on a NE course in line abreast to port, when *U.12* was sighted almost simultaneously by the two latter destroyers. The *Attack* reported the enemy and opened fire, the three destroyers converging on her at full speed. *U.12* dived and the *Attack* passed over her, when she showed her periscope again on the port quarter of the latter, intending to torpedo her. At this moment the submarine was about 200 yards distant from the *Ariel*, 4 to 4½ points on her starboard bow. Her Commanding Officer, Lieutenant-Commander Creagh, put his helm hard-a-port, saw the conning tower come just awash and rammed the submarine close to the conning tower, passing over her.³ After two minutes, *U.12* came to the surface and the three destroyers opened fire. The crew came on deck and held up their arms in token of surrender. The destroyers ceased fire, lowered boats and succeeded in picking up 10 survivors from the crew of 28. Two of these were officers; they stated that the effect of the ramming was to cause a total failure of electric light and power, and to cause the batteries to give off suffocating chlorine gas. They then blew their tanks in order to rise quickly. The Captain of *U.12* was killed in the conning tower by a shot from the *Acheron*.

¹ M. 02074/15. Destruction of German submarine *U.12*. M. 02074/15, Sinking of *U.12*, Précis of reports circulated to Yacht Patrol. H.S. 99, pp. 557, 580, 603, 657.

² This is not confirmed in the interrogation of the first lieutenant and engineer officer of *U.12* in M. 02201/15.

³ The *Ariel's* bows were considerably damaged. She was taken in tow by the *Fearless*, proceeding into Leith that afternoon.

In forwarding his report on the sinking of the submarine, Admiral Lowry emphasised that, though much credit was due to the destroyers, yet it was the conclusion of an 88 hours' search over 120 miles by vessels of the Auxiliary Patrol in Areas V and VI, and that success would never have been possible but for the accurate information sent in from many sources, which enabled the submarine's movements to be traced.¹

Even after the destruction of *U.12* it seemed that another submarine was waiting off the Forth, for the *Indomitable*, engaged in full calibre firing before definitely joining the Battle Cruiser Fleet, observed at 6.35 p.m., March 11, what appeared to be a submarine on her starboard quarter. The battle cruiser was altering course at the moment and no torpedo was seen. Two destroyers sent out from Rosyth hunted for the enemy vessel, but found nothing.² Further destroyer chases, resulting from reports of submarines off the Forth on March 15 and 20, also failed to find traces of the enemy.³

64. Submarine Alarm in the Firth of Forth, March 15-20.—

On March 15 and the following days there was a submarine alarm in the Firth of Forth. The wash of a periscope was first sighted at about 7.10 a.m. by the armed merchant cruiser *Calyx*, in lat. 56° 4½' N, long. 3° 0' W, and a second time at 7.18 a.m. in lat. 56° 3½' N, long. 3° 3½' W. On this occasion a round was fired, but fell short. The *Calyx* was steaming at 12 knots and zigzagging; she reported the occurrence to the examination vessel at 7.25 a.m. Shipping was warned that it would be

¹ M. 02034/15. Report of Captain (D), 1st Flotilla, on sinking of *U.12*. M. 02074/15.

M. 02201/15. Information from survivors of *U.12*.

The following reports helped to establish the movements of *U.12*. They are taken from M. 02074/15. See also tracing enclosed in that docket.

Duster. 6 p.m., March 6, submarine lat 57° N, long. 1° 18' W, steering WNW.

Neil Gow. 10.30 a.m., March 8, submarine 8 miles SE of Cruden Bay.

Ben Stroud. 5.30 p.m., March 8, submarine 17 miles E by N of Girdleness.

Martin. 7 a.m., March 9, chased submarine from Aberdeen to Stonehaven, steering SSW.

Fishing boat from Gourdon, 12.15 p.m., March 9, submarine reported 3' SE of Gourdon.

Chester. 3 p.m., March 9, submarine 1½ miles NNE of Red Head, going S.

H.M.S. *Leviathan*. 5.30 p.m., March 9, submarine sighted a few miles E of Bell Rock.

Strathisla. 7.45 a.m., March 10, submarine in lat. 56° 13' N, long. 1° 56' W, steering NW.

May Island. 9 a.m., March 10, submarine in lat. 56° 15½' N, long. 1° 56½' W approximately.

H.M.S. *Ariel*. 10.30 a.m. March 10, sank submarine in lat. 56° 17' N, long. 1° 54' W.

² M. 02397/15. It is improbable that any submarine was present. T.S.D.D.

³ G.F.N.

inadvisable to sail for the time being, and the *Reliance* and *Calyx* were held up. At 9.40 a.m. the destroyer *Vigilant* reported sighting a periscope 2 miles west (magnetic) of Elieness. This caused a redistribution of the destroyers and torpedo boats engaged in searching. Commander Fane, the assistant extended defence officer, was sent with three drifters, each with eight indicator nets, to lay a line of nets S by W from Kincaig Point, and drifters patrolled these nets. A search by destroyers and all available patrol vessels was organised. During the forenoon, three reports were received of a submarine being sighted off Scurdyness, Miltonness and Buchanness. The *Fearless* proceeded at 2.45 p.m., with 12 destroyers of the 1st Flotilla, passing Inchkeith at 3.12 p.m., to search for the one off Scurdyness.¹ At 6.30 p.m. the microphone station at Oxcars reported hearing the machinery of a submarine, on which the drifters were ordered to weigh their nets and bring them in ready to lay at Oxcars, arrangements being made for two torpedo boats to watch them when laid. The search continued and at 8.5 p.m. a submarine was sighted on the surface on the port beam of the armed trawler *Lark*, about 1 mile to the east of Oxcars. The enemy submerged before the trawler could turn and ram her, and in the dark the sweep could not be got ready quickly enough to catch her. The hunt was continued on the 16th, the submarine being sighted in the forenoon and afternoon. The search was assisted by a microphone in a trawler, through which some form of signalling was heard, though the officer-in-charge kept no record of these signals. It was assumed that there were two submarines in the Forth.² On the 17th, at about 10.30 a.m., the trawler *Trogon* struck a submerged object, which caused her bow to rise 2 ft., the trawler sliding over the object. Oil was seen on the surface and it was thought that the collision was with one of the enemy submarines. Five destroyers of the 1st Flotilla, with modified sweeps, operated inside the Firth, and in the afternoon there were further reports off Oxcars and off Burntisland. Trawlers kept patrolling the buoyed channel with modified sweeps out.³ That night there was a heavy snow blizzard, rendering an efficient patrol impossible, and an east wind which was blowing on the following day made it unlikely that a submarine could lie on the bottom in the Firth; there had been no further report since the evening of the 17th, so the advice to merchant shipping to delay sailing was withdrawn. On a further report from Oxcars

¹ H.S. 100, pp. 962, 1013; H.S. 101, pp. 183, 259, 312.

M. 02497. Escape of German submarines from the Firth of Forth on 15, 16 and 17 March, 1915. (Docket No. 788/057 D.) M. 19127/15. *Calyx*, encounter with submarines, in X. 6801/15.

² M. 02497 (Docket No. 788/057 D.). H.S. 101, pp. 186, 285, 326. The Admiralty later gave orders that such intercepted signals should be telegraphed to the Director of the Intelligence Division. The messages might pass between submarines and supply ships, or the shore. See M. 02374/15. Suspected signalling by enemy submarines.

³ M. 02497 (Docket No. 788/057 D.). H.S. 101, pp. 198, 363.

Microphone Station, at 9.7 p.m. on the 18th, the torpedo boats resumed patrols, especially working in the area west of Inchkeith and round the examination anchorage.¹ The microphone station again reported sound at 1.15 a.m. on the 19th, but no submarine was sighted on that day.² In the forenoon of the 20th there was a reliable report of a periscope having been sighted 5 miles to the east of Kirkcaldy; shipping leaving the Firth thereupon received warning to proceed at full speed.³

Vexation appears to have been felt at the Admiralty at the failure of the hunting forces to prevent the escape of the submarine or submarines from the Firth, between the 15th and 17th, although detected by microphone, and a telegram was despatched to the Senior Naval Officer, Rosyth, calling for a report of the circumstances and for the names of officers who were "culpable in showing want of resource, brains and energy."⁴

Admiral Lowry found himself unable to reply in the exact sense of this telegram, for he attributed the escape of the submarines to other causes and wrote as follows of the officers under him: "I am of opinion that the Extended Defence Officer and his subordinates, together with the Commanding Officers of the 8th Flotilla and Auxiliary Patrols, showed zeal, energy and ability, in their actions on this occasion, and I am unable to report any of them to be wanting in these qualities." He attributed the lack of success achieved on this occasion to the following reasons:

- (a) The want of sufficient indicator nets.
- (b) The great distances apart at which reports were received from time to time.
- (c) The necessity for keeping a close watch on a section of the Outer Net Defence which had carried away owing to the gale, and the necessity for protecting ships going in and out.
- (d) The difficulty of distinguishing reliable from unreliable reports from the microphone station.

With regard to (a), only 30 indicator nets had been available and their utility was greatly hampered by their want of floating power. They were in process of being fitted and the majority had the Kapok floats, which soon got waterlogged. In changing the positions of these nets several of them got badly foul of the bottom and much delay was caused in having to refit them, several being lost.

With regard to (b), the reports received on the second day indicated the presence of a submarine to the eastward of Inchkeith, and also to the westward and on both sides of the Forth, at short intervals, which necessitated keeping the patrol vessels very much dispersed.

¹ M. 02497 (Docket No. 788/057 D.). H.S. 101, p. 522.

² M. 02497 (Docket No. 788/057 D.).

³ H.S. 101, p. 902.

⁴ H.S. 102, p. 954.

Regarding microphone reports, the personnel installed at Oxcars consisted of four able seamen, R.N.V.R., who had only had three weeks' training in determining the many varieties of sound. Many reports by them of submarines had proved to be incorrect. On this occasion the majority of their reports were accepted as correct, and action was immediately taken in disposing surface vessels.

In accordance with the Admiralty telegram, Admiral Lowry forwarded a very detailed report of the operations in the Firth of Forth over the period March 15-18, drawn up by Commander Bernard J. H. Ward, R.N., the Extended Defence Officer at Inchkeith.¹

The real cause of the failure of the hunting forces in the Firth of Forth to destroy a submarine on this occasion was neither the want of resource, brains and energy imputed to the officers concerned in the Admiralty telegram, nor the difficulties detailed by Admiral Lowry, but the simple fact that, in spite of all appearances, which at the time seemed quite conclusive, there was no submarine in the neighbourhood.

65. Sinking of "U.29" by the "Dreadnought," March 18.—The Commander-in-Chief had obtained permission to take the Grand Fleet to sea for exercises on March 15, but the sailing was abandoned through fog and the cruise delayed till the following evening.² The Battle Fleet accordingly left the Scapa and Cromarty bases at 7.30 p.m. on March 16, the 2nd Battle Squadron from the latter port, accompanied by the 7th Cruiser Squadron and the 2nd Flotilla. The 1st and 2nd Cruiser Squadrons and 3rd Light Cruiser Squadron accompanied the battleships from Scapa. A collision took place between the destroyers *Nemesis* and *Nymphe* and the sea soon proved too heavy for the destroyers, who were ordered to Longhope at 8 a.m. on March 17, leaving at 5 a.m. the following morning to sweep the route out from the Pentlands.

The battlefleet carried out strategical exercises on March 17 and battle tactics the same evening, the fleet separating at 6 a.m. the following morning for a second strategical exercise. On the completion of this, course was shaped to return to the bases, further contemplated practices being abandoned, as it was considered that the fine weather and good visibility was favourable for submarine attack, while the submarine reports indicated that at least one of these craft might be expected to pass through the fleet area early in the day, on her return journey to the Bight.³

At noon on March 18 the fleet was in lat. 58° 21' N, long. 1° 12' E, and the 4th Battle Squadron was detached to Cromarty. At 12.18 p.m. the 1st and 2nd Battle Squadrons were formed in

¹ M. 02497. Escape of German submarines from the Firth of Forth on 15, 16 and 17 March 1915, Dockets Nos. 787/057D and 788/057D.

² H.S. 100, pp. 170, 1110; H.S. 101, p. 92; G.F.N. of date.

³ G.F.N. of date.

divisions in line ahead, disposed abeam to starboard, steering to the westward at 15 knots and zigzagging; when the *Marlborough*, who was leading the port wing column, sighted the periscope of a submarine, reporting that a torpedo had been fired at the *Neptune*, the rear ship of the column, passing 30 yards astern; this torpedo was not seen by the *Neptune*.

The 4th Battle Squadron had just previously passed under the stern of the 1st and 2nd Squadrons, steering to the SSW in two divisions in line abreast, disposed astern, prior to making for Cromarty. The submarine's position was on the starboard bow of the 4th Battle Squadron. On sighting the submarine, the *Marlborough* signalled to the Vice-Admiral Commanding 4th Battle Squadron, "Submarine ahead of you." Between the signal being made and its receipt by Admiral Sturdee, the latter had ordered an alteration of course, the squadron wheeling four points to starboard, which necessitated a reduction to 10 knots on the part of the pivot ship. This "wheel" brought *U.29* on the port bow of the *Dreadnought*, the port wing ship; the officer of the watch, Lieutenant-Commander Piercy, sighting the periscope at 12.28 p.m., one point on the port bow, at a range of 1,500 yards. The *Dreadnought* altered course towards the submarine at full speed, about 17½ knots; the next ship to starboard, the *Temeraire*, also heading towards her at 18 knots, slightly converging on the *Dreadnought*; the remaining two ships turned together four points to starboard.

The course of *U.29* was altered several times, but her mean course appeared to be straight away from the *Dreadnought*. Commander (N) Harry W. C. Hughes conned the ship; and at 12.35 p.m. the submarine was overtaken and rammed, apparently on the starboard quarter. On being struck her bows came out of the water at an angle of about 30° from the vertical, showing about 30 ft. of the fore part, and the number *U.29* was observed in relief figures, painted over, on the bow. The submarine immediately sank by the stern; the *Blanche* visited the spot just after and found a quantity of oil and some wreckage. No survivors were seen and the ship was not stopped to pick up anything, as another periscope was reported.¹

The circumstances of the sinking of *U.29* were not published at the time, with a view to the moral effect on the enemy of mystery as to the submarine's fate.² Rumours were circulated in Germany to the effect that she had been destroyed through being rammed by a British tank steamer flying the Swedish flag, who had been ordered to stop. In June the German Admiralty gave official confirmation to this erroneous account, on which the British Admiralty announced briefly that *U.29* had been sunk by one of H.M. ships.³

¹ H.S. 102, p. 477; M. 02306/15; M. 03218/15.

² A 391; H.S. 102, p. 477.

³ H.S. 125, pp. 796, 843, 885.

On the report of the sighting of *U.29*, the Commander-in-Chief ordered a 12-point turn to starboard and increased speed to 17 knots to clear the dangerous area. The fleet proceeded to the eastward till 1.30 p.m., turned to the northward to give the danger area a wide berth and then returned to its base, arriving at Scapa early on March 19.¹

66. Activity off East Coast of England in March.—The month of March saw a development of submarine warfare off the east coast of England. There were several reports of submarines off the coast early in the month,² but these did not lead to anything. On March 4 the Admiralty learned that a German submarine was leaving Heligoland that afternoon to the north-west³ and on March 8 the restrictions were cancelled which forbade German submarines to attack ships under neutral flags between the Tyne and Skagerrak.⁴

On March 9 occurred the sinking of the British s.s. *Tangistan*, bound for Middlesbrough. This happened at 12.30 a.m., about 8 miles to the northward of Flamborough Head. There was an explosion, and the ship sank rapidly in about four minutes, leaving only one survivor. She was proceeding at slow speed in order to adjust her time of arrival at Middlesbrough to the tide. The Admiralty announced officially that the vessel had been torpedoed, and, consequently, in the post-armistice official return of merchant shipping losses⁵ she is tabulated as sunk without warning by a torpedo from a submarine. However, it was soon realised at the Admiralty that there was very little evidence to show that her loss was the work of a submarine; the vessel was apparently proceeding against instructions, and if among other neglected instructions she had omitted to keep inside the ordered channel, then she had very possibly been mined. The original announcement, however, remained unaltered.⁶

On March 13, however, there was unmistakable evidence of one or more German submarines off the east coast. At 12.30 a.m. on the 13th the Swedish s.s. *Hanna*, on voyage from South Shields to Las Palmas, was torpedoed without warning and sunk, about 5 miles north of Flamborough Head. The wake of the torpedo was observed, but not the submarine. The *Hanna* sank in half an hour, six of her crew perishing; the remainder took to the boats, and were picked up by the Swedish steamer *August Leffler*.⁷ At 8.30 that morning the British s.s. *Invergyle* was torpedoed and sunk without warning between Coquet Island and Blyth, the torpedo being observed before it

¹ G.F.N. of date.

² Daily Return of movements of German and French ships in Home Waters.

³ 2335/4 March (No. 2292), Vols. 858 and 3011, I.D.H.S.

⁴ 63/8 March (No. 2387), Vols. 858 and 3011, I.D.H.S.

⁵ Merchant Shipping (Losses), H.M. Stationery Office, 1919.

⁶ M. 18629/15, *Tangistan*. Loss by torpedoing. H.S. 99, p. 618.

⁷ H.S. 100, pp. 545, 624.

struck. No lives were lost from this vessel.¹ On March 15 there was a further loss in this locality, the British s.s. *Fingal* sinking in three minutes after an explosion off Coquet Island, with a loss of life of six. Neither the submarine nor the torpedo was seen, and it was not certain at the time whether she had been torpedoed or mined.²

A submarine was sighted at 2.30 p.m. on the 15th by the Danish s.s. *Diana*, about 35 miles from Blyth, in lat. 55° 25' N, long. 0° 37' W, the report reaching the Naval Centre, Hull, the following evening. The *Diana* saw the German vessel proceed to a three-masted schooner, and on the 17th a report from this schooner, the Norwegian vessel *Gazelle*, established the identity of the enemy. She had been stopped by *U.23* at about 3 p.m. on the 15th. The crew was given 10 minutes to leave the ship, but was allowed to return after an inspection had established that she carried no contraband.³ The submarine had left the Bight on March 9.⁴ On the 16th she reported herself to be returning, having destroyed two merchant ships.⁵ A later signal gave the additional information that, while she had sunk two steamers off the mouth of the Tyne, two more torpedoes did not explode.⁶

On the 16th, at 10 a.m., another submarine had reported her position in lat. 55° 57' N, long. 3° 15' E, steering for the Bight. This was *U.27*, on her return journey from Irish waters. A report of her cruise was sent out on the 17th; she had passed to the north of the Shetlands and observed the Auxiliary Patrol forces in the neighbourhood.⁷

To meet the submarine attacks on the east coast during this month the Admiral of Patrols had at his disposal a force consisting of destroyers of the 9th Flotilla, armed trawlers and aeroplanes. The 9th Flotilla had been recently reorganised, and at this time consisted of the *Patrol* and 12 destroyers.⁸ These destroyers were divided into four divisions, of which one division was always at Immingham, cleaning boilers, while the remaining three were based in turn on the Tyne and Tees for duty at any point in the 130 miles' stretch of coast between St. Abb's Head and Flamborough Head. There were, therefore, nominally nine destroyers available for the defence of this stretch of the coast, of which four had to be withdrawn from their proper station in the Tees, but the exigencies of escorting duties and of refitting would

¹ H.S. 100, p. 563. M. 18766/15. s.s. *Invergyle*, torpedoed off Blyth.

² H.S. 100, p. 1035. M. 18867/15. s.s. *Fingal*, torpedoed or mined off.

³ H.S. 101, pp. 188, 331. Entry: C. 20/2 in Vol. 734, I.D.H.S.

⁴ 0123/9 March, Vols. 858 and 3011, I.D.H.S.

⁵ 2000/16 March (No. 2613), Vols. 859 and 3011, I.D.H.S.

⁶ 0521/17 March (No. 2653), Vols. 859 and 3011, I.D.H.S. In this connection it should be noted that on March 26 a German torpedo was picked up by the *Test* five miles to the east of Blyth. (M. 02550/15.)

⁷ 2200/16 March (No. 2611); 0521/17 March (No. 2653), Vols. 859 and 3011, I.D.H.S.

⁸ *Rother, Ettrick, Ouse, Kale, Stour, Test, Doon, Nith, Ness, Itchen, Waveney, Moy.*

often reduce this number; and on March 22 only six destroyers of the flotilla were available. No vessels of this flotilla had yet been fitted with the modified sweep, nor had indicator nets as yet been supplied for use in this area.¹

On the report of the loss of the *Invergyle* destroyers were sent to search everywhere in the vicinity, while a force of three destroyers, one armed yacht and three armed trawlers remained patrolling between Blyth and Longstone. On the 16th and 17th the Admiral of Patrols sent out minesweepers to work in the area off Amble, in case the shipping losses should have been caused by mines; aeroplanes patrolled along the coast, whilst nine destroyers and three armed trawlers searched everywhere without result. A gale and snowstorm on the 18th and 19th prevented the hunt being continued on those days, but on the 20th the search was renewed, and from that day destroyers and armed trawlers searched daily without result. There were frequent reports of oil between Longstone and Blyth, on receipt of which a sweep would be carried out in the locality, though it was realised that in many cases these oil patches were only the result of refuse thrown overboard by passing steamers.²

67. The War in the Hoofden in March.—As was the case in February, there was greater submarine activity throughout this month in the Hoofden than in the rest of the North Sea area, several submarines proceeding out to Flanders and returning to the Bight. At the beginning of the month *U.6* returned to the German Bight from her channel cruise. On March 3 she reported that she had met with no success; she proceeded to Heligoland the following day.³

On March 4 in the afternoon *U.29* proceeded from the Bight on her ill-fated cruise. She was bound for Irish waters *via* Dover, but put in to Ostend for repairs on the 5th.⁴

U.35 proceeded from the Bight on March 7, and was in lat. 52° 33' N, long. 3° 45' E, at 6 a.m. on the 8th, being expected to reach the Varne between 10 and 11 p.m. that night.⁵ After a cruise in the Channel she was back in the Hoofden on March 18, giving her position at 7 a.m. in lat. 51° 33' N, long. 2° 55' E, and commenting on the Outer Ruytingen minefield. On the 20th

¹ M. 02334/15. Disposition of 9th Destroyer Flotilla. M. 02550/15. 9th Destroyer Flotilla. Report of operations in hunting a submarine, 13-27 March 1915.

² M. 02550/15. 9th Destroyer Flotilla. Report of operations in hunting a submarine, 13 to 27 March 1915. H.S. 100, p. 1090; H.S. 101, pp. 149, 204.

³ 0330/3 March (No. 2262); 1835/4 March (No. 2283), Vols. 859 and 3011, I.D.H.S.

⁴ 0120/4 March (No. 2295); 0018/5 March (No. 2315), Vols. 859 and 3011, I.D.H.S.

⁵ 0200/7 March (No. 2367); 1900/8 March (No. 2390), Vols. 859 and 3011, I.D.H.S.

she was back in the Bight, and reported having sunk three steamers on her cruise.¹

On March 13 a submarine left at dawn to the south-west and west, *i.e.*, for the Hoofden. The vessel was not named, but in all probability was *U.34*. After a cruise in the Channel this submarine was off the Fairy Bank in the Hoofden at 9.45 a.m. on the 23rd, reporting that she had sunk four steamers. She proceeded to Heligoland on the 25th, her experiences of the Dover Patrol being reported. According to this report the line Dover-Calais was strongly protected by a patrol of destroyers and trawlers, the latter usually working in pairs, probably with ropes or nets. Passage of the Straits under water by day was advised.²

On March 9 a submarine was reported to have gone out from the Bight to the west;³ this we now know to have been *U.23* proceeding to the Tyne. There was a similar report on the 16th. This latter submarine was *U.28*. At 11.30 a.m. on the 17th she gave her position in lat. 52° 39' N, long. 4° 5' E, and at 8 a.m. on the 18th stated that she was steering for Zeebrugge with two Dutch prizes, having sunk the British s.s. *Leeuwarden* by gunfire in lat. 52° 3' N, long. 3° 44' E.⁴ She entered Ostend in the evening of the 20th, proceeding again the following day.⁵ At the beginning of the week, in the afternoon of March 14, *U.20* had reported herself proceeding into Ostend;⁶ she had proceeded out from the Bight at the end of February.⁷

The foregoing gives what was known at the Admiralty, or could be inferred, from decoded messages; but quite apart from these there was ample evidence of considerable submarine activity throughout the month in the Hoofden, a large number of reports being received from different parts of the area. The focus of activity at this period was the Maas Light Vessel. On March 2 the British s.s. *Wrexham* was chased by a submarine in this neighbourhood. She was one of the Great Eastern Railway Company's packets, plying between Harwich and Rotterdam. On this occasion she was commanded by Captain Charles A. Fryatt. The submarine was sighted at 12.35 p.m. when the *Wrexham* was approximately in lat. 51° 50' N, long. 3° 0' E. The enemy approached the packet, but Captain Fryatt altered course to escape, and ordered the engineer to proceed at maximum speed. A speed of nearly 16 knots was attained, though 14 knots was the nominal maximum. The submarine only abandoned the

¹ 2000/18 March (No. 2663); 2200/20 March (No. 2697), Vols. 859 and 3011, I.D.H.S.

² 0508/12 March (No. 2512); 2325/23 March (No. 2755); 1935/25 March (No. 2794); 1746/25 March (No. 2796), Vols. 859 and 3011, I.D.H.S.

³ 0123/9 March (No. 2423), Vols. 859 and 3011, I.D.H.S.

⁴ 0105/16 March (No. 2618); 0030/17 March (No. 2649); 2100/18 March (No. 2671), Vols. 859 and 3011, I.D.H.S.

⁵ 0830/20 March (No. 2710), Vols. 859 and 3011, I.D.H.S.

⁶ 0520/14 March (No. 2558), Vols. 859 and 3011, I.D.H.S.

⁷ 0125/25 February (No. 2109), Vols. 859 and 3011, I.D.H.S.

chase when the *Wrexham* had approached to about a mile from the Maas Light Vessel.¹

On March 5 Commodore (T) sent out the *Miranda* and three destroyers of the 3rd Flotilla to sweep between the minefields at 20 knots, as far east as 10 miles to the east of the North Hinder Light Vessel. They returned in the evening, having seen nothing of any submarine.² On the 8th the Admiralty ordered up seaplanes from the Nore and Harwich, weather permitting, to scout for submarines.³

On the 14th seaplanes reported two submarines to be lying on the bottom close to the Cork Lightship. Nets were laid south of the Shipwash and Rough Buoy, and the destroyers *Laforey* and *Moorsom* sent out to sweep. They returned in the afternoon. Two destroyers continued the search the next day.⁴

In the meanwhile the German submarine activity off the Maas Light Vessel was becoming an inconvenience. On March 7 two steamers sighted a submarine in the vicinity,⁵ and on the 14th the British s.s. *Quentin* made her escape after a chase. She sighted the enemy at about 5 p.m., 5 miles to the NNW of the Maas; and was chased to a distance of 1 mile outside the lightship, but the *Quentin*, making about 13 knots, succeeded in escaping.⁶ In the evening of the 17th occurred the sinking of the British s.s. *Leeuwarden* by *U.28*, 4 miles from the Maas. The former was proceeding from London to Harlingen, and sighted the submarine under the Maas Light Vessel, in hazy weather. The German vessel approached, and the merchantman endeavoured to escape, by altering course first to the NW, then to the W, but she could only make 12 knots, while the enemy was thought to be making a minimum of 16 knots. She then fired three shots, when the master of the *Leeuwarden*, judging the position to be hopeless, stopped, with the German at a distance of about 500 ft. The enemy commander then shouted in English: "I'll give you five minutes to leave your ship," and while the crew were taking to the boats 10 shells were fired into the vessel. This was at about 4.15 p.m. *U.28* then took the boats in tow until met by a Dutch cutter, on board of which the crew were taken; she then returned to the *Leeuwarden*, who was still afloat, and completed her destruction by gunfire. The vessel finally sank at about 5.15 p.m.⁷

The activity of German submarines in the southern Hoofden area caused applications for protection to be made by companies owning the ships plying in these waters. On March 5 the Great Eastern Railway Company had requested protection for their

¹ M. 18410/15. H.S. 98, p. 348.

² H.S. 98, p. 933; Commodore (T)'s diary of date.

³ H.S. 99, p. 409.

⁴ Commodore (T)'s diary of date; H.S. 100, pp. 882, 1026.

⁵ H.S. 99, p. 382.

⁶ H.S. 100, p. 1014.

⁷ H.S. 101, p. 462. M. 19435/15. Sinking of s.s. *Leeuwarden* by *U.28*.

boats carrying foodstuffs. In reply it was stated that destroyers could not be specially detailed, in view of the demands on them for the escort of transports, etc., and it was pointed out that destroyers frequently patrolled the area, as did air-scouts.¹ On March 19 the General Steam Navigation Company, who had owned the *Leeuwarden*, requested the Admiralty to consider the possibility of despatching a torpedo boat to the area in the vicinity of the Maas.² On March 25 the Great Eastern Railway Company renewed their request for a more adequate patrol of the danger zone, between the Maas, North Hinder and Galloper. Lack of this was said to be telling on the morale of the crews. Once again the impossibility was pointed out of providing escorts for ships, and the Company were informed that Commodore (T) sent destroyers as often as possible to patrol the route in question.³ The same day orders were sent to Commodore (T) that whenever possible he was to send a division or a pair of destroyers to search for submarines in the vicinity of the Maas and North Hinder Light Vessels, and towards Schouwen Bank. He was informed that, in addition to submarines, German armed trawlers had also been in this locality.⁴

Apart from all this submarine activity, there had been an intention on the part of the German authorities to attack England with airships from Flanders. The first airship to leave Germany on this mission was *L.8*, which, going up from Düsseldorf on February 26, was to have made an attack on London. The flight had to be broken off, owing to the wind rising, and the next day the ship landed at the army airship shed called "Gontrode," near Ghent. She was ordered to return to Düsseldorf as soon as the weather was suitable, but the airship's captain thought that in view of his previous orders he could attack London on the road home. By March 4 the weather was suitable for flying, and he proceeded in *L.8* with 70 incendiary bombs on board for Mersea Island, in order to proceed from there to London. Very soon after she was in the air *L.8* found herself in clouds, and had to come down in order to check her position. Had her commander known that he was descending into Allied lines to the west of Ostend, he would certainly not have selected that spot. The airship at once came under fire from guns and machine guns, which damaged some of the gas cells, and in 10 minutes the ship became so heavy that her fuel, all her bombs, and the last of the water ballast had to be thrown overboard to get her out of range. When she had once more arrived, as was thought, at Gontrode, and descended through the clouds to the shed, she found that she had been drifting back towards Tirlemont, and, moreover, her motors giving out, she sank deeper and deeper until she was caught in the tall trees. Some of the crew were thrown out, the commander was severely injured, and the ship almost

¹ M. 01897/15.

³ M. 02453/15.

² H.S. 101, p. 715.

⁴ A. 420.

destroyed by the high wind. This flight was the only one of its kind undertaken from Flanders by naval airships. After this a longer but less dangerous method of approaching from the German North Sea coast was used for attacks on England.¹

The only naval aircraft in Flanders were seaplanes. The first of these had arrived when the first air station on the Mole at Zeebrugge had been founded on 5 December 1914. The first flight from there was made on December 14 to Dunkirk, and the first bomb dropped in England by an enemy aircraft came from seaplane 203 (Lieutenant von Prondzynski), who on December 23 attempted to bomb Dover Harbour railway station. On Christmas Day, 1914, the same machine flew over the Thames and dropped two bombs on Sheerness. Although she was under heavy fire there, and at Chatham and Gravesend, and was chased by a British machine, she was able to make important observations of British naval forces and of the shipping in the Downs. She had to alight on the water twice during the return journey, and came under fire from the rifles carried by trawlers, but was able to get back to Zeebrugge, though with completely empty tanks. Lieutenant von Prondzynski was lost with this seaplane 203 on February 21 during a night flight to the English coast.²

CHAPTER VIII.

THE DOVER NET EFFECTIVE.

68. **Further Attacks off Beachy Head, March 18-25.**—In spite of the efforts to maintain a patrol off Beachy Head and to keep steamers from closing the landfall there, between March 18 and 22 several ships were lost within sight of it. On the 18th, in the forenoon, the *Glenartney*, bringing rice from Bangkok, was torpedoed without warning 4 miles south of the Royal Sovereign Light Vessel. Another steamer was in sight; she conformed to the Admiralty regulations, turned away, and made no attempt at rescue, thereby incurring the unmerited and soon disproved suspicion that she was assisting the submarine. After the *Glenartney* had disappeared, one of the Newhaven torpedo boats came up and took the boats into harbour. Admiral Hood sent out all his available destroyers to reinforce the patrol; one of them, the *Maori*, an hour or so later, saw the submarine on the surface, but could not get a shot at her.³

The submarine moved off westward and in the afternoon torpedoed another vessel without warning, 10 miles south of Shoreham; this was the *Bluejacket*, bringing wheat from Argentine for London.⁴ The enemy was next sighted shortly

¹ *Nordsee* IV, p. 118.

² M. 19129/15. H.S. 101, p. 570.

³ *Nordsee* IV, pp. 116-7.

⁴ M. 19293/15.

before noon of the 19th by the *San Dunstano*, which was chased and made the S O S signal, but escaped undamaged. Destroyers went out from Portsmouth, but found nothing in the position reported. The submarine was now on the transport route, over which passed that night, not only two fast and two slow transports with their destroyer escort, but also a ship full of German prisoners being transferred to the Island of Jersey. This vessel, like the other transports, was given two destroyer escorts.

The submarine made no attempt on these but reappeared off Beachy Head late on the 20th, chasing two vessels, both of which escaped. Next day in the same neighbourhood she torpedoed, again without warning, the British steamer *Cairntorr* which, in accordance with the Admiralty instructions, was flying the Norwegian flag. The *Ure*, on patrol, was near and fired on the submarine, without effect. The whole incident was seen by Beachy Head Signal Station, whose report brought out two of the Newhaven torpedo boats and a tug, but the *Cairntorr* sank before she could be towed in. It had been Admiral Hood's practice to have one of his destroyers patrolling near Beachy Head; he now sent a whole Auxiliary Patrol unit to work there till further orders, with two destroyers in support.¹

The raid continued another day. Early on the 22nd another vessel, the *Concord*, with wheat from South America, was torpedoed a few miles east of Beachy Head. The Auxiliary Patrol unit arrived soon afterwards and rescued the crew.² The neighbourhood seemed specially dangerous; and orders were sent out for the Auxiliary Patrols in the Channel to divert vessels further out.

Although there were several reports of submarines sighted near Beachy Head during the next few days, the boat which had been operating there seems to have gone home after sinking the *Concord*. She was the last submarine to operate definitely off Beachy Head for many months. Nevertheless, submarines passing on their way to and from more distant areas occasionally attacked vessels there.

The submarine which had sunk these four vessels off Beachy Head was *U.34*, Lieutenant-Commander Rücker; she had also on board the Senior Officer of the 2nd Submarine Half-Flotilla, Commander Spindler. On the return journey *U.34* made a W/T report of her cruise, giving the intelligence that, for the most part, steamers from Dungeness to the Isle of Wight kept close to the coast and stating that the best position for a submarine was between Dungeness and Beachy Head. Five hours after high water at Dover, the mines between the Sandettie and Ruytingen Banks had been observed on the surface. This submarine returned to Heligoland on March 25.³

¹ M. 19268/15; A 405; H.S. 102, pp. 125, 158, 286.

² M. 19328/15; H.S. 102, p. 323.

³ 1125/23 March in I.D.H.S. Records.

On March 25, in the forenoon, the Dutch steamer *Medea* was stopped by *U.28*, Lieutenant-Commander Förstner, about 6 miles S 58 E from the Royal Sovereign Light Vessel.¹ Her cargo consisted only of oranges for London; nevertheless, *U.28* ordered her to be abandoned and, when this had been done, fired on her till she sank. *U.28* took the *Medea's* boats in tow, but after 10 minutes cast them off, informing the Dutch skipper that another submarine would come up to tow him to Beachy Head. It was, however, a British destroyer, the *Teviot*, from Dover, which rescued the crew. Naturally, the Dutch Government protested to Berlin against this high-handed treatment of a Dutch ship; it does not appear that they obtained much satisfaction.

Admiral Hood, in reporting this incident, suggested it would be advisable to cancel the orders for shipping to give Beachy Head a wide berth, which orders had been given to the *Medea* by the Auxiliary Patrol of Portsmouth. In view of the recent losses of ships he thought it would be better for them to keep close in to Beachy Head and to maintain a force of armed trawlers to seaward of the traffic. The suggestion conflicted with the Admiralty view that the principle of spreading widely was better than any direct protection of the mass of shipping. The Admiralty staff doubted that there were enough patrol vessels or that their efficiency was high enough. "As the distance from Beachy Head to Folkestone is 45 miles," wrote the Director of the Operations Division, Captain Thomas Jackson, "we shall have to deal with some 50 miles of trade route, more or less crowded with shipping, if all merchant vessels are directed to keep close in to Beachy Head. This route is open to attack at any point in its length. If vessels are directed to give Beachy Head a good offing, the crowded length of trade route will be reduced to 20 miles. I think that, at present, an order to shipping to pass close to Beachy Head will probably increase the number of losses by submarine attack."²

On April 2 Admiral Hood withdrew his Auxiliary Patrol unit to watch the Folkestone end of the boom being constructed. Eventually, two Auxiliary Patrol units were based on Newhaven to operate under the general control of the Commander-in-Chief, Portsmouth.³

U.28, after sinking the *Medea*, had informed the Dutch skipper that another submarine was in the neighbourhood. She herself went on westward to the mouth of the Channel, while the other boat, *U.37*, operated near the transport route. While the *Medea* was under attack by *U.28*, *U.37* was engaged with an empty transport, the *Delmira*, from Boulogne for Port Talbot, Glamorganshire, which she met in mid-Channel, between Southampton and Havre. After an ineffectual attempt to escape under fire at her speed of 9 knots, the *Delmira* surrendered and

¹ *U.28* left Ostend March 21.

² Papers titled X. 4496/15, sinking of *Medea*.

³ M. 02500/15.

was set on fire by a bomb; *U.37* towed the crew for an hour and a half till another steamer came in sight, for which *U.37* made, after casting off the boats. This was the *Lizzie*, Mr. J. Evans, Master, proceeding empty from Dieppe for Llanelly. The *Lizzie's* master, on being accosted, steered straight for *U.37* and passed right over her. The submarine dived hastily and no special shock was felt in the *Lizzie*, but a large patch of oil came up astern of her and nothing more was seen of the enemy, though the *Lizzie* remained on the spot, embarking the *Delmira's* crew from the boats.

An examination of the *Lizzie's* bottom in dry dock showed so little damage to it that the Admiralty, while expressing to Captain Evans their "appreciation of his good seamanship and gallant conduct in defending his vessel against and driving off a hostile submarine," thought the evidence of destruction insufficient to warrant a reward.¹

Whether or not *U.37* was destroyed at that time has not yet been ascertained. The boat had left Germany on March 20 to operate in the Channel. She never came back from this, her maiden voyage, and no news from her was received. The German historian observes: "It will never be known where she met her end";² but, possibly, if divers were to investigate the bottom in 50° 14' N, 0° 30' W, where her encounter with the *Lizzie* took place, they might find her and her asphyxiated crew.

69. Final Transfer of the Channel Fleet to the Mediterranean.—

The Dardanelles operations had already caused the removal of four of the Channel Fleet battleships to the Mediterranean. The other ships of the 5th Battle Squadron remained in harbour after returning from Quiberon Bay; in face of the submarine raids in the Channel it was more dangerous than useful to have them at sea. Moreover, the fear of invasion, now that Germany was more occupied on the Continent, was dying away. Two more of the battleships, the *Agamemnon* and *Lord Nelson*, left for the Mediterranean on February 9 and 14 respectively; the *Queen* and *Implacable* left on March 13 and, finally, on March 20, the *Prince of Wales* and *London* sailed for Malta.³

The only ship of the 5th Battle Squadron remaining in England was the *Venerable* at Chatham, and she was attached to the Dover command for operations on the Belgian coast. She also left for the Mediterranean on May 15.

Vice-Admiral Bethell hoisted his flag on board the *Russell* at Sheerness on March 19 with, as his depleted command, the *Russell*, *Albemarle* and *Exmouth*, and the two light cruisers *Topaze* and *Diamond*. The project of using the squadron offensively in home waters was now completely dead. The *Russell*, *Albemarle* and *Diamond* went to Rosyth on April 8, leaving Admiral Bethell only the *Exmouth* and *Topaze*. The

¹ Papers titled *Board of Trade*, 29 March 1915, *Lizzie*.

² *Nordsee* IV, pp. 21, 101.

³ A 118, 143, 393.

Exmouth departed for Lemnos on May 14, the *Topaze* having proceeded a few days earlier to the Humber. The Channel Fleet came to an end and Admiral Bethell returned to the shore.

70. "U.28" in the South-west Approaches, March 27-31.— During the departure of the latter half of the XXIXth Division very little was heard of submarines, either in the Bristol Channel or on the division's route to the south; but no sooner was it safely away than there was a severe attack in the Bristol Channel, carried out by U.28.

On March 27 she sank three steamers. The master of the first, the *Vosges*, from Bordeaux to Liverpool, when called upon to stop by the submarine, refused to comply and, by keeping the enemy astern, while at the same time manœuvring to ensure that she should be head to the sea, which was rough at the time, prevented the submarine from making full use of the gun on her deck. The chase continued for an hour and a half, the *Vosges* going at her extreme speed; her chief engineer was killed in the stokehold by a shell, but the five passengers volunteered to assist the firemen and speed was maintained. Eventually, after hitting the *Vosges* a number of times, the submarine abandoned the chase, which had lasted an hour and a half. During the whole of it the unarmed *Vosges* had nothing but the courage and skill of her master for her defence. Her position, 20 miles north of Landsend, was in an unpatrolled area and it was apparently only by chance that an armed vessel appeared on the scene before the badly holed *Vosges* sank. This was the armed yacht *Winstonia*, which had left Milford Haven that morning for Portsmouth. She rescued the gallant master and his crew and brought them in to Newquay, Cornwall. In this case also, gold watches and money awards were given to the officers and crew.¹

Proceeding further north the submarine found an easy prey in the *South Point* which, being a slow ship, had no chance of escape.² Still further north, the *Aquila* was met. U.28 opened fire. The *Aquila* endeavoured for a whole hour to escape, shelled at intervals all the time by the enemy who, having superior speed, could choose his position. At length the master, who had been wounded, stopped, and the boats were lowered. The Commander of U.28, apparently enraged at the *Aquila's* resistance, continued to fire while the boats were being lowered and succeeded in killing, amongst others, the stewardess and a lady passenger. His ferocity unabated, he fired on the hull for half an hour more; then torpedoing it, he departed, leaving the boats. After dark had fallen one boat was found by a trawler; she landed the party from it at Fishguard; the people in the other were saved next morning by a steamer bound for South America.³

A worse exhibition of ferocity was to come. An Elder liner, the *Falaba*, from Liverpool for the West Coast of Africa, was

¹ Papers titled B. 1007/1915.

² M. 20239/15; M. 20925/15.

³ Papers titled X. 4528/1915.

following the Admiralty instructions and keeping well away from the usual route when, shortly after noon, March 28, she sighted a submarine and, sending out a wireless message to that effect,¹ endeavoured to escape. The enemy gained on her, calling on her to stop; seeing it to be impossible to save his ship, the master complied. Five minutes later, before anyone had abandoned the ship, the submarine fired a torpedo and the *Falaba* sank in eight minutes. She had on board a crew of 95 men and 147 passengers. Of these, the Captain, 46 of the crew and 57 of the passengers were drowned; to the accompaniment, it is alleged, of the taunts and laughter of the delighted crew of the submarine. The scene of this exposition of savagery was about midway between Queenstown and Pembroke. Both these naval bases had taken in the *Falaba's* signal. Queenstown had nothing to send, but the *Liffey*, which had arrived at Pembroke the previous morning, was despatched to the scene, to find nothing but a fishing drifter, the *Eileen Emma*, crowded with the survivors from the sunken ship.

It transpired later that the *Eileen Emma* had been trying to ram the submarine at the moment when the *Falaba* came in sight, and when the liner sank she hurried to the mass of struggling people in the water and succeeded in rescuing 116. Four other drifters appeared soon afterwards and picked out of the water 30 living and two dead.²

Satisfied with the result of her encounter with the *Falaba*, U.28 attacked two other vessels, one of which, the *Dunedin*, escaped without much difficulty. The other, the *City of Cambridge*, was under fire for an hour and a half; but though damaged, succeeding in evading the enemy, in spite of the bright moonlight of March 28.³

The chase of the *City of Cambridge* ended about 50 miles west of Landsend. From there the submarine continued southward and sank two steamers on the 29th in about 49° 10' N, 7° W. The first was the *Crown of Castile*, bringing oats and hay from Canada for the Army in France. She endeavoured to escape and surrendered only after being under fire for three-quarters of an hour. The second ship, the *Flaminian*, from Glasgow for Cape Town, stopped when ordered and was sunk by gunfire. The crew were rescued by a Danish steamer bound for the Clyde, which stood in to the shore and endeavoured, by burning lights, blowing her whistle and working her Morse lamp, to warn shipping and arouse the interest of the shore. Her signals met with no response.⁴

U.28 now proceeded for home. When passing Beachy Head, well out to sea, on March 31, she came across the French steamer *Emma* and sank her in three minutes. Of the crew of 23, only two were rescued alive. They were brought to Dover by the

¹ H.S. 103, p. 290.

² M. 03834/15.

³ H.S. 103, p. 353. M. 19851/15.

⁴ M. 20240, 19835/15.

Tartar.¹ The submarine passed on; she went in to Ostend on April 2 and proceeded again for Germany on April 6, reaching the Ems next day.²

Though *U.28* had confined her attention to unarmed merchant vessels, there had been a reasonable chance that she might have encountered a decoy ship, armed with concealed guns. The *Antwerp*, which on March 12 had apparently been avoided by *U.29*, had been disarmed, and since March 16 had been used as a cross-channel transport. The new decoy in western waters was the *Lyons*, a small salvage vessel of 537 tons gross which, in pursuance of a minute from the First Lord on February 3, suggesting the employment of four or five decoys, had been taken up and secretly fitted out at Poole with four 12-pdr. guns. She was ready on February 19. Since, to have any hope of success, she must retain her mercantile appearance, neither her Commander, Lieutenant C. A. P. Gardiner, R.N.R., nor her crew wore naval uniform, and to prevent interference from the patrols she was provided with a pass instructing British and French authorities to leave her freedom of action. A similar pass was issued to a French decoy ship *Marguerite*, which was in the Channel at the time. The *Lyons* operated in the south-west approach till the end of February, moving to the places where submarines were reported. Early in March she proceeded into the Irish Channel. On March 28 she was placed under the orders of the Rear-Admiral, Kingstown, for service in his area.³

On March 28 another decoy, the *Baralong*, which had been fitted out at Pembroke with the armament lately in the *Antwerp*, received her orders. Her Commanding Officer was Lieutenant-Commander Godfrey Herbert, late of the *Antwerp*. The *Baralong* was to cruise normally in the English Channel, between the Scilly Islands and Folkestone, but should submarines be reported in the Queenstown area she could extend her cruises in that direction. In general, she was to follow the courses taken by the bulk of the trading traffic, unless it was considered that there were better chances of meeting submarines elsewhere.⁴

The *Lyons* and *Baralong* were two of the five decoys called for by the First Lord's minute of February 3. Three others were taken up at the same time, ordinary slow tramp steamers; but while they were being fitted out it was realised that some of the submarines conducting the more vigorous attack after February 18 did not trouble to stop vessels, but torpedoed them without revealing themselves; in which circumstances the slow tramps selected were unsuitable, and they were paid off.⁵

¹ H.S. 103, p. 1004; H.S. 104, p. 36.

² I.D.H.S. Current Log.

³ M. 010044/15. X. 8215/15; D.O.D. Misc. 62 and 65.

⁴ *Baralong* papers, H.S. 385.

⁵ Papers titled *Admiralty*, 27 February 1915.

71. **Departure of the 2nd Mounted Division for Egypt, April 8-17.**—It had been decided in the middle of March that the 2nd Mounted Division should embark as soon as possible for Egypt after the XXIXth Division was despatched. The total numbers for the Mounted Division came to 9,995 officers and men, 9,585 horses, 16 guns, 70 carts, 458 wagons, 23 motor cars, 28 motor ambulances and 3 lorries—all to go from Avonmouth. To this number was added the first batch of reinforcements. By April 6 the programme had been settled as follows:—¹

Date of Departure.	Ship's Name.	Officers and Men.	Horses.
April 8	<i>Menominee</i>	1,146	626
	<i>Roman Prince</i>	155	577
	<i>Commodore</i>	208	610
	<i>Karoo</i>	763	318
April 9	<i>Wayfarer</i>	195	791
	<i>Minneapolis</i>	987	881
	<i>Eloby</i>	122	525
	<i>Nitonian</i>	512	533
April 10	<i>Saturnia</i>	2,106	—
	<i>Nessian</i>	497	530
	<i>Clan McCrae</i>	124	531
April 11	<i>Montreal</i>	154	664
	<i>Toronto</i>	171	695
	<i>Scotian</i>	1,219	—
April 12	<i>Crispin</i>	149	611
	<i>Nile</i>	1,137	—
	<i>Cuthbert</i>	236	563
	<i>Cameronian</i>	127	620
	<i>Esmeraldas</i>	166	538

The escort orders for this move of troops were that each transport containing more than 300 men was to be escorted by two destroyers, which were to part company in 51° 10' N, 5° 41' W, a position only 40 miles west of Lundy Island. The transports of the Mounted Division would, therefore, have less of their passage escorted even than the 29th or the Royal Naval Division.²

The *Lance's* Division of the 3rd Destroyer Flotilla were relieved in the Bristol Channel on April 4 by the *Laforey*, *Lawford*, *Llewellyn*, *Leonidas*, specially sent from Harwich for the work of escorting the Mounted Division. On passage through the Channel the *Laforey's* Division had helped to escort the specially heavy batch of transports leaving Southampton for France on the night of April 1-2.

The two *E* class destroyers for Avonmouth,³ the *Cherwell* and *Liffey*, did not arrive there till March 27. Even then, they left a few days later to join the Portsmouth Escort Flotilla.

¹ Transport papers T. 11543/15.

² A 438.

³ See Section 16, Redistribution of Destroyers.

To the sailing orders given to the transports there was an important addendum made by the Chief of the Staff on April 6.¹ It ran :—

Defence by Troops against Submarine Attack.

In daylight a submarine will attack submerged, with only her periscope visible. In moonlight she may attack while on the surface, owing to the difficulty of seeing through the periscope.

In either case heavy rifle or machine gun fire will render it less easy for a submarine to make a successful shot with a torpedo. If submerged, no injury will be done to the submarine, but the bullet splashes will render it very difficult for an observer to see clearly through the periscope.

When no destroyer escort is in company, and there is sufficient daylight or moonlight for men to aim, the Officer Commanding troops should be requested to have machine guns and rifle men in readiness to open fire, under the control of officers. The periscope will be altering its range rapidly if the submarine is closing for a torpedo shot, and the object of the officers controlling the fire should be to keep the centre of the pattern just short of the periscope. Machine gun tripods can be placed on the deck and lashed to the rails or a deck boat. (This enclosure should be shown to the Officer Commanding troops.)

The move started according to programme on the night of April 8. A submarine had been reported that day in the Bristol Channel and the Admiralty would allow only two transports to sail, each escorted by two destroyers. The two transports were the *Karoa* and *Menominee*. The escorts parted company according to their orders at the position 40 miles west of Lundy Island, at 10.40 a.m. and 11.45 a.m. respectively, leaving the transports with the 1,900 men aboard them to make an unescorted passage across the entrance to the Channel in daylight. Next day the *Commodore* and *Roman Prince* were to go. By the orders in force they would have been entirely unescorted, but before they sailed instructions were sent that transports with less than 300 men were to have one destroyer. This new rule allowed only the *Minneapolis*, *Eloby* and *Wayfarer* to leave on the night of April 10–11.

So far all had gone well. Early in April several ships had been attacked south of Cornwall, and early in the morning of the 11th *U.24* had sunk a French vessel south of Start Point; but no submarine was known to be actually in the south-west approach. About 9.30 p.m. on the 11th, however, Land's End wireless station took in a message from the *Wayfarer*, "attacked by submarine, sinking slowly, 50° 10' N, 7° 24' W." The *Laforey*, *Leonidas* and *Lawford* at once proceeded from Barry, and at 5.15 a.m. of the 12th were at the position given by the *Wayfarer*. By this time the captain of that ship had come to the conclusion that the explosion she had experienced was of internal origin, and not due to a torpedo. The vessel was now being towed to Queenstown by a steamer; a second vessel embarked 111 officers and men from her and took them in to Falmouth. The *Wayfarer* reached Queenstown in safety next day.²

¹ From Transport Papers T. 11543/1915.

² H.S. 105, pp. 1048, 1068, 1100, 1105, 1134; H.S. 106, p. 130.

On the 12th a new route was laid down for the transports, which took them as nearly as possible half way between Cornwall and the Irish coast,¹ and, incidentally, as far as possible from the patrols, from the shore, and from the chance of beaching themselves in case of being torpedoed. The Admiralty instructions to merchant vessels were having the same effect in keeping them away from the shore; consequently, so long as submarines were content to stop in mid-channel they were free from any chance of molestation by the patrols, and had only to wait on the surface for merchant ships to come up to be scuttled one by one.

The hunt by the destroyers after the supposed submarine which was thought to have attacked the *Wayfarer* hampered the escort arrangements at Avonmouth. Only one transport could get away on the night of April 11–12, and the Transport Officer had to telegraph next morning that he had eight ships ready to sail and awaiting escort; his implied suggestion that destroyers should be sent was not complied with, for it was not only at Avonmouth that there was congestion owing to lack of destroyers. Even the four at Avonmouth were reduced by one when the *Lawford*, returning from the *Wayfarer* cruise, found she required three days' repair of her boiler brickwork.

In consequence, the departure of the 2nd Mounted Division dragged out until the 17th. The *Clan McCrae* and *Saturnia* went on the 12th, the *Montreal* and *Nitonian* on the 13th, the *Nessian* and *Crispin* on the 14th, the *Scotia* and *Cuthbert* on the 15th, and the *Esmeraldas*, *Cameronian* and *Toronto* on the 16th; the *Nile*, completing the move, sailed on the 17th.²

The long protracted move at last finished, the *Laforey* division sailed for Harwich on April 22. This was to be the last time Avonmouth would be used as an embarkation port for troops on long sea voyages. On April 7, before the move of the 2nd Mounted Division began, it had been decided that all such moves should in future take place from Plymouth.³ Avonmouth was to be the disembarkation port of the 2nd Canadian Contingent, the first batch of which was already on its way under the escort of H.M.S. *Cumberland*.

72. Transport of Troops to France during the Second Month of the Submarine Attack.—The transport of troops to France continued apparently without direct interference. During the week ending March 28–29, 14,575 officers and men arrived at Havre and Rouen from Southampton, with a corresponding amount of horses, guns, stores and vehicles. On March 29 began the crossing of the South Midland, XLVIIIth Division. For this division the Southampton–Havre route proved insufficient, and more than half the troops went from Folkestone to Boulogne in railway boats. But even with this division of labour the

¹ A 445.

² *Laforey* Signal Log 17950; Transport Papers T. 11543/15.

³ A 437.

Commander-in-Chief, Portsmouth, was hard put to it to satisfy the Admiralty requirements as to escort. One of the rules had been that the transports were to leave singly at half-hour intervals; but on March 17 this was relaxed, and they were allowed to leave at shorter intervals as required, the only stipulation being that they should make the passage and arrive in darkness. On the last night of the move, April 1, four fast, two medium and two slow transports for Havre, and two slow transports for Dieppe, were to sail between 6 p.m. and 10.30 p.m., and Admiral Meux asked for six extra destroyers for that night only. The Admiralty at first replied that he was to delay those vessels he could not escort with his own resources, but later instructed him to use for the night the *Laforey's* division on passage from Harwich to relieve the destroyers at Avonmouth. Apart from the direct escort the northern half of the transport route was patrolled during the passage by Portsmouth armed trawlers, while the net drifters laid out nets to the eastward of the Nab. In the week ending midnight April 4-5, 20,588 officers left England for France. The next week was a particularly light one, only 7,076 troops crossing. With the shortening nights as summer approached it was no longer possible for the slow transports to make all their passage in the dark hours; the daylight part of the voyage was to be on the English side, the Admiralty agreeing with Admiral Meux that the Extended Defence of Portsmouth gave better hope of protection than could be expected on the French side.¹

If the week ending April 11 had been a light one, that ending April 18 was exceptionally heavy. On April 13 the West Riding Division began its move; and in accordance with the new arrangements it was divided between the Southampton-Havre and Folkestone-Boulogne routes. The same arrangement ruled in the case of the Northumbrian Division, which started on April 17. There was considerable congestion of horses at Portsmouth, whence all of them were despatched, though half the troops went from Folkestone. In view of this the Admiralty relaxed the rule of two escorts to medium ships, and allowed them to sail with one destroyer. During this particularly heavy work 32,885 officers and men, and 8,298 horses were transported to France. Altogether, in the second month of the submarine attack over 80,000 troops had crossed the Channel by the various routes, occupying, with their stores, guns and baggage, 315 ships. None of these had been attacked, nor had the empty transports returning, though these were unescorted, and had frequently to make a large part of their passage to England in daylight hours.²

The *Beagles* were no longer engaged in the arduous work of escort. On March 26 they were ordered to the Dardanelles

¹ H.S. 103, pp. 763, 934, 999; H.S. 104, pp. 70, 152; H.S. 105, pp. 460, 545.

² H.S. 105, p. 1025; and H.S. 106, p. 109.

as soon as they could be relieved by river-class boats from Dover, Avonmouth, Rosyth, and the Admiral of Patrols' Command.¹ By the end of March these had arrived. From that date the escorts were run by the *Rother, Ettrick, Teviot, Exe, Arun, Swale, Cherwell* and *Liffey*.

73. The Campaign in the Channel comes to an End.—Though the transports had not been attacked there was every evidence that the German submarines were able to pass freely through the Straits of Dover in spite of the nets and the minefield. Thinking they might be navigating the minefield on the surface, the Admiralty ordered Admiral Hood to institute a destroyer patrol north-east of it to force them to dive into it.² He sent the *Crane* and *Crusader* who, on March 28, observed a large explosion in the minefield. This Admiral Hood thought quite likely to indicate the destruction of a submarine.

But after that date there were still numerous reports of supposed or authentic submarines in the Channel. On April 1 they were seen three times on the Southampton-Havre route, though not by transports; another was three times reported near the coast of Cornwall and Devon; and at 4.30 p.m. the s.s. *Seven Seas*, from London for Liverpool, was torpedoed by an unseen enemy 6 miles south of Beachy Head.³

A large batch of transports was to cross that night to Havre and Dieppe, carrying part of the South Midland Division. Luckily, Admiral Meux received a temporary reinforcement in the *Laforey* division, which, on their way to Avonmouth, were ordered in to Portsmouth to help with the escorts that night.⁴ By this time he had got his indicator nets to work; during the day they were to spread to the eastward of the Nab, but they were boarded at night. The trawler units of Portsmouth Auxiliary Patrol were used by Admiral Meux to patrol the northern part of the transports' route.

The French also attempted some sort of net defence for the approach to Havre. Admiral Favereau had about 8 miles of ordinary hemp herring nets and these he set, when the weather allowed, near Cape Antifer, under observation of a couple of destroyers. The nets were frequently cut but no submarine ever showed itself. At the end of March he decided to move this obstruction nearer to the Straits, feeling sure its position was known to the enemy.⁵

Besides spreading this net the French were in process of organising a patrol of armed trawlers. The scheme was to have three flotillas of 20 trawlers each, based on Boulogne, Dieppe and Fécamp. The whole were under Captain Merveilleux du Vignaux, to whom the idea and plan was due. Requisitioning of the trawlers began on February 1; they were armed at Cherbourg with one 47-millimetre gun each, all that the Ministry of Marine

¹ A. 415.

² A. 421.

³ M. 19951/15.

⁴ H.S. 103, pp. 934, 999; H.S. 104, p. 69.

⁵ M. 02686/15.

possessed at the moment; and by March 1 one of these flotillas was complete. It was based on Boulogne and was commanded by Captain Vignaux with his pendant in the trawler *Sainte Jehanne*.¹ By the end of March the flotilla claimed to have hit four submarines. On February 23 at 7.20 a.m., 8 miles ESE from Cape Alprech, the *Inez* fired 28 rounds at a boat of the U.13 to U.16 type; on February 28 at 4.35 p.m., 5 miles NE of the West Vergoyer Buoy, the *Savoie* fired 23 rounds at a boat of the U.9 to U.12 type and produced an explosion in her; on March 30 at 1.55 p.m., off Fécamp, the *Sainte Jehanne* fired 7 rounds at close range and also ran over a boat of U.20 to U.32 type; and on March 31 at 6 p.m., 12 miles SSE from the Vergoyer, the *Madeleine* fired 35 rounds at one of the U.24 to U.32 type.²

On April 2, late in the afternoon, the Admiralty collier *Lockwood*, in mid-channel south of the Start, was chased for upwards of an hour by a submarine, which fired three torpedoes; the last took effect. An hour or so later an oiler in the same neighbourhood was chased, but escaped in the darkness. The local defence of Plymouth had recently been increased by the destroyers *Boyne* and *Foyle*, whose duty was primarily to escort out of the Channel the transports which, from time to time, were leaving Devonport for India or the Mediterranean with reinforcements. These two destroyers, as well as the Local Defence Flotilla and Auxiliary Patrol units, were out at the time searching for a submarine reported off Plymouth Sound. Plymouth had now three complete units, each consisting of an armed yacht and six armed trawlers, some of which carried, in addition, the modified sweep. Normally, they kept in shore in accordance with their patrol orders, paragraph 7 of which ran: "All navigable harbours are to be visited from time to time and, in addition to a close watch off the coast, especially at night, the patrolling vessels will work on and off the coast to a distance of, say, 10 to 15 miles, proceeding further still in special cases when considered necessary."³ There was thus nothing near the *Lockwood*, whose crew were eventually picked up by a sailing trawler from Brixham.⁴ That same afternoon another submarine sank a French sailing vessel about 30 miles north of Havre. This enemy appeared to be operating on the transport route.

On the 3rd, though no ships were sunk or chased, both these submarines were sighted by the Auxiliary Patrols several times, the western of the two being reported as U.35 or U.36. She was seen at 5.15 p.m. close to Land's End by the *Snaefell*, one of the armed boarding steamers of Cruiser Force G; but the *Snaefell*

¹ Capt. A. Thomazi: *La Guerre Navale dans la Zone des Armées du Nord*, p. 79.

² M. 02956/15. Capt. Thomazi claims that U.37 was sunk by the *Madeleine*. *Ibid.*, p. 80.

³ M. 02578/15. Patrol Orders for Area XIV.

⁴ M. 20114/15.

could not get the full advantage of her opportunity, since her gun missfired and her attempt to ram failed.¹ The submarine dived in good time and next morning sank, without warning, the collier *City of Bremen*, bound for Bordeaux, 20 miles south of the Wolf Rock. The collier was apparently following the ordinary peace track; but even so there was no patrol near and the crew, all but four who had been drowned, had to wait four hours before being picked up by a passing steamer.²

The other submarine in the transport area sank two ships there, the sailing vessel *Hermes* and the *Olivine*, in the afternoon of the 4th. A third, the *Northlands*, was sunk on the 5th, to the south-west of Beachy Head and, therefore, in the transport area. Both she and the *Olivine* were following the Admiralty instructions and keeping in mid-channel and thus were without assistance. The crew of the *Northlands* had to wait seven hours before a passing steamer from Havre rescued them from the water.³

The submarine in the western half of the Channel appeared to have gone home, and the scene of the next enemy operation was at the Dover end. Four times on April 7 a submarine was sighted there, once by an Auxiliary Patrol vessel, which made an ineffective attempt to chase her. On the 8th, at 11 a.m., she torpedoed the French sailing vessel *Chateau Briand*, near the Vergoyer Shoal. At 3.30 that afternoon there was a spirited encounter between a tug and a submarine halfway between Southampton and Havre. The tug, the *Homer*, was towing a French barque. By pretending not to understand the orders shouted to him by the commander of the German submarine, the *Homer's* master attracted her near enough to give him a chance of ramming. He missed her by a few feet and then had to endure the submarine's fire for half an hour before she abandoned the pursuit. The *Homer* reached Bembridge in safety, but with seven holes in her.⁴

On April 10 the principal scene of submarine activity in the Channel shifted once more to the west. The steamer *President* was stopped some 30 miles south-eastward of the Lizard and sunk by bombs fixed to her side. The submarine U.24 accommodated the crew on her own deck till fishing boats were seen, to which they were transferred. No auxiliary or other patrol vessels came near.⁵

U.24, next morning, boarded the French steamer *Frédéric Franck* and exploded bombs in her main hold. At 8.25 a.m. she fired a torpedo at H.M.S. *Sarnia*, of Cruiser Force G. The armed boarding steamer only saved herself by putting her helm hard over and using her screws to turn quickly; and it was pointed out to the Admiralty that the *Rowan*, of the same cruiser force, could not possibly have avoided the torpedo.⁶

¹ H.S. 104, p. 516.

² Papers titled X. 4520/15, *Northlands*.

³ M. 20754/15.

⁴ M. 20115/15.

⁵ M. 20364/15.

⁶ M. 03952/15.

All these sinkings were the work of three submarines, *U.24*, 32 and 33. *U.24* passed through Dover Straits on March 31 to operate in the western part of the Channel and in the Bristol Channel. It was she who sank the *Lockwood*, *City of Bremen*, *President*, and *Frédéric Franck*. *U.33* passed the Dover Strait a day or two before *U.24*. Her station was between Southampton and France, and it was there she sank the *Hermes* and the *Olivine*. The third submarine at this period, *U.32*, came through the Straits about April 4 and operated in the eastern half of the Channel, where she sank the *Northlands* and *Chateau Briand*.¹ After her encounter with the *Homer*, she proceeded for home, not back through the Straits, but round Ireland and Scotland.

A large proportion of the vessels lost in the Channel had been sunk in the Devonport area, where the anti-submarine organisation seemed to the Admiralty so unsatisfactory that an officer was sent down to report on it. The result of his recommendations was that the whole of the Auxiliary Patrol service in that area was put under Captain Valentine E. Phillimore, who had been in charge of the drifters at Falmouth. The headquarters of his new command were at first Plymouth, but were afterwards moved to Falmouth. Although it was noticed that the orders in force had the effect of making the chief occupation of the Auxiliary Patrol vessels the visiting of harbours rather than patrolling lines of approach of traders, this was not pointed out to Captain Phillimore, and no particular alteration was made in this part of the general orders of Auxiliary Patrol Area XIV.²

As was only to be expected from the German announcements, the Channel had been the main scene of activity of submarines since the opening of the campaign against commerce; and though, so far, no loaded transport had been sunk or even attacked, many merchant ships had been lost. But now suddenly and, from the British point of view, unaccountably, the campaign in the Channel ceased. Between Dover Strait and the meridian of Start Point submarines, though still the subject of doubtful reports, no longer certainly operated during the summer of 1915. The cause was imperfectly understood by us and the escorts and patrols continued to guard their convoys and hunt for submarines.

74. Success of the Dover Net.—The activity of submarines in the Channel during March and early April showed that the barrage had not yet succeeded in its object. The minefield east of the Straits was a doubtful deterrent to enemy submarines; they seemed to pass through it at all times of the tide, to judge from reports of them in the Straits and the direction in which they were going. Nevertheless, Admiral Hood believed that some

¹ The allocation of these sinkings is considered to be most probably as above; there is as yet no certainty, since the submarines did not usually disclose their numbers. T.S.D.D.

² M. 02880, of 15 April 1915.

of the explosions so frequently heard were due to submarines striking mines, though he allowed that most of them were, doubtless, spontaneous.¹ He proposed further lines of mines to the north-east of the present ones and also, since the Channel Fleet had gone to the Dardanelles, further lines to forbid the passage of big ships. A noteworthy feature of his suggestion was that some of the fields should be laid deep, as far as 10 fathoms below low water, so that while they would catch a diving or resting submarine, the patrols could pass over them in safety. His proposals were favourably considered, but there was not yet a sufficient stock of mines to carry them out.²

Meanwhile, the net barrage was developing from its skeleton state into something more nearly what had been hoped when it was first conceived. As the number of drifters at Dover increased and the supply of nets and buoys became more complete, the mileage covered by the barrage increased till, by the middle of April, 15 to 16 miles of nets were maintained during the daylight hours. The pattern of indicator buoy in use was not a success, and Admiral Hood suggested that the Admiralty should offer a reward of £10,000 for an efficient form; almost every day nets were carried away by what the patrol were convinced were submarines; and with a buoy equally efficient by day or night, the Admiral was sure that an immediate effect would be produced.³ The nets were now no longer drifting free, but were fastened by clips to a warp, attached to the drifter, which had thus control over the nets in the water.⁴

Though the loss of the nets on most occasions cannot now be attributed to submarines, there was undoubtedly one in a net on April 6. About 2.15 p.m. that day the drifter *Hyacinth* noticed a periscope passing across her stern; it took away two of her nets, leaving the five farthest away still attached to the warp. According to the orders, the skipper of the *Hyacinth* fired a rocket, the signal for sighting a submarine. The *Afridi* was near; she came up and patrolled round, joined later by other destroyers. Unfortunately, the indicator buoy, on which everything depended, failed to indicate and there was no means of ascertaining the position of the submarine. It was only one of many cases of the inefficiency of the material of the barrage. It showed, however, that the clips were serving their purpose.⁵

The Admiralty, however, not perhaps fully realising the difficulties against which Admiral Hood had been struggling, considered that a different officer might succeed in making the barrier more efficient. On April 9, the day before the report of this last episode of the *Hyacinth's* nets was received, it was decided that he should be relieved by Rear-Admiral Reginald H. S. Bacon (retired), and should be appointed instead to the command of

¹ Papers titled X. 4237/15.

² M. 02602/15.

³ H.S. 174. Progress reports of indicator nets.

⁴ H.S.A. 311. Dover Patrol Packs XVI, p. 67.

⁵ Papers titled X. 4233/15.

Cruiser Force E on the Irish coast.¹ At the same time the boundary between the Dover and Portsmouth areas was moved 4 miles to the westward of Beachy Head, thus putting that favourite hunting ground of submarines definitely into the sphere of action of the Dover Patrol.² The relief took place on April 13, and Admiral Hood relinquished the command of the Dover Patrol, bearing the stigma of failure.

It was unmerited. Of all the anti-submarine devices and orders in that early stage of the campaign, the Dover net barrage was the one which could claim unequivocal success. Its object was to deter submarines from passing through the Straits of Dover; and it had achieved its object. The periscope caught in the *Hyacinth's* nets belonged to *U.33*, which appears to have been not much incommoded. She noticed, however, a rasping noise, as if she was passing over a steel cable, and this she had experienced on the journey outward as well in the same place. She observed the lines of patrol boats with their nets out and came to the conclusion that, in addition to them, there was a fixed net into which she had blundered.³

A few hours earlier she had reported that there were three distinct minefields at the eastern entrance to the Straits of Dover. They were easily visible within two hours of low water, since the mines were then on the surface.⁴

These two reports of the nets and of minefields not only outside the Dover Straits but off Ostend⁵ increased the uneasiness which the German authorities had felt since the mysterious loss of *U.37*. Until now, given fine weather, favourable tides and comparative inactivity on the part of the Dover Patrol, it had been fairly easy to traverse the British minefields or to dive under them at a depth of 11 fathoms. At low water, at least, the mines were mostly awash and were thus easily discovered; and as regards passing them under water, it had been found from experience that the British mines did not go off even when the hull of the boat or the propellers fouled their moorings.

The nets seemed far more dangerous and, on April 10, it was decided to prohibit the passage of the Straits of Dover altogether to the submarines of the High Sea Fleet, in spite of the natural result that this measure would enormously increase the difficulty

¹ Papers titled *Admiralty*, 10 April '15.

² M. 04446/14.

³ The actual wording of her report made on April 10 was: "On a line between Dover and Cape Gris Nez in places nets have presumably been put out, as on the way out and back on the same line rasping noises have been noted with certainty as though from steel hawsers at a depth of 25 metres. On both occasions I passed between the Varne Lightship and Cape Gris Nez. Between Dungeness and Fécamp are biggish trawlers, which systematically search the line with nets out. (I.D.H.S. Current Log.)"

⁴ *U.33's* report was passed on by Borkum at 9.31 a.m., April 10. She failed to get it taken in by Bruges. (I.D.H.S. Current Log.)

⁵ *U.28*, on arrival on April 6, reported a deep field of French mines off Ostend. *Nordsee* IV, p. 101.

of acceding to the urgent demands of the Army Staff for redoubled attacks on the troop transports. If the protests of the Army may have led to any temporary weakening of the determination not to use the Straits, it was strengthened again on April 17, when *U.32* reported that she had cut short her attack on the transport route in order to come home westabout, because she also had experienced the Dover nets. For several hours she had dragged a section of net along, pursued by destroyers. It was not till after nightfall that she had been able to free herself; and, not desirous of repeating the experience, she had preferred the lengthy journey round the Orkneys when returning.¹

The German Admiralty's order for High Sea Fleet submarines to discontinue using the Dover Strait was dated April 10. Thus Admiral Hood hauled down his flag and Admiral Bacon took up the command of the Dover Patrol at the very moment when the Germans had decided the Straits to be impassable.

CHAPTER IX.

THE SOUTH-WESTERN APPROACHES, APRIL 18 TO THE END OF MAY.

75. The Irish Channel Nets.—A change had also occurred in the command in the Irish Channel. The North Channel net was proving as difficult to maintain as that at Dover. For instance, the rapid tide would not allow the nets to lie across the Channel, but carried them parallel to the shore. The Milford drifters got out their nets for the first time on March 29, the day after the *Falaba* was torpedoed; all the nets sank after ten hours, and 26 of them were lost. The Irish Channel was considered so dangerous that it was no longer used by ships of the Grand Fleet; those which were refitting at Devonport and Portsmouth now returned to Scapa, west of Ireland and the Hebrides, with orders to keep outside the 100-fathom line. Altogether, the Admiralty were not satisfied with the management of the patrols and nets, and at the end of March Admiral Barlow at Larne was superseded, Rear-Admiral the Hon. R. F. Boyle, M.V.O., being appointed in his place. A change was made in the appointment; the Admiral, Larne, was no longer to have the general direction of operations in the Kingstown and Milford areas, although he was to work in close conjunction with the Admirals commanding there, especially with regard to the Yacht Squadron. In addition to the Auxiliary

¹ Her report is in I.D.H.S. Current Log, April 17. The incident occurred presumably on her passage westward, through the Straits, on April 4; there is no mention of it in British records. There is just the possibility that the *Hyacinth's* submarine on April 6 was *U.32* and not *U.33*.

Patrol units and net drifters based on Larne, he was to have under his orders the North Channel Patrol, consisting of the *Tara*, *Garry*, *Dee*, *Thorn* and *Dove*.¹

The change of command took place on April 2. On arrival, Admiral Boyle found that two of the four destroyers of the North Channel Patrol had been detached for some time to Liverpool; his efforts to get them back proved ineffectual.²

One of the factors which had brought about the supersession of Admiral Barlow was that, though between March 1 and 18 submarines were 19 times reported in the Larne area, not one of these was brought to action by the ships of his command.³ After March 18 the frequency of submarine reports in that area diminished, and, in fact, no German submarine visited that area till April 19, when H.M.S. *Oropesa*, of the 10th Cruiser Squadron, was attacked about midway between Oversay and Skerryvore while on the way from the Clyde to her station. She reported this at 11.20 a.m. by wireless, giving her position by a position table not in possession of the Admiral, Larne. He, however, repeated the message to the *Tara* as received. She decoded it, and passed it at 12.30 to the *Garry*, then coming out of Stranraer. Captain Gwatkin-Williams, Senior Officer of the North Channel Patrol, happened to be aboard the *Garry*. He at once ordered the *Thorn*, coaling at Stranraer, to follow him, using the newly established Auxiliary Patrol wireless station at Ballycastle for the communication; and instructed the *Tara* to follow him and to inform all the patrol yachts. Only one got the message, and then not till 1.30 p.m. Meanwhile, the *Oropesa* had driven off the submarine with 6-in. shell, a report of which reached Captain Gwatkin-Williams at 3.45 p.m.; whereupon the *Tara* and *Garry* returned to patrol duty in the North Channel. The *Thorn* did not leave Stranraer. The other two boats, *Dee* and *Dove*, nominally of the North Channel Patrol, remained at Liverpool as before. The episode raised the question of the codes to be issued to Auxiliary Patrol bases, and resulted in the standardising of the books issued to Senior Naval Officers.⁴

If the submarine intended to proceed through the channel to repeat the former attacks off Liverpool there was little to stop her, for next day the weather was too bad for nets to be out.⁵ But no such attack developed, and it seemed possible that the submarine had gone away, and might even have been damaged by the *Oropesa's* shell.

If the object seen by the *Oropesa* was really a submarine, it must have been *U.22*, which had left Borkum on April 15, to operate in western waters, possibly off Liverpool; she was the first submarine to proceed to the western stations northabout

¹ M. 02679, 02634, 01789, 02254/1915.

² M. 02643/15.

³ M. 02254/15.

⁴ Papers titled X. 6801/1915; M. 02086/15; M. 03148/15.

⁵ M. 03279/15.

round Scotland, instead of through Dover Straits. She certainly reached Islay, where the encounter took place; but in her report made on April 22 she says "advanced to Islay without success, owing to bad weather and fog; no enemy forces met."¹ She had certain machinery breakdowns and returned prematurely; in the North Sea she torpedoed a Swedish steamer, the *Ruth*, and blew up by bombs the British trawler *St. Lawrence*. She returned to Germany early on April 23.²

76. Passage of the Xth Division from Ireland to England.—

The Xth Division was to cross from Ireland to England towards the end of April. This was the first large movement of troops from Ireland since the declaration of the German attack on shipping; and now that the Irish Channel, and especially Liverpool, had been the scene of operations of submarines, arrangements were made to protect the passage of the Irish troops. The *Laforey* division in the Bristol Channel, which had now completed the escort of the 2nd Mounted Division, were relieved on April 22 by the *Lydiard*, *Linnet*, *Lucifer* and *Laverock*, sent from Harwich. Advantage had been taken of the passage of these destroyers to use them to escort the *Orion* from well outside the Channel in to Devonport for her refit. The *Lydiard's* division, after oiling at Newport, reached Pembroke on April 24. Their orders were that they were to escort the Irish transports, of which two would sail each night, from Dublin to Liverpool, commencing April 27 and continuing for eight days. Besides these transports,³ which were of the ordinary slow type suitable for carrying horses and baggage, as well as troops, the fast packets *Munich* and *Connaught* would make frequent trips from Dublin to Holyhead at high speed with troops only. The Admiral, Kingstown, was ordered to guard the routes to Liverpool and to Holyhead with his Auxiliary Patrol vessels; and the Admiral, Larne, was instructed to send all available vessels from the Yacht Squadron to assist.⁴ The Yacht Squadron numbered six vessels; one was under repair; one was escorting an important store ship; and a third was patrolling the North Channel in place of the *Garry* and *Thorn*, which were also on escort duty. Thus only three of the six yachts were available.⁵

These, with the two yachts of Kingstown patrol, Admiral Le Marchant disposed at intervals along the north side of the Kingstown-Holyhead route, his trawlers patrolling to south of it. The packets were too fast for direct escort and proceeded independently as ready. One Auxiliary Patrol unit looked after the area from Holyhead to the boundary of Liverpool area.⁶

¹ I.D.H.S. 860, Current Log No. 3745.

² Her cruise is not mentioned in *Nordsee IV*, but she is shown in Karte 3 as rounding the Orkneys, April 17, on her route to the North Channel.

³ *Chyebassa*, *Courtfield*, *Huanchaco*, *Inventor*.

⁴ H.S. 107, p. 821; H.S. 108, pp. 140, 142.

⁵ H.S. 108, p. 195.

⁶ H.S. 118; Kingstown A.P. Reports.

The move proceeded without hindrance except from fog. Two slow transports left each night from April 27 onwards, each escorted by a destroyer, completing the voyage to Liverpool easily within the dark hours. The destroyers parted company at the Bar Light Vessel and returned for the next pair, while the first pair made their way back unescorted in time for the next day's trip.

In the middle of the move two of the destroyers had to escort H.M.S. *Essex*, which had been refitting at Barrow, to Avonmouth. This took them from noon, April 30, to noon the following day.

The last transport arrived at Liverpool before daybreak, May 5, and the move concluded. On the way back to Harwich the destroyers screened the *Colossus* into Devonport from lat. 49° N, long. 8° 21' W, on May 8; and next day took out the *Duke of Edinburgh*. They arrived at Harwich on May 11.

77. The Cruise of "U.30," April 25 to May 9.—No submarine had been seen in the Irish Channel during the passage of the Xth Division—in fact, no submarine was then operating there, although one had been sent out from Germany specially to attack commerce in that area, in place of *U.22*, which was now returning.

U.22 in making her passage to the North Channel appears to have used the Minch; a submarine was sighted three times on the 18th between the Hebrides and the coast of Scotland, and was probably *U.22*. The Minch had for some time not been navigated by H.M. ships or by Fleet auxiliaries; after February 23 the route of Cardiff colliers to Scapa was fixed as 30 miles from shore outside Ireland and the Hebrides,¹ and *U.22* had, therefore, been following a disused route.

U.30 (Lieutenant-Commander Rosenberg-Gruszczynski) left Germany on April 25; her orders, like those of *U.22*, were that she was to attack commerce in the Irish Sea. Shortly after her departure the Admiralstab received and credited a report from an "untried" agent that there was in progress a large transport move from the south and west coast of England to the Continent. The orders to *U.30* were thereupon changed; instead of operating in the Irish Channel she was to take up her position off Dartmouth and attack these transports or any merchant vessels or warships she might meet, maintaining her station as long as supplies lasted. Meanwhile, *U.20* and *U.27* would occupy the Irish Sea and Bristol Channel. *U.30* was to proceed to her sphere of action by the "quickest route."² Lieutenant-Commander Rosenberg-Gruszczynski was very doubtful whether he would be able to reach Dartmouth, as certain projected alterations to the diving tanks to increase the oil fuel stowage of *U.30* had not been carried out. He could have saved 100 miles by using the Irish Sea instead of

¹ Tels. 429 from and 464 to C.-in-C., H.F.

² *Nordsee* IV, p. 100. In the actual wording of the order *schnellsten* (quickest) is used; but on p. 108, where the route is discussed, the route is called *kurzesten* (shortest).

proceeding to the English Channel round the west coast of Ireland; but he knew from experience and from the reports of other submarine commanders that it was almost as dangerous to enter the Irish Sea by the North Channel as to make the passage of the Straits of Dover, owing to the continuous activity of British patrols. He knew he would have to lose much time by frequent diving, if he tried the inner and shorter route. He therefore decided to navigate round Ireland, and to attack steamers even before reaching his real operational area, though he intended to reserve his best torpedoes for the English Channel.¹ As it happened, the route he chose for *U.30* was the one on which she was most likely to meet Grand Fleet auxiliaries.

She passed through Fair Island Channel on April 27, being sighted several times by the patrol trawlers, one of which she engaged without result to either side. A division of the 2nd Destroyer Flotilla went out from Scapa on the report of this encounter; they saw nothing, for *U.30* was by that time well on her journey.² Next day, thirty miles west of the Butt of Lewis she came across the Grand Fleet collier *Mobile*, and sank her by gunfire. A special patrol had recently been established in that neighbourhood, but the *Mobile* had passed east of St. Kilda and the Flannan Islands, and was too far out to sea for the patrol even to hear the gunfire.³ In pursuance of the principle of keeping merchant vessels away from shore, the Commander-in-Chief arranged for colliers and fleet auxiliaries to navigate to the westward of the 100-fathom line off the Hebrides in daylight, making their passage across the entrance to the Minch in the dark hours.⁴

Continuing her voyage more or less along the 100-fathom line, *U.30* met her next victim on the 29th off the north-west corner of Ireland. This was another Grand Fleet collier, the *Cherbury*, with 4,910 tons of coal for Cromarty; she had been directed to proceed round the west of Ireland, keeping 30 miles off shore.⁵

Next day, off the south-west corner of Ireland *U.30* sank two more colliers. The first was the British s.s. *Fulgent* for Scapa; she made an attempt to escape under gunfire, and surrendered only after the man at the wheel had been killed and the master mortally wounded.⁶ No auxiliary patrol vessel was near and the survivors were picked up by another collier. They thought they had seen a figure 7 on the submarine, which caused the loss of the *Fulgent* to be attributed to *U.7*. From this collier *U.30* succeeded in obtaining her secret papers, including the route orders for Grand Fleet colliers and storeships.⁷

¹ *Nordsee* IV, p. 108.

² G.F.N., April 27-28.

³ Papers titled X. 6300/1915, *Mobile*.

⁴ Tel. 860 from C.-in-C., H.F., 30.4.15.

⁵ Reports and sailing orders in Papers titled L. 316/1915, *Cherbury*.

⁶ Papers titled L. 421/1915, *Fulgent*.

⁷ *Nordsee* IV, p. 109.

Another collier was sunk that day, the Russian *Svorono* for Archangel.¹ The crew of this vessel were picked up three hours after she sank by one of the armed trawlers from the sub-base at Berehaven.

By May 1 *U.30* was in the neighbourhood of the Scilly Islands. The first ship there to feel her presence was the British s.s. *Edale*, bringing South American wheat for Manchester; she was torpedoed without warning at 6.30 a.m., about 45 miles west of the Scilly Islands. It was not till noon that the shipwrecked crew, which had been sailing in the lifeboat towards the Scilly Islands, found any patrol boat.² Meanwhile, *U.30* had preceded her, and at 10.30 a.m. opened fire on the French steamer *Europe*, within 10 miles of the Bishop Light. While the Frenchman was still afloat, about noon, a trawler engaged *U.30* for 15 minutes, at the end of which the submarine made off in the direction of a large steamer seen approaching. Meanwhile, a fishing vessel which had seen the sinking of the *Edale* met, at 11.30 a.m., two armed trawlers, *Filey* and *Iago*, of the Scillies Auxiliary Patrol, and gave them the information. Proceeding in the direction given, they came across the *Gulflight*, a United States oil tank steamer for Havre. It was foggy, and the master of the *Gulflight* asked for a pilot; the *Filey* thereupon told him to follow to St. Mary's. The *Iago* followed astern of the steamer. Soon after noon the *Gulflight* sighted a submarine ahead and, as the patrols took no notice of it, concluded it must be British. It was not. It was *U.30*, which at 12.25 p.m. sent a torpedo into the steamer, and departed. The fact that the *Gulflight* was practically under escort by two armed trawlers scarcely seemed to have increased the difficulty of attack; that submarines, owing to their higher speed, ignored trawlers had already been noticed in the Orkneys area.³ The *Gulflight* was the first United States vessel to suffer directly by the action of German submarines; and relevant extracts from the reports of the *Filey* and *Iago* were forwarded to the United States Ambassador for the use of his Government. She did not sink; she was about 9 miles from shore when torpedoed, and was towed into harbour by fishing vessels near the spot.⁴

U.30 had gone on towards Dartmouth, her assigned station; but finding that through the bad weather she had consumed 24 tons of oil her commanding officer decided he could only make a short demonstration in the Channel and then return. He made two unsuccessful attacks on two steamers under escort of a torpedo boat south of Falmouth, and having, as he thought, raised the alarm, felt justified in turning back for home.

¹ *Svorono* Papers, L. 217/1915, and *Board of Trade*, 6 May, 1915.

² M. 21703/15; *Edale*.

³ M. 0494/15.

⁴ *Gulflight* Papers titled X. 5116/15 and N.L. 21737/15. The account in *Nordsee* IV, p. 109, of the torpedoing of the *Gulflight* does not mention her name or the American flag she was flying.

Perhaps it was as well for him that he did so. On May 2, shortly after dawn, a deep minefield was laid off Dartmouth,¹ and though it was close to the shore in an area strenuously forbidden to merchant ships, and therefore, as we now see, unlikely to attract submarines, it seems possible, in view of the instructions to *U.30*, that she might have been tempted to lie in wait off the Mewstone at the mouth of the Dart. Her commanding officer had, however, decided not to go there. Soon after dawn on May 3, about 50 miles WSW of the Wolf Rock, he torpedoed without warning the British collier *Minterne*, outward bound for the River Plate. He had another encounter with a patrol boat before leaving the neighbourhood of the Scilly Islands. Though he followed the route of Grand Fleet auxiliaries as set out in the orders he had found in the *Fulgent*, he met no more of them; on May 2 the Admiralty, in view of the losses off Ireland, had reverted to the former route, and were sending supplies to Scapa through the Irish Channel and Little Minch, those for Rosyth being sent by the east coast. On May 7, when north of the Shetlands, *U.30* passed unobserved on the surface through a line of patrol trawlers. At 9 a.m., some 40 miles east of the Islands, she unexpectedly sighted four large warships emerging from the fog, in line ahead, steering for the land. They were without a screening flotilla, and *U.30* had one torpedo left; but they were too far astern when sighted and soon disappeared in the fog, zigzagging at high speed. *U.30* proceeded across the North Sea to the Norwegian coast and on the 9th arrived at Wilhelmshaven, after a voyage of 3,000 miles.²

78. **The Sinking of the "Lusitania," May 7.**—Ships in the south-western approaches still continued to be attacked, though now closer to the southern shores of Ireland. On May 4 a vessel near the Fastnet reported a torpedo fired at her by an unseen submarine and next day a hostile boat appeared off Queenstown itself, sinking a sailing vessel, the *Earl of Lathom*, by gunfire lasting half an hour, within hearing of the Old Head of Kinsale.³ Next day, May 6, two steamers were sunk off the Coningbeg Light Vessel at the entrance to St. George's Channel—the first, the *Candidate*, after a fine attempt to escape under shell fire; and the second, the *Centurion*, torpedoed without warning.⁴ The decoy ship *Vienna* was cruising in those waters, but not in the immediate neighbourhood.⁵

During May 7 submarines were reported by coast watchers and vessels in various places from Cape Clear eastward. The

¹ M. 03515/15, 100 mines; on parallel of 50° 20' N, between 3° 26' and 3° 29' W. (Lockhart Leith: *History of British Minefields*, Appendix A1.)

² *Nordsee* IV, pp. 109, 110.

³ Deposition M. 22060/15.

⁴ *Candidate* papers M. 21938/15. *Centurion* papers M. 22596/15.

⁵ Proceedings M. 04735/15.

Admiral, Queenstown, had already sent out a general wireless message to all ships warning them that submarines were active off the south coast of Ireland, and on the 7th, at 11.52 a.m., he warned the *Lusitania*, homeward bound and shortly due, that submarines were active in the southern part of the Irish Channel and had last been heard of 20 miles from Coningbeg Light. At 1 p.m. he repeated to her a report that a submarine had been seen 5 miles south of Cape Clear. The *Lusitania* had left New York on May 1; and though the German Embassy at Washington had, on April 22, issued a notice warning intending travellers against the risk of attack of embarking in vessels which traversed the German war zone, no official remark as regards the *Lusitania* had been made. Intending passengers found it difficult to believe that a ship of her size and character ran any particular risk of attack, and when she left New York she carried, in addition to her crew of 700, a total of more than 1,200 passengers, including 440 women and children. Beyond the general warning to avoid headlands and the special telegrams from the Admiral, Queenstown, she was sent no particular directions by the Admiralty.

At 2.5 p.m. on May 7 the station at Old Head of Kinsale reported gunfire, and six minutes afterwards an S O S signal was taken in. It was from the *Lusitania*. At 2.33 p.m. the Kinsale station reported "*Lusitania* sunk."

At the first intimation that the liner was in distress all tugs and small craft, and also the Queenstown outer patrol vessels, were sent out to her. Only two tugs and the examination vessel were under way; these got away very promptly. H.M.S. *Juno*, of Cruiser Force E, had just come in to Queenstown; the orders in force were that the old cruisers of this force should not be exposed to submarine attack, but in the circumstances the Admiral, Queenstown, ordered her to the assistance of the *Lusitania*, although he realised that his action "was not in accordance with the spirit of Their Lordships' instructions."¹ She sailed with Rear-Admiral Hood on board, but as soon as it was known that the *Lusitania* had sunk she was recalled.

All these sinkings had occurred in the Queenstown Auxiliary Patrol area, which was manned by four units. Their general orders were that when on patrol they were to work in line abreast about 2 miles apart, and that they were to pay particular attention to the neighbourhood of salient points; these they were to warn ships to avoid by keeping a mid-channel course. Only one of the trawlers had a wireless operator and, as both of the two yachts which so far had arrived at Queenstown were in harbour refitting, communication with them was possible only through the signal stations.² At the moment there were three trawlers patrolling between Kinsale and Ballycotton, three between the Fastnet and Cape Clear, three near the Coningbeg Light Vessel,

¹ V.A., Queenstown: Sinking of *Lusitania*, titled L. 928/15.

² L. 928/15.

one off Valentia, and one off Mizen Head. One, the *Indian Empire*, was coming in to Queenstown; she was the only patrol vessel near the sinking *Lusitania*. She brought in 170 survivors. Other craft despatched from Queenstown brought in the rest; but of those who left New York, 1,198 men, women and children were drowned.¹

The submarine which had brought about this disaster was *U.20*, Lieutenant-Commander Schwieger, who had left Germany on April 30 with orders to operate against transports off Liverpool. He crossed the North Sea just as the destroyer sweep of the Scandinavian routes was beginning; 40 miles NE of Peterhead on May 2 he sighted the Scapa destroyers in line abreast. He had some difficulty in getting through Fair Island Channel, where he found two lines of patrols and had to submerge for 50 miles. Making his way round the west of Ireland he sighted various armed trawlers, but saw no steamers. On May 5 he sank the *Earl of Lathom* off Queenstown and fired a torpedo at, but missed, a steamer apparently stopped. Continuing his voyage towards Liverpool next morning, he sank the *Candidate* and *Centurion*, and noticed with some apprehension the activity of the patrols at the entrance to St. George's Channel. He weighed the chances of success if he should carry out his orders and go on to Liverpool. The weather was persistently foggy, which constricted the view from the submarine's periscope. The patrols in the Irish Channel would force him to make much of the journey submerged. He had not enough fuel to take him through the North Channel and he had only three more torpedoes, of which he intended to keep two for use on the return journey. In consideration of all these disadvantages he decided to disregard his orders to operate off Liverpool and to cruise instead in the open waters of the Bristol Channel while his fuel lasted.

It was still foggy on May 7. Off the coast of Ireland a passing trawler forced him under and when he put up his periscope he saw a cruiser, probably the *Juno*. He followed her in hopes of a chance to attack, but she disappeared in the direction of Queenstown. He had no desire to close a naval port possessing an extended defence, and he turned away. Scarcely had he resumed his course to the westward when, on his port hand, he descried through the mist a large four-funnelled liner. It seemed unlikely that he could get near enough to attack, when suddenly she altered course towards him and came within torpedo range. At 2.10 p.m. he fired a torpedo at 700 metres. Whereas normally it required two torpedoes to sink a small steamer, to his astonishment his torpedo, hitting just astern of the bridge, produced a terrific explosion. She stopped and listed so much that she looked as if she must capsize. By this time he had read the name

¹ Details of the voyage and sinking of the *Lusitania* and of the rescue of the survivors are given in Hurd: *The Merchant Navy*, I, Chapters X and XI.

Lusitania, written in gold letters on her bows.¹ Seeing that she was doomed he passed on, an hour later firing a torpedo at a Cunard freight steamer. This torpedo failed for some mechanical reason. On May 11, *U.20* was north of the Shetlands and was driven by a northerly gale over to Norway. She finally reached Wilhelmshaven on May 13, with only 19 tons of oil left. By passing north of the Shetlands he avoided the Fair Island Channel, where the patrols were on the alert and had been increased for this occasion, in the hope of catching him, by a division of the 4th Flotilla operating off North Ronaldshay. Since nothing was sighted by any of the patrols the Commander-in-Chief came to the conclusion that the submarine commander was aware of the Fair Island Patrol and had gone round north of the Shetlands—a very accurate deduction.²

79. A Further Attack in the South-west Approach, May 18–21.

—The south-west approach, in which Lieutenant-Commander Schwieger had performed most of his work, was not his proper sphere of action. This was really the area for *U.35*, which left also on April 29. She had a breakdown on May 1, between Aberdeen and Hanstholm, and had to return; whereupon *U.27*, Lieutenant-Commander Wegener, left in her place on May 4.³

In the Southern Fair Island Channel on the 7th she was sighted by and engaged one of the trawlers on patrol, without effect on either side. The Admiralty, assuming she would be going down the west coast, suggested that Admiral Jellicoe should send some destroyers to follow her, so as to be within reach if she were sighted or attacked any ships. The same idea had occurred to the Commander-in-Chief, and the *Cameleon's* division of the 2nd Flotilla were already on the way. Two boats were recalled that evening, but the *Cameleon* and *Ruby* continued southward. The Butt of Lewis seemed an obvious landfall for the submarine to make; the two destroyers were ordered to look out for her 8 miles west of the Butt, while the Stornoway Patrol ran nets off there and assembled as many trawlers as were available. The submarine was not sighted and the destroyers went on to Broadhaven Bay in the north-west corner of Ireland on the 9th. It was thought a likely place for the enemy to use for rest or replenishing; but the destroyers found nothing there, and were recalled.⁴

Although not so near the Butt of Lewis as anticipated, *U.27* was actually not far away. In the morning of the 8th, as she

¹ According to her commanding officer her name had been painted out. The above details of the feelings of Lieutenant-Commander Schwieger are from *Nordsee* IV, pp. 110–113. It is categorically stated that he had not been sent out specially to sink the *Lusitania*, which indeed seems perfectly probable.

² G.F.N. Tels. 934 to and 958 from C.-in-C., H.F.

³ The cruise of *U.27* is described in *Nordsee* IV, pp. 114, 115, and Karte 5.

⁴ G.F.N., Tels. 913 to and 925 from C.-in-C., H.F., 7.5.15.

was passing the Butt well out to seaward, she sighted two British armed merchant cruisers patrolling on zigzag courses. The temptation was too much for Lieutenant-Commander Wegener; although his orders were to operate in the Bristol Channel he felt justified in attacking these vessels, and for three days he dogged them, never getting a favourable chance to fire.

There were six of the 10th Cruiser Squadron on patrol between the Hebrides and the Faeroes, steaming 25 miles apart on a SW and NE course across the meridian of 8° W. It was these he had seen. As it happened, a submarine was reported close to the Butt of Lewis early on May 9, and since this was inconveniently near to the southern cruisers the base line was altered to the ninth meridian. Next day there was another report of a submarine near the Butt,¹ and the armed merchant cruiser patrol was shifted still further out to the meridian of 10° W.²

Frustrated in her attempts to get a shot at these armed merchant cruisers, which were entirely unaware of her presence, *U.27* continued her journey. Arrived at the Bristol Channel, her proper station, she found most of the shipping to be neutral. At three vessels, undoubtedly British, one of which was armed with a large gun, she fired torpedoes and missed. On May 18 and 19 she succeeded in sinking two ships, the *Drumcree* and the *Dumfries*. The *Drumcree* was only 11 miles from Trevoise Head when torpedoed without warning, her proximity to the coast, though against Admiralty instructions, being due to her master's hope that he might expect some protection from the patrols. No patrols were near and the crew were rescued by a passing Norwegian.³ The *Dumfries* was a collier for Italy.

These two were the only British ships *U.27* could find and Lieutenant-Commander Wegener came to the conclusion that British commerce had been diverted from an area where his colleagues had been so busy. On the 20th he commenced the return journey. When about 12 miles south-west of the Fastnet on the 21st, he sighted a sailing vessel, the *Glenholm*, becalmed and sank her by gunfire. No patrols were near and the crew pulled their way into Berehaven, with no other help than that obtained from a schooner accidentally encountered.⁴ Passing on, Lieutenant-Commander Wegener found himself, on the 23rd, again among the 10th Cruiser Squadron Patrol. At last a favourable chance of attack presented itself; getting ready his last two remaining torpedoes, he waited for the moment, but just then his main steering gear broke down and he had to let the chance go by. Next day he was in Fair Island Channel among the trawler patrol. One of the trawlers, the *Ontario*, on the western of the two lines in Fair Island South Channel had a short engage-

¹ This could not have been *U.27*, but it may have been *U.20* returning.

² 10th Cruiser Squadron. Reports of Proceedings. H.S. 185 and C.B. 935 Monograph 19.

³ Depositions: *Drumcree*, M. 22434/15; *Dumfries*, M. 22601/15.

⁴ Depositions: *Glenholm*, M. 22786/15.

ment with him ; but he escaped uninjured and was back in the Ems on May 27.¹

Captain Phillimore, in command of Falmouth Auxiliary Patrol area, felt, like the master of the *Drumcree*, that merchant vessels should keep inshore. He wrote to the Admiralty that he was convinced the best way to protect trade was to keep it close in to the coast, where it could be shepherded along by the patrol,² which extended no further than 30 miles out. His suggestion passed unnoticed and the Admiralty made no alteration in their instructions for merchant vessels to keep in mid-channel.

80. Devonport as Transport Base.³—Besides the problem of protecting merchant shipping, there was a considerable movement of transports in the South-west Approach after the loss of the *Lusitania*. The next Mediterranean convoy, two artillery brigades and reinforcements which, as at first arranged, were to be despatched from Avonmouth, were now in consequence of the activity of the enemy submarines to proceed from Devonport⁴; the four Harwich destroyers, *Lawford*, *Legion*, *Lucifer*, *Linnet*, together with the *Boyne* and *Foyle*, to act as escorts. A detachment of the Royal Naval Division was also due to sail shortly and a batch of Canadian transports, arriving singly, had to be brought in. On May 10 three transports and an ammunition carrier were ready to sail from Devonport, when the s.s. *Poona* signalled from 49° 55' N, 2° 45' W, that she was being chased by a submarine. This position is in mid-channel, far from any patrols. The Commander-in-Chief, Devonport, sent out his destroyers and with them the *Laverock*, due to return to Harwich, postponing the departure of the transports till they should have dealt with the submarine. The position given by the *Poona* was 60 miles from Devonport ; and by the time the destroyers reached it they saw no sign either of the submarine or the *Poona*.

This does not now seem remarkable ; but the destroyers thought it strange at the time. They sighted a drifter which had some suspicious features ; among others, the fact that her crew refused to speak anything but French. Signals to the *Poona* procured no satisfactory replies and when, finally, the *Laverock* saw the track of a torpedo coming for her, she felt convinced the whole proceeding was a trap and the supposed *Poona's* call a decoy. The destroyers returned to Devonport with that impression strong upon them.

They were wrong. The *Poona* had a real existence. She was picked up by armed trawlers sent out from Portland and was found all safe. The only imaginary part of the episode was the

¹ Weekly Reports, Orkneys and Shetlands, A.P. H.S. 138, p. 98. On p. 174 will be found a statement of the scheme of patrol.

² Falmouth Reports : H.S. 665, p. 158.

³ A return of transports and escorts leaving and arriving at Devonport, May 1 to June 8, is in M. 04764/15 titled *B.* 846/15.

⁴ Transport Papers T. 8259/15. The date of change of embarkation port is May 8.

submarine ; this, with the torpedo which had so roused the *Laverock's* suspicions, were on investigation proclaimed to be porpoises. The *Poona*, on her side, had doubted the *bona fides* of the signals made to her, and when ordered by the *Laverock* to burn a rocket her master definitely refused. In this he was upheld by the Admiralty, who considered that the Commanding Officer of the *Laverock* committed an error of judgment in calling upon the *Poona* to reveal his position to any submarine which might have been in the vicinity.¹

The destroyers returned on May 11, except for the *Laverock*, which went on to Harwich. On May 12 also, they went out for a submarine chase and it was not till next day that the transports *Ascania*, *Ivernia* and *Orsona*, carrying over 3,000 of the Royal Naval Division and 1,500 army reinforcements, could sail for the Mediterranean. They were to sail at dark and their route was to be 30 miles south of the Lizard, 60 miles west of Ushant, and 100 miles from the coast of Spain and Portugal. The *Orsona* carried a 4.7-in. gun ; this she was to disembark at Gibraltar for use by some homeward bound vessel.²

The first of the Canadian transports, the *Metagama*, was approaching. Orders were sent her by wireless to pass through a point 180 miles west of Ushant, thence steer for 30 miles south of the Lizard and proceed into Plymouth. If available, destroyers from Devonport were to meet her and escort her in.³ She came in on the 15th, the *Lawford* and *Lucifer* having waited out for her and picked her up about 30 miles south-west of the Wolf.

The *Exmouth* and *Venerable*, en route to the Mediterranean from Dover, passed down mid-Channel escorted, as far as 7° W, by eight Harwich destroyers which came in to Devonport at the conclusion of their duty. They did not at once return to Harwich. The Admiralty wished to escort clear of the Channel the *Sirius* and *Rinaldo*, which were to leave Devonport for the Mediterranean, via 48° 30' N, 7° W ; as it happened, these sailed before the Harwich destroyers reached Devonport.⁴

Besides the transports leaving Devonport singly there were two others which, about to sail from Liverpool, were causing the Admiralty much anxiety. They were the *Mauretania* and *Aquitania*, larger even than the *Lusitania*, and they were each to carry nearly 10,000 men. Their port of departure was to be Liverpool. On May 16 the eight Harwich destroyers which had come in to Devonport after parting company with the *Exmouth* and *Venerable* were ordered to escort the two Cunarders, four to each, as far as 48° 30' N, 10° W.⁵ There was a delay in the departure of the Cunarders ; they would not be ready till the 20th. In the meantime, four of the escorting destroyers were to

¹ Papers titled *B.* 1061/15.

² Papers *T.* 8259/15.

³ H.S. 114, pp. 393, 412.

⁴ H.S. 114, pp. 999, 1021, 1077, 1080.

⁵ H.S. 114, p. 1243.

hunt a submarine reported near the Tuskar¹ and the other four to bring in another Canadian transport.²

On May 17, however, the German Fleet was reported to be coming out. The Harwich flotillas, an important item in any operation intended to meet the enemy, were at a low ebb, only eight boats being at their base. There were 14 Harwich destroyers in the various escort duties on the South-west Approach. These the Admiralty now ordered back to Harwich with despatch, vessels which must be escorted to be detained as necessary. Of the 14 boats in the South-west Approach only six were at Devonport when this order was received and these were despatched at once. Four "M" class were waiting for the Canadian transport and four "L" class were hunting off the Tuskar; the Admiralty allowed those to remain and next day, when the German Fleet returned to port, sent back the *Lawford's* division to Devonport.³

Submarines, though reported from time to time, had not sunk anything in the South-west Approach since the *Lusitania*; but now, just as the *Mauretania* and *Aquitania* were due to sail, sinkings began again, when the *Drumcree* and *Dumfries* were torpedoed off the north coast of Cornwall on May 18 and 19. Single transports had left Devonport on the 16th, 17th and 18th, escorted by the *Boyne* and *Foyle*, which were permanently attached to Devonport for this duty. On the 19th, when the four "L" class arrived back, three transports carrying 2,400 men were got away. On the 20th the Canadian transport, for which the escort had been waiting since the 16th, at last arrived. Four more Canadian transports were due between May 22 and 27; they were to be escorted in with destroyers, which would be sent after the *Mauretania* had gone.

The *Aquitania* was not to go. She had a serious breakdown and could not sail. Part of the troops intended for her were embarked in the *Mauretania*, part in the *Empress of Britain*,⁴ which was to leave on the 22nd, and the remainder in other transports.⁵

The *Mauretania* sailed from Liverpool soon after 1 a.m., May 21, escorted by the *Loyal's* division. They zigzagged down the Irish Sea at 17 knots and at 10.40 p.m. were in 50° 20' N, 9° W (70 miles south of Galley Head). Here the destroyers parted company and proceeded in to Pembroke. Although the position in which they had parted company was a long way short of 48° 30' N, 10° W, to which they had been ordered to escort her, and she had to cross the southern half of the entrance to the Channel alone in daylight, her journey proceeded without accident and she arrived safely at her destination.

¹ Probably *U.27*. T.S.D.D.

² H.S. 114, p. 1282.

³ H.S. 115, pp. 172, 193, 203, 531.

⁴ Formerly an armed merchant cruiser on the Atlantic trade routes, but now disarmed and a transport.

⁵ H.S. 115, p. 699.

No submarine had, in fact, visited the mouth of the Channel for several weeks, but before the end of May it was apparent that one at least was at work between the Scillies and Ushant and on the route which the transports from and to Devonport had been ordered to follow.

81. "U.41" in the Mouth of the Channel, End of May.—This submarine was *U.41*, Lieutenant-Commander Hansen, making her first extended cruise. She passed round Scotland on May 24 and exchanged fire off the north-west corner of Ireland with a trawler of the solitary unit guarding that important landfall.¹

No submarine appears to have yet attempted to pass through the North Channel net. It was now in good working order and nets were out in the dark hours for the first time on this particular night.² *U.41* had no intention of testing the efficacy of the net; she proceeded southward along the west coast of Ireland and made her first successful attack on a merchant vessel when 48 miles W $\frac{1}{2}$ S of the Fastnet. At 8.24 p.m. May 25, she torpedoed without warning the United States steamer, *Nebraskan*, from Liverpool for Delaware, in ballast. The position was far from any patrols. In the Queenstown area the general principle was to keep the Auxiliary Patrol vessels on the line of traffic during the daytime, that is, 10 to 15 miles off the south coast of Ireland, closing the land at night. In this area, as elsewhere, difficulty was experienced in making merchant vessels keep far enough away from the shore to satisfy Admiralty instructions; Auxiliary Patrol vessels had to be stationed at the Fastnet and at Coningbeg to order ships away. Now, however, that a ship had been torpedoed in the Queenstown area, the unit based on Berehaven went further afield than had been its custom.³

The *Nebraskan* did not sink. Her S O S calls brought out an armed yacht, which came up to assist her five hours after the torpedoing. The damaged vessel reached Liverpool under her own steam two days later.⁴

Lieutenant-Commander Hansen did not follow the track of vessels proceeding within 15 miles of the south coast of Ireland. There were others which obeyed more accurately the Admiralty instructions to keep in mid-channel. One of these, the collier *Morwenna*, from Cardiff to Canada, passed on the 26th through the spot where a few days before the *Mauretania's* escort had left her. There the collier sighted a submarine and, after a futile attempt to escape under fire, was torpedoed and abandoned.

A Belgian trawler, the *Jacqueline*, Skipper Arsène Blonde, saw the episode and ran up to assist the *Morwenna* and, if possible, to ram the submarine. The enemy met her with gunfire, to which Captain Blonde replied by hoisting the Belgian flag. He

¹ Area XIX, Blacksod Bay with one unit. Report in M. 04365/15.

² M. 04255/15.

³ M. 04006/15, 04324/15.

⁴ M. 22917/15, 23092/15.

had no weapon; but he had courage and he pursued the submarine for 45 minutes, zigzagging to avoid her shells. *U.41* at length dived and disappeared, leaving the *Jacqueline*, with her Belgian flag, in possession of the field. The intrepid Captain Blonde's only regret was that he had no gun and, on arrival in port, he asked to be given one for use on future occasions. All available guns had been disposed of; but the incident could not pass unnoticed. The King awarded Captain Blonde the Silver Medal for Gallantry in Saving Life at Sea; and the Board of Trade presented him with a piece of plate, each member of the crew receiving £2 in recognition of their services. But it is clear Captain Blonde would rather have had a gun.¹

Some eight hours after the *Morwenna's* S O S call had been taken in, the *Loyal* and *Louis* went out from Pembroke to hunt for the submarine.² They found nothing; for Lieutenant-Commander Hansen had proceeded towards the mouth of the Channel and on the following afternoon, 20 miles SW by S of Wolf Rock Lighthouse, fired for half an hour on the British steamer *Cadeby*, bringing pit wood from Spain for Cardiff. The patrols were unaware of the incident till her crew were brought in to Newlyn by a fishing vessel.³

The remainder of *U.41's* victims on this cruise were found in mid-Channel; that is, half-way between and 40 miles from England and France. Here, on the 28th and 29th, she sank six steamers⁴ and attacked another, the *Ping Suey*. This last carried a 4.7-in. gun aft and made such play with it that the enemy did not close but, after doing some damage by long-range gunfire, dived and disappeared.⁵ *U.41* stopped a Dutch steamer at 5 p.m., May 29, approximately in 49° N, 7° W, and then appears to have started for home via the west of Ireland.⁶

The area in which she had been operating, though free from the Auxiliary Patrols, was frequently traversed by transports and their escorting destroyers. The route for Mediterranean transports leaving Devonport was through a point 30 miles south of the Lizard to one 60 miles west of Ushant; incoming transports from Canada came to 48° 30' N, 10° W, that is, 180 miles west of Ushant, and thence through the point 30 miles south of the Lizard to Devonport. The intention was for the escorting destroyers to

¹ M. 23138, 22963/15.

² H.S. 116, pp. 918, 975, 1017.

³ M. 22981, 23139/15.

⁴ British, *Spennymoor*, M. 22930, 23136/15; *Ethiophe*, M. 22980/15; *Tullochmoor*, M. 23140/15; *Diana*, M. 23135/15; *Glenlee*, M. 23201/15; Portuguese, *Cysne*.

⁵ M. 23001/15.

⁶ Her cruise is not mentioned in *Nordsee IV*. Gayer states that *U.41* sank nine steamers on the west coast between May 25 and 29. This is corroborated by the intercepted report (1840/3 June) from a submarine signing herself seventh boat of 2nd Submarine Half-Flotilla, which is now known to have been *U.41*.

take out a Mediterranean transport and then wait on the 10° W rendezvous for an incoming Canadian vessel.

On May 26 the *Transylvania*, with 3,000 troops on board, sailed from Devonport at 10.35 p.m., escorted by two destroyers. Next morning, at 6.20 a.m., a Canadian transport was brought in by the destroyers of the previous outgoing trip. On the 28th, when *U.41* was so busy in the mouth of the Channel, a Canadian transport missed her escort and arrived alone. Two others, the *Saxonia* and *Missanabie*, reported themselves approaching; they carried nearly 4,000 troops. Both were well past their 10° W rendezvous when picked up by their escorting destroyers and both arrived safely, though they had been close to *U.41*. On the 30th two vessels were escorted from Devonport; one, the transport *Malwa*, for the Mediterranean, and the other a depôt ship for Larne Auxiliary Patrol. From the logs of the escorting destroyers it is clear that while the *Malwa*, though passing through a submarine infested area, steered a straight course, the vessel for Larne zigzagged continuously, on its passage through the perfectly clear Irish Channel.¹

The destroyers at Devonport were kept busy, not only with escort duty, but also with chases of reported submarines. The last two days of May were occupied with a particularly lively operation. The *Laforey* and *Leonidas* were lying at Pembroke, at one and three hours' notice respectively, when at 10.42 a.m., May 30, an S O S message was received from the *Megantic*, a large liner, giving her position as 51° 20' N, 7° W. The *Laforey* got away by 11.30 a.m., was at the spot by 3 p.m., and was joined there by the *Leonidas*, the two then searching in co-operation. At 7.12 p.m. a steamer reported a periscope in 51° 9' N, 6° 52' W; off the two destroyers went to search this new position. At 9.17 p.m. the Naval Centre, Pembroke, signalled to them that there was a submarine in Clovelly Bay; the destroyers spent the rest of the night sweeping there and near Lundy Island. At 7.5 a.m. a submarine was reported by a steamer to be in 51° 10' N, 6° 40' W; the destroyers proceeded at full speed and swept out square areas of 10 miles side till 10.30 a.m., when an S O S call was received from s.s. *Demerara* in 50° 48' N, 7° 20' W. Once more the destroyers rushed to the spot, helped in this case by the fact that the *Demerara* reported her course and speed. A few minutes later another steamer called for assistance, giving also her course and speed. The *Laforey* went to the assistance of this second steamer, while the *Leonidas* proceeded to the *Demerara* to find, on meeting, that she had driven off the submarine by the fire of the gun she carried astern. The Captain of the second steamer "appeared to be suffering from nerves," writes Commander G. R. L. Edwards, of the *Laforey*,² "for, as we approached, his ship's company proceeded to man the boats and there appeared to be a panic on board. I am of opinion that he had originally

¹ Logs of *Louis* and *Lawford*.

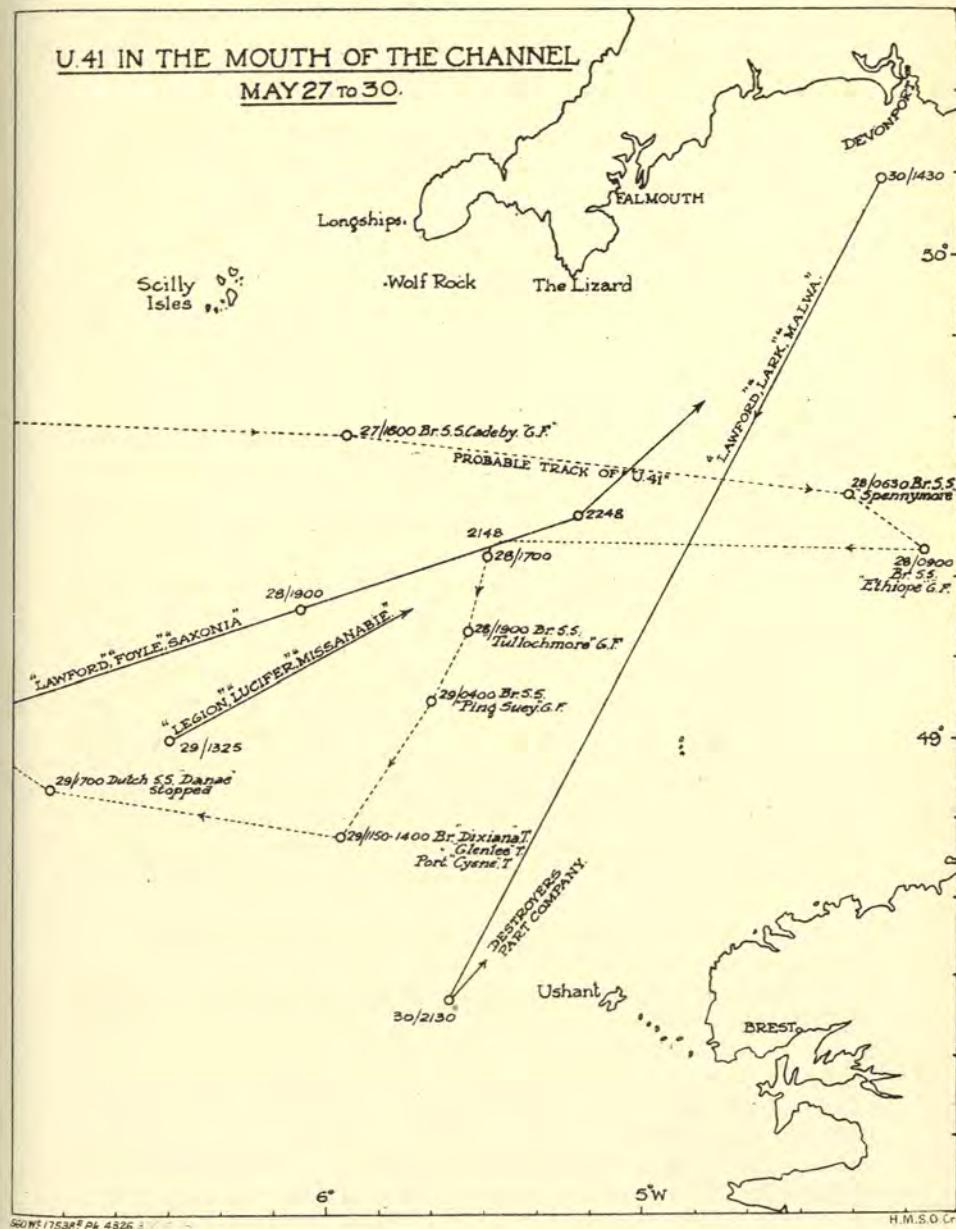
² Papers titled X. 8776/15, *Report of Movements*.

mistaken *Laforey* for a submarine and, shortly after, sent out S O S calls." These two meetings concluded the chase of the reported submarine by the two destroyers, which then went back to oil at Pembroke. Commander Edwards represented that merchant vessels should not make S O S calls unless absolutely certain they were being attacked and that they should invariably, when asking for assistance, give their position, course and speed. His suggestions were embodied in a Confidential Interim Order,¹ drafted by the Trade Division of the Admiralty War Staff, with which division rested the preparation of orders to British merchant vessels.

In this case it seems that the submarines which the *Laforey* and *Leonidas* had been chasing were all imaginary. U.41 was well on the way home and no boat known to be making her way to the western approaches at the time had yet got so far.

There were three decoy ships in the south-west approach at this time. The *Antwerp* was at Cardiff on the 28th, but instead of coming south she went into the Irish Channel. The *Baralong* was at the Scilly Islands on the 28th; she went into the English Channel, but remained too far eastward. The *Lyons*, which had been off Devonport, also proceeded eastward on the 29th.² They, like the Auxiliary Patrols, came nowhere near U.41, which preferred to operate in mid-channel.

This feature of the German submarine methods did not escape Captain Phillimore. "It is noticeable," he wrote,³ "that all the casualties in this area occurred well off the coast in mid-channel, viz., 29, 30, and 50 miles out. I am more than ever convinced that for slow ships, at any rate, say, of 12 knots or under, that they should either go through the Channel Islands where, owing to difficulties of navigation, the chances of a submarine attack are remote, and then keep with the French coast, or keep close to our coast all the way. They would then pass through our patrols and get any reports *re* submarines that come along, and get any special directions. Fast ships, of course, can afford to take their own line, provided they use ordinary precautions." The only action taken on this report was to issue a badge to men of the R.N.R. trawler section qualified in signals, in response to another suggestion in the same letter.⁴



¹ C.I.O. 601 of 22.6.15.

² H.S. 117, pp. 280, 374, 610.

³ Falmouth Auxiliary Patrol Report, dated May 31. H.S. 665, p. 265.

⁴ *Ibid.*, pp. 317, 318.

CHAPTER X.

SORTIES OF THE HIGH SEA FLEET FROM THE END OF MARCH TO THE END OF MAY.

82. Activity of the Grand and High Sea Fleets, March 29 to April 8.—The Admiralty appear to have been relieved that the exercises during which the *Dreadnought* sank *U.29* were completed; their appreciation of the situation led them to believe that the period was a critical one, that losses from submarines might easily be incurred and that the Fleet should be kept at its fullest strength and in the highest state of readiness.¹ There were no further Fleet movements, therefore, until March 29.

When intercepted signals indicated that the 1st and 2nd Scouting Groups and two destroyer flotillas would put to sea, the Admiralty ordered the Grand Fleet, the Harwich Striking Force and the Harwich submarines to proceed to sea, and made detailed dispositions to meet the German movements in so far as these were known through decoded signals.² The squadrons of the Grand Fleet commenced leaving harbour at 5.30 p.m., March 29, the Commander-in-Chief ordering a rendezvous for the battlefleet, cruiser squadrons and 2nd and 4th Flotillas at 7 a.m. on March 30, in lat. 57° 10' N, long. 2° E. The Admiralty, however, having learned that the German squadrons were returning to harbour at 11 p.m., ordered the squadrons of the Grand Fleet to return to their bases.³ The battlefleet re-entered Scapa between 3.30 a.m. and 6.30 a.m. on March 30; the ships from Cromarty returning at about 6.15 a.m., and those from Rosyth at about 7.30 a.m.⁴ With the recall of the Grand Fleet the submarines were ordered to return to Harwich, the destroyers of the Striking Force being detailed to carry out a submarine hunt off the Dutch coast before returning to their base.⁵

The movement in which the High Sea Fleet had just taken part was nothing more than a short-range reconnaissance. Reports reaching the Admiralstab in the middle of March stated that the line from the Tyne to the Skagerrack was strongly patrolled by destroyers and submarines, while a force of armed cruisers and battleships was stationed in the Humber; added to this was the rumour current in Grimsby that the whole Grand Fleet was lying at the Outer Dowsing, off the Humber. Various reconnaissances were made. Two destroyer flotillas searched during the night of March 22–23 as far as 35 miles NW of Borkum

¹ A. 395.

² G.F.N., of date and Appendix A. 423 to 429. The decoded signals will be found under date March 29 in Vols. 859 and 3011, I.D.H.S.

³ A 431, 432; and G.F.N. of date.

⁴ G.F.N. of date.

⁵ A 432.

and found nothing. An air reconnaissance also failed to locate the British patrols reported to be stationed between Terschelling and the Skagerrack. A further cruise by *U.17*, Lieutenant-Commander Hans Walther, as far as the line Tyne-Skagerrack, produced no intelligence of British movements. According to what was considered a reliable report this line was strongly patrolled by a large number of destroyers and submarines, but *U.17* found nothing of the kind. Leaving the Bight on March 24, she proceeded to the suspected line and, though she boarded three neutral steamers, could learn nothing of the anticipated British patrol. She was back in the Bight on March 27.¹

Nevertheless, in spite of all these negative results, the reports received lent colour to the idea that a British attack was impending. It had been noticed that our attacks had often been preceded by the appearance of submarines in the inner part of the Bight, and additional evidence of our presumed intention was afforded by the sighting of a British submarine south of Heligoland on March 25.

Admiral von Pohl now decided to make a reconnaissance in force of the outer waters of the Bight, making an afternoon cruise of the High Sea Fleet, which would also afford an opportunity of carrying out tactical exercises. Snow squalls and bad weather interfered with the preliminary air reconnaissance and it was not till March 29 that it was considered wise for the fleet to go out, after an extensive search for mines and submarines. The fleet proceeded by Norderney, after a short disturbance caused by the report of a submarine in its track. The supposed enemy proved on investigation to be a log of wood.

As the cruise was to be only of the one afternoon's duration, the fleet turned back after three hours' steaming towards the north-west. The cruise passed without special incident and had interest chiefly in the steaming formation adopted. The light cruisers and two flotillas of destroyers led the line and were spread in the form of a fan; next came the battle cruisers and, 12 miles astern of these, the battle squadrons, preceded by a destroyer flotilla and with a flotilla on either beam to act as submarine screens. Previous to the fleet's departure a submarine had been stationed 50 miles NW of Heligoland and another 20 miles north of Terschelling, so as to afford flank protection. The cruise was noteworthy also as being the first occasion when airships were able to co-operate tactically with the fleet. Three airships were up; of these *L.6* kept continuously in sight of the fleet, while *L.7* and *L.9* advanced further west to as far as 100 miles NW of Terschelling. The only suspicious circumstance they observed was apparent signalling by Dutch fishing steamers which, moreover, seemed to be stationed at such regular intervals round Heligoland as to give the impression of a well organised line of outposts in the British service. The High Sea Fleet passed Norderney on the return journey at 9 p.m.,

¹ *Nordsee IV*, p. 69, and I.D.H.S. Track Charts.

March 29, and anchored in the Jade next morning. Air reconnaissance by *L.6* and *L.7* on the two succeeding days failed to discover any British movements that might have been provoked by the German sortie, even though *L.7* went on March 31 to within 60 miles of Yarmouth; and not till the end of the war was it known in Germany that Admiral Jellicoe had come out to meet the High Sea Fleet.¹

No British submarine was in the Bight during the brief German sortie. On March 31, *E.7* went over, more as a matter of routine than for any special purpose. She was off Heligoland between dawn of April 2 till 3 p.m., April 4, on one occasion in the fog finding herself within 1½ miles of the island. She missed a trawler with a torpedo, but otherwise found no other target; she returned with a report of nothing seen.²

Though intercepted German signals made it clear that the movement begun on March 29 was concluded by the return of the High Sea Fleet, the Admiralty still expected some fleet operation; they did not send any more submarines for more than a week, but the further exercises of the Grand Fleet had to be arranged so as to finish by April 8, which appeared a likely date for this movement.³

The 3rd Battle Squadron and 3rd Cruiser Squadron went out from Rosyth on April 5 for exercises, having been delayed two days by the report of a submarine off Oxcars. On the same day the Battle Cruiser Fleet, which had also been delayed by the supposed submarine in the Forth, proceeded for an exercise cruise to the eastward of the Shetlands. They were back at their bases before April 9.⁴

83. Submarines off the Tyne and Forth, March 13 to April 5.

—The very active patrol of the coast north of the Tyne started on March 13 by the sinking of the *Invergyde*⁵ continued for a fortnight, the only tangible result being a German torpedo picked up off Blyth on the 26th. A specially urgent reason for keeping the passage north of the Tyne free of submarines was that the *Lion* was ready to rejoin the Battle Cruiser Fleet, her repairs after the action of the Dogger Bank being now complete. She left at 3 a.m., March 28, escorted by four of the 1st Flotilla destroyers, the whole of the Tyne Patrol anxiously watching her route between Blyth and Amble. With the *Lion's* departure their fortnight's search came to an end.⁶

The report of a submarine at Oxcars, which delayed the departure of the Rosyth squadrons on April 3, had been preceded the day before by a report of one 12 to 13 miles from May Island. All the standing-by destroyers and torpedo boats of the 8th Flotilla, four boats from the 1st Flotilla, and one trawler

¹ *Nordsee IV*, pp. 69-73.

² Comm. (S) Memos. and Reports, H.S. 294.

³ G.F.N.

⁴ G.F.N.

⁵ See Section 66.

⁶ Papers titled X. 8981/15.

unit went out to search. A trawler sighted a supposed submarine on the 3rd in this vicinity and the hunt was continued. That evening the hydrophone station at Oxcars detected the propellers of a submarine coming into the Forth, and all the hunting destroyers were called in to patrol near it. Indicator nets were got out to block the gap in the boom defence. During the night a heavy gale carried away most of the boom that was laid and the line of nets was extended to cover this further gap. This activity was continued till the afternoon of April 5, by which time the local authorities had come to the conclusion that there was no hostile submarine at all, as the number of searching craft was enormous and the main channel had been especially well patrolled by torpedo boats.¹

Yet, though it is unlikely that any submarine came up as far as Oxcars, the boat first sighted east of May Island might well have been *U.10*, which left Heligoland at noon, March 30. On March 31, off the north-east corner of the Dogger Bank, she sank the Norwegian sailing vessel *Nor*,² laden with timber for Hull; and proceeding westward, made a raid on the fishing fleet 40 miles north-east of the Tyne, sinking three trawlers on April 1—*Jason*, *Gloxinia*, *Nellie*—their crews being saved by other fishing vessels and brought to the Tyne.³ The submarine had her number painted out, but a box of biscuits given by her to the men of the *Jason* was marked *U.10*.⁴ Next day she stopped two Danish steamers near Holy Island. As her next exploit was to torpedo the trawler *Acantha* on the 5th, near where the *Jason* had been sunk,⁵ in the interval she may well have visited the estuary of the Forth. Before leaving her station she stopped, late on April 5, the Danish steamer *Hansen* and, under threat of sinking her, obtained from her the route of Scandinavian vessels across the North Sea from Lindesnaes to the Farn Islands.⁶ With this information she returned to Heligoland on April 8. There are as yet no details of her cruise from the German side; and intercepted telegrams speak only of her departure and of the sinking of the *Nor*.

84. Movements of the High Sea Fleet Anticipated, April 12.—

The Commander-in-Chief wished, if possible, to take out the Grand Fleet for exercises on April 9. Permission was obtained, but, in view of the fact that the Admiralty anticipated movements on the part of the German forces on April 12 or 13, the Commander-in-Chief did not proceed.⁷ The Admiralty, on the other hand, thought it more expedient that the Grand Fleet should be at sea before the German movement became pronounced; this would at once ensure that the position of the British forces was

¹ M. 02840/15.

² H.S. 104, p. 311, and I.D.H.S. History Sheets.

³ Depositions, M. 20051, 20052, 20053/15.

⁴ H.S. 104, p. 190.

⁵ The *Acantha* tried to escape, hence the torpedo. M. 20113/15.

⁶ H.S. 105, p. 179.

⁷ A 441.

unknown to the enemy, and would also avert any suspicion that the Grand Fleet always went to sea when the High Sea Fleet proceeded, which might cause the enemy to think that their communications were vitally compromised.¹

The Admiralty dispositions in preparation to meet the German movement were briefly as follows: The Battlefleet and Battle Cruiser Fleet were to proceed from their bases on the night of April 11; the latter to cruise in the vicinity of the meridian of 2° 30' E between the parallels of 57° and 58° N, the former to cruise as convenient until daylight on April 13, when the Fleet should be in the vicinity of long. 2° E between lat. 58° and 59° N. Commodore (T) with light cruisers, destroyers and submarines was to cruise NNW and SSE between Terschelling and lat. 54° 20' N on April 12 and 13, while four submarines, *E.5*, *6*, *8* and *12*, were stationed off the exits from Norderney and Heligoland swept channels from the night of April 11 to the night of April 14.²

The Grand Fleet squadrons accordingly left their bases in the evening of April 11, the 4th Battle Squadron from Cromarty effecting a rendezvous with the Commander-in-Chief at 10 a.m. the following morning. Tactical exercises were carried out in the afternoon of the 12th. The 2nd and 4th Flotillas joined the Battlefleet at 4.30 a.m. on the 13th, and the 1st Flotilla left Rosyth in the afternoon of the 12th to join up with the Battle Cruiser Fleet and 3rd Battle Squadron.³

In the meanwhile, the German operations were hampered by fog. Three cruisers of the 4th Scouting Group, with destroyers, proceeded from their base at 1.20 p.m. to advance to lat. 54° 33' N, long. 6° 55' E, but the squadron encountered thick fog and was obliged to return. These weather conditions prevailed in the Bight in the forenoon of the 12th, and prevented the intended movements of surface craft; submarine *U.23*, however, proceeded out to lat. 54° 27' N, long. 5° 45' E.

In the afternoon of April 12 reconnaissance in the Bight was carried out by three airships. One of these, *L.7*, sighted two destroyers of the Harwich Striking Force at 2.22 p.m. in lat. 53° 39' N, long. 5° 5' E. The airship kept in touch with the British forces till nightfall; at 6 p.m. she sighted a light cruiser and five submarines on the surface in lat. 53° 33' N, long. 4° 25' E, whereupon the Commander-in-Chief of the High Sea Fleet ordered a destroyer flotilla to make a night advance to this position, to attack the submarines. This intelligence was forwarded at 8.30 p.m. to Commodore (T), with orders to withdraw the submarines to a safe position, and to use his own destroyers to attack the enemy flotilla.⁴ The German attack, however, was not to materialise; in the still prevailing fog a collision took place between the three destroyers *G.197*, *V.189* and *V.188* of the 1st Flotilla,

¹ A 442.

² G.F.N. of date.

³ A 443.

⁴ A 448.

which was carrying out the advance. The three boats were rendered incapable of manœuvring and the flotilla turned back. There were no further signs of activity, and Commodore (T) was, therefore, ordered at 12.35 a.m. to return at once to southward of the Haaks Light Vessel.¹ During the night the German forces were ordered to return to the ordinary state of readiness, and the British Admiralty, anticipating quiet for a day at least, at 4.40 p.m. on the 13th gave the Commander-in-Chief permission to withdraw the Battlefleet and Battle Cruiser Squadron further to the north, if he so desired.² On receipt of this the Commander-in-Chief decided to proceed north and carry out full target practice early on the 14th, the attached cruisers and flotillas being sent into Scapa to fuel. Further intercepted signals, however, led the Admiralty to the opinion that the German movements had only been put off by the fog, and might take place on the 15th or 16th. A signal to this effect was sent at 1.20 a.m., April 14, to Admiral Jellicoe, who thereupon decided to abandon the practices, to return to his base and complete with coal. At 4.30 a.m. the Fleet proceeded for Scapa, the Battle Cruiser Fleet having shortly before been ordered to steer for their base.³

During the return of the Fleet there were several reports of German submarines. At 9.15 a.m. the *Devonshire*, of the 3rd Cruiser Squadron, opened fire on one; this was seen a few minutes later by the *Antrim*. At 9.30 a.m. the battle cruisers sighted one in 58° 15' N, 2° 40' E. An hour later the *Hindustan*, of the 3rd Battle Squadron, opened fire on a submarine seen twice; another vessel of that squadron saw a periscope. Finally, at 2.50 p.m., when about 15 miles E of Auskerry the *Neptune* made a further report. At the time the Fleet was steaming at 18 knots, and destroyers of the 4th Flotilla were taking up screening stations; it was, therefore, not considered that successful submarine attack was probable, and the Fleet held its course for Scapa.⁴ The Battlefleet entered Scapa between 4.15 and 6.30 p.m. on April 14, the different squadrons from Rosyth returning during the night of 14th-15th.⁵

The submarines reported were all imaginary. Only one enemy submarine was in northern waters at the time. This was *U.6*, which since the 11th had been operating some 30 miles off shore in the Peterhead area. Here in the evening of the 12th she had seen the 1st Destroyer Flotilla on passage northwards. Next day she sighted a trawler patrol east of Peterhead. On the 14th she sank two steamers, one at 1 a.m. in 57° 50' N, 0° 20' W, and the other at 10 p.m. in 57° 55' N, 0° 30' W. The latter appears to have been the Swedish *Folke*, sunk without warning.⁶ The Swedish crew were rescued later by two Aberdeen fishing vessels.

¹ A 449. ² A 450. ³ G.F.N. of date. A 451, 452.

⁴ G.F.N. of date; Jellicoe: *The Grand Fleet*, p. 212. M. 03369/15.

⁵ G.F.N. of date.

⁶ *Nordsee IV*, Karte 2. H.S. 106, p. 1070. *Folke* papers are titled X. 3211/15 and *Board of Trade*, 22 April 1915.

Continuing northward, she spent the 16th and 17th cruising in the neighbourhood of 58° 30' N, 0° to 1° W. Next day, the last of her cruise, she captured the British trawler *Glencarse*, and took her to Germany.

85. Air Raids on the East Coast, April 14 to 16.¹—While the Fleet was in process of returning to its bases a Zeppelin appeared over the Tyne at nightfall, April 14, and dropped the ten 110-lb. explosive bombs and 40 incendiary bombs she carried. This large amount of ammunition luckily did little material harm; one woman and one child were slightly injured, and property was damaged to the extent of only £55.

This comparatively innocuous episode was followed next night by a more serious raid, carried out apparently by three airships. One was reported passing along the north coast of Norfolk from west to east, but dropped no bombs; a second bombed coast towns in Suffolk; and a third circled the Blackwater River in Essex, and did some damage at Maldon. The three Zeppelins succeeded in slightly injuring one woman, and damaging property to the value of £6,498.

Since, shortly before the raid on the Blackwater, an airship had been reported from Lydd as passing in a northerly direction, it was assumed that this southernmost airship had come from Belgium. But this was a mistake. All three belonged to the High Sea Fleet; and their movements were really part of a fleet operation.

86. German Preparations for a Sortie, April 8 to 16.²—After the return of the High Sea Fleet on March 30 there was considerable criticism of the Commander-in-Chief; the value of such an operation as that of March 29 was doubted by most of the higher authorities, while the dangers attending it from submarines and from mines, of which large numbers were known to be drifting, were by no means under-rated.

The next sortie of the High Sea Fleet was to be for something more serious than an afternoon's cruise. An idea was current in the Admiralstab that British battleships were in the habit of passing along the east coast by a route outside the Swarte Bank, and it was now determined to reinforce the minefield laid off Indefatigable Bank by the *Strassburg* on January 15. The new minefield was to run more or less east and west across the supposed track of the British ships to the southward of the Swarte Bank.

The minelayers were to be covered by the whole of the High Sea Fleet, with the result that the minelaying became an operation of considerable magnitude. The fleet could not move without extensive reconnaissances. These began on April 8 by the despatch of *U.38* to examine the neighbourhood of the Swarte Bank. Weather conditions shortened her reconnaissance to a few hours,

¹ "Air Raids, 1915." Issued by War Office, G.H.Q., H.F. (I).

² *Nordsee IV*, Cap. 4.

during which she sighted neither merchant vessels nor patrols of any sort.

It was not till the 11th that the weather permitted air reconnaissance, without which no movement would be undertaken. The Zeppelins, which then went up again, noticed the suspicious line of Dutch fishing vessels; and torpedo boats covered by cruisers were sent out to bring these in for examination. Nothing was found in the fishing vessels to justify the suspicions that they were acting in British interests.

All seemed clear, and the mining operation was planned for April 12. As before, two submarines were sent out on to the flank of the force, to 60 miles north of Ameland and Borkum respectively. The morning proved to be one of thick fog, and it was not till noon that the airships could leave for the indispensable reconnaissance. Though three Zeppelins went up, only one, *L.7*, was able to proceed any distance. She sighted two destroyers near Terschelling, and shortly afterwards came upon the flotilla with Commodore (T) and the cruiser squadron with five submarines proceeding eastward.

These again were regarded as premonitory signs of a British attack, and a flotilla was sent out to deal with them. In the fog, three of the torpedo boats came into collision and were put out of action for several weeks. The others did not succeed in finding the submarines.

An attempt was made by aircraft next day to locate them, one of the airships, *S.L.3*, proceeding as far as 90 miles east of Flamborough. Some intelligence from Antwerp stated that a large British force, including dreadnoughts, was assembled in the Thames Estuary.¹ This strengthened the idea of an impending attack and increased the German desire to lay their minefield, which they hoped would catch the British forces on either their approach or retirement.

But von Pohl would not move until the Bight had been thoroughly scoured for submarines; various reports of their presence had been received, and, indeed, since April 12 the four *E* boats sent out on April 10 had been in position and were to remain till the 14th. *E.12*, stationed 10 miles NW by W from Heligoland, saw nothing throughout her watch. *E.6*, 10 miles NNW of the centre of Juist Island, observed, but could not get a shot at a German submarine on the 13th, and next day at 5.10 p.m. fired at, but missed a destroyer, *S.168*, at 700 yards range. *E.8*, 5 miles NW of Heligoland, early on the 14th sighted what she took to be three minelayers, but were really barrage-breakers; she expended two torpedoes on them, but also missed, and was prevented by destroyers from making further attacks. *E.5* had the only success with her torpedoes. At 9.14 a.m. on the 14th, when 6½ miles north of Norderney Lighthouse, she hit a

¹ It was not till after the war that the Germans knew that dreadnoughts were only to be found at Scottish ports. *Nordsee IV*, p. 82.

supposed fleet auxiliary. Trawlers drove her off and she was hunted all the rest of the day. An aeroplane dropped two bombs within 50 yards of her at 4 p.m.; two hours later she was due to return home and left the Bight.¹ Her captain, Lieutenant-Commander C. S. Benning, received a letter of commendation from the Admiralty for damaging the steamer.²

The vessel, named *Schwarzwald*, did not sink; she was able to enter the Weser with the remainder of the minesweepers, while the hunting of *E.5* was in progress. The torpedoing of the *Schwarzwald* was announced in the British press, and the German Foreign Office, fearing the fact that an incident of this kind had occurred in the Bight itself might have unfavourable political reaction in Italy, issued detailed explanations which it was hoped would help to cure the bad impression. Torpedo boats and aircraft maintained an active patrol in the Bight, the torpedo boats carrying depth charges.³ Several of these were dropped on April 15 by torpedo boat *V.2* at a spot where patches of oil appeared to indicate the presence of a submarine. Apart from this, no sign of our *E* boats was discovered on the 15th, and it was presumed that the vigorous attacks had driven them away. For this reason the long contemplated fleet operation was at last to be carried out. It was not, however, the attacks that had caused the submarines to evacuate the Bight, but the fact that by their orders they were to leave at nightfall on April 14.

Outside the limits of the Bight the reconnaissance was carried on by airships. Of these, *L.9*, one of the latest long-distance type, asked for permission to attack the British coast. On receipt of the desired authority, she chose as the point to be attacked the neighbourhood of the Tyne, which was beyond the range of the earlier type of craft. The results of her attack on the Tyne have already been described. She obviously thought them to be greater than they were; and the success which she reported led to permission for a raid to be made by the three other ships *L.5*, *L.6*, *L.7*, the following night.

L.7 steered for the Humber, but missed it. At 2.30 a.m., April 16, she found herself "still about 40 miles from the mouth of the Humber. The attack had therefore to be abandoned. Hardly had *L.7* altered course to the eastward when a heavy fire was opened with guns and machine guns from vessels which had appeared below her, and the airship was forced to seek safety by ascending to a height exceeding 5,600 ft. But before this could be done she was hit once forward and four times aft. She landed at Nordholz without further adventure."⁴ This must have been the Zeppelin which passed along the Norfolk coast from 1.40 a.m. to 2.34 a.m. It is clear from the track given in the German History and from the fact that she dropped no bombs that she did not know she was over the land.

¹ Comm. (S), Reports H.S. 294.

³ Wasserbomben.

² M. 03151/15.

⁴ *Nordsee IV*, pp. 84-87.

L.5 flew over and bombed the coast of Suffolk. She was fired at, but not hit.

L.6 was picked up by a searchlight when over the Blackwater and had to endure a heavy fire. Owing to the damage then received by her, all the gas was lost from one compartment, and about half from two others. It was found possible during the return voyage to make some of the shot holes gastight. She returned to Fühlsbüttel after 22 hours in the air; in the shed it was found that she had two large and six small shot holes, varying in size from $\frac{3}{4}$ in. to 4 in. in diameter, as well as 17 hits from rifle bullets.

The connection of these air raids with the minelaying operation is not obvious, except that they were extensions of the aerial reconnaissance prior to the sortie of the High Sea Fleet. The airships carried each six heavy explosive bombs and 40 incendiary bombs; probably the eagerness of the airship officers to use the ammunition on board accounted for what might seem likely to jeopardise the success of the enterprise by putting the east coast patrols on the alert. Nevertheless, the German Commander-in-Chief finally decided to have no more postponements, and commenced his operation on April 17.

87. The Laying of the Swarte Bank Minefield, April 18.¹—

The first of the German squadrons to leave port after the reconnaissance and minesweeping of the Norderney Channel was the 2nd Scouting Group of light cruisers, accompanied by a flotilla of destroyers. Two of the light cruisers, the *Strassburg* and *Stralsund*, each carried 120 mines, to lay that night if the operation proceeded unobserved; should enemy forces be encountered the minelaying was to be abandoned, though, as a matter of extreme urgency, the mines might be laid to the eastward of $3^{\circ} 25' E$ and northward of $53^{\circ} 40' N$, the mines being adjusted in that case to become harmless after a fixed time, in order not to endanger German submarines. The light cruisers proceeded from the Jade at 11.30 a.m., April 17, and were through the Norderney passage between the minefields by 3 p.m.

By that time we were aware that a movement was in progress. The numerous wireless messages concerning the reconnaissances and sweeping operations and other preparations for the departure of the fleet had been intercepted and read by us; by 2 p.m. the Grand Fleet had been ordered to be ready to sail after dark and the whole Harwich Force of destroyers, light cruisers and submarines was preparing for sea. No further definite movement of the German Fleet was detected for some hours; but the intercepted messages received up to 5 p.m. indicated that the 2nd Scouting Group had already left, while other ships would soon be following them. Orders were now sent for the Grand Fleet to sail after dark, the battle squadrons arriving by noon in $57^{\circ} 30' N$, $4^{\circ} E$, the Battle Cruiser Fleet

¹ *Nordsee* IV, Chapter IX, and Karte 3.

reaching, at the same time, an advanced position in $56^{\circ} 30' N$, $6^{\circ} E$, with the 3rd Battle Squadron to the westward in $56^{\circ} 30' N$, $3^{\circ} 30' E$. The squadrons were to cruise 30 miles to southward and back. Four submarines were ordered at the same time to leave after dark for various positions in the Bight.¹

The enemy's intentions were not definitely known, though we were aware that some secret plan had been in preparation since the 12th, a plan involving the German battle cruisers and dreadnought squadrons. A coast raid might be in contemplation, in view of which all the Auxiliary Patrol and minesweeping vessels on the east coast were recalled to harbour; the submarines at the Nore and Dover were despatched to their outer stations with destroyers in attendance, to pass orders to them; and the Admiral, Dover, was warned to take every precaution against a raid from the eastward. Should the raid be as before, on the north-east coast, our battle cruisers would probably find the German dreadnoughts supporting the raiding force. Admiral Jellicoe was therefore ordered to the 3rd Battle Squadron's rendezvous; and the battle cruiser's rendezvous was moved back to $56^{\circ} 10' N$, long. $5^{\circ} E$.²

Further intercepted messages strengthened the inference that the heavy squadrons of the High Sea Fleet would proceed out that night. The Harwich Force had so far been held back at one hour's notice, in view, doubtless, of its special function in repelling an invasionary raid; but at 8.55 p.m. the Admiralty decided to send it out and ordered it to sea to cruise on a line WNW from the mouth of the Texel, between 5 and 25 miles from the land. All available submarines were to proceed in two divisions, each with a fast destroyer, and hold positions 10 miles W and 15 miles SW from the Haaks Light Vessel; there they were to await further orders.³

By that time the Grand Fleet was under way. The Scapa force commenced leaving at 8 p.m., proceeding to sea in the order—2nd and 4th Flotillas; 7th, 1st and 2nd Cruiser Squadrons; 1st, 2nd and 4th Battle Squadrons. Astern of the fleet followed the *Orvieto*, laden with mines and ready to lay a tactical minefield. The battle cruisers left Rosyth after dark with half the 1st Flotilla in company; the other half of that flotilla accompanied the 3rd Cruiser Squadron, which left Rosyth about the same time. The Harwich Force proceeded at 10.30 p.m. for its station off the Texel. Thus the whole of the Grand Fleet was at sea before it was definitely known that the High Sea Fleet was coming out.

Admiral von Pohl's fleet began to sail at 9 p.m. At that time the battle cruisers proceeded; after them followed three battle squadrons, the 4th Scouting Group and nine torpedo-boat half-flotillas. By midnight, April 17–18, the German ships at sea

¹ A 457.

² A 458–465.

³ A 466.

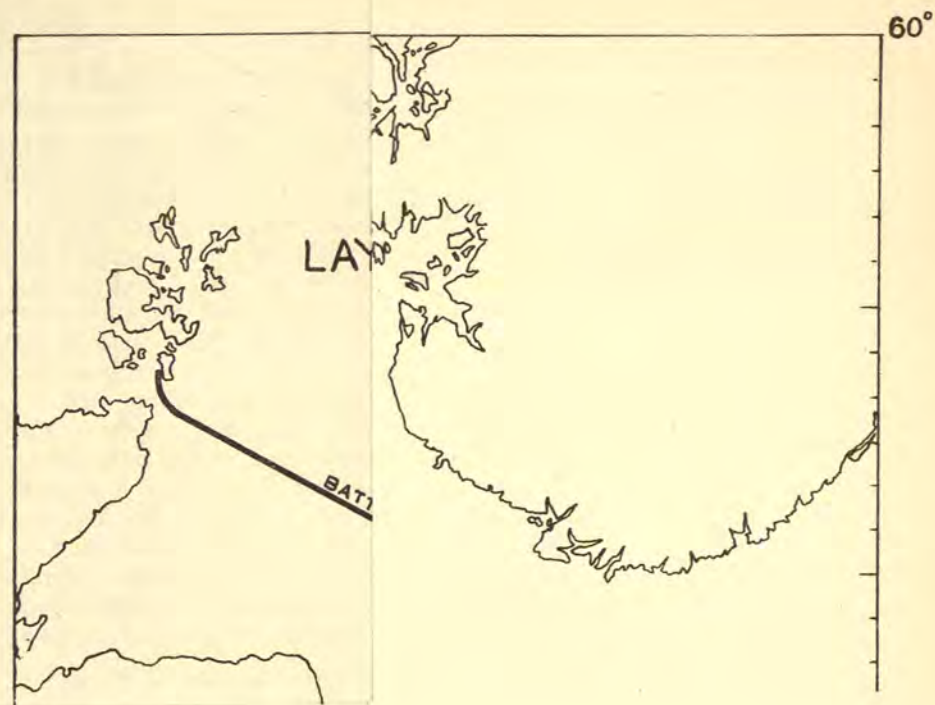
numbered 21 dreadnoughts, 8 older battleships, 12 light cruisers, 59 destroyers and 2 submarines, a heavy weight of metal in proportion to the object of the enterprise, which was only the dropping of mines at midnight in the middle of the North Sea.

The *Strassburg* and *Stralsund* successfully laid their mines in the appointed position off the Swarte Bank between midnight and 1 a.m., April 18, and so far as they could ascertain, the operation was unobserved by any British vessel. The line was 30 miles long; 240 mines were laid, at 250 yards apart, and set to be from 13 to 16 ft. below the surface at low water and 23 ft. below surface at high water. The light cruisers then turned back to join the main fleet; they met first the battle cruisers and, proceeding eastward with them, established touch with Admiral von Pohl at 5 a.m.

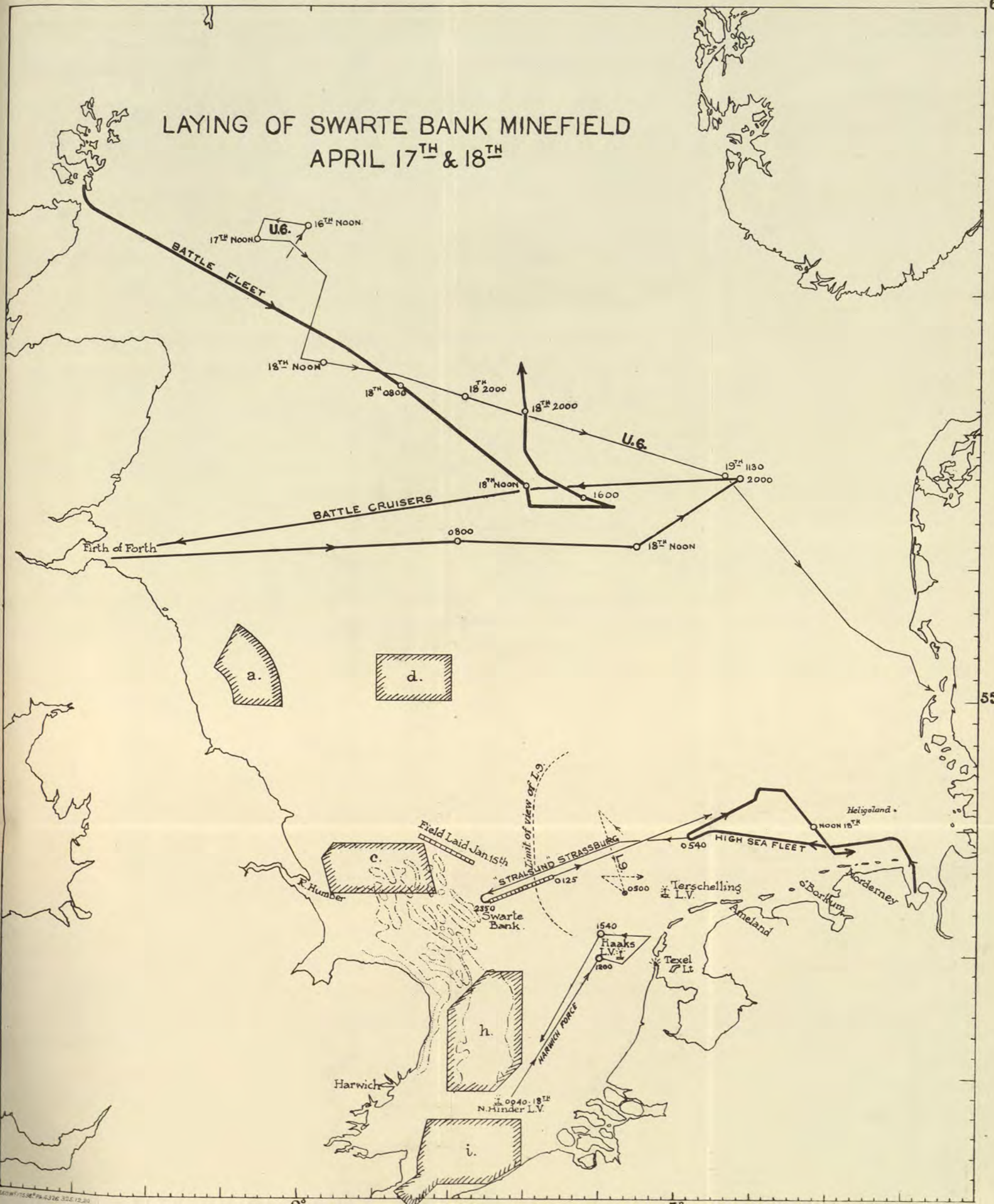
When the High Sea Fleet left port it had been deprived, at the critical period, of the airship reconnaissance on which, rightly, such high value was placed. Contrary winds throughout the 17th prevented the airships from leaving their sheds and it was not till midnight that three Zeppelins could proceed; one of these had soon to return from lack of oil. *L.9*, scouting to the westward, picked up the fleet and before 5 a.m. was scouting ahead of it; *L.7* looked out to northward.

Admiral von Pohl continued steaming westward for a short time till he reached a position 40 miles north of Terschelling, where, at 5.40 a.m., he turned for home. By that time the Harwich Force was still 20 miles short of its patrol station off the Texel and some 80 miles from the German Fleet. It would seem that *L.9* was kept in close tactical touch with Admiral von Pohl and she did not go far enough westward to sight the Harwich Force. Commodore Tyrwhitt, on the other hand, was kept by his orders to the westward of the Texel, though a signal intercepted at 4.30 a.m. might have led to orders sending him direct to the German Fleet. The signal was from the German light cruisers and gave their position at 4.30 a.m. as $53^{\circ} 56' N$, $4^{\circ} 55' E$; it was decoded and passed to Commodore (T) at 6.45 a.m.¹ The whole High Sea Fleet passed through this position at 5.40 a.m., about the time that it turned for home. No orders were sent to the Commodore, who cruised round about the Texel till the Admiralty, at 4 p.m., recalled him to Harwich. For some hours they had known that the High Sea Fleet had been ordered to return home. The German operation appeared to be over; but Admiral Jellicoe was ordered to remain at his rendezvous ready for any change of plans on the part of the enemy till 6 p.m., when he could carry out his firing programme and send the *Orion* to refit. Nothing further of importance was intercepted from the German side and at 6.30 p.m., as it was known the High Sea Fleet was in port again, Admiral Jellicoe was ordered to send the Rosyth ships back to their base and cruise as convenient.

¹ A 468.



LAYING OF SWARTE BANK MINEFIELD APRIL 17TH & 18TH



Admiral von Pohl had come to the conclusion during the afternoon that the possibility of British forces appearing in the German Bight need no longer be taken into account. It appeared expedient to return to harbour before dark because, from experience gained on the outward voyage, attacks by British submarines on the surface during the very light nights prevailing were, if anything, more dangerous than those delivered in daylight. The squadrons, therefore, passed the gap in the minefields off Norderney, zigzagging at high speed and screened by torpedo boats and the 1st Minesweeping Division. They were all back at anchor in the river mouth by 5 p.m., April 18.

The four submarines sent to the Bight were too late to come into contact with any vessel of the High Sea Fleet. The Admiralty had ordered them to sail on the evening of April 17, and at 8 p.m. *E.12*, *E.2*, *E.8* and *E.16* left Harwich for their stations off the swept channels. When, therefore, they arrived at nightfall on the 18th, the German Fleet had been for several hours safely in harbour; and the submarines, on their return home, had nothing to report except that they had been bombed by the exceptionally active aircraft patrol in the Bight.¹

88. The German Sortie of April 22.—Admiral Jellicoe was of opinion that the return of the High Sea Fleet on April 18 was probably due to a W/T message from a trawler passed to the Fleet at 9.30 a.m. in lat. $57^{\circ} 7' N$, long. $1^{\circ} 50' E$. He considered it very desirable that on future occasions the Fleet should avoid the direct route to the German Bight and should stand over to lat. $57^{\circ} 15' N$, long. $5^{\circ} 0' E$, before turning south, unless it was anticipated that the enemy's force could be intercepted in the vicinity of our own coast, in which case the course would be clear of the direct route.²

No sooner had the Grand Fleet completed with fuel when, in the afternoon of April 21, there were the usual indications that the High Sea Fleet was going to sea shortly.³ Once more the Admiralty ordered detailed dispositions, very similar to those of April 17. The Commander-in-Chief's suggestion was accepted and the rendezvous ordered for the Battle Fleet was lat. $57^{\circ} 15' N$, long. $5^{\circ} 0' E$. Four submarines were despatched, as before, to the Bight, and six were stationed in two groups 15 miles WNW of the Haaks Light Vessel, the remaining submarines being disposed as support in rear of Commodore (T)'s line of light cruisers and destroyers stationed, as before, on a WNW line off the Texel.⁴

The Grand Fleet sailed during the night of April 21–22. At 5.20 p.m. on April 22 the Admiralty sent orders that the High Sea Fleet was returning to harbour and the Grand Fleet should therefore return as convenient.⁵ The battlefleet turned at

¹ Comm. (S) War Records, H.S.A. 270, pp. 195–204.

² A 470.

³ A 472.

⁴ A 473, 474.

⁵ A 475, 476. G.F.N. of date.

6.15 p.m., and the Grand Fleet squadrons arrived at their bases in the afternoon of the 23rd and the night of 23rd-24th.

The object of the sortie of the High Sea Fleet was not known to the Admiralty, beyond the fact that tactical exercises were performed. Indeed, the object of the movement was scarcely known to the Germans themselves.¹ It arose, so it would seem, from an order on April 19 that in future submarines were not to sink neutral merchant vessels; a consequence of which was a feeling that to equalise matters the High Sea Fleet must show more energy. The form this activity should take was a matter of constant debate amongst the authorities. At a conference held on April 20 Admiral von Pohl, Commander-in-Chief of the High Sea Fleet, laid down the principle that though in view of the political situation battle must be avoided, the High Sea Fleet should undertake advances with the object of locating and defeating weak enemy forces, if only to disprove the assertions in the British Press that the German Fleet was blockaded and the British Navy commanded the North Sea; such advances were to be undertaken only after extended air reconnaissance and during clear weather, in order that should the enemy be sighted in force the fleet might retreat into the inner Bight without fear of being cut off. This statement of policy had several opponents, who would have liked something bolder, if more rash; their opinion was that such cruises as those of March 29, valuable as they were as fleet exercises, would only sap the morale of the officers and men of the fleet, who would like to know that some object was being aimed at and some result achieved.

The desire for activity, however, led to the planning of another cruise to take place in the immediate future. British forces had been reported to be on the Dogger Bank and an advance was planned to locate these and destroy them. Airship reconnaissances were now a matter of routine in suitable weather, and when able to be pushed far enough were to be combined with the bombing of British ports. *L.9* went out on the night of April 19-20 to make another attack on the Tyne, but day broke before she could reach her objective. She was relieved on air reconnaissance on the 20th by *L.5* which, however, was driven in by a rising NW wind. This dropped at noon, April 21, and the High Sea Fleet began to assemble for the new enterprise. In the course of this the destroyer *S.21* was cut in two by the *Hamburg* and three other boats were damaged by collisions.

At midnight the fleet weighed—21 dreadnoughts, 12 light cruisers and 52 destroyers. Two submarines had previously been despatched to stations on either beam of the intended turning point of the fleet; and three airships accompanied it for extended reconnaissance. By 11 a.m. on the 22nd, the High Sea Fleet reached a position in 54° 45' N, 4° 30' E, not far from the Dogger Bank; *L.9* scouting ahead, examined the middle part of the bank,

¹ The sortie is described in *Nordsee* IV, pp. 93-98, and Karte 4.

while *L.6*, to starboard, and *S.L.3*, to port, covered the remainder. They sighted nothing except one Grimsby trawler, the *Cancer*, which was accordingly captured and sunk by a destroyer. There were no signs of the reported British force and Admiral von Pohl turned 16 points to go back the way he had come. The only result of the cruise was to establish the value of airships as scouts for the fleet, so much so that Admiral von Pohl recommended that all new airships should be based on the Bight for work with the fleet rather than, as had been intended, on Belgium, to operate under the Admiral Commanding in Flanders. The High Sea Fleet returned from its cruise during the night of April 22, entirely unaware that the Grand Fleet in force was at sea to meet him.

The British submarines despatched to the Bight were again too late. They did not leave Harwich till 9 p.m., April 21, and were not in position till dawn of the 23rd, six hours after the High Sea Fleet had anchored. They left their stations next night having seen nothing to attack.¹

The only part of the forces disposed to meet the enemy which established contact was the detachment of submarines stationed, as on April 17, at the Haaks Light Vessel. These were attacked at 1.10 p.m., April 22, by submarines; four torpedoes were seen and two submarines were thought to be conducting the attack. The destroyer *Louis*, accompanying our submarines, made unsuccessful efforts to ram the enemy, and the episode ended without harm to either side.² None of the High Sea Fleet submarines were in this neighbourhood and the attacking Germans were possibly *U.B.* boats from Flanders.

It was not till the 27th that any reliable intelligence implying movement on the part of the Grand Fleet reached Admiral von Pohl; this was to the effect that squadrons of British warships had been seen at sea on the 22nd and 23rd, as many as 70 vessels being mentioned in one report. Though, from such meagre material, it was difficult to deduce any clear idea of what the British movement comprised, it appeared that important squadrons came as far as 57° N, 3° E, which gave rise to the idea that if submarines were stationed in that neighbourhood they might find themselves in a favourable position for attack.³

89. First Submarine Attack on the Farn Islands-Lindesnaes Route, End of April.—The news brought back by *U.10* that traffic between England and Scandinavia crossed on the Lindesnaes-Farn Islands route was not immediately acted upon. Possibly the expedition which resulted in the laying of the second Swarte Bank minefield used up all the ready submarines. As soon as it was over, *U.38* set out to operate on the Lindesnaes-Farn Islands

¹ Comm. (S) War Records.

² Papers titled X. 6801/15, and Comm. (S) War Records, H.S.A. 270, pp. 205-215. In his Report 096, of 23.4.15, Captain (S) gives, by a clerical error, April 15 as the date of this occurrence.

³ *Nordsee* IV, pp. 97, 98.

line. Her orders appear to have been to make the centre of the line and work westward. She left early on April 20 and on the 22nd sank two Norwegian barques, the *Oscar* and *Eva*, on their way to the Forth. The position, roughly $56\frac{1}{2}^{\circ}$ N, 3° E, was well to the westward of the track taken by the Grand Fleet, when returning after its sortie of the 21st–22nd. Later in the day she captured the Danish steamer *Nidaros*; as this ship contained provisions *U.38* did not sink her, but brought her to List, whence she was taken under prize crew to Germany.¹

Returning to her line of operations, *U.38* found herself leaking and reported it too risky to proceed westward along the line; she remained off the Skagerrack and near the coast of Denmark where, on the 28th, she captured and retained the Swedish steamer *Torwald*, which also was brought in by a prize crew sent out from Germany. On the 30th, at 9 p.m., she torpedoed another Swedish steamer, the *Elida*, in $56\frac{1}{2}^{\circ}$ N, 2° E, and though she remained out till May 4, this was the last capture of this cruise.²

While *U.38* was at work towards the middle of the Lindesnaes–Farn Islands line, *U.10* returned to her former station at the English end of the line. She left Heligoland on April 24 and between the 26th and 28th stopped or chased several Norwegian steamers within 50 miles of the shore. Her only piece of destruction was wrought on the British fishing vessel *Lilydale* which, after stopping by gunfire, she sank by a bomb on April 28. The position was 30 miles from the Farn Islands, and one of the Granton Auxiliary Patrol vessels, the *Ben Lawers*, happened to be near. She sighted *U.10*, put her modified sweep over and started to chase; the kite became foul and, cutting it adrift, the *Ben Lawers* closed near enough to open fire; but, after the trawler had expended 37 rounds, *U.10* disappeared. The *Ben Lawers* then rescued the crew of the *Lilydale*, turning them over later to another armed trawler of her unit. In reporting this incident *U.10* seems not to have recognised the *Ben Lawers* as a patrol boat; she states she was fired on by a steamer flying no flag. She was back at Heligoland on May 1.³

90. Determined Attack on Scandinavian Trade early in May.⁴

—The Germans did not connect the reported movements of British warships in the North Sea with the sorties of the High Sea Fleet, and their failure to appreciate the real meaning of Admiral Jellicoe's cruises can be traced to that doubtful blessing, the "reliable agent." From him it had been learned that the

¹ She seems to have been released at once for fear of offending Denmark, and continued her voyage to the Humber, where she arrived on the 27th. H.S. 108, pp. 535, 553. See also M. 03929/15.

² I.D.H.S. History Sheets and *Nordsee* IV, Karte 4. The text of *Nordsee* does not mention her cruise.

³ Papers titled X. 8975/15 and I.D.H.S. History Sheets. This cruise also is not mentioned in *Nordsee* IV.

⁴ This section is based on *Nordsee* IV, pp. 103–107, and I.D.H.S. History Sheets.

British were planning an enterprise against Schleswig-Holstein, but his information was received with reserve. When, on April 23, it was learned that telegrams between England and Holland were being delayed and that steamship communication had been stopped for a week, it was thought these precautions foreshadowed an attack on the German Bight and as many submarines as possible were kept ready for defence. On the 24th came news of the closure of the Thames to traffic and the assembling of 50 warships off Sheerness. These were reported to be as cover for a batch of 63 transports, sailing from various ports for France and the Dardanelles. The attack on these was delegated to the submarines, the Flanders flotilla taking the area between the line Yarmouth to the Maas and Portland to Cap la Hague, while the High Sea Fleet boats took the rest of home waters.¹

Three of the later submarines, *U.36*, *U.39* and *U.41*, intended for work on the west coasts of the British Isles, had so far made no long or trying voyages. They were held back during April in expectation of the attack on the Bight, but towards the end of that month the anticipation of this was less lively and the boats were free to leave their own home waters. In order to give them a fair test before despatching them to their distant station, they were detailed for an easier cruise in the North Sea, and on April 29 left Germany to work on various lines between England and the Skagerrack. *U.36*, Lieutenant-Commander Graeff, was given the southernmost line between the Skaw and the Farn Islands; *U.39*, Lieutenant-Commander Forstmann, that between the Skaw and May Island; while *U.41*, Lieutenant-Commander Hansen, had the northernmost station, the line from Lindesnaes to Peterhead. *U.39* was also to carry out special experiments to test the range of the latest pattern of wireless transmission from submarines.

The wireless messages connected with this operation were intercepted by us and conveyed a good deal of information, the deductions from which were telegraphed to Admiral Jellicoe. He was informed that four submarines had left Heligoland, two proceeding from Horn Reefs to Buchan Ness and thence probably north; two to Lindesnaes and thence probably to Fair Island; further, that two more had left Borkum early on the 30th towards the north-west.² The *Commonwealth* and *Britannia* were about to proceed from Rosyth to Scapa for gunnery and torpedo practices; these were now deferred.³

It was not long before evidence of the operations of these submarines was received. On May 2, neutral ships brought in to Rosyth the crews of the Swedish sailing-vessel *Elsa* and Norwegian steamer *Balduin*, set on fire by a submarine about half-way

¹ *Nordsee* IV, pp. 99, 100.

² Tels. 852, 853, to C-in-C., H.F., April 30, 11.45 a.m. and 2.0 p.m.

³ H.S. 108, p. 1237; H.S. 112, p. 128.

between Lindesnaes and the Farn Islands. The crew of the Norwegian *Amerika*, sunk without warning 100 miles east of Peterhead, arrived at Newcastle on the 3rd; while that same day men from the fishing fleets off Aberdeen were brought in to Peterhead. Two trawlers, of Granton Auxiliary Patrol, fired on a submarine which had just sunk a trawler east of Aberdeen.¹

The Peterhead Patrol was in the habit of going as far out as the meridian of 0°, 60 miles from shore; in that locality one of the armed trawlers sighted and fired on a submarine on May 2 and claimed two hits on her.²

None of these submarines had shown any number, and it was impossible to trace their movements, in spite of the reports from crews brought in from day to day from sunken ships.

We now know that for the first ten days of May only three submarines were at work between Scotland and the Skaggerack, while one other operated off the coast of Northumberland. The first three were *U.36*, *U.39* and *U.41*, while the fourth, *U.9*, left Heligoland on May 1. Two days later she was in the midst of the Dogger Bank fishing fleet and sank seven of the trawlers there.³ Coming westward, she sank another next day; and on the 5th, when 40 miles from Hartlepool, sank still another, the *Straton*. Seeing that an attack on the Dogger Bank fishing fleet was in progress, the Admiralty ordered armed trawlers out from the Tyne and Lowestoft to the Dogger Bank.⁴ Four went from the Tyne and six from Lowestoft. They left early on the 7th,⁵ to remain a week, but they were too late. *U.9* was by that time close to the Northumberland coast. On the 6th she accosted her tenth trawler, the *Merrie Islington*, fishing only 5 miles from Whitby. At the submarine's order the crew abandoned her and were followed by the hostile boat, whose number they could not distinguish for 1½ hours. Then a group of minesweepers came in sight, whereupon the submarine returned to the trawler and blew her up. The minesweeping flotilla, although they possessed only rifles, and the leader, Lieutenant Milner, R.N.R., had seen a gun aboard the submarine, closed to rifle range and opened fire. The submarine replied with two rounds, but soon dived and disappeared.⁶ This was the nearest approach to the coast of any of the submarines in this cruise.⁷ From this point *U.9* seems to have worked her way northward up the swept channel and next morning chased a Swedish steamer for half an hour, firing a torpedo, which missed.⁸ Finally, on the 8th, some 10 miles south of the Farn Islands in thick weather,

¹ Granton A.P. Reports. H.S. 201, p. 77.

² Peterhead A.P. Reports. H.S. 159, pp. 30-32.

³ *Iolanthe, Hero, Northward Ho, Coquet, Progress, Hector, Bob White.*

⁴ A 481.

⁵ H.S. 112, pp. 1025, 1036, 1037; H.S. 113, p. 745.

⁶ Lieutenant Milner received a letter of appreciation. M. 03620/15.

⁷ H.S. 113, pp. 126, 410.

⁸ H.S. 113, p. 447.

she torpedoed the British steamers *Don* and *Queen Wilhelmina*.¹ These were her last victims, and she proceeded for home.

The other three submarines were, on the average, less destructive. *U.36* stopped many neutral steamers about midway between Lindesnaes and the Farn Islands, sinking only one, the Danish *Lilian Drost*, on the 9th. Next day she captured the Swedish *Bjorn* bringing provisions to England; her cargo seemed too good to sink and *U.36* made a prize of her and took her to List, to be delivered over to an escort. This ended the cruise of *U.36*.

U.41 began by torpedoing at night, without warning and without revealing herself, the Norwegian s.s. *Amerika*, half-way across to England.² Appearing next among the fishing fleet east of Aberdeen, she sank on the 2nd the trawlers *St. George, Cruiser, Martaban* and *Mercury*, taking the crew of the *St. George* as prisoners. In the course of these sinkings she came into contact with the Peterhead Auxiliary Patrol, and Lieutenant-Commander Hansen apparently thought the ordinary fishing vessels he had sunk were outposts.³ That night he was again fired on by the Auxiliary Patrol. He now decided to go home. When half-way there he came across the Swedish steamer *Roxane* and a Norwegian schooner, the *Oscar*. Both were carrying sawn wood to England, an article recently declared contraband by Germany. Lieutenant-Commander Hansen burned the schooner and made a prize of the *Roxane*. Before he had got free of the smoke of the burning schooner he sighted, to his intense surprise, a British light cruiser approaching with some destroyers. He dived, abandoning his prize to what seemed her certain fate, and went on alone for List.⁴

U.39, after making Hanstholm on April 30, proceeded across on her assigned line between the Skaw and May Island. Half-way across, on May 1, she sank the *Balduin* and the *Elsa*. By the afternoon of May 2 she was in the midst of the fishing fleet, 60 miles off Aberdeen. Thinking the trawlers to be outposts, Lieutenant-Commander Forstmann sank two of them and next morning a third.⁵ Another Swedish sailing vessel, also named *Elsa*, the British steamer *Truro*, and another trawler, the *Sceptre*, completed his list of sinkings off the Forth.

He had been keeping up wireless communications with Germany. On May 6 he was ordered on to Kirkwall to test his wireless still further, and to observe and interrupt merchant traffic, which had been reported as specially active there. This order reached him shortly after he had sunk the *Truro* in 56½° N, 0° E; he moved northward, closing in to the coast, possibly

¹ Papers titled *Board of Trade*, 11 May 1915.

² H.S. 112, p. 481.

³ *Nordsee IV*, p. 104.

⁴ *Nordsee IV*, p. 104.

⁵ Probably *Sunray, St. Louis, Scottish Queen*, which were sunk at that time.

to make a landfall at Buchan Ness. On the 7th, south of Peterhead, he sank the trawler *Benington* and on the 8th, 20 miles east of Peterhead, attempted to stop by gunfire what appeared to be another fishing vessel. It was, however, the armed trawler *Limewold*, which, ably handled, returned the fire and, by her fifth shot, which all on board felt sure was a hit, forced the submarine to submerge.¹

The order for *U.39* to observe off Kirkwall was intercepted and decoded by us and the information was passed on to the Commander-in-Chief.² The only part of the Grand Fleet at sea, except certain destroyers investigating local submarine reports, was the 3rd Battle Squadron which, with the 3rd Cruiser Squadron, was out on a gunnery cruise to the northward of lat. 61° N. The practices were complete by 5 p.m. on the 8th, and the squadron began to return to Rosyth. Next evening, in 56° 49' N, 0° 39' E, when the squadron was steaming in divisions in line ahead disposed abeam, zigzagging at 15 knots, two torpedoes were seen approaching; they both passed ahead of the *King Edward VII*. No more torpedoes came and no submarine was sighted. All available destroyers of the 1st Flotilla were sent out to screen the squadron home.

U.39 proceeded northward from Peterhead. In every direction she found patrols; their activity, though little more than ordinary routine, she put down to the detection of her wireless signals. She was now 380 miles from Heligoland and at the utmost limit of her wireless range. Lieutenant-Commander Forstmann, therefore, decided he would not go on to Kirkwall, but would return to the Skaw-May Island line. It was on his way back that he sighted the 3rd Battle Squadron. Only the right column was within range and at this he fired one torpedo before a turn of the zigzag took them also beyond reach. There was no further chance of attack and he proceeded for home.

On May 10 he captured the Danish steamer *Olga*, laden with provisions for Grimsby and, making a prize of her, escorted her towards Horn Reefs. Like *U.41* a week before, and equally unexpectedly, he found next day a British destroyer flotilla approaching from German waters. Diving, he watched them pass, and noticed that they were escorting a large black vessel with yellow funnels, steaming fast. They took no notice of the *Olga*³ and as they were too far off for a successful attack, he waited till they were gone and then continued his journey, reporting the British flotilla as four destroyers and a probable minelayer.

The results of his experiments in long-distance wireless communication promised to be of considerable importance for

¹ M. 03740/15. A letter of appreciation and £100 was awarded to her.

² H.S. 203, p. 498.

³ The *Olga* was released by the Germans, since the import of provisions into England was still allowed.

the future employment of submarines on strategical reconnaissance, as they had proved that submarines stationed even as far away as the Firth of Forth could maintain constant wireless touch with the High Sea Fleet.¹ The wireless range attained by *U.39*, 380 miles, contrasted strikingly in this respect with the powers of our own submarines; their maximum range was 50 miles, and that only with certain shore stations. The position seemed so discreditable that experiments were at once put in hand, Ipswich Wireless Station being devoted entirely to the purpose; and temporary arrangements were made for boats near the German coasts to communicate through their escorting destroyers.²

91. **British Sweep of the Scandinavian Routes, May 2-4.**—The operations of the three submarines on the Scandinavian routes happened to coincide with an extended examination of the same area by the light forces of the Grand Fleet. The submarines had taken our fishing fleet for outposts on reconnaissance duty. It seems to be inevitable that fishing vessels should be suspected of ulterior motives, and our own Grand Fleet were of the opinion that in recent concentrations warning of the British movements had been given by a screen of trawlers flying neutral flags or by neutral steamers bound for British ports; some of the latter were thought to have released carrier pigeons on sighting the Grand Fleet. It was, therefore, decided to make a wide sweep of the North Sea between Scotland and the Skagerrack, all vessels sighted to be examined for wireless apparatus, sound signalling gear or carrier pigeons, in order to establish whether or not the enemy were employing look-outs in that area. On May 2, the *Phaeton* and *Royalist*,³ which had recently been attached to the Grand Fleet and were not yet in any cruiser squadron, went out from Scapa with half the 4th Destroyer Flotilla to search the Peterhead-Skaw line eastward of 0° 30' E; while the same evening the 4th Light Cruiser Squadron proceeded from Rosyth with half the 1st Destroyer Flotilla to search the middle section of the Skaw-May Island route.⁴ The Scapa Force was back in port early on May 4, the Rosyth Force that night. Neither had found anything to corroborate the suspicions which had prompted the movements.⁵

The Rosyth Force, however, did come in contact with submarines. It appears from the German History that the force ran over *U.36* early on May 3; the submarine had her wireless masts up and had to dive hurriedly to avoid being rammed. When she came up again to periscope depth the British vessels were 3 miles away and soon disappeared.⁶ This incident is not

¹ *Nordsee* IV, p. 107.

² M. 03200/15.

³ Particulars: 3,500 tons; 28½ knots; 2—6-in., 6—4-in., 2—6-pr. A.A. guns.

⁴ Operation Orders dated 28.4.15, in G.F.O. and M., various, H.S.A. 221.

⁵ G.F.N.

⁶ *Nordsee* IV, p. 105.

mentioned in British reports, and it would seem that the Rosyth Force had not seen *U.36*; however, some 12 hours later they noticed some more visible sign of submarine activity. On May 3, at 3.15 p.m., they sighted smoke in $57^{\circ} 2' N$, $4^{\circ} 26' E$, and on closing it found the *Oscar* on fire with a submarine in close proximity. This, of course, dived. The *Goshawk* examined a steamer that had been stopped near the ship on fire; she proved to be the *Roxane*, with the crew of the *Oscar* aboard, under orders from the submarine to take these to Heligoland. The *Roxane* was originally bound for West Hartlepool; the *Goshawk* ordered her to continue her journey there and was satisfied that this would be done. The Rosyth Force continued eastward on its search of the area allotted to it, turning on the meridian of $5^{\circ} E$ at 7 p.m. on the 3rd. Altogether, they had boarded 64 vessels. Unfortunately, the *Goshawk*, in boarding the *Roxane*, had not discovered that there was an armed German prize crew in the hold.¹ As soon as the British had disappeared these resumed command and the *Roxane* went on to List, arriving there shortly before *U.41*, by whom she was greeted with astonishment.

92. Minefields Laid in German Waters, May 8 and 10.—The policy of mining the enemy's own waters in preference to consuming the available mining material on defensive fields in close proximity to British ports had been in abeyance since January, when the Amrum Bank was mined. At that time there were no fast minelayers yet equipped, and the old *Edgars*, whose maximum speed was 15 knots, carried out the extremely hazardous project.²

There were now available three fast minelayers, the *Princess Margaret* and *Princess Irene*, and the *Orvioto*, an Orient liner of 12,130 tons gross, which had been fitted out in March as a minelayer to carry 600 Service mines on her decks and a similar quantity in her hold. She was now at Scapa, attached to the Grand Fleet. There were several other merchant ships intended for minelayers, either just completed or nearly ready.

The operation to be carried out, known as Operation Q,³ was intended to be the simultaneous laying of two minefields, one to be 15 miles north of Borkum Riff Light Vessel, and the other a few miles north of the minefield previously laid at Amrum Bank. The *Princess Margaret* and *Princess Irene* were to lay the Borkum field, escorted by the Harwich Force, while the *Orvioto*, escorted from Scapa, was to lay the Amrum field.

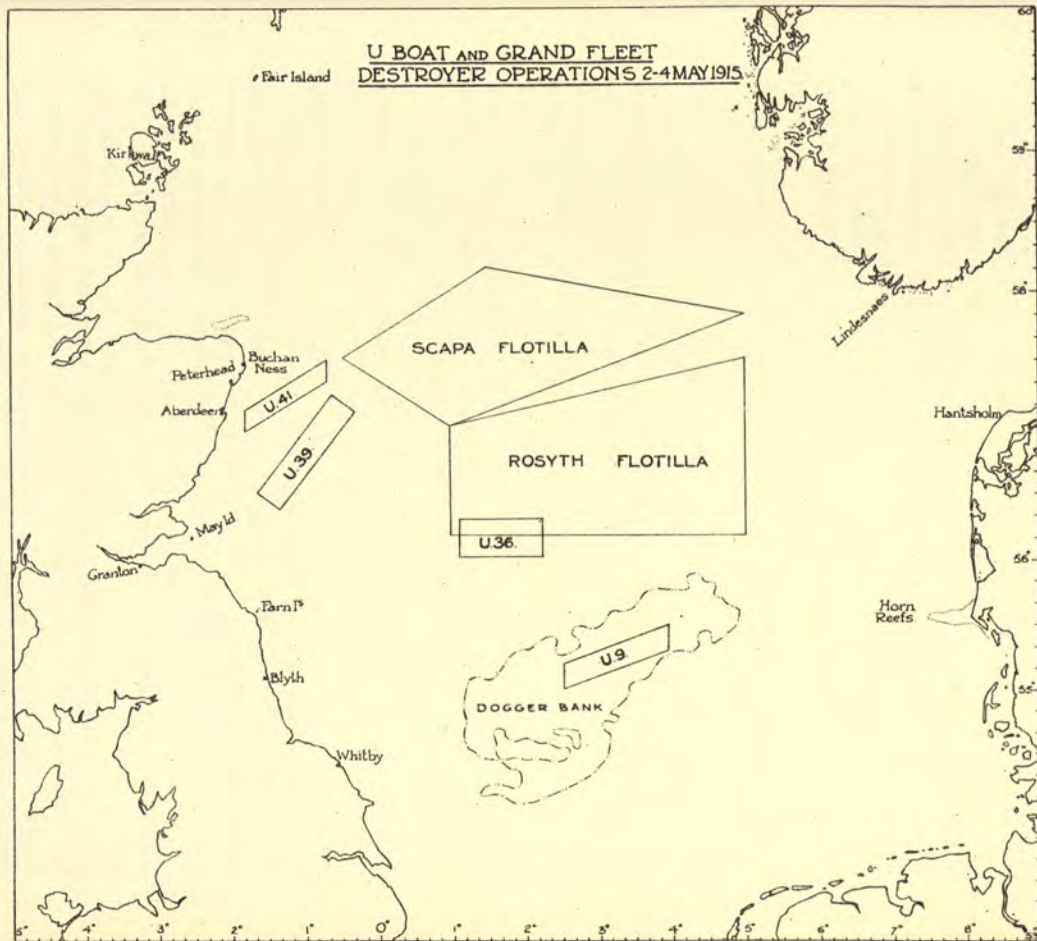
At 7.30 a.m. on May 8 the *Princess Margaret* and *Princess Irene* started from Sheerness, escorted by the *Aurora* and two divisions of the 10th Flotilla, all under Captain Wilmot Nicholson, Captain (D) of the 10th Flotilla. They followed the route out between

¹ Full details of the operations of the Rosyth force on this occasion are in papers titled X. 8608/15.

² See Vol. III, Section 112.

³ Operation Q as originally projected was a large affair, including the movement of transports.

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the British and German minefields to the North Hinder and, keeping to the westward to avoid observation, reached the position ordered. The field was laid successfully from 11.30 p.m. onwards, great care being taken to secure that its position was accurately known.¹ The squadron reached home, feeling sure that they had not been observed.²

The *Orvieto's* part of the operation, though it started earlier, was subjected to various delays. She left Scapa, escorted by the *Broke* and eight destroyers of the 2nd Flotilla, at 12.30 p.m. on the 6th; but soon found herself in dense fog, which brought about a collision between two destroyers, one, the *Nemesis*, being seriously damaged. The delay from the fog prevented the possibility of success and the Commander-in-Chief recalled the force.

It started again on the 9th with a similar escort; Horn Reefs Light was sighted at 8 p.m. on the 10th, and shortly afterwards some vessels, which might have been patrols, were seen. Two hours later the *Orvieto*, Captain Harry H. Smyth, observed a searchlight beam, which caused him to start laying the field at once, although he was still some miles NW of the position indicated in the orders. Proceeding SW (magnetic) from this position, 54° 49' N, 7° 21' E, he laid 577 mines over a distance of 13 miles.³ At this point a jamb occurred and, as this would have taken about 10 minutes to clear and there were only 23 more mines, Captain Smyth deemed it advisable to stop laying and retire. The Admiralty were well satisfied with the operation; it was the first time the *Orvieto* had laid mines, and so many mines had never been laid by one vessel before. Moreover, there was every reason to suppose the operation to have been unseen by the enemy.⁴

This was certainly not the case with the *Orvieto*. The local patrols appear to have seen nothing, for though searchlight beams and flashes were reported by the look-outs at the light-houses and light vessels within visual reach of the minefield, these all referred to the night of the 11th, a day after the event. It was *U.39* on the way home which sighted the returning squadron at 6 a.m., 70 miles north-west of Horn Reefs. She attempted an attack on the *Orvieto*, but had to abandon it owing to the long range and high speed of the liner. She had guessed the *Orvieto's* mission and, at 6.50 a.m., made a wireless signal announcing that in 56° 27' N, 5° 54' E she had seen four British destroyers steaming north in company with a very large steamer,

¹ *Princess Margaret* laid 490 B.E. mines ENE from 54° N, 6° 1' E for 10 miles, then SW 5 miles; *Princess Irene* laid 472 Service mines NE from 54° N, 6° 1' E, for 10 miles, then WSW 6 miles. (Lockhart Leith: *History of British Minefields*.)

² M. 03575, 010057/15: *Operation Q*, Operation Orders M. 0096.

³ 577 Service mines from 54° 51' N, 7° 18' E, to 54° 40' 45" N, 7° 2' E. (Lockhart Leith.)

⁴ M. 03735/15.

probably a minelayer.¹ A mine-seeking division, supported by aircraft, was thereupon ordered out to search the channel off the Schleswig-Holstein coast and the routes to List,² which, however, was not where the mines had been laid.

93. German Minefield Laid on the Dogger Bank, May 17 and 18.—On the return of the High Sea Fleet from its cruise of April 22, the Dreadnoughts of that fleet were sent into the Baltic for torpedo manœuvres, as no enterprise was in prospect, at any rate till the time of the next full moon in the middle of May. Their presence prompted the Commander-in-Chief in the Baltic, Prince Henry of Prussia, to suggest employing them to co-operate with the army in the capture of Libau, on the Russian Baltic coast. Strangely enough, Admiral von Pohl was inclined to agree to this use of his finest squadron; but the Chief of the Admiralstab refused to accede to Prince Henry's suggestion, considering any likely attack from the Russian side could be met by the older battleships. He agreed, however, to despatch to the Baltic the 4th Scouting Group—*Stettin, München, Stuttgart, Danzig*—with two flotillas of destroyers.

As the period of full moon approached, reports of British submarines round the Bight became increasingly frequent, and the flying craft busied themselves in scouting and in bombing the submarines. On April 28 an aeroplane dropped four bombs on a submarine 15 miles NW of Borkum; her report brought other planes to the spot, one of which that evening bombed another submarine. On that date we had in the Bight:—

E.2, stationed in 53° 57' N, 6° 40' E.

E.8, stationed in 53° 53' N, 6° 27' E.

D.3, stationed in 53° 46' N, 6° 16' E.

The three boats remained on these stations from 3 p.m., April 26, to 7 p.m., April 29; but, though the activity of the air patrol caused them some inconvenience, none of them was hit by the bombs. Their watch was continued from April 30 to May 3 by—

D.7, in 53° 44' N, 6° 20' E.

E.6, in 53° 52' N, 6° 50' E.

E.7, in 53° 48' N, 6° 32' E.

On the last day of their watch three bombs were dropped from aeroplanes on *D.7* and one close to *E.6*. Again no damage was done to the boats.³ These encounters and the sighting on May 3, 6, 8 and 11, of submarines taking part in operations of the Harwich Force,⁴ led to a decision by the High Sea Fleet Command to lay a minefield along the line from the Goodwins and Terschelling, as this was surmised to be the route taken by the submarines. The airships were, therefore, ordered to learn all they could as to this route.

¹ *Nordsee* IV, p. 106, and Signal 1950, of May 11, in I.D.H.S. Current Log.

² *Nordsee* IV, pp. 108, 139.

³ Comm. (S) Reports.

⁴ See Section 107.

Apart from this minefield, which was intended as a sort of outer defence for ships in the Bight, another minefield, designed to cripple the Grand Fleet, was being considered. The rumours of an impending attack on the Bight or on Schleswig-Holstein strengthened the wish for the operation to be begun at once; on May 13 the four light cruisers of the 4th Scouting Group were recalled from the Baltic. The operation was to be a large one, carried out as to the actual minelaying by the light cruisers, supported by the battle cruisers, with the battle squadrons close behind them. In accordance with the opinion of Admiral von Pohl,¹ the site selected for the minefield was the meridian of 4° E, where it crosses the Dogger Bank.²

During the second week in May the weather was unsuitable, being too rough for torpedo boat work and too windy for air reconnaissance. On May 12 airship *L.5* sailed westward, her mission being attack rather than reconnaissance. She carried six explosive and six incendiary bombs to drop on the British coast. Passing over the Swarte Bank she noticed that no mine-sweeping was in progress. Her destination was the Humber, which indeed, she reached, but only to abandon her proposed attack on account of motor trouble.

On the 17th conditions at last became favourable for the minelaying project. The minesweepers and patrols scoured the Bight for British submarines. Three airships proceeded to reconnoitre for British forces. *L.9* went out to the westward; between Terschelling and Swarte Bank she broke down and had to return. *L.7*, which went out to the north-west, was driven back by the wind, but a Parseval airship, *P.L.25*, got well out to the north-west and sighted nothing within 100 miles of Horn Reefs. *U.28*, which had sailed on the 13th with orders to operate off the Shetlands, reported no enemy forces; she had been unable to get further than the coast of Norway and was returning with a machinery breakdown, brought on by the heavy sea. Aircraft sent up from List and Borkum during the afternoon of the 17th also reported no hostile forces.

The conditions seemed eminently favourable for the enterprise. The battleships and battle cruisers of the High Sea Fleet proceeded from the Jade at 7.30 p.m. on May 17, well screened by destroyers and keeping to eastward of the German minefields in the Bight; they reached their first rendezvous, 15 miles NNW of Heligoland, about midnight. This was well clear of the northernmost of the German mines. Turning sharply to port they steered for the next rendezvous, approximately 55° N, 6° E, the battle cruisers going some 15 miles ahead of the battleships.

Meanwhile, the light cruisers had gone on ahead, accompanied by two half-flotillas of destroyers as defence against submarines. The minelaying was finished by midnight and the light cruisers

¹ See Appendix F.

² *Nordsee* IV, pp. 99, 100, 137, 138.

turned back to rejoin the main body. This, instead of returning by the route it had traversed in coming out, turned to NNE at 4 a.m., May 18, and two hours later headed for Amrum Bank, the course for returning being thus some 30 miles to northward of the course of exit. The passage out had not been without accident, for in the dark two destroyers, *V.150* and *V.157*, had collided; *V.150* sank, with a loss of 60 lives.

A further accident was to occur at 8.18 a.m. The light cruiser *Danzig*, 10 miles ahead of the main body, which was steering south-east, struck a mine, one of those laid on the 10th by the *Orviato*. The whole High Sea Fleet was steering direct for this minefield, which seems to have escaped observation and the attention of the minesweepers. Had the *Danzig* been a few miles to the northward she would have missed it and the High Sea Fleet might have found itself upon the *Orviato's* field. As it was, 20 minutes passed before the High Sea Fleet altered course eight points to starboard to regain the track by which it had come out of the Bight. It anchored once more at Wilhelmshaven at 6 p.m. on the 18th. The *Danzig* did not sink; she was towed into Bremerhaven and put into repair.

The new British minefield, revealed by the mining of the *Danzig*, made the Germans inclined to think that the system hitherto adopted for sweeping the Bight was inadequate. There was a lack of fast and efficient minesweepers, but faster vessels were prepared, of deeper draught, so as to serve as mine-bumpers, and all torpedo boats were equipped with minesweeping gear. One end of the *Orviato's* field was located on May 21; some of the mines were almost awash at low water and, contrary to expectation, it was found that airships could see others under water. From this time onwards, whenever the weather was favourable, the airships added mine-seeking to their already numerous and various duties. Nevertheless, the distance of the field from the minesweepers' base made the clearance a troublesome matter.¹

Apart from the unpleasantly narrow escape of the fleet from mine dangers, the Commander-in-Chief, Admiral von Pohl, had received disquieting news from headquarters. Certain British wireless messages had been intercepted at 7 p.m. on the 17th, to the effect that a certain officer, whose name had not been intercepted, was to recall all auxiliary boats on patrol service to the neighbourhood of the war signal station; they were not to call at Dover: for this night, between 5 and 7 p.m., all the minesweepers were to return at speed to Grimsby, trawlers and armed trawlers to the Nore; all the "drifters" under Captain Bovering² were ordered to Dover; Auxiliary Patrol vessels on the Dogger Bank had received orders to return to harbour with despatch.

¹ *Nordsee* IV, pp. 151, 152.

² Obviously Captain Bowring, T.S.D.D.

A study of these messages led to two main conclusions. They might be connected with the German movement, in which case the British intention seemed to be the replacement of the outer patrols by faster and more powerful vessels, for to withdraw outposts when expecting an attack was, to the German mind, an impossibly illogical proceeding. Should, however, the British be unaware of the German excursion, the withdrawal of the outposts suggested that they were to be removed so as to leave a clear field for some British enterprise. Unfortunately for Admiral von Pohl's peace of mind, a strong north-westerly wind prevented airship reconnaissance, and he could rely only on his own outposts to give him early information of the British arrival.¹

No such attack was impending; and, strange as the Germans thought it, the withdrawal of the patrols was due to our knowledge of the sortie of the High Sea Fleet.

94. Measures to Meet the Sortie of the High Sea Fleet, May 17 and 18.—As on so many former occasions, our listening stations had taken in the German wireless signals connected with the preliminaries of the movement and a series of orders was issued by the Admiralty to deal with the event. By 3.40 p.m., May 17, four hours before the High Sea Fleet sailed, the first of these went out. It was to the effect that certain operations planned or in progress were to be deferred.

A Zeppelin had bombed Ramsgate at 12.30 a.m., May 17. German airships were now so often sighted that arrangements were in progress for each of the light cruisers of the Harwich Force to carry a seaplane for use against the Zeppelins. The Admiralty, probably thinking this particular airship had come from Germany, had ordered Commodore (T) to go out with two light cruisers and endeavour to intercept her; but the seaplanes were not yet ready and he obtained permission to defer his departure till the evening. He was also to send out a couple of destroyers and two light cruisers with seaplanes to guard the paddle sweepers which, from the 20th, would be working on the Dogger Bank. These arrangements, in view of the impending emergence of the High Sea Fleet, were now cancelled, and he was told to prepare all the light cruisers, destroyers and submarines for sea and await orders.²

Since *U.9's* raid on the Dogger Bank fishing fleet, Auxiliary Patrol trawlers had been sent out from the east coast bases to mingle with the fishing boats and deal with any further submarine raiders. These Auxiliary Patrol vessels were now recalled, as were also the minesweepers working on the Swarte Bank; a further step was taken of recalling all the Auxiliary Patrol vessels

¹ *Nordsee* IV, pp. 143-149.

² A 486, 487, 488. The Zeppelin did not come from Germany; she was a military airship from the Belgian sheds. "Air Raids, 1915."

on the east coast to the vicinity of the war signal stations.¹ It was probably the wireless signals in the A.P. code, made by Senior Naval Officers in their endeavour to comply with the orders telegraphed by the Admiralty, that had been intercepted and read by the Germans.

The Admiralty did not know what the sortie of the High Sea Fleet implied nor what the Germans would do when they reached the open sea. They believed that the battlefleet had left via Norderney Gat at 2.30 p.m., and to be ready for events at 5 p.m., May 17, they ordered the Grand Fleet, including the battle cruisers, to rendezvous at 4 a.m., May 18, in $57^{\circ} 14' N, 0^{\circ} 18' E$, the light cruisers to go on ahead to $56^{\circ} 40' N, 1^{\circ} E$, to look out. Commodore (T) was to go with all available light cruisers and destroyers to patrol between the Texel and 40 miles to westward of it, taking with him the submarines which were at Harwich. The Yarmouth submarines were already despatched to $53^{\circ} 35' N, 5^{\circ} E$, to await orders; the *Lurcher* was to accompany the Commodore for communicating with them. The *Tribal* destroyers from Dover were sent to reinforce Commodore (T).²

It would appear that a landing of German troops on the east coast or a bombardment at dawn was considered a not impossible object of the German operation. The east coast Senior Officers, from Dover to Rosyth, were warned to have all submarines under way; the *Illustrious* and the remains of the force of old vessels distributed as part of the anti-invasion measures of November 1914 were to have steam up; and five of the Dover submarines were despatched to Harwich which, after the departure of Commodore (T), would have no floating means of defence.³

Further German signals were intercepted and by 7.50 p.m., May 17, it was concluded that the High Sea Fleet had not actually left; but there was every indication that it would sail after dark. This gave more time. The battle cruisers and light cruisers were now ordered to be in $56^{\circ} 40' N, 1^{\circ} E$, by 8 a.m.; the battle squadrons and Grand Fleet cruisers to reach $57^{\circ} 14' N, 0^{\circ} 18' E$, by 7 a.m. The probability that a meeting of the opposing fleets would take place seemed so high that the First Lord telegraphed to Admiral Jellicoe: "It is not impossible that to-morrow may be *the day*; all good fortune attend you."⁴

As the night passed the hope of a battle gradually faded.

By 8 a.m., May 18, the Admiralty had come to the conclusion that the enemy were only manœuvring in the Bight and they ordered the Grand Fleet to cruise at the Commander-in-Chief's discretion, as far as the latitude of $56^{\circ} N$. Admiral Jellicoe utilised the opportunity to practise tactics.⁵

At 11.4 a.m. the Commander-in-Chief received from the Admiralty the order: "German Fleet is returning to harbour.

¹ A 489, 492, 493, 494.

³ A 495, 497.

² A 490, 491, 496.

⁴ A, 498, 499.

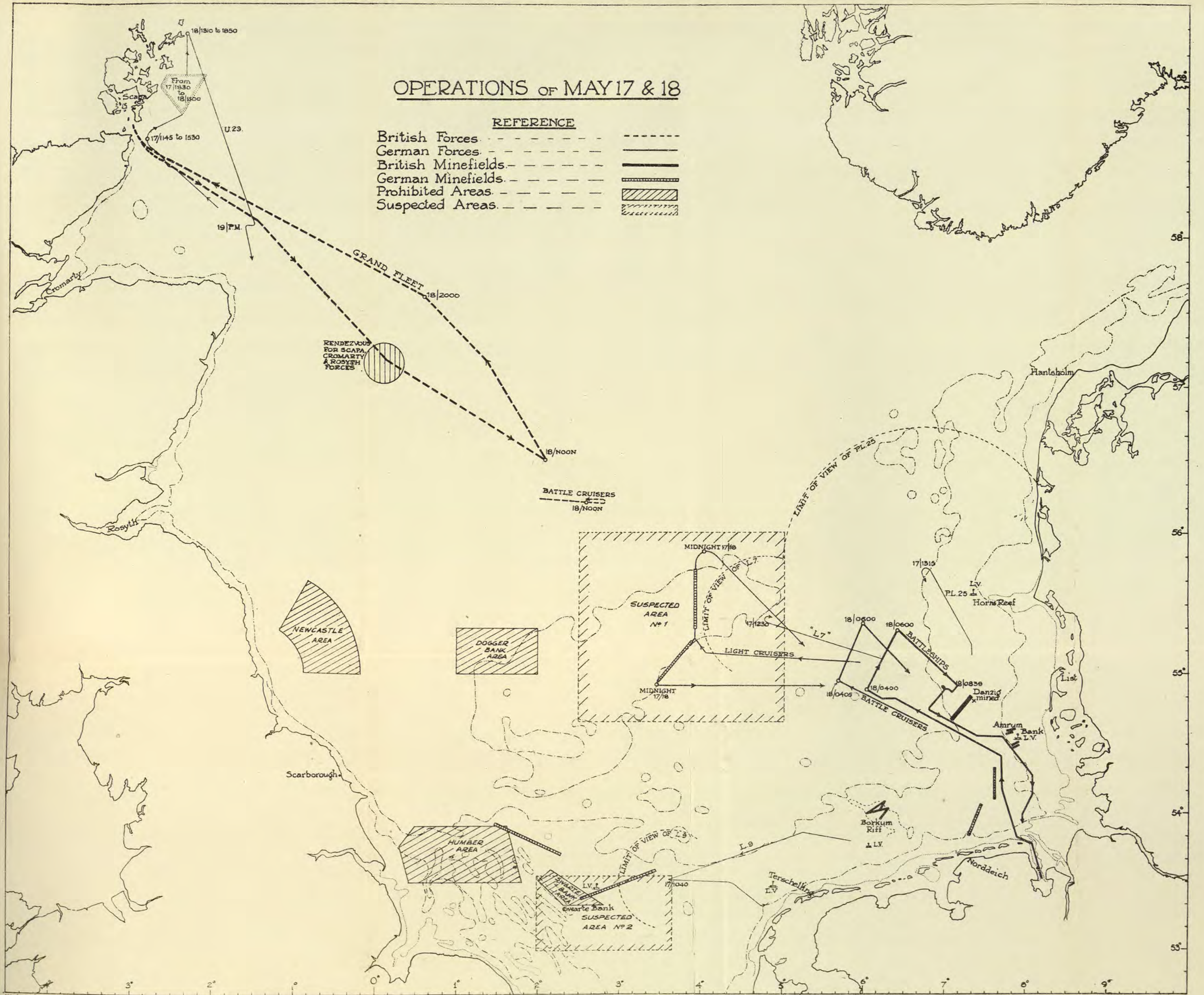
⁵ A 501.



OPERATIONS OF MAY 17 & 18

REFERENCE

- British Forces - - - - -
- German Forces - - - - -
- British Minefields - - - - -
- German Minefields - - - - -
- Prohibited Areas - - - - -
- Suspected Areas - - - - -



Return to bases as convenient"; and all the other forces which had been displaced to meet the eventuality of the German sortie were ordered back to their former dispositions.¹ The Commander-in-Chief continued the tactical exercises for an hour, after which the Fleet dispersed to Rosyth, Cromarty and Scapa, knowing nothing of the danger to which it had been exposed by the new German minefield on the Dogger Bank.

95. **The Grand Fleet Stops Short of the New Minefield.**—The Grand Fleet, when stopped by the Admiralty, was approaching the new German minefield and, if it had continued beyond 56° N, might have found itself among the mines. The particular area in which these were laid had in April been prohibited, as the result of intercepted German signals warning all ships to avoid the two areas

- (a) Between the parallels of $54^{\circ} 40'$ and 56° N, and the meridians of $2^{\circ} 30'$ E and 5° E.
- (b) Between the parallels of $53^{\circ} 0'$ and $53^{\circ} 33'$ N and the meridians of 2° E and $3^{\circ} 40'$ E.

It was not clear from the text intercepted originally on April 5 whether these areas were mined, or about to be mined, or only occupied by submarines for a particular operation. Admiral Jellicoe, to be on the safe side, warned his fleet not to go into these areas, and they appear in the Grand Fleet Orders as "North Sea Area No. 1" and "North Sea Area No. 2," from April 15 onwards.² On April 18, however, it was discovered at the Admiralty that Area No. 1 had been suspected by the Germans of containing mines so early as March 12; it seemed, therefore, that the reason why all German ships were to avoid it was that a British minefield was thought to be there. On the strength of this supposition they telegraphed to the Commander-in-Chief that they thought the area in question could be considered safe and could be crossed if he thought it necessary.³

On April 27 they definitely informed the Commander-in-Chief, Admiral Beatty and Commodore (T), that the area was no longer under suspicion of being mined, so that, from the Admiralty point of view, it could be navigated without risk of mines.⁴ Nevertheless, the Commander-in-Chief did not remove it from the list of mined areas, and though not definitely prohibited by him when the Fleet sailed, it was still to be treated with suspicion.⁵ In fact, the Fleet sweepers were under orders to explore the south-west corner of the area on the 20th and were afterwards to examine the north-east section of it.⁶ However, should it have been advantageous to cross the area in order to reach the enemy there can be little doubt that the Grand Fleet, in view of the

¹ A 502-504.

² A 443. H.F. 005, *Information concerning Mines*, bound as H.S. 292.

³ A 469.

⁴ A 477.

⁵ See Appendix I.

⁶ G.F.O. and M., various, 17 May 1915.

reassurances from Whitehall, would have attempted to cross the newly-laid minefield for which they were steering when the Admiralty came to the conclusion that the enemy were merely manœuvring and ordered the Grand Fleet home.

96. British Submarines in the Bight.—During the German minelaying operation there was a British submarine in the Bight, but, unfortunately, not in the track of the High Sea Fleet. On May 14 the Admiralty decided they would no longer send submarines to the west side of the Bight, as it was thought there was a German minefield off Norderney; they ordered two boats to cruise off Horn Reefs independently, to remain four days on the station, keeping a look-out for submarines which were known sometimes to pass that way.¹

D.7 and *E.16* accordingly left Yarmouth on the 15th. *D.7* began to leak and had to return next day; but *E.16* went on. When 20 miles NW from Terschelling she noticed that a Dutch ship, which had been steering west, suddenly altered course to north, a proceeding which suggested that she had been warned of a minefield. On the 17th *E.16* was near Horn Reefs Light, her station being from there to 10 miles WSW of it. Here she saw, on the 17th, a Zeppelin (probably *P.L.25*) and a seaplane scouting; on the 19th she sighted a submarine in the distance. Being so far to the eastward she knew nothing of the sortie of the High Sea Fleet, and she left her station at 7 p.m. on the 19th, unaware of what had happened.²

As part of the dispositions made when it was known that the German Fleet was out, four submarines, *E.2*, *D.3*, *D.6* and *S.1*, proceeded from Yarmouth at 5.40 p.m., May 17, for the rendezvous in 53° 35', 5° E, subsequently going on to stations 3 miles apart east and west from 53° 57' N, 6° 35' E, 20 miles north of Borkum Island. This was just clear of the minefield which *E.7* had considered was probably being laid by the vessels she had seen working there on May 13, though she had seen no mines actually dropped. The limits given by her were the points—

53° 56' N, 6° 56' E.
53° 50' N, 6° 23' E.
53° 44' N, 6° 29' E.
53° 50' N, 7° 1' E.

The visit of the four submarines was uneventful. *E.2* on two separate occasions sighted German submarines out of attacking range. She also saw two buoys in 53° 53' N, 6° 41½' E, and 53° 45' N, 6° 44' E, which might be connected with the supposed minefield. The existence of this seemed doubtful, for a steamer was seen to pass through part of the suspected area. By 8 p.m. of the 20th the four submarines had all started their return journey.

Intercepted German telegrams suggested that the *Orvioto's* minefield was being swept up, and on May 21 the Admiralty

¹ A 484.

² Comm. (S) Reports, H.S. 294.

ordered a submarine to be sent across to attack the sweepers. She was not to go inside Heligoland or north of 55° N and was to remain seven days in the Bight.¹ This was the longest cruise yet ordered to any of the Harwich submarines.

Two boats went, *E.4* and *E.8*, the former to cruise between Heligoland and 55° N, the latter from 55° N to Horn Reefs. They saw no signs of sweeping operations on the *Orvioto's* minefield. The weather was fine and Zeppelins were scouting; one of them, *L.10*, out for the purpose of locating mines, saw *E.4* under the surface on May 24 and bombed her without effect; on the contrary, the submarine fired so energetically on the Zeppelin that it rose and, though it dropped more bombs, failed to hit her. *E.4* saw a patrol of destroyers each day; on the 24th she fired a browning shot at them, but failed to hit any of them. In the afternoon of May 29th she started for Harwich and was attacked 40 miles N by E from Borkum by a seaplane, which dropped several bombs with great accuracy, but luckily without effect. *E.4* endeavoured to drive her off by rifle fire, as it was too rough for her to use her gun. *E.8* saw nothing but a submarine, which she was unable to attack; both "E" boats were back at Harwich on May 30.²

These operations of our submarines in the vicinity of Amrum Bank appeared to signify to the German Command that a mine barrage there was not to be feared, in spite of the reports made by several airships; it was realised how easily these made mistakes in their reckoning. It was, therefore, decided that a Naval Officer of the Minesweeping Division, well acquainted with the area to be examined, should go up in the next airship sent to reconnoitre and drop buoys at the ends of any line of mines sighted. The first trial of the new method of minesweeping was carried out on May 27, but owing to heavy seas and bad visibility no results were achieved and the reconnaissance was abandoned.³

97. The Swarte Bank and Dogger Bank Minefields.—Although we had no Zeppelin airships to locate mines from the air, only two days passed before the minefield laid south of the Swarte Bank on April 17 was discovered, or at least suspected. One of the mines was trawled up by a fishing vessel on April 20, and on the 29th two groups of sweepers, one of trawlers and the other of paddlers, went out to explore. Each group found mines. A systematic effort was then made to discover the extent of the field, trawler sweepers beginning work on May 2 and paddlers on the 6th. By careful plotting of the positions in which mines were found, it was possible for the officer-in-charge to estimate with considerable accuracy the direction of the line of the field. When this was swept 77 mines were found on May 16 and 50 on May 17, 42 mines having been accounted for previously. By

¹ A 505.

² Comm. (S) Reports, H.S. 294.

³ *Nordsee* IV, pp. 153, 154.

the latter date the eastern limit had been found to be $53^{\circ} 39' N$, $3^{\circ} 13' E$, showing the field to be 32 miles long.¹ Thus, by the date when the Germans laid the Dogger Bank field, their previous field off Swarte Bank was completely delimited and practically cleared.

In spite of the Admiralty assurances that the eastern part of the Dogger Bank, the Commander-in-Chief's Area No. 1, was clear of mines, Admiral Charlton, in command of the Minesweeping Service, was inclined to think otherwise. "The proclamation of this northern area," he wrote,² "was made at the same time as the other, and events having proved the southern area³ dangerous, it is only reasonable to suppose that the northern area has mines laid in it also. Steps are being taken to make an exploratory sweep by paddle steamers in the NE corner. The area is, however, over 6,000 square miles in extent, and even exploring it will be a lengthy process."

His argument received additional strength when, on May 20, the Norwegian *Maricopa* was sunk by a mine in $55^{\circ} N$, $3^{\circ} 20' E$, followed the next day by the blowing up of a trawler more in the middle of the field. The *Maricopa* carried wireless and from her signals the Admiralty quickly learned of the accident to her.⁴

Two sets of minesweepers were standing by; the Grand Fleet minesweeping gunboats and the paddlers and trawlers from Grimsby. Both sets sailed for the suspected area on the 21st, the Grand Fleet gunboats taking the north-east corner and the Grimsby Force the south-west corner. Both soon found mines, in a few days destroying 53. The lines were not easy to discover; the area was one frequented by Danish and Dutch trawlers, which dragged the mines out of place without bringing them to the surface and hence confused the plotting. The British minesweepers were also apt to do the same, since the technique of minesweeping had not yet at that time reached the high level it was to attain before the war was over.⁵ By the middle of June the dangerous area was reduced to an oblong between 55° and $56^{\circ} N$, $3^{\circ} 20'$ and $4^{\circ} 30' E$, and sweeping was then suspended. The only British losses on it comprised four trawlers.

98. "U.23" off the Orkneys, May 17-19.—Besides the danger from mines from which the Grand Fleet may be considered to have escaped by good fortune, there was also a submarine danger. U.23 left Germany on the 14th; and from her proceedings it seems probable that she had been ordered to operate off the Orkneys. She worked her way up the coast of Scotland, torpedoing on the 15th the Danish steamer *Martha* within a few miles of Aberdeen.

¹ M. 03859/15. Minesweeping Statement, No. 52.

² Bi-weekly Mining Statement, No. 59, dated 19 May 1915, in M. 03859/15.

³ The Swarte Bank Area, called by the Commander-in-Chief Area No. 2.

⁴ Intercepted 5.7 p.m., 20.5.15. H.S. 115, p. 850.

⁵ See C.B. 1553. History of Minesweeping, p. 19.

Next day she was among the Peterhead Auxiliary Patrol, which she found too active for operations to be feasible; she was attacked by two of the patrol trawlers.¹ On the 17th she was off the Pentland Firth and the Orkneys from dawn to 4.30 p.m.; in the forenoon she sighted some destroyers, but had no good chance of attack. That evening the Grand Fleet came out from Scapa to meet the High Sea Fleet; but by then U.23 had moved northward and was waiting off Kirkwall, evidently to catch merchant ships. Hampered here also by the Orkneys Patrol she came south again, after waiting from 6.30 p.m. on the 17th till 11 a.m. on the 18th, without having had a chance of successful attack. Crossing the track of the returning Grand Fleet on the 19th, at 6 a.m., she destroyed three trawlers, the *Chrysolite*, *Crimond* and *Lucerne*, about 60 miles east of Wick. The crew of the *Chrysolite* was rescued by the Norwegian tank steamer *Maricopa*.²

A few miles south of Aberdeen she was engaged by an armed yacht without being damaged. She remained for a short time on the Farn Island-Lindesnaes route, sinking, on the 22nd, the Norwegian steamer *Minerva*, about 30 miles out to sea. This was now quite a safe area of operations in which patrol vessels were most unlikely to be met; after the difficulty experienced in communicating with the Auxiliary Patrol trawlers on the occasion of their test recall on April 17, the Admiral of Patrols issued orders that they were to make their number to a war signal station at dawn, noon and dusk. This effectually prevented them from getting far from shore. In spite of her freedom from interference, U.23 succeeded in sinking only the *Minerva* before it was time for her return. Skirting the newly-mined area and passing along the southern edge of the Dogger Bank, she was back in the Ems on May 25.³

99. Another German Sortie, May 29 and 30.—The interception of German signals continued, but till towards the end of May there was no further sign that the High Sea Fleet would come out. On the last occasion the Admiralty had thought its sortie was merely for manœuvres in the Bight, though precautions had been taken to meet various possibilities, almost all, in fact, except minelaying in mid-ocean. Nothing further that could be interpreted as a prelude to a fleet movement was intercepted till May 29, when the Admiralty learned that a barrage breaker, supported by cruisers, was to go out from the Jade to $54^{\circ} 20' N$, $5^{\circ} 32' E$, which is about 100 miles in the direction of Scapa. In the course of an hour it was established that the High Sea Fleet was to pass Norderney Gat that night. The Admiralty thereupon ordered the Grand Fleet to sail and concentrate on the meridian of Greenwich between 57° and $58^{\circ} N$, with the Battle Cruiser

¹ H.S. 159. Peterhead Auxiliary Patrol Reports, p. 53.

² H.S. 159, p. 52. M. 04594/15.

³ I.D.H.S. History Sheets. Her cruise is not mentioned in *Nordsee IV*, but Karte 6 shows part of it near the Orkneys.

Fleet cruising to southward of them. The Harwich Force of light cruisers and destroyers was sent to keep a look-out on a line westward from the Texel.¹ The Dover submarines on this occasion remained outside their own port in communication with the signal stations, instead of proceeding to Harwich; two of the Harwich submarines were retained for local defence purposes. Two other Harwich submarines were under orders to proceed to the Bight and spend three days cruising south of 54° N, between Norderney and Ameland. They were now ordered to sail at once; *E.6* and *E.17* accordingly left Yarmouth at 5.50 p.m., *E.6* to take the eastern half of the patrol, *E.17* the western half. *E.17* had to return owing to a breakdown, her place being taken by *D.3*. A third pair of submarines remained under weigh off Winterton, awaiting further orders.²

A programme of minesweeping on the Dogger Bank, with an escort from the Harwich Force, had been arranged. This was now deferred and the minesweepers recalled. It appears not to have been the Admiralty's intention to recall the Auxiliary Patrol, since they knew from intercepted signals that the Germans had become aware of this on the previous occasion.³ However, certain officers recalled their Auxiliary Patrol, as before. Their wireless signals in A.P. code, intercepted by Whitehall Station, suggested to the Admiralty that the German Admiral might guess that we were aware of his movements, and at 11.20 p.m. they issued a general order, "Stop signalling to Auxiliary Patrol vessels by W/T."

The Scapa Fleet commenced leaving harbour at 9.45 p.m., May 29, in bright moonlight; the squadrons from Cromarty and Rosyth and the Battle Cruiser Fleet leaving the same evening. The 3rd Battle Cruiser Squadron was now commanded by Rear-Admiral Hood, who had hoisted his flag on board the *Invincible* two days before. The Scapa and Cromarty forces, screened by destroyers, effected a meeting in 57° 35' N, long. 0°, at 7.15 a.m., May 30; from there they proceeded south, zigzagging, the 3rd Battle Squadron 30 miles ahead of the Dreadnought squadrons, and the battle cruisers 60 to 90 miles ahead steering towards 54° 40' N, 1° 30' E.

No clue to the reason or intentions of the German Fleet's sortie had reached the Admiralty. By 1.50 p.m., May 30, it was clear that the High Sea Fleet was on its way home again; the Admiralty then ordered the Commander-in-Chief to send the Grand Fleet back to its bases as convenient and the episode appeared to end aimlessly.⁴

It was not entirely aimless on the German side. From May 27 onwards the Bight had been searched for British submarines by aircraft, minesearchers and patrols, without result. It was not till the 29th that the weather seemed favourable for the sortie of

¹ A 507-510.

² Comm. (S) Reports.

³ I.D.H.S., Vol. 862, Current Log, May 19, No. 4522.

⁴ A 511, and Grand Fleet In and Out telegrams.

the fleet, a proceeding which entailed extensive operations by minesweepers, airships and destroyers, all light craft that could work only in good weather. The dangerous mined exit from the Bight to the northward was abandoned in favour of what seemed the safer route by Norderney; and at 2 a.m., May 30, the High Sea Fleet was off that island. But the idea that this was a safe passage was soon dispelled. The *Frauenlob*, scouting to southward of the main body, suddenly found herself in a minefield in 54° 0' N, 6° 25' E, and only by a sharp turn of the helm avoided a mine, which could be seen below water. At 8 a.m., the High Sea Fleet was in 54° 20' N, 4° 30' E, some 45 miles short of its intended noon position. But proceeding no further, it turned back and began to retrace its course.

Besides the mines, it had to run some danger from British submarines. *E.6*, shortly before noon on the 30th, caught her first glimpse of the fleet steering south-east in 53° 53' N, 6° 15' E. The ships she saw were probably the cruiser squadrons leading the fleet. At 1.39 p.m. she saw another squadron, including battleships, and fired her bow tube at the second ship at a range of 800 yards. The torpedo missed. *E.6* had not made sufficient allowance for speed. Destroyers came up and drove her under and the chance was lost.¹

The ship at which she had aimed was the *Moltke*. She sighted the torpedo coming and avoided it by a turn of helm. The squadron was steaming in line ahead on account of the mine danger, and the undoubted presence of a submarine created some consternation in the ships following the *Moltke*. They all reached port by 6.36 p.m., May 30, after what had turned out to be a somewhat dangerous sortie.

The High Sea Fleet had met perils from mines and submarines, but these, though troublesome enough, were perhaps only to be expected. What caused more anxiety was that on this occasion, as on the former sortie, British signals recalling the Auxiliary Patrols had been intercepted. It seemed that the High Sea Fleet could not make any definite movement without this fact becoming known to the enemy across the North Sea, even before it actually occurred. The means whereby this vital information reached the British could not be conceived by the Germans; the first conclusion was that there must be spies in high places, and it was this false scent which attracted attention from the real reason why the sortie had so soon become known.²

The object of the excursion was principally to cover the departure of an armed and disguised minelayer, the *Meteor*, with orders to lay extensive minefields on the route of steamers making for Archangel. The interruption of the supply of munitions to Russia was an object urgently desired by General Falkenhayn who, on March 12, had requested the German Navy to do their best to stop further supplies. To achieve this by the

¹ Comm. (S) Reports, H.S. 294.

² *Nordsee* IV, p. 158.

operations of surface vessels seemed impossible; submarine operations were equally difficult to maintain; and a series of minefields appeared most likely to succeed in bringing the supplies to an end.

The *Meteor*, with *U.19* more or less in company, parted from the fleet early on the 30th and, proceeding up the meridian of 6° E, was off Skudesnaes about 9 a.m. of the 31st.¹ She was not sighted by or reported to our forces, and it was not till vessels making for Archangel were sunk on her mines that anything was known of this operation. Even then, the Admiralty were quite unaware of the connection between the minefields off Archangel and the apparently aimless sortie of the German Fleet on May 30, especially since several months elapsed before the High Sea Fleet came out again beyond the minefields ringing the Inner Bight.

The *Meteor* was not sighted on her homeward journey. She entered the Skagerrack, intending to destroy a line of British patrol trawlers, reported to be operating between Lindesnaes and the Skaw. Finding this patrol non-existent she went further into the Baltic and for a few days operated off Gothenburg and the Swedish coast. After sinking a few neutral vessels and searching others she arrived at Kiel on June 17.²

CHAPTER XI.

ACTIVITIES IN THE SOUTHERN PART OF THE NORTH SEA, MARCH 18 TO MAY 30.

100. An Attempted Air Raid on Norddeich, March 20 and 23.

—For some time German aircraft had been active in attempting to bomb vessels in the Hoofden. On March 15 five bombs were dropped on a steamer near the Elbow Buoy, and on the 20th four large aeroplanes bombed the Dover Patrol and the Downs, without inflicting any damage.³ These attacks on shipping continued, though without any particular result.

We, on our side, had an air raid by seaplanes in mind, the objective to be Norddeich Wireless Station.

The raid was known as "Operation T.W." and, from the middle of March onwards, attempts were made to carry it out to a successful conclusion, the weather in most cases bringing it to an untimely and incomplete close. On March 17, there being at the moment sufficient Harwich destroyers at their proper base, the Admiralty gave permission for Commodore (T) to make the raid; but a north-westerly gale and snowstorm stopped the proceedings till March 20, when the force left Harwich at 9.30 a.m. It consisted of the seaplane carrier *Empress* with three seaplanes, the *Arethusa*

¹ *Nordsee* IV, Chapter VIII, and Karte 7.

² *Nordsee* IV, Chapter VII.

³ A 398, 399.

and *Aurora* each carrying one seaplane, the *Undaunted* and *Penelope*, 8 "L" class and 4 "M" class destroyers; while 6 submarines, as in previous raids, took up positions off the German coast. Again the weather interfered and they had to return with their mission unaccomplished.

Once more, on the 23rd, the force sailed. This time they ran into a fog bank at the position laid down for hoisting out the machines and the operation was again abandoned. In one of the turns the *Undaunted* carried away the *Landrail's* bows and the destroyer had to be towed stern first home. After these two failures there was a pause in the attempts, though the possibility was borne in mind. The Harwich destroyers were employed in other operations and it was not till May that "Operation T.W." was again taken in hand.¹

101. Destroyer Patrol of the Hoofden, March 27 to April 5.—

The Great Eastern Railway Company steamers on the Harwich-Rotterdam route had several times been chased by submarines near the Dutch coast; the company appealed for direct protection and, though to give this was against Admiralty principles, it was thought a patrol there might give good results. On March 27 the Admiralty ordered a division of Harwich destroyers to look for submarines in the vicinity of the Maas and the North Hinder Light Vessels and towards Schouwen Bank, where also armed German trawlers had been reported.² Commodore Tyrwhitt sent the *Laurel*, *Liberty*, *Leonidas* and *Lucifer*. Just before they arrived on their station, the *Brussels*, one of the Great Eastern Railway steamers, was hailed by a submarine at 1 p.m. on the 28th, 8 miles from the Maas. Her master, Mr. C. A. Fryatt, did not obey the summons to stop, but, putting on full speed, ran over the enemy, feeling a distinct shock as he did so. Nothing more was seen of her and he continued his voyage to Rotterdam. The boat may have been *U.33*.³

The four destroyers sighted a hostile submarine at 4 p.m., March 28, near the Maas; they endeavoured to keep her down during the night and the six ready "M" class destroyers, the *Mentor*, *Manly*, *Morris*, *Milne*, *Mastiff* and *Murray*, sailed shortly after midnight to join them.

Scarcely had they arrived than the whole flotilla was recalled by the Admiralty, who had come to the conclusion from decoded intercepts that a German battle cruiser operation was in progress. The Harwich Force took part in the dispositions made to meet this movement; when it was found that the German squadrons were returning they were ordered to make a sweep for submarines between Ymuiden and the North Hinder.⁴ The sweep was carried

¹ M. 02277/15. H.S. 294, p. 26. Harwich Force Packs 0067, Vol. VIII. Commodore (T)'s Diary.

² A 420. M. 01897, 02453/15.

³ H.S. 103, pp. 389, 395. The incident is not mentioned either in the German history or the intercepted telegrams.

⁴ A 426, 428, 432.

out by 22 destroyers in line abreast a mile apart. They sighted a submarine at 8.30 a.m., March 30, near the Maas, but she dived and was not seen again.¹ The submarine sighted was *U.24*. She had left the Bight in the forenoon of the 29th and proceeded into Zeebrugge before dusk on the 30th, after reporting her encounter with the British forces.² On return to Harwich the Commodore sent out the *Moorson*, *Mastiff*, *Minos* and *Milne* to continue the search; they left Harwich at daybreak on the 31st, returning that evening.³

Three armed trawlers from Lowestoft, the *Anworth*, *Silanion* and *Columbia*, under the command of Lieutenant Sir James Domville, in the *Anworth*, proceeded in the afternoon of March 31 to patrol in the south Hoofden area, from the Maas to the Schouwen Light Vessels and to North Steen Bank Buoy. The *Anworth* and *Silanion* carried the modified sweep. At 4 p.m. on April 3, when in the vicinity of Zeebrugge, they saw two patrol vessels and one submarine coming from that port. Although these patrol vessels appeared to be much more powerful ships than the British trawlers, the latter engaged them, on which the submarine dived and the patrol vessels retired. Sir James Domville was then forced to retire through the fire of the German shore batteries. Shortly afterwards the force was attacked by four German seaplanes, which proceeded to bomb the trawlers. Damage was avoided by the use of helm and the seaplanes were engaged, one apparently being hit and forced to descend.

The Admiralty had no knowledge of the movements of these armed trawlers until after their return and they might well have come into contact with destroyers of the Harwich Force patrolling off the Maas. Steps were taken to ensure that the Admiralty and Commodore (T) should in future know of these trawler expeditions.⁴

The patrol of the Maas by destroyers sent out from Harwich continued till April 5. On that day *C.32*, from Dover, took up station at the North Hinder. She had gone in obedience to orders sent on April 2 to Admiral Hood for one of his submarines to cruise for 48 hours in the vicinity of 51.30 N, 3° E, to look out for and attack German submarines. The station given her was close to the minefield laid on November 3,⁵ but she carried out her duty without accident and, indeed, without incident, for she saw nothing except a few fishing boats.⁶ *U.32* (outwards) and *U.28* (homewards) passed at this time, but were not seen by the destroyers. They were the last of the High Sea Fleet submarines

¹ M. 02932/15; H.S. 103, p. 805.

² Signals 2320/29 March and 0050, 0240/30 March in I.D.H.S. Current Log.

³ Their sailing orders, issued by Captain Wilmot Nicholson, Captain (D) of the 10th Flotilla, are in *Commodore (T's) Diary*.

⁴ Papers titled X. 7735/15.

⁵ 51.35.30 N, 3.1.30 E to 51.33 N, 3.12.40 E. See *Home Waters*, Vol. III, Sections 5 and 22.

⁶ M. 010070/15.

to follow that route; boats proceeding from Germany to their operation areas in the Channel and the west thenceforward avoided the Straits of Dover and made their way northabout round Scotland.

But there were still the boats based on the Belgian coast and an attempt was made to net them in.

102. Net Laying Operation off Ostende, April 8.—This operation was designed to catch enemy submarines off Ostende. The nets were laid by the paddle steamers *Prince Edward* and *Queen Victoria*, with the Harwich destroyers *Laertes* (Commander M. L. Goldsmith) and *Lysander* (Lieutenant-Commander G. W. Taylor) as escort. The force was under the command of Commander Goldsmith.

Having first ascertained on April 6 that the Ostende Bank Whistle Buoy was in position, Commander Goldsmith then took the *Lysander* under his command and escorted the paddle steamers with their nets to the Ostende Bank Buoy, reaching it at 4.30 a.m. on the 8th. The *Prince Edward* at once shot her nets and the *Queen Victoria* had nearly completed shooting hers when a battery of nine large guns of 6-in. or over, to the westward of the town, opened fire on the destroyers, firing 62 rounds without scoring any hits, though there were some close shaves. Another battery to the eastward of the town fired one round at the net layers, which fell well short. The paddle steamers then returned to their bases, having laid the nets, unbuoyed, three feet below the water, while the destroyers patrolled the line of nets, and at night kept guard against the departure of minesweepers. The patrol was continued in a westerly gale at dawn on the 9th. By 4 p.m. it was calmer and, between 5.30 and 6 p.m., three aircraft dropped 12 bombs at the destroyers, who avoided being hit by turning constantly at high speed, replying meanwhile to the airmen's fire. At 7.45 p.m. on the 9th they shaped course to return to Harwich.¹

On April 13th the *Maori* and *Nubian*, of the Dover destroyer flotilla, carried off a patrol off Ostende from 9.15 a.m. They were bombed without suffering damage by aircraft during the afternoon. The destroyers left the neighbourhood of Ostende having seen nothing except a coastal patrol by small craft and aeroplanes.²

103. Development of the Flanders Base.—As soon as the German authorities had decided upon the submarine blockade, the question of stationing further torpedo boats and submarines at the Flanders bases was closely discussed. There was a conflict of opinion between the Commander-in-Chief of the High Sea Fleet and Admiral von Schröder, commanding the Naval Corps in Flanders. The Flanders Admiral urged the great results that

¹ M. 02842/15 and Harwich Force War Records, Pack 0073, in H.S.A. 290, pp. 8-15. M. 010067/15. Memorandum on net laying off Ostende.

² M. 02907/15.

could be expected from submarines and minefields laid by torpedo boats acting from his ports; but the Commander-in-Chief of the High Sea Fleet considered that not only was the protection against air raids inadequate at Zeebrugge and Bruges, but that any torpedo boats sent from there would very soon be destroyed by the British; moreover, the submarine minelayers that were under construction would soon be available and would render unnecessary the risk inseparable from using torpedo boats to lay mines. A further consideration that weighed with the Commander-in-Chief was that he thought it necessary to cover the passage of any torpedo boats sent to Flanders by movement of the whole fleet, which he felt would almost certainly become quickly known to the British and would render the chance of boats reaching Zeebrugge very small. Moreover, the High Sea Fleet was constantly expecting an attack from powerful British forces as a response to the declaration of submarine blockade and Admiral von Pohl strenuously resisted all attempts to reduce his force. His argument proved to be the more conclusive, and Admiral von Schröder had to be content with the occasional visits of High Sea Fleet submarines until the new class of small submarines, specially built for Flanders, could be got ready. These began to work from Zeebrugge almost as soon as the Dover Strait was forbidden to the submarines of the High Sea Fleet.¹

The fact that the long distance submarines no longer passed through Dover Strait was not at first apprehended by the Admiralty, partly because in the Dover and Nore areas sinkings of merchant vessels continued, some torpedoed, undoubtedly, by submarine, others possibly struck by mines. On April 10 the Belgian relief ship *Harpalyce* was sunk outside the declared German war zone; no submarine was seen for certain, but the general trend of the evidence was that she had been torpedoed.²

There is now no doubt about it. Her assailant was a new type of submarine, one of the "U.B." boats, for which the Flanders coast was the base of operations. These little vessels³ had been sent overland in sections and assembled at Antwerp. The first to be completed was *U.B.10* on March 27. Their routine of duty was three days' coast defence, five days' rest, five days' cruising.

Reports of returning submarines, aircraft and agents indicated to the Flanders command the neighbourhood of the North Hinder Light Vessel as one particularly rich in merchant vessels plying between Holland and England. This was only 34 miles from Zeebrugge and therefore within easy reach of the "U.B." boats. The *Harpalyce* was sunk by *U.B.4*, on the first cruise of

¹ *Nordsee* IV, pp. 22-25.

² Papers titled *Board of Trade*, 15 April 1915, *Harpalyce*. See Hurd: *The Merchant Navy* I, pp. 314, 315, for details.

³ Length 32 metres; displacement 127 cubic metres; speed on surface 6.5 knots, submerged 5.5 knots; they carried two 45 centimetre tubes in the bows with two torpedoes and had one 3.7 centimetre machine gun. (*Nordsee* IV, p. 121.) The U.B. boats did not at first mount this gun. T.S.D.D.

any of the "U.B." boats. On April 14 and 15, the Dutch *Katwijk* and, on the 15th at 6.15 a.m., the British *Ptarmigan* were torpedoed without warning¹ close to the North Hinder. It is possible that the boats in these cases were *U.B.5* and *U.B.10*.²

Though at the time when these ships were sunk there happened to be no British armed vessels near, five Auxiliary Patrol trawlers from Lowestoft were on the way to carry out a week's patrol of the area—North Hinder, Schouwen, Maas Light Vessel. These were the *Anworth*, *Columbia*, *Chirsit*, *Miura* and *Isle of Wight*, which had been sent out in response to Admiralty orders for some vessels to see what was going on in the neighbourhood of the Ostende net.³

Although they were close to the North Hinder early in the forenoon of the 15th, they saw no trace of the *Ptarmigan* and were quite unaware of her loss till the 18th, when they found some wreckage from her. They spread in various directions. On the 17th at 12.30 p.m. the *Anworth* sighted a submarine some way off; it dived at once, and may have been a "U.B." boat. Soon after 6 p.m. the *Miura* saw two boats making for the North Hinder Light Vessel. They contained the crew of the Greek steamer *Ellispontos*, blown up without warning by two explosions between 4 and 5 p.m. British submarines passed, on the 18th and 20th, on their way to and from the Bight and were at first mistaken by the trawlers for German boats. Besides these they saw periscopes and submarine-like objects; but they were not attacked other than by aircraft, which bombed them on the 17th.⁴

Although these sinkings were on the North Sea side of the Dover net and were the work of "U.B." boats based on the Flanders coast, the Admiralty could not be certain that submarines would not come through the Dover Straits and continue their attacks in the Channel. The offing of Beachy Head had been a favourite area for their activities and a decision was taken to lay a secret minefield there, deep enough to be passed in safety by surface craft, but certain to catch a diving submarine. It was laid on April 24 by one of the new minelayers, the *Princess Irene*, which, with her sister ship the *Princess Margaret*, had been built as a fast luxurious turbine steamer to run between Vancouver and Seattle for the Canadian Pacific Railway. The two vessels were taken up in March and of all the improvised minelayers proved to approach most nearly the ideal.⁵

¹ *Ptarmigan* papers M. 20823, 20868/15; *Katwijk* papers F.O. 21.4.15. F.O. 1.5.15.

² *Nordsee* IV, p. 123.

³ A 446.

⁴ Papers titled X. 4430/15.

⁵ Lockhart Leith: *History of British Minefields*.

It was the *Princess Irene's* maiden trip. She placed 256 mines at a depth of 48 ft. below L.W.O.S., in the area contained by—

50.37.10 N, 0.20.35 E.
50.35.0 N, 0.24.35 E.
50.38.20 N, 0.21.15 E.
50.34.30 N, 0.23.10 E.¹

No Notice to Mariners or Fleet Notice to Mariners was issued. The whole proceeding was kept very secret; but the Fleet was warned confidentially that this area was dangerous for any but surface vessels.² This was the first of the deep minefields and, if submarines had not been prevented from passing the Dover Straits, might have had fruitful results.

104. **Operations in the Dover Area, End of April.**—The duties of the Dover Patrol, as Admiral Bacon found on taking over the command, were numerous and varied, comprising, amongst other things, the denial of the passage of the Straits to the enemy and operations on the Belgian coast. In addition to the natural difficulties impeding the maintenance of the net barrage, the armed patrols intended to engage submarines caught in it found themselves now subject to aerial attack; and after one such attack on April 26 arrangements were made to supplement the Winchester carbines, the only form of weapon offensive to aircraft that they carried, by a few anti-aircraft guns to be mounted on some of the drifters.³

It was intended that extensive use should be made of the Folkestone-Boulogne passage for troops, and in May an average of 3,000 men a night were to cross in fast packets.⁴ This route was protected to the eastward by the drifting nets and would be still better guarded when the Folkestone-Gris Nez boom was completed.

A further activity from Dover was the provision of support to army movements in Belgium. Late on April 24 Sir John French asked for naval co-operation during the three following days. The Admiralty at once began to collect at Dover the necessary forces.⁵ At the moment, the only vessels available for the purpose were the *Bustard* and *Excellent* at Dunkirk, but the *Venerable* was sent from the Nore to Dover. The paddle minesweepers which were at work off the Yorkshire coast were brought down to Dover to sweep ahead of the bombarding ships; at first, the *Queen Victoria* and *Prince Edward*, then at Harwich, were to come with their special nets and participate in the operation, protected by two trawlers with anti-aircraft guns. At the same time, in order to preserve secrecy, vessels for Holland were detained in British ports. Learning that there would be delay in getting ready the paddlers with their special

¹ M. 03086A, 03185/15.

² H.S. 107, p. 1063.

³ M. 03309/15, titled X. 4231/15.

⁴ A 478.

⁵ The rest of this section is based on telegrams in H.S. 107 and 108.

nets, Commodore (T) sent the *Laurel's* division to take their place as an anti-submarine screen.

It was known that there were powerful batteries on the Belgian coast and the Admiralty accordingly sent Admiral Bacon the following instructions:—

It is not advisable for *Bustard* and *Excellent* to fire by themselves, as they will be knocked out.

Venerable will be placed under your orders, and you should give her a strong escort of destroyers across Dover Strait, and get her through Zuidecote Pass on the evening high-tide, on Sunday (April 25).

Venerable, *Bustard* and *Excellent* should open fire at daylight on Monday.

Queen Victoria and *Prince Edward*, with anti-submarine nets, have been ordered from Harwich to Dover, and also two trawlers with anti-aircraft guns.

Paddle minesweepers are being sent, but will probably not reach you before Tuesday. Until they are available, *Venerable* must not go far to the eastward.

On Sunday evening at high tide the destroyers which escort *Venerable* across should make a high speed dash to the eastward, and fire on the houses occupied by the Germans at Westende as a demonstration. They should not hang about and get hit, but keep on the move, fire rapidly for a few minutes, and return.

Arrange with D.N.T.O., Dunkirk, to light Zuidecote Pass on Sunday evening.

(Sent 1.5 a.m., Sunday, 25 April 1915.)

The *Venerable* arrived at Dover in the afternoon of the 25th and sailed at once, with Admiral Bacon on board, escorted by six Dover destroyers. During the morning of the 26th he was joined at Dunkirk by the paddle sweepers and the *Laurel's* division. The departure of the paddle steamers with anti-submarine nets and the anti-aircraft trawlers had been countermanded by the Admiralty and the high speed dash to Westende, mentioned in the last part of his instructions given above, was left to his discretion.

At Dunkirk the feeling of the French and Belgian authorities was against a bombardment. In view of this Admiral Bacon returned to Dover, leaving the *Venerable*, destroyers and minesweepers at Dunkirk, with all arrangements completed for the bombardment, should it after all be desirable. On the 27th, with Admiralty approval, he recalled the *Venerable* and Dover destroyers to Dover and sent the paddle minesweepers and Harwich destroyers back to Harwich. The proposed bombardment had been abandoned, though an air attack was made from Dunkirk on the submarines at Ostende on the 24th.¹

This provoked a new form of reprisal. In the forenoon of April 29 about 20 heavy shell fell in the town and docks of Dunkirk. It was thought that they might have come from ships, especially as seaplanes out on reconnaissances reported seeing men of war outside Ostende. On the strength of this information the Grand Fleet was ordered to be ready for sea at

¹ M. 03270/15.

two hours' notice, and Commodore (T) was ordered to the North Hinder with all available light cruisers and destroyers and the "E" class submarines. Admiral Bacon was to go out that night with his light cruisers and destroyers, and the *Venerable* raised steam. The Harwich Force proceeded; but the report was soon found to be groundless and all the orders based on it were cancelled. More shell fell on Dunkirk on the 30th. Aerial observation established the fact that they came from land guns near Westende and that Ostende was clear of important craft; and after some trouble the French Ministry of War, who preferred to believe the damage was being done by ships, were convinced that the bombardment was the work of shore batteries, with which only soldiers could deal.

105. Actions in the Hoofden, May 1.—On May 1 the Hoofden was the scene of several actions between forces of various kinds. *U.B.6*, out from Zeebrugge and struggling against a strong stream, was cruising off the Thames Estuary when, about 11 a.m., she sighted a British destroyer near the Galloper Light Vessel. This destroyer immediately made for *U.B.6*, but was torpedoed before she could reach her. She broke in two; the two halves reared up on end and sank, the survivors being saved by H.M.S. *Daisy*, a minesweeping gunboat, which saw and heard the explosion. Meanwhile *U.B.6*, diving hastily, had bumped the bottom and for some hours was *hors de combat*. The destroyer was the *Recruit*, of the Nore Defence Flotilla, out on routine patrol.¹

As it happened, another little force was cruising in the Hoofden, though farther to the eastward; this was composed of the four Lowestoft armed trawlers—*Barbados* (Lieutenant Sir James Domville), *Miura*, *Chirsit* and *Columbia*. They had left three days before to patrol in the vicinity of the Maas and on May 1 were near the North Hinder. Hostile aircraft were active all round them and were engaged by them. At 3 p.m. two torpedo boats came into sight; a torpedo fired by the leading boat sank the *Columbia* in less than 15 seconds, only one man being saved.²

These two boats were *A.2* and *A.6*, based on Zeebrugge; they had received reports from the aircraft that British armed trawlers were in the neighbourhood and had come out to drive them off and also to save an airman, whose machine had made a forced landing. They opened a heavy fire on the three remaining trawlers and fired several torpedoes, which missed;³ the *Miura* was not hit, but the *Chirsit*, and especially the *Barbados*, suffered to some extent. The enemy broke off the action after a quarter of an hour, but were not to escape scot-free.

When the news of the loss of the *Recruit* reached Harwich at 2 p.m., the *Laforey*, *Leonidas*, *Lawford* and *Lark* proceeded after

¹ M. 03370/15.

² Papers titled X. 9390/15.

³ *Nordsee* IV, p. 124.

the submarine. Arrived at the Galloper, they spread to 4 miles apart and swept towards the North Hinder at 25 knots. They did not find the submarine, which was at this time submerged, but their course brought them to the two German torpedo boats, which the *Laforey* sighted near the North Hinder soon after 4 p.m. The Germans endeavoured to work round to the south and east in order to make Zeebrugge. The difficulties of the chase were increased by the proximity of the British minefields and by the fact that our destroyers were rapidly approaching Dutch territorial waters, and the *Laforey*, observing this, opened fire at 8,000 yards, a very long range for destroyers. In a short time she secured a hit, and before long the two torpedo boats were ablaze and sinking with their flags flying. Our destroyers then picked up the survivors, 2 officers and 44 men, all unwounded. It appeared later that they had abandoned their ships as soon as it was clear they could not escape. From them it was learned that the boats were *A.2* and *A.6*. Their destruction, owing probably to the long range, had required 737 shell.¹

A.2 and *A.6* were the only two torpedo boats at the time in the Flanders flotilla, but after this other boats were sent from Germany, and before the end of May *A.5*, *7*, *8*, *12* and *13*, of the same class,² had arrived in Flanders.

106. Loss of the "Maori," May 7.—From time to time Harwich destroyers went out to keep watch off the Belgian and Dutch coasts. Thus, on April 20, four "M" class destroyers were searching for German vessels reported to be carrying stores to Ostende and for submarines near the North Hinder. These boats made a search for a submarine reported by the *Columbia* on the 20th. They were relieved on the 21st by the *Laurel's* division, which, however, were recalled the same afternoon by the Admiralty, who were expecting a movement of the High Sea Fleet. On the 29th, all the available light cruisers and destroyers at Harwich were sent out to meet a large enemy ship and eight destroyers reported near Ostende. This report was soon found to be unfounded and the Harwich Force was recalled, except for the *Aurora* and one division, which patrolled near the Haaks Light Vessel that night. The despatch of further Harwich boats was then suspended on account of various operations.³

On May 6 the Belgian and Dutch Coast Patrol was performed by two destroyers from Dover, the *Maori* and *Crusader*, the Harwich destroyers being all otherwise occupied. This seemed a good opportunity to secure data for future bombardments and they were to bring back sketches of prominent objects that could be used as marks for gunnery.⁴ Their orders were to patrol from

¹ M. 03364, 03390/15.

² Length, 41.6 metres; displacement, 135 cubic metres; speed, 19 knots; armament, two 45-cm. torpedo tubes, one 5.2-cm. gun; crew, 1 officer, 27 men. *Nordsee* IV.

³ Commodore (T)'s Diary.

⁴ A 482.

the North Hinder to Thornton Ridge, not closing the shore within 12,000 yards, since observations of landmarks from nearer in would be of no use for bombardment purposes.

The two destroyers were carrying out these instructions when, at 3.15 p.m., May 7, the *Maori* was struck by a mine or torpedo some miles from the Wielingen Light Vessel outside Zeebrugge. The *Crusader* lowered boats for rescue and prepared to take the *Maori* in tow; but the shore guns which till then had been silent opened fire, at first on the *Maori*, and then on the *Crusader*, whose range they seemed to find at once. The latter, after steaming about at high speed, now decided to leave the spot. Her commanding officer reports: "As an aeroplane was then overhead and as I suspected a minefield, and the submarines having had 1½ hours to concentrate, I made a signal to the boats, 'You have only 5 miles to pull into Dutch territory, SE 5 miles.' The *Maori* had altogether six boats and, unless some men were killed by the explosion or subsequent firing, all the crew should be safe."¹

The watching Germans did not intend the crew to escape; trawlers went out from Zeebrugge and took prisoner the Commanding Officer of the *Maori* and 88 men, including the rescue party left by the *Crusader*.²

The Admiralty knew nothing of the disaster till 6.30 p.m. They then ordered a division of Harwich destroyers to search for the boats, being careful not to go inside a line SW by W, through Thornton Ridge; but when it was realised from a further report that the destroyers would be too late to be of any use they were recalled.³

The position in which the *Maori* met what was presumably a mine could not be ascertained exactly; but it was clear from the accident that there were more minefields than were known to the Admiralty. In actual fact there were fields running north and south for about 3 miles from points about 3 miles each side of the Wielingen Lightship, so that the only safe approach to it was on a southerly course.⁴

The incident put a stop to the routine patrol of the Belgian coast, but on May 8 two divisions of Harwich destroyers were sent across to intercept a vessel towing a small submarine, escorted by a *U*-boat, which had been reported as leaving the Ems, probably for Zeebrugge. The destroyers went as far as the Texel, but saw nothing of the expected craft before they were recalled for another operation.

Another request for Naval firing on the left wing of the Army was received and the *Venerable*, escorted by Dover

¹ M. 03541/15. The Court of Enquiry papers are titled *British Consul*, 26 June 1918.

² *Nordsee* IV, pp. 131-133.

³ H.S. 113, pp. 440, 465, 521.

⁴ *Nordsee* IV, Karte 14. The dates of laying these fields is not given, but it may be presumed that they were laid as part of the preparation of Zeebrugge as a base for the *U.B.* boats.

destroyers, fired 22 rounds of 12-in. at Westende on May 10, returning to Dover that night. She was several times driven off by fire from the shore,¹ probably by the four batteries, each containing four 6-in. guns, which had been mounted west of Ostende.²

107. The Last Attempt at Operation T.W., May 11.—The operations which had prevented the Harwich Force from continuing their patrol of the Belgian and Dutch coasts were various attempts to bring to a successful conclusion the air raid on Norddeich Wireless Station, which had been in contemplation since the middle of March. On two occasions in that month the operation, though started, had to be abandoned on account of the weather.

This was also the cause of the frustration of an attempt made on May 3. The five submarines which, as part of the operation, were to lie off the German coast went on; the only one of them carrying a gun, *E.5*, engaged an airship, which had begun to bomb them, and thought she had hit it. Apart from this their trip was without result.³

The incident is of interest as an example of a feature common to both sides throughout the war—the tendency to be over-sanguine as to the result of any encounter with enemy forces. The airship was *L.9*. At the time she reported by wireless that she had destroyed one submarine for certain, and probably a second,⁴ and on returning home her captain, Commander Mathy, sent in the following report of the encounter: "As the other three submarines were apparently making submerged for the German Bight, we took a south-westerly course in order to lull them to security and encourage them to rise. Then we turned back and at a height of 1,000 metres proceeded ENE. At 1.25 p.m. one of the boats could be seen on the surface. *L.9* followed in its wake, in order to be able to come up from astern and bomb it. At that moment a second submarine suddenly appeared 1,000 metres to starboard. *L.9* turned sharp towards it, and threw five detonating bombs on the boat as it was rising to the surface. The submarine was incontestably hit, and at once disappeared, without leaving a trace. Her wake, plainly visible till then, ceased entirely. The destruction of the submarine is certain. The submarine we were pursuing in the first instance rose to the surface again, and was sighted once more at 2.30 p.m. She turned and ran towards *L.9*, firing rapidly, but the shots all fell short. *L.9* approached to within 1,500 metres, in order to use her last bombs in a bow-to-bow attack. But the submarine dived before *L.9* could get in a shot. We cruised about the spot for half an hour, keeping the wake of the submarine in view. But when this too disappeared we returned."⁵

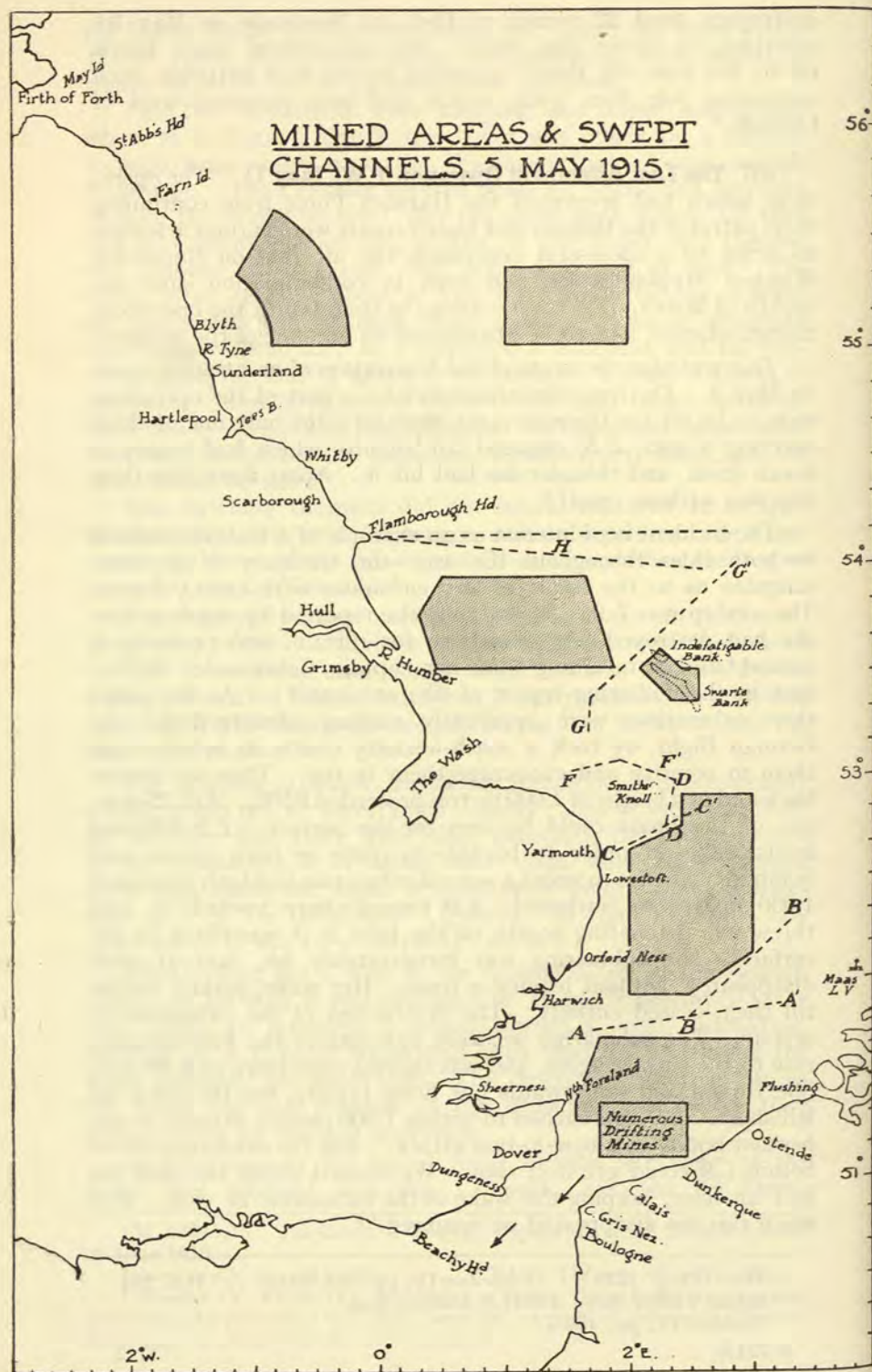
¹ H.S. 113, p. 1225.

² *Nordsee* IV, pp. 132, 133.

³ H.S. 294.

⁴ Signal 0136/3 May. I.D.H.S. Current Log.

⁵ *Nordsee* IV, pp. 136-7.

NOTE.¹

- A.—Channel AA'. From Galloper Light Vessel to point lat. $51^{\circ} 53' N$, long. $3^{\circ} E$. This is frequently used by merchant ships.
- B.—Channel BB'. From lat. $51^{\circ} 48' 20'' N$, long. $2^{\circ} 30' E$, in a $N 50^{\circ} E$ (true) direction.
- C.—Channel CC'. Line from Cross Sand Light Vessel to Smith's Knoll Pillar Buoy is buoyed. Channel is $\frac{1}{2}$ mile wide on the south of this line, and is continued out to long. $2^{\circ} 30' E$. The water beyond this is believed to hold mines.
- D.—Channel DD'. Smith's Knoll Light Buoy to Jim Howe Bank Buoy in lat. $52^{\circ} 58' 20'' N$, long. $2^{\circ} 19' E$. A black Conical Buoy has also been laid in lat. $52^{\circ} 50' 45'' N$, long. $2^{\circ} 19' 20'' E$.
- F.—Channel FF'. Haisborough Light Vessel to Jim Howe Bank Buoy. Channel is $\frac{1}{2}$ mile wide on north side of buoys. Neutral ships are reported to be freely using this channel, and early information will probably arrive if minelaying takes place in it, or if drifting mines are therein.
- G.—Channel GG' is marked by buoys in the following positions:—
- Black Conical Buoy, lat. $53^{\circ} 14' N$, long. $1^{\circ} 42' E$.
 - B.W. Cheq. Can Buoy with staff and cage, lat. $53^{\circ} 22' N$, long. $1^{\circ} 44' E$.
 - Black Can Buoy, lat. $53^{\circ} 31' N$, long. $2^{\circ} 01' E$.
 - Black Can Buoy, lat. $53^{\circ} 36' N$, long. $2^{\circ} 10' E$.
 - Black Pillar Buoy (light occults every 5 secs.), lat. $53^{\circ} 58' N$, long. $2^{\circ} 49' E$.
- Entering from seaward the lighted pillar buoy and three can buoys should be passed on the port hand, and the conical buoy on the starboard hand.
- This channel has been swept 2' wide, opening to 4' wide between buoys (d) and (e).
- H.—Channel. Between E (true) and $S 85^{\circ} E$ (true) from Flamborough Head.
- C, D, F, G and H channels have been swept and found clear.
- The area enclosed within a circle of 8' radius from a position in lat. $55^{\circ} 30' N$, long. $5^{\circ} 00' E$, is considered to be under suspicion of minelaying.

¹ From Chart X. 74, dated 5 May 1915.

The submarine of whose destruction Commander Mathy was so certain was *D.4* (Lieutenant-Commander John R. G. Moncrieffe). We may compare her commanding officer's report with that of Commander Mathy, bearing in mind that the times given by the German officer are in Central European time, one hour fast of G.M.T.

Lieutenant-Commander Moncrieffe reported :—

" 0.27 p.m. Sighted the Zeppelin very close above port beam-coming towards me (visible on canted prism only). Speeded up 800 amps., and dived for 60 ft. Boat went down a little, then came up and broke surface, and then shot down very rapidly.

0.28 p.m. Five bombs exploded in rapid succession from port bow to starboard quarter; three to port and two to starboard. Boat's depth 29, 31, 34, 37 and 40 ft. The third bomb appeared to be very close, and shook everything severely in the boat. Some rivets were started in the conning tower casing port side, on the after firing tank, small loose objects were jumped off tables, etc., and a layer of dust and paint chips was scattered everywhere."¹

A more promising attempt at the air raid was made on May 6, when the three seaplane carriers, escorted by four light cruisers and eleven destroyers, proceeded from Harwich at daybreak, while four submarines, *E.4*, *E.2*, *D.3* and *E.8*, proceeded for positions between Norderney and the Friesche Gat. But this also was doomed. Almost immediately a fog came down, and the *Lennox*, one of the escorting destroyers, was badly damaged in a collision. It was not till 1.30 p.m. that the expedition could get away. Before it had got much beyond the minefields Commodore (T) received an order to return, as the Admiralty would not allow the operation to proceed with only 11 destroyers, instead of the four divisions as laid down in the operation orders. The submarines could not be recalled; *E.2* had to return on account of leaky rivets, but the others remained on their stations till May 9, returning then with nothing to report.²

Another Zeppelin raid on May 10, when Southend was heavily bombed, increased the desire for air activity on our part, and what was to be the last attempt at Operation T.W. commenced at 6 a.m. on May 11. The force sailed again, this time with the full complement of destroyers. The carriers had each, in addition to seaplanes, an aeroplane for use against Zeppelins, which for some time had been making inconvenient reconnaissances. In the hope of avoiding them the Commodore went out by Haisborough Light Vessel and kept to the northward, not knowing that this course took him dangerously near the minefield laid on January 15 off Indefatigable Bank.³

The Commodore's hope of escaping the notice of Zeppelins was vain. At 4 p.m., when the force was in 53.43 N, 2.21 E, one of these appeared about 10 miles off. He ordered two of the carriers

¹ H.S.A. 270, p. 246.

² Operation orders dated May 2, M. 010051/15; attempts of May 3 and May 6; M. 02458, 03538/15. Reports of submarines. H.S. 294, pp. 43, 102.

³ Channel FF' on p. 228.

to launch their aeroplanes. One of these had a bad back fire; the other carrier, apparently mistaking the orders, let fly three seaplanes, and destroyers had to be sent after them to escort them. One plane crashed and disappeared. A search for its officer delayed operations till 7.45 p.m., when a fog came on and the squadron, giving up hope of finding him, proceeded. The Commodore had reported by wireless that the weather was bad with an ENE wind of force 6 to 7 increasing; accordingly, at 8 p.m., the Admiralty ordered him to return.¹

After these repeated failures Commodore (T) came to the conclusion that, since the conditions required for the success of an air operation were also specially favourable to Zeppelins, it was now improbable that any force could reach the objective unobserved; he therefore suggested that a stronger supporting force was necessary, so that the enemy's preparations, which might be expected to result from the Zeppelin's warning, could be disregarded. The Admiralty concurred with the Commodore's views and operation T.W. was not again attempted. He had been out seven times without conditions being favourable.²

Four submarines from Yarmouth, *E.5*, *6*, *7* and *13*, and *D.1* from Harwich, had taken up their positions along the German coast. On the way they sighted and fired upon a Zeppelin, *L.9*, which bombed them and drove them below. The submarines had no tracer shell, and the bursting was defective; they did not suppose they had damaged the airship. *D.1* struck a submerged wreck and had to return, but the *E*-boats remained in station till the 13th. That morning *E.13* saw two German fleet auxiliaries coming out from the western Ems; and from 9.20 a.m. *E.7* watched them apparently laying a minefield between Norderney and Borkum. She had a shot at one of them, but missed her.³ This was the last occasion on which the three seaplane carriers, *Riviera*, *Engadine* and *Empress* were used for offensive operations in the North Sea. They were sent to various ports to assist in the local defence, the *Riviera* being stationed at Sheerness, the *Engadine* in the Forth, and the *Empress* at Harwich.

108. Movements in the Hoofden, last half of May.—Apart from the movements connected with the sorties of the High Sea Fleet on May 17 and May 30, the operations of the Harwich Force during the last half of May were confined to the provision of support to the paddle minesweepers working on the newly-discovered fields. The usual routine was for a division of destroyers to be in close touch with the sweepers, with a couple of light cruisers keeping touch with them from nearer in shore. The light cruisers now carried seaplanes to assist them in dealing with Zeppelins. On May 23 the *Arethusa*, *Undaunted* and four

¹ H.S. 114, pp. 428, 482, 503.

² M. 03697/15. Report on Operation T.W.

³ H.S. 294: Commodore (S) Memos. and Reports. It would appear that the supposed minelayers were really minesweepers.

"L" class destroyers were out on this duty. That afternoon the *Arethusa*, which was making a short cruise with some of the destroyers to the eastward, sighted what appeared to be a boat in 54 N, 5.16 E. This was found to be a waterlogged German seaplane. Another of these aircraft appeared to the southward, and was chased for some time. The German airmen were rescued and brought in to Harwich; and it was only on arrival there that the Commodore learned from them that they had been expecting a destroyer flotilla to come out to search for them. Had he known earlier he would have waited on the spot in the hope of meeting the German torpedo boats.¹

Though air attacks from Harwich had been abandoned, the Dunkirk air force continued working actively, made all the more anxious to achieve results by a succession of raids performed by the airships housed in sheds in Belgium. On the night of April 29-30 one of these, thought to be *L.Z.37*, bombed various villages in East Anglia. On May 10 another, *L.Z.38*, did a good deal of damage at Southend. A week later, on May 17, three airships, *L.Z.37*, *38* and *39*, set out for England. One of them blew out the front of the Bull and George Hotel at Ramsgate. *L.Z.39* was hit by bombs dropped on her by Flight-Commander Bigsworth in one of the Dunkirk machines and, though not destroyed, was so much damaged that she was unable to raid any more. In the evening of May 26 *L.Z.38* again bombed Southend with grenades of the same design as the Mills bomb, intended presumably for the destruction of life rather than property.

In the early hours of the morning of that day the Dunkirk air force had bombed the Gontrode sheds in Belgium but, though they had done slight damage to it, they had failed to put it out of action. This was manifest when *L.Z.38* came out again in the evening of May 31 and made the first Zeppelin raid on London. She entered and left by the Essex shore of the Thames, and did damage to the extent of £18,596, killing six persons and injuring 35, mostly in the East End of London. She dropped altogether 89 incendiary bombs and 30 small grenades of 5 lb. each. This was the worst raid yet experienced.²

On May 27 the minelaying force suffered a severe loss. The *Princess Irene*, lying at Sheerness, blew up and was totally destroyed. She was making preparations for her third operation, and it is presumed that the explosion was due to some mistake in priming the mines. With her was lost Captain Cobbe, the head of the minelaying service. He was engaged in conducting experiments with mines attached to indicator nets; his death brought these to a temporary stop.³ They were resumed under the superintendence of Admiral Bacon at Dover.⁴

Another anti-submarine deep minefield was laid on May 29 off the Kentish Knock, with the object of catching any submarine

¹ Comm. (T)'s Diary.

² "Airship Raids."

³ M. 04215, 04248, 04257, 04316, 04317/15.

⁴ M. 04144/15.

approaching the light vessel submerged; 267 mines were laid at a depth of 48 ft. and 120 ft. apart, from 51.39 N, 1.43 E, to 51.38 N, 1.53.40 E, thus making a barrier about 7 miles long.¹

109. Formation of the 6th Light Cruiser Squadron.—The withdrawal of the seaplane carriers from active operations against Zeppelins was, to some extent, compensated for by the formation of a new squadron of light cruisers to meet the airships at sea. This squadron, consisting of the *Skirmisher*, *Sentinel*, *Adventure*, *Foresight* and *Forward*, with the *Topaze* as ship of the Senior Officer, was stationed in the Humber under the orders of the Admiral of Patrols, with the special object of destroying the enemy's airships when they patrolled within easy reach or approached the coast to attack. Their general instructions, dated May 23, were to the effect that not less than one half of the vessels of the squadron were always to be under steam at one hour's notice, so as to be ready to proceed on receipt of information where the airships were likely to be found. The squadron was at first designated the Anti-Airship Light Cruiser Squadron; but early in June was renamed the 6th Light Cruiser Squadron. The *Topaze* was soon found to be unable to keep up with the others, and was transferred to the Mediterranean. The ships of the squadron did not carry aircraft, and relied for offensive purposes on high-angle guns.²

CHAPTER XII.

THE MONTH OF JUNE.

110. The Grand Fleet.—The unusual activity of the High Sea Fleet since Admiral von Pohl had succeeded to the command ceased at the end of May, and the German battle squadrons entered upon a long period of rest. The strategical minefields which had been planned were now all laid; and as the movements of the High Sea Fleet had of late been principally with the object of providing cover for the minelayers, there was now no urgent reason for its emergence.

Similarly, the Grand Fleet had gone to sea in the main only when the High Sea Fleet was known to be coming out, or for exercises. Since the High Sea Fleet made no sortie in June, the Grand Fleet battle squadrons went to sea only once, on June 11, for firing and battle exercises. On this occasion seaplanes released from the *Campania*, a Cunard liner converted into a carrier and attached to the Grand Fleet, assisted in the exercises by observing the movements of some of the squadrons

¹ Lockhart Leith: *History of British Minefields*.

² Papers titled *Admiralty, 4th May, 1915*, and *X. 9140/1915*. H.S. 112, p. 745.

which, for practice purposes, represented a hostile fleet. This was the first time aircraft had been used by us for this purpose.¹

Cruiser squadrons from the Grand Fleet twice went out on special excursions. From June 4 to 7 the 1st Cruiser Squadron, with armed boarding steamers and a few destroyers in attendance, swept the trade routes from the Forth to the Skagerrack and along the Norwegian coast, examining all vessels met. The cruise passed without any special incident.

These same routes were again examined by the 3rd Cruiser Squadron, which left Rosyth on the 18th with two light cruisers and four destroyers. In the course of the sweep the squadron suffered several attacks from submarines; on the 20th the *Roxburgh* was hit in the bows by a torpedo, but managed to return to Rosyth at a speed of 14 knots.²

By this time a 4th Light Cruiser Squadron had been constituted from the *Phaeton*, *Royalist* and the *Comus*,³ which had arrived at Scapa on June 3. The fourth ship, *Calliope*, of the same class as the *Comus*, joined early in July and flew the broad pendant of Commodore Le Mesurier, C.B. Admiral Jellicoe attached the squadron to the battlefleet, and when cruising stationed it 3 to 5 miles ahead, primarily to act as a submarine screen for compelling submarines to dive.

A 5th Light Cruiser Squadron was also in preparation, to work under Commodore (T). The "C" class cruisers, of which the *Calliope* was the type-ship, were coming forward; and on June 3 the *Conquest* and *Cleopatra* of this class were ordered to join Commodore Tyrwhitt to form with the *Arethusa* and *Penelope* a new 5th Light Cruiser Squadron intended to operate from Harwich.⁴ The two new ships commissioned on June 1, but were still in dockyard hands at the end of the month.

The Harwich Force narrowly escaped a brush with the enemy in the middle of the North Sea in the early weeks of June. A detachment from this force was used to cover the paddle sweepers which were working on the new minefield laid by the Germans on the Dogger Bank. On June 1 these had the direct protection of the *Lydiard* and *Lookout*, supported to the southward after 8 p.m. by the Commodore himself, with the *Arethusa*, *Undaunted*, *Lance*, *Landrail*, *Laertes* and *Llewellyn*. This force patrolled along the parallel of 54.30 N. On June 2 at 11.15 a.m., when the Commodore's force was in long. 5.40 E, a Zeppelin airship was sighted. The *Arethusa* immediately hoisted out her seaplane; it was in the air in the very creditable time of 2½ minutes after first touching the water. The *Arethusa* closed the Zeppelin and opened fire, whereupon the airship at once rose and made off.

¹ G.F.N.; M. 04936/15. *Campania*, Proceedings.

² G.F.N. These torpedo attacks are treated in detail in Section 121.

³ *Comus*: Captain Alan G. Hotham; 3,750 tons; 28½ knots; 2—6-in.; 8—4-in.

⁴ M. 010077/15.

Through misunderstanding her orders the seaplane returned to the *Arethusa* and was hoisted in again.

The Zeppelin sighted was one of three then engaged in scouting for the protection of a German minesweeping squadron, which was working 30 miles north of Heligoland. This airship was *L.5*; the other two were *S.L.3* in close contact with the minesweepers, and *L.7*, which was reconnoitring in the direction of Horn Reefs. On sighting the Harwich Force *L.5* at once reported the incident; but in giving her position happened to code it wrongly, so that it read as 30 miles west of Horn Reefs, instead of 20 miles southwest of the German minesweepers. The day was cloudy and there were banks of fog on the water, preventing the airship from sighting the force again after she had once been driven off by the *Arethusa's* gun fire; but on receipt of her message the seaplane stations round the Bight sent up aircraft to search for and bomb the British squadron. Owing to the error in *L.5's* report most of these aircraft went off to the northward. One plane, however, came westward, and at 4.30 p.m. sighted the Commodore's force. She came upon them from a direction in which she had the sun exactly behind her, and succeeded in dropping several bombs before fire could be opened on her with the anti-aircraft guns; her high speed almost immediately carried her out of danger.

The seaplane's bombs had not damaged any of the vessels. Nevertheless, the Admiralty, not wishing the minesweeping operation to be interrupted by the appearance of any German vessels which might come out to look for the covering force, ordered the Commodore to keep well to the westward. By this time the paddle sweepers were running short of coal, and at 6.40 a.m. on June 3 Commodore Tyrwhitt ordered them to return to Grimsby that night; at 6 pm. he shaped course for Harwich.¹

Meanwhile, the German minesweepers had been hurriedly recalled. The naval authorities were under the impression that the appearance of the Harwich Force represented a raid on the minesweeping division, and that it had failed on account of the bad weather and a possible error in navigation. On the other hand, the force might be screening minelayers returning from laying fields between the two English barrages; this conclusion was influenced by the fact that the Commodore was steering to westward when sighted. Although there was doubt as to whether either of these two interpretations was correct, it was clear that air scouts were not sufficient to protect minesweepers working in an area so far from their base. In spite of this disquieting conclusion the Germans, unable to forget the losses they had sustained in the battle at Heligoland Bight on 28 August 1914, were disinclined to send cruisers sufficiently far out to render them liable to attack by superior forces; the protection of the minesweepers was still left to the older airships, while the newer ones were to be

¹ Commodore (T)'s Diary.

used entirely for expeditions against England, particularly for attacks on building and repairing yards.¹

111. **Airship Raid of June 4-5.**—In the afternoon of June 4 *L.10* and *S.L.3* came out from Nordholz to bomb London and Hull respectively. *L.10* proceeded via Terschelling and the Haaks to the English coast, which she struck at what she took to be Lowestoft. Following the coast line southward, she dropped 30 high explosive and 90 incendiary bombs about midnight, under the impression that they were falling on Harwich.

In this she was wrong. She was first sighted south of the Sunk Light Vessel by two destroyers of the Nore Defence Flotilla; proceeding southward from there she was over Gravesend and Sittingbourne when her bombs fell, burning down a hospital and demolishing private houses. British reports mention only 23 of 120 bombs she dropped. She had to endure a heavy fire from anti-aircraft guns, for she was picked up and illuminated by the beams of ten searchlights. Nevertheless, she was not hit and, on the return journey, covered the distance from Gravesend to Nordholz in six hours.

The other airship, *S.L.3*, also failed to reach her proper objective. The landmark which previous air attacks had shown to be best recognised was Flamborough Head, where the white surf was easily seen from the air. Steering for this, *S.L.3* crossed the coast near Bridlington and set her course for Hull, which was easily identified by its lights and by six searchlights raking the skies to eastward of it. Suddenly these disappeared and all the lights of the town went out; even in the villages only occasional gleams were shown. The sky began to lighten before *S.L.3*, which was travelling very slowly, could come within hopeful distance of Hull, and the Commander of the airship decided to turn back. He dropped two bombs on a railway station which, being well lighted up, caught his eye and, seeing no other targets, returned to Germany with the remainder of his bombs. He made sure that he had scored one hit;² but though the bombs fell near the railway station at Driffield, no damage was done.³

The 6th Light Cruiser Squadron in the Humber had been organised specially as an anti-airship force and during this raid was at sea looking for Zeppelins. Although the two airships reported by wireless that they had left and we had intercepted their signals, there was nothing in the messages which at that time was understood to mean they intended to raid the British coast. But, to be on the safe side, the Chief of Staff at 5.35 p.m. ordered the squadron to a position about half-way between the Humber and Borkum, to proceed thence to a second rendezvous about 60 miles ENE of it and to return by the same route. The squadron could not sail till 8.30 p.m., when two cruisers left.

¹ *Nordsee* IV, pp. 170-172.

² *Nordsee* IV, Chapter 8, and Karte 8.

³ "Airship Raids."

It would seem that their track was that on which *S.L.3* was approaching; but they saw nothing of her and returned with nothing to report.¹

112. **Airship Raid of June 6-7.**—A more serious raid was carried out two nights later by *L.9*, coming from her shed at Hage, on the mainland south of Norderney. Approaching via Haisborough Light Vessel and the coasts of Norfolk and Lincoln, she found the Humber accurately. She dropped bombs on Grimsby and Hull, doing serious damage to the latter town, which was entirely undefended. Nineteen women and children and five men were killed, while 40 other people were injured; and the monetary value of the damage done is estimated at nearly £45,000. There was a fog at the time at the mouth of the Humber, and the air station at Killingholme was unable to send up any machines; the only attack possible was that from the maxims and anti-aircraft guns mounted at a few places round the estuary.²

On this occasion the 6th Light Cruiser Squadron did not go out, but two of the Harwich light cruisers carrying seaplanes happened to be at sea. The weather of the day of the raid was very favourable for seaplane work and Commodore Tyrwhitt obtained permission to send out the *Aurora* and *Penelope* with some destroyers to cruise, with their seaplanes aboard, on the fourth meridian between the Maas Light Vessel and lat. 54.40 N.³

They left Harwich an hour or so before *L.9* reached Haisborough; but as they used the North Hinder Channel they missed the opportunity of meeting her before her arrival. The cruise achieved no special result, and *L.9* regained her shed in safety.

Her attack on the Humber had synchronised with an advance by the airships in the Belgian sheds, which had been disastrous for the enemy. Three military *L.Z.* ships came out but, owing to the fog, failed to reach the English coast. The Dunkirk air flotilla went up after them and Flight Sub-Lieutenant Warneford achieved the first complete success against Zeppelins by bringing down *L.Z.37* in flames near Ghent. At about the same time *L.Z.38* was destroyed in her shed near Brussels by aeroplanes.

113. **Airship Raid of June 15-16.**—The third and last raid of this month was carried out by *L.10* and *L.11*, which left Nordholz on June 15 to attack the east coast. *L.11* developed engine trouble and turned back when over the Dogger Bank, but *L.10* continued her course and severely bombed the Tyneside towns. In Jarrow 17 were killed and 72 injured, while Palmer's Works were seriously damaged; at Wallsend, though there were no

¹ A 515. H.S. 122, p. 1017.

² "Airship Raids." *Nordsee* IV, Chapter 8, and Karte 8.

³ A 517, 518.

casualties, further damage to works was done; and altogether the raid was, from the military point of view, one of the most effective ever carried out by the German airships.¹

No warning of the raid appears to have been received in time, and neither the 6th Light Cruiser Squadron nor Commodore (T)'s cruisers went to sea. The only ship fire directed at *L.10* was from the *Brilliant*, guardship in the Tyne. No more airship raids took place in June.

114. The Submarine Campaign in the North Sea; Destruction of "U.14," June 3.—During the month of June the attack, or defence, against submarines had two successes, the first falling to the Peterhead Auxiliary Patrol. The four units comprising this patrol did not, as a matter of routine, proceed further east than the meridian of Greenwich; but, should submarines be reported further afield, units or sub-units would go out to investigate. The Aberdeen fishing fleet, by an arrangement between the owners and Rear-Admiral Simpson, Commanding the Peterhead area, operated as a rule within that area; and Admiral Simpson scattered a few armed trawlers among the fleet, to fish and act generally as decoys for submarines. On June 3 the armed trawler *Hawk*, patrolling near the south-east corner of the Peterhead area, saw a steamer about 10 miles distant blow up with a loud explosion. She hurried up and found her to be a Swede, named *Lappland*, torpedoed without warning. She rescued the crew, took them into port, and returned to resume with another armed trawler, the *Oceanic II*, the part of simple fishing vessels, choosing for the scene of the decoy a spot some 20 miles to seaward of the *Lappland's* destruction. Shortly after their arrival a submarine appeared and opened fire on the *Oceanic*; the two armed vessels replied. The submarine did not dive at once; she seemed to have some difficulty with her diving gear and the *Hawk* was able to ram her. When she came to the surface again it was only to release her crew. Six officers and 21 men were rescued, but the Commander preferred to go down with his boat.²

At the Commander-in-Chief's suggestion, no announcement of this success was made public; but details of the encounter were circulated to the other Auxiliary Patrol areas and the usual rewards were paid to the trawlers concerned.

The submarine was *U.14*, Lieutenant Hammerle, making her second cruise. It was she which had been hit by an aeroplane's bomb at Zeebrugge on February 1. She had left Germany for what proved to be her last voyage on May 31, as part of an extensive programme of submarine activity, devised principally in the hope of damaging the Grand Fleet before a sortie of the High Sea Fleet, intended for the early part of July. *U.14's*

¹ "Airship Raids." *Nordsee IV*, Chapter 8, and Karte 8.

² Peterhead A.P. Reports. C.B. 01292 and 01292G; *Nordsee IV*, p. 188.

station was to be off the entrance to the Firth of Forth. On arrival there she found the patrols so unpleasantly active that the Senior Officer of the 1st *U* Half-Flotilla, who was on board, took upon himself the responsibility of changing her orders; and instead of operating close to the Forth she began commerce warfare to the eastward of the meridian of 0.30 W.¹ Her successes were limited to the *Lappland*, and possibly the Danish steamer *Cyrus*, torpedoed on June 2 half-way between Lindesnaes and the Fair Islands.

115. The Cruise of "U.19," May 29 to June 13.—She was not the only submarine at work in the North Sea at the time. *U.19*, which had come out with the minelayer *Meteor* on May 29, left her when the Norwegian coast was reached and crossed over towards the Shetlands. She operated east of Fair Island and the Orkneys from June 2-4, destroying two British steamers² and 10 fishing craft,³ besides a Danish sailing vessel, the *Salvador*. She was working slowly southward along the meridian of 1° W and by June 5 was on the eastern edge of the Peterhead area. In the course of 24 hours there she sank seven more fishing vessels and a Russian schooner.⁴ Continuing southward she torpedoed two neutral steamers;⁵ and skirting the western edge of the Dogger Bank, where she sank two other fishing vessels⁶, she reached Emden on June 13.

While off Fair Island, *U.19* was sighted at 9.10 a.m., June 1, and 8.20 a.m., June 2, by Auxiliary Patrol trawlers under Admiral Colville, Commanding in the Orkneys and Shetlands; in neither case were the patrols fast enough to close within effective gun range. There can be no doubt that the submarine seen on the second occasion was *U.19*, since 12 hours afterwards she signalled her position as 59° 39' N, 0° 30' W.⁷ This was the furthest from Germany of any wireless signal yet made by a submarine. Although intercepted and forwarded to the Admiralty, where the whole decoding staff was centralised, it was not passed on to the Commander-in-Chief.

But the arrivals of the crews of the sunken fishing craft established the presence of a submarine without doubt and on the 4th, at 11 a.m., two destroyers went out from Scapa to search during the next 24 hours for submarines and a supposed submarine tender on the Buchan Ness-Lerwick line. The search was continued next day by two fleet sweepers; but by that time *U.19* was well away to the southward.

¹ *Nordsee IV*, pp. 188, 189.

² *Iona* and *Dunnet Head*.

³ *Chrysoprasus*, *Dogberry*, *Kathleen*, *Ena May*, *Strathbran*, *Cortes*, *Evening Star*, *Ebenezer*, *Petrel*, *Explorer*.

⁴ *Persimmon*, *Curlew*, *Gazehound*, *Bardolph*, *Japonica*, *Star of the West*, *Dromio*, *Adolph*.

⁵ Norwegian *Svein Jarl*, Swedish *Otago*.

⁶ *Waago*, *Plymouth*.

⁷ Signal 0940, of June 2, in I.D.H.S. Current Log.

The two fleet sweepers were of a new type, only recently designed in the light of the experience gained in the war. They were single-screw sloops built to meet the necessity, not only for sweepers powerful and fast enough to accompany the squadrons at sea, but also to fulfil a great many of the miscellaneous services connected with the Fleet. The design was settled in conference with private shipbuilders, with whom the purpose of the vessel was discussed, and on 1 January 1915 the order for 12 of these sloops was placed with various private firms. Their building proceeded with unusual rapidity, the *Foxglove*¹ was delivered on May 14 and the *Acacia*¹ on May 22. This cruise was their first since arriving at Scapa. Though they came across a boat containing the crew of one of the sunken trawlers they found no other trace of the enemy.²

116. Raid on the Dogger Bank Fisheries, June 7-9.—The submarine attack on the fisheries was continued by *U.25*, which started from Germany on June 6. Next day she passed across the western half of the Dogger Bank and before nightfall had sunk a neutral steamer and four trawlers.³ While in process of attacking a second neutral vessel, carrying Swedish markings, she was rammed and her periscope bent over. *U.25*'s second periscope was out of order and she decided to return at once. Crossing the Dogger Bank once more she destroyed four more trawlers,⁴ and reached the Ems again on June 10.⁵

The Dogger Bank fisheries, numbering 200 vessels, had for a few weeks been protected to some extent by armed trawlers from the Humber Patrol which, disguising their nature and masquerading as ordinary trawlers, mingled and fished in company with the fishing fleet. *U.25* had met none of these; in fact, only very few were available for this distant patrol, since the number of important vessels for which the Admiralty supplied escort was no less than formerly and was, on the contrary, increasing. An additional drain on the patrols was the supply of escort for the newly built "X" lighters, intended for the Dardanelles operation, which were almost ready to leave the Tyne for Devonport.⁶

The vessel which had damaged *U.25* was one of the destroyers of the Tyne Patrol Flotilla. Since the 9th Flotilla had been reduced to only a few destroyers, to supply Scapa, it had been the

¹ 1,200 tons; 17 knots; 2—12-pr. guns. Further details in "Records of Warship Construction during the War, 1914-1918," compiled by D. N. C. Department.

² Report and track chart of cruise in papers titled *X. 7368/15*.

³ Norwegian s.s. *Glittertind* and British trawlers *Peniland*, *Nottingham*, *Velocity*, *Saturn*.

⁴ *Castor*, *Tunisian*, *Cardiff*, *Leyman*.

⁵ Her cruise is not mentioned in *Nordsee IV*. The above is compiled from I.D.H.S. History sheets and track charts, with reports from vessels sunk. The trawler *Arctic*, stated to have been sunk by gunfire at 11 p.m., June 5, 60 to 70 miles E.S.E. from the Spurn, is considered, after study of the reports of survivors (M.23571/15), to have been blown up by mines she had trawled up from the second Humber minefield. T.S.D.D.

⁶ H.S. 123, p. 1036.

custom of Captain (D) to send a division from Blyth to the Longstone early enough to arrive while the morning mist was still hanging over the sea. That morning, objects supposed to be submarines had been seen at 5 a.m. near the Farn Islands and near Newton. Three destroyers, the *Moy* and two others, were already on the way to the Longstone when these reports came in; but they were passed on to the hunting flotilla. At 8.45 a.m. on the 8th the *Moy* sighted a submarine and steered full speed towards her, unseen by the enemy, who was apparently manoeuvring to attack a tramp steamer ahead. The *Moy* was thus able to ram the submarine, passing right over her. The enemy broke surface astern, showing a badly bent periscope, and then dived suddenly.¹

The *Moy* buoyed the spot where the submarine had disappeared, and for three days minesweepers, destroyers and trawlers with modified sweep, searched for the enemy; the operation had no success and we now know that *U.25* was home by the 10th. The search, however, had the result of attracting armed trawlers and reducing the Dogger Bank Patrol to two vessels, just at the time when so many fishing vessels were being sunk.

The War Risks Association for Fishing Vessels at once represented to the Admiral of Patrols the possibility of panic amongst the fishing fleet and urged the provision of immediate protection. As the area used by the fishermen covered 9,000 square miles, the adequate patrol of which would require a very large number of vessels, the only alternative to closing down the East Coast fisheries was to accept the certainty that further losses would be incurred and to reduce these as much as possible. On June 15 a special Dogger Bank Patrol was organised, comprising 12 armed trawlers from the Dover Force and six from the Tyne and Humber.²

117. Sustained Attack off the Forth throughout June.—Though the fishing industry seemed to have been the objective of submarine attack in the North Sea, the Admiralstab had by no means relinquished their idea of crippling the Grand Fleet. *U.14* was only the first of a succession of boats sent out to hold areas east of the Forth, where it was hoped they would meet vessels from the Fleet bases. On June 8, *U.17*; on June 11, *U.32*; on the 14th, *U.6*; on the 16th, *U.38*; on the 18th, *U.40*; all were despatched with this object. The zone between 56° and 57° N, extending from 1° 40' W to 3° E, was divided into three squares and each boat was to take one.

U.17, Lieutenant-Commander Hans Walther, reported herself off the Forth at dawn on the 10th and soon began to hold up merchant vessels. With her first capture she had no luck; it was a Danish schooner, the *Marie*, bound for Leith with a cargo

¹ M. 04705/15. Position given by *Moy* is 3 miles E½N from Longstone, and by *U.25* (Current Log 1620/10 June), 55° 39' N., 1° 35' W.

² The papers dealing with fishing protection are very numerous; those bearing on this paragraph are M. 02853, 03446, 04511, 04537/15.

of planks. This was contraband and, ordering the crew to abandon ship, Lieutenant-Commander Walther prepared to sink the schooner. Two other vessels were coming up; they were the *Auk* and *Reeve*, of Granton Auxiliary Patrol; as soon as they came within range they fired and drove the submarine below, thus saving the *Marie*.¹

After this first disappointment, *U.17*'s Commander stopped and released another Danish vessel; but at last, in the morning of the 12th, 15 miles east of Tod Head, he met and sank a British oiler, the *Desabla*, whose cargo soon covered the sea for miles around.

Although it was the custom for fleet oilers to be escorted by armed trawlers or destroyers on the east coast of England, escort was not provided north of the Forth. Some surprise was felt that the *Desabla* should be so far out to sea, until it was realised that the general order to give all headlands a wide berth accounted for her position. The instructions for fleet auxiliaries to keep within 3 miles of the shore had applied only to the east coast of England; they were now extended to include the east coast of Scotland also, except that auxiliaries were allowed to take certain short cuts across the firths.²

At the time when the *Desabla* was attacked the visibility was very low. No patrols were near and eight hours elapsed before the ship's boats containing her crew came up with two armed trawlers.

U.17 proceeded eastward after sinking the *Desabla* and the same afternoon set on fire a Danish sailing vessel, the *Cocos*. The glare of the flames attracted some of the Granton Patrol, which at 10 p.m. opened fire on what they took to be the submarine.³

What at first appeared to be *U.17*'s next performance was the blowing up of a fishing vessel, the *Queen Alexandra*, in 56.52 N, 2° W, a few miles to the eastward of Tod Head. Her loss was, however, not due to a torpedo, but to a British mine which she had caught in her trawl.⁴

118. The Deep Minefield off Tod Head.—Admiral Jellicoe had for some time advocated the policy of laying deep minefields in various places likely to be frequented by submarines and on May 20 he wrote to the Admiralty saying that this policy should be adopted. His suggestions were approved by the Admiralty on June 3 and, of the places he submitted as suitable, the neighbourhood of Tod Head, south of Aberdeen, was selected for the first field.⁵

In order to prevent the operation from being noticed it was decided not to employ the *Orviato*, a large and conspicuous vessel,

¹ Granton A.P. Reports. H.S. 201, pp. 149–159; H.S. 124, pp. 21, 189.

² Papers titled X. 5825/15.

³ H.S. 124, pp. 483, 487.

⁴ Minesweeping Statement No. 67.

⁵ Appendix J.

but to lay half the field from trawlers. At the Commander-in-Chief's suggestion the *Orviato* was transferred from Scapa to the Humber.¹

The first part of the field, 105 mines at a depth of 48 ft., was laid between points in 56.52 N, 2.4.30 W and 56.51.40 N, 2.0.50 W on the morning of June 13 by the *Biarritz*, another railway steamer of the *Paris* type. The second part, 117 mines, was laid at the same depth of 48 ft., between 56.52.25 N, 2.9 W, and 56.52.5 N, 2.5.5 W, next day by five minelaying trawlers.² These trawlers were specially taken up for this service, but, proving their value, became permanent minelayers.³

To warn fishing vessels off the field, one of the Granton Auxiliary Patrol Vessels, the *Jacinth*, was stationed outside it. On the 14th, at 7 a.m., she saw a submarine steering into the field and shortly afterwards heard a heavy explosion. Next morning she noticed another similar explosion. Though on both occasions searches failed to find any wreckage, the authorities could not avoid the conclusion that at least one submarine had come to grief in the field; and on June 28 Admiral Jellicoe proposed to the Admiralty that his policy should be continued and further deep minefields laid. The Admiralty, however, through the German wireless messages they were intercepting, could tell quite accurately whether or not any submarine failed to return. They knew that those lost at this period had come to their end elsewhere than off Tod Head. So far the deep minefields had done more harm to friend than foe, and the Admiralty, obviously, did not wish more of them to be laid until some positive result had been achieved.⁴

Although from June 13 onwards submarines were reported by various vessels and by the coast watching organisation of the Firth of Forth, there is nothing that can be identified as *U.17* till June 18, when she sank the British steamer *Ailsa*, 30 miles E by N from the Bell Rock. One of the Granton yachts, being informed of this by a fishing vessel, came up and caught sight of *U.17*. The yacht opened fire and endeavoured to ram; failing in this, and having lost sight of the submarine, she rescued the shipwrecked crew and brought them in to port.⁵

U.17 now left the neighbourhood of the Forth; she started for home, making a detour to the northward, in the course of which she was chased by one of the Peterhead trawlers. From here she steered for Hantsholm. In the middle of the North Sea she found herself, on the 20th, among some British cruisers, and fired two torpedoes at one of them. Both missed and she completed her voyage without further incident, arriving home via Horn Reefs on June 22.⁶

¹ H.S. 122, p. 1048.

² *Welbeck, King Emperor, Carmania II, Shackleton, Scott.*

³ Lockhart Leith: *History of British Minefields.*

⁴ A 531

⁵ Granton A.P. Reports. H.S. 201, pp. 167, 168.

⁶ *Nordsee IV*, pp. 189–193.

119. "U.6" off the Forth, June 16 to 22.—Although the actual manner and place of destruction of *U.14* was kept secret by us, the fact of her loss was soon apprehended by the Germans, who on June 14 sent out *U.6*, Lieutenant Lepsius, to take her place in the disposition off the Forth. Coming out by Horn Reefs she was on her station by the 16th, and on that day passed through the oil still streaming from the sunken *Desabla* to close to the entrance to the Forth. The lines of Auxiliary Patrol vessels, backed up by the torpedo craft of the local defence, forced her to dive seven times during the next 24 hours and brought her batteries within measure of exhaustion. Compelled to go further out to seaward, on the 18th she came into touch with *U.17*, and the two submarine commanders conferred as to the situation. Since *U.17*'s supplies were nearly all consumed her commander arranged to show himself off Peterhead before going home, in the hope of drawing the patrols away from the Forth and giving his colleague in *U.6* a freer hand than he himself had found.¹ It would seem from this arrangement that the underlying principle of the disposition of the Auxiliary Patrol was still unknown to the Germans. By appearing off Peterhead he would certainly attract the attention of the Peterhead Patrol, but, owing to the division of the coast into separate commands, he would not disturb the Forth Patrol, whose function it was to guard its own area.

After the departure of her colleague, *U.6* operated in the square 56° to 57° N, 0° to 1° 30' W. She stopped and released several neutral ships, but sank no vessels at all. On June 22, when off St. Abb's Head in 56° N, 1° W, she fired a torpedo at the armed yacht *Salvator*, of Granton Patrol. Not only did the torpedo miss, but the yacht turned, fired at close range and rammed the submarine, bending the periscope so badly that the boat had to go home forthwith.²

120. "U.38" and "U.32" in the North Sea.—The middle section of the three to be held by submarines in the German disposition was occupied by *U.38*, Lieutenant-Commander Max Valentiner, at any rate on the 19th and 20th. In the afternoon of the 20th he left that area and proceeded northward.

The easternmost section, from 1.30 E to 3° E, was the scene of the operations of *U.32*, Lieutenant-Commander von Spiezel. It happened to be the middle of the Farn Islands-Lindesnaes route used by ships crossing to and from the Skaggerack. Between June 13 and 23, *U.32* stopped and released eight Scandinavian vessels. She was back in Germany by the 24th.³

121. The Third Cruiser Squadron Crosses the Submarine Area, June 19 and 20.—At the period when the zone off the Forth was

¹ *Nordsee* IV, p. 190.

² *Nordsee* IV, p. 193. Granton A.P. Reports. H.S. 201, p. 177 (where the latitude is wrongly given as 54° N).

³ *Nordsee* IV, pp. 189, 193.

most strongly held by the German submarines, the 3rd Cruiser Squadron carried out its sweep across to the Skagerrack and back. The cruise had been planned by the Commander-in-Chief.¹ The force consisted of the 3rd Cruiser Squadron—*Antrim* (flag of Rear-Admiral W. L. Grant), *Argyll*, *Roxburgh*, *Devonshire*—to which were added for the purpose of this sweep the *Nottingham* and *Birmingham*, and the destroyers *Goshawk*, *Phoenix*, *Lapwing*, *Attack*. The object of the cruise was the examination of any suspicious vessels which might be met; the destroyers were to carry out the actual boarding and screen the cruisers from submarine attack. Four rendezvous were fixed:—

(A) in lat. 55.45 N, long. 0°.

(B) in lat. 57.20 N, long. 6.30 E.

(C) in lat. 58.0 N, long. 5.40 E.

(D) in lat. 56.0 N, long. 0°.

The force left Rosyth at 7 p.m., June 18, arranging its speed so as to reach rendezvous (B) in the middle of the entrance to the Skagerrack at 6 p.m., June 19.

By daybreak of the 19th the force, spread on a front of 15 to 35 miles and zigzagging, was in the easternmost of the three squares occupied by submarines. This was really the station of *U.32* but it was not she who had the first shot at Admiral Grant's force. *U.38* was crossing the eastern square on the way to her own, the middle part of the zone; when soon after 8 a.m. she sighted the *Birmingham*, southernmost of the cruisers, and fired a torpedo at her. It was observed from the *Birmingham* sufficiently far off to enable her to turn away in time. This was the only attack on the voyage out.²

The squadron passed across the mouth of the Skagerrack, boarding such vessels as were met, and turned back for Rosyth before midnight. On entering the eastern square they were seen at 7.50 a.m., June 20, by *U.32*, who fired a torpedo at either the *Birmingham* or *Nottingham*, then passing at a high speed.³ The torpedo broke surface and was considered in the squadron to represent an attack on the *Argyll*. Admiral Grant, concluding that he was approaching an area held by submarines, turned off to the NW. The alteration certainly took him out of *U.32*'s area, but led directly towards the course of *U.17*, returning from the Peterhead district. She sighted three cruisers, and at 9 a.m. fired two torpedoes at the leading ship, the *Roxburgh*. Luckily, their tracks were seen in time and, by steering to pass between them, the *Roxburgh* escaped damage. Twenty minutes later the

¹ A 526.

² The submarine attacks treated in this section are reported in papers titled X. 6801/15 and X. 9234/15. The German account is in *Nordsee* IV, pp. 190–193.

³ *Nordsee* IV, p. 190, gives 19th as the date of this attack, while the text sketch on p. 192 gives 20th as the date. Either would be possible, but the 20th is considered more likely and has been accepted.

Devonshire, passing near this spot, saw a periscope and endeavoured but failed to ram the submarine to which it belonged.

Admiral Grant then ordered the *Nottingham* and *Birmingham* to proceed into Rosyth at high speed. He did not wish to arrive with his own squadron till the first of the ebb and he therefore made a detour to the south-westward to pass through rendezvous (D) instead of returning direct through the square in which *U.6* was at work. She sighted the *Birmingham* at 3.10 p.m. and fired two torpedoes, both of which passed astern.

The force had now been missed by six torpedoes, but its luck was not to hold to the end. At 1.33 p.m., June 20, the *Roxburgh*, steering S 52 W and zigzagging two points at 20 knots, sighted a submarine about 300 yards on the port beam and saw the tracks of two torpedoes approaching her. Before she could turn, the first torpedo struck her on the port side under the cat head; the second torpedo passed some seconds later through the patch of brown made by the first explosion, which now was safely astern.

Though damaged, the *Roxburgh* was able to make 14 knots; and leaving all four destroyers with her as a submarine screen, Admiral Grant proceeded for home at 18 knots, asking by wireless for more destroyers to be sent out from Rosyth to assist in screening her. In less than a quarter of an hour 9 destroyers of the 1st Flotilla were proceeding to the spot, followed an hour and a half later by the *Fearless* and the rest of the flotilla.

Admiral Grant's Force thus arrived home in pieces. The two light cruisers reached Rosyth at 7.43 p.m.; the Admiral and his three uninjured cruisers at 10.20 p.m.; the *Roxburgh* with the whole of the 1st Flotilla at 11.21 p.m. No one had been injured in the *Roxburgh* and her repairs were complete by about the middle of August.

On arrival of the 1st Flotilla, nine of the destroyers were sent out again at 2.12 a.m., June 21, to hunt in the area 56.20 to 57.10 N between 1° E and 1° W for the submarines which were so obviously present. By that time *U.38* had gone northward; *U.6*, part of whose area was covered by the search, happened to be working to the southward of 56° 20' N. The destroyers' search, therefore, produced no results, and at 1.30 p.m. on the 21st they were recalled.¹

As on so many former occasions, any vessel near a submarine was suspected of assisting it either by giving it information or supplies. A large fleet of Dutch vessels had been fishing in the middle of the North Sea and the submarine attacks had mostly taken place when some of these trawlers were in sight. "It is impossible to say," writes Admiral Grant in his report of the cruise,² "what connection there is between the Dutch fishing fleet and submarines, but it is quite certain in most of these cases the torpedoes were fired from the proximity of trawlers, and I would submit that the thorough examination of this fishing fleet by

¹ G.F.N.

² M. 04854, in papers titled X. 9234/15.

destroyers in sufficient numbers to keep submarines under or by other suitable vessels is essential." Although the Commander-in-Chief and the rest of the fleet shared his opinion, his suggestion could not yet be acted upon; and the neutral fishing vessels remained a source of suspicion and uneasiness to us, as to the Germans. The large number of submarines, at least three, which must have been present during Admiral Grant's cruise appeared to indicate a submarine trap; and the Commander-in-Chief proposed that in future when the High Sea Fleet was expected out and the Grand Fleet went to sea the battle squadrons should cruise to the northward of 57.30 N and the battle cruiser fleet to the southward of 56° N while waiting for the situation to develop; alternatively, the battle fleet should keep to eastward of the third meridian.¹ His deduction that the submarines were there as a trap for the fleet was, we know, perfectly accurate; if at the same time the High Sea Fleet had come out it is not improbable that, at any rate, the battle cruisers would have been in danger. But luckily for us, the Germans in setting their trap had failed to provide the bait.

122. "U.38" off the Orkneys and Shetlands, June 22 to 25.—

After the departure of *U.19* from the neighbourhood of the Fair Island Channels on June 4, the Orkney and Shetlands area was not visited by submarines for some weeks. On June 18 Admiral Jellicoe was warned to look out for a submarine, probably on the way home after being rammed by a steamer off Ireland.² He ordered the division of the 2nd Flotilla which was patrolling the Pentland Firth to watch the Fair Island Channels that night till 10 a.m., being relieved then by other destroyers from Scapa. The fleet-sweepers *Foxglove* and *Dahlia*³ were also sent out from the Flow to hunt to the eastward. Though the operations were continued till the 19th, nothing was seen. In fact, no submarine passed either way. On the 20th also a submarine was expected to be making her way eastward and a division of the 2nd Flotilla went out to Sule Skerry to watch for her. This submarine was *U.22*, which after a cruise in the western approaches was returning home. She did not attempt either the Pentland Firth or the Fair Island Channels, but passed north of the Shetlands; and while the search for her was in progress at Sule Skerry, she was 80 miles to the northward engaged in sinking a fishing vessel.⁴ On the 22nd a submarine was reported steering for the Pentland Firth from the east. Again a division of the 2nd Flotilla was ordered to sea to patrol between the Pentland Skerries and Dunnet Head, the Fleet sweepers spreading in search in the same neighbourhood. This submarine may have been *U.24* on the way to the western approaches; but she was not seen by the special patrol.

While the destroyers were thus engaged in the close neighbourhood of the Orkneys, *U.38*, after torpedoing the *Roxburgh*, was

¹ A 529. H.S. 126, p. 247.

² H.S. 125, p. 621.

³ Arrived Scapa June 11.

⁴ *Premier*.

making her way northward. On the 21st she sank the British steamer *Carisbrook* 30 miles north of Peterhead; next day, 60 miles east of the Orkneys, she destroyed a Russian sailing vessel; and on the 23rd she sank the Norwegian s.s. *Truma* about 20 miles east of Lerwick.

Continuing still northward she found herself amongst a fleet of herring drifters. They were fishing in an area prohibited by us and had no decoy armed trawlers amongst them; they were an easy prey and sixteen of them¹ were sunk by *U.38*.

Lieutenant-Commander Valentiner, after sinking the herring drifters, intended to attack certain cruisers reported to be patrolling the route of steamers carrying supplies to Archangel from the west coast of England and Scotland. He proposed to operate between the Shetlands and Faeroes; but the weather was persistently unfavourable, and moreover his conning tower hatch jammed on two occasions, letting in large quantities of water. On the 25th he abandoned the enterprise and started for home.

At this time the Orkneys and Shetlands Auxiliary Patrol consisted of 16 units, of which three were specially attached to the Shetlands part of the area and thirteen to the Orkneys. In general they worked among the islands; but a definite patrol was kept across the Fair Island Channels and the Pentland Firth.² These did not work far enough out to meet *U.38*, which does not seem to have approached Fair Island, although at 6.30 a.m., June 22, a submarine was seen on the surface about 25 miles south of it.³ Learning this, the Commander-in-Chief sent out destroyers from the Orkneys Local Defence and a seaplane from the *Campania*; they failed to find her. On her return journey, however, she was sighted 25 miles east of Fair Island by the armed trawler *Chieftain* disguised as a fishing vessel. The *Chieftain* worked her winch and hoisted her trawl ball to make believe she was about to shoot her nets, hoping the submarine would come up within range. But *U.38*, seeming to be in a hurry, continued her course at high speed and soon disappeared.⁴ She was back at Heligoland by July 1.

News of the raid on the herring fleet reached Admiral Jellicoe with the usual addition that the submarine was accompanied by a suspicious vessel. He despatched his three sloops, all he could spare, at 9 a.m., June 24, to hunt for the submarine and the suspicious vessel. They found neither of these; and, sending in two Dutch trawlers to Lerwick for examination, returned to Scapa on June 26. These raids on the fishing fleet were now so numerous that the Commander-in-Chief suggested to the Admiralty that owners should be forced to give daily information of the whereabouts of fishing craft, in order that local patrols

¹ *Primrose, Research, Star of Bethlehem, J. M. and S., Monarda, Four, Elizabeth, Piscatorial, Josephine, Lebanon, Vine, Uffa, Ugiebrae, Quiet Waters, Viceroy, Commander.*

² See Appendix K.

³ G.F.N. and H.S. 126, p. 432.

⁴ M. 05242/15.

might afford them as much protection as possible.¹ Since June 5 the orders compelling traffic in and out of the North Sea to pass north of the Shetlands had been relaxed at Admiral Jellicoe's suggestion, and all British merchant and fishing vessels proceeding round the north of Scotland had been confidentially directed to use the Pentland Firth instead,² where they were less likely to be found by submarines.

The Commander-in-Chief suggested further that since, in spite of active destroyers and patrols, the route between Peterhead and Lerwick was still unsafe for fishing vessels proceeding singly, these should either pass in pairs in close company or in groups of six, each group escorted by an armed trawler. At the Admiralty it was felt that the organisation of such escorts would need arrangement, and the proposal was not immediately acted upon.³

123. First Success of the Submarine towed by Trawler, June 23.

—Meanwhile the last of the submarines intended to operate off the Forth had commenced operations. This was *U.40*, Lieutenant-Commander Fürbringer; she passed out of the Bight by Horn Reefs on June 18 and four days later was off Aberdeen. Next morning a trawler came in sight, apparently harmless, but really a representative of a new form of anti-submarine weapon.

During the latter half of May there had been carried out in the Forth, under the superintendence of Captain V. H. S. Haggard, trials of a scheme first proposed by Acting-Paymaster F. T. Spickernell, Secretary to Admiral Beatty. The idea was that a trawler should tow a submerged submarine to which it had telephonic communication in localities where enemy submarines might be expected. Should the enemy come up to attack, the submerged submarine would slip the tow and, previously directed from the trawler, endeavour to torpedo the German. The success of the experiments led to the despatch of "C" class submarines from the Forth Local Defence to Aberdeen and Peterhead to work from there. Active operations began on May 24 with the trawler *Taranaki*; but it was not till June 8 that any enemy submarine came within range. On that occasion the *Taranaki* was towing *C.27*. When 30 miles E by N of Peterhead, the trawler sighted *U.19* a mile and a half away. This information she telephoned to *C.27*, which, having corroborated it through her periscope, slipped the tow and proceeded submerged for the unsuspecting German. When she reached what should be a suitable position for firing, *C.27* put up her periscope only to find the German very close and coming straight for her at 15 knots. *C.27* dived hurriedly; the German passed over her. When *C.27* was able to recover from the rapid dive and put up her periscope again the German had disappeared.⁴

¹ H.S. 126, pp. 728, 953, 1010, and G.F.N.

² A 516. H.S. 115, pp. 874, 909; H.S. 122, pp. 784, 785.

³ H.S. 122, p. 952.

⁴ M. 03948, 04586/15.

After this failure the appearance of the *Taranaki* was altered, although there can have been nothing in the incident to arouse the enemy's suspicions. She sailed again from Aberdeen, with Lieutenant-Commander H. D. Edwards in command, early on June 23, this time with C.24, Lieutenant Frederick H. Taylor, in tow. At 9.30 a.m., when they were well out to sea to the south-eastward of Aberdeen and no other vessel was in sight, suddenly U.40 rose and fired across the trawler's bows at 2,500 yards. At this moment there was a failure in the telephonic communication, and the telephone had to be shifted. At 9.33 a.m. the enemy was drawing astern and C.24 was ordered to slip the tow and to attack. The towing slip in the submarine jammed, however, and at 9.45 a.m. the *Taranaki* slipped the tow from her end. During all this time it was necessary for the trawler to keep under way until C.24 was clear, and Lieutenant-Commander Edwards managed to do this without exciting the suspicions of the captain of U.40, who took no notice of the warnings of his sub-lieutenant, who had scented danger.

At this point U.40 stopped about 1,000 yards from the *Taranaki*, who got out her boat and simulated panic, while C.24 proceeded to attack. The latter had difficulty in adjusting trim, due to the fact that 100 fathoms of 3½ in. wire and 8 in. hawser were still fast to the bows, and she was also towing 100 fathoms of telephone cable. Having overcome this difficulty, C.24 picked up U.40 in her periscope at 1,000 yards, closed to about 500 yards, manoeuvred to get a beam shot, and fired at the conning-tower at 9.55 a.m., the torpedo hitting at the point aimed. Trawler and submarine watched the explosion, and U.40 sank instantly. C.24 picked up the captain, transferring him to the *Taranaki*, who had picked up the sub-lieutenant and one petty officer; these were the only survivors from a crew of 32 officers and men. This took place 48 miles SE by S of Aberdeen. Immediately after, C.24's propeller was fouled by turns of telephone cable round the shaft, and she was towed in by the *Taranaki*.

The captain of U.40 stated that he had been watching the trawler all the morning through his periscope; the probability being that he waited till nothing was in sight, so as to avoid being reported.¹

Since the publication of the means by which U.40 had been destroyed would have seriously handicapped future operations by this method, no notice was issued to the Press, and other steps were taken to ensure secrecy.²

After this success the towed submarine decoy scheme was greatly extended. The Commander-in-Chief immediately asked for two C class boats to work with the Orkneys and Shetlands

¹ M. 04954/15; M. 05067/15.

² H.S. 126, pp. 698, 708, 711.

patrol. They were promised to him,¹ and by the end of the month it was arranged that—

C.26 and C.27 should work from Scapa;

C.14 and C.16 from the Tyne;

C.21 and C.29 from the Humber;

C.33 and C.34 from Harwich.

The last two were specially to entrap the German submarines acting from Ostende and Zeebrugge.²

124. The Flanders Flotilla attempts to Pass the Dover Barrage.—The five torpedo boats, A.5, 7, 8, 12 and 13, now based on Zeebrugge, undertook no special operations during June. After June 16 they took the night outpost duty on the coast to give warning and deal with attacks, and especially to be ready for a blocking expedition, which was reported to be in preparation.

The commander of the submarines was determined to see whether it was possible to get through the Dover barrage, on the other side of which lay the desirable target of the transport of the British Army to France. The first cruise in the direction of Dover started on May 13, when U.B.12 left to attack a large man-of-war persistently reported off Dover. Rough weather caused so much motion in the submarine that her compasses went wrong, and she got no farther than Middelkerke. On May 16 the best of the boats, U.B.6, made an attempt to pass through the barrage, but bad weather prevented the weak little vessel from getting so far as the Dover Straits.

The next attempt was made again by U.B.6. She started on June 21 with instructions to pass the barrage close to Calais; should she fail there, she was to look for a passage elsewhere; and she was furnished with shears to cut the nets which, it was expected, she would encounter. She made the passage by following close behind a steamer as far as Cape Gris Nez; reconnoitring off Boulogne, she found a trawler flotilla patrolling off the French coast, but noticed that the method of employing it was not so systematic as in the case of the British patrol on the opposite shore. She returned the same way and was back in 48 hours from her departure. Her report seemed so favourable that the Senior Officer transmitted to Berlin his opinion that at present the Flanders boats could unhesitatingly penetrate the barrier and that the larger U-boats might also succeed. He decided to make an attack in the Channel with all his available boats, despatching U.B.2 to the Folkestone-Havre line, U.B.6 to the Beachy Head-Dungeness line, and U.B.10 to operate off Boulogne. The cruise, through bad weather, failed to achieve any results.³ According to Commander Gayer,⁴ two boats passed safely,

¹ H.S. 126, pp. 781, 909.

² M. 04484/15.

³ The date of this cruise is not given in *Nordsee IV*; Gayer gives June 27 as the date of the decision to make the attempt.

⁴ Gayer: *Die deutschen U. Boote II*, p. 36.

but through the bad weather were unable to find targets; the third boat fouled an obstruction between the Colbart Sand and Gris Nez, while a fourth boat broke down and, after resting 11 days on Ruytingen Sand, was towed home.

Nevertheless, the Senior Officer's report that the Dover barrage was passable produced from headquarters orders that the Flanders flotilla was to include in its area of operations the Channel as far as the line from Portland to Cap de la Hague.¹

125. Attacks on Shipping by Flanders Boats, June 1 to 9.—

Besides attempting to pass through the Dover barrage the *U.B.* boats had been cruising in the Hoofden on the look-out for targets. On June 1 at 2 p.m. *U.B.6* torpedoed the British s.s. *Saidieh*, 6 miles north-east of the Elbow Buoy. This was in the Nore area; and the sinking was seen by two trawlers of the Nore patrol, one of which sighted the submarine but failed to close her sufficiently for firing before she disappeared. As a result of their report the Harwich Auxiliary Patrol trawlers hunted round the Kentish Knock, Galloper and Longsands, but found nothing, though a submarine was reported further to the northward at 6.30 p.m. and off the Goodwin Sands at 10.40 p.m.² *U.B.6* was back at Zeebrugge on the 3rd.

U.B.16 sank three smacks in the middle of the Hoofden on the 3rd and 4th—*E & C, Boy Horace, Economy*. In each case the smack was warned by the firing of a rifle; the submarine came close up, near enough for orders to be shouted across; and the smack was blown up by a bomb.³

On June 6 a submarine was sighted 6 miles south of Kentish Knock and four Harwich destroyers went out in chase. No sooner had they returned without having seen their quarry than the Belgian steamer *Menapier* was torpedoed by *U.B.10* near the Elbow Buoy. On June 8 seven boats of Harwich Auxiliary Patrol laid nets 3 miles south-east of the Galloper Light Vessel; the nets were weighed next morning with some difficulty, for a German seaplane appeared over the drifters and bombed them. It was driven off by two armed trawlers and the nets were safely boarded.⁴

Next morning at 4.25 a.m., June 9, a steamer, the *Lady Salisbury*, was blown up by something unseen, a mile or so northward of the Sunk Light Vessel. Two destroyers, the *Brazen* and *Vulture*, of the Nore defence, were near enough to see the explosion and rescued the survivors. While cruising round about they sighted at 4.55 a.m. a periscope at which the *Vulture* fired three rounds.⁵ The news reached Harwich by 5 a.m.,

¹ *Nordsee* IV, pp. 125 to 130.

² Nore A.P. Reports. H.S. 121, p. 48; Harwich A.P. Reports. H.S. 140, p. 49.

³ Skippers' Depositions titled X.3014, X.4383/15.

⁴ Harwich A.P. Reports. H.S. 140, p. 55. Gayer II, p. 36.

⁵ M. 04572/15. "Sinking of *Lady Salisbury*."

whereupon Commodore (T) sent out three destroyers to hunt for the submarine. The number of hunting destroyers increased to 23, but that evening another vessel, the *Erna Boldt*, an interned German steamer bringing coal from the Tyne, was destroyed without warning in almost the same spot.¹ That more than one submarine was operating seemed obvious, for frequent reports of periscopes south-east of the Galloper came in, and at 11 a.m. the *Fervent*, another Nore defence destroyer, was missed by a torpedo there. Further, that night six smacks² were destroyed about 50 miles east of Lowestoft by a submarine which in one case was seen to be marked *U.B.2*.³

This activity in the neighbourhood of the Thames estuary set on foot a vigorous submarine hunt by the Nore Defence Flotilla, in which five of the destroyers of that flotilla and six torpedo boats including *T.B.10* and *T.B.12* were engaged, as well as the armed trawlers of the Auxiliary Patrol.

On June 10 at 3.30 a.m. *T.B.12*, steaming 10 knots, was about 2 miles north-east of the Sunk Light Vessel, when an explosion wrecked her fore part and killed her commanding officer. *T.B.10*, which was in company, closed and steamed round, looking for the submarine; and then coming up stern to stern took *T.B.12* in tow, the *Vulture* and two more Nore destroyers patrolling round the two boats. Hardly had the wrecked torpedo boat got fairly under way than the *Vulture* observed the track of a torpedo approaching *T.B.10*; there was an explosion and *T.B.10* broke in two, the two parts sinking after a few minutes. The *Vulture* steered in the direction from which the torpedo had come; another torpedo crossed her bow, missing by 15 yards, and observing a track, apparently that of a submerged submarine, she gave chase till all trace of it was lost. The wreck of *T.B.12* was still afloat, but all efforts to get her into port failed. She sank at 10.55 a.m.⁴

Although those present at this incident were convinced that they had seen torpedoes and a submarine, they were, as on so many occasions, deceived. The smacks destroyed east of Lowestoft were certainly sunk by a submarine, probably *U.B.2* from Flanders⁵; but the two torpedo boats had come to their end from a different cause. Their loss represented the first fruits of the new German policy of laying minefields from specially built submarine-minelayers.

126. The "U.C." Boats.—These vessels, known as the "U.C." class, were 34 metres long, with a speed on the surface of only 6.2 knots, submerged, of 5.3 knots; their only armament consisted of the 12 mines they carried.⁶ The first of this class to arrive in Flanders was *U.C.11*, which on May 29 started for her maiden minelaying cruise with orders to place her 12 mines off

¹ N.L. 14940/15.

² *Britannia, Qui Vive, Edward, Welfare, Lawrestina, Intrepid*.

³ M. 23870/15.

⁴ Papers titled C. 519/15.

⁵ Gayer.

⁶ *Nordsee* IV, p. 123.

the South Goodwin, in the gap in the British barrage. Next day her commander, Lieutenant Walter Schmidt, found that he was towing a buoy, which seemed to attract a chase by trawlers and destroyers. In spite of all his efforts the buoy still clung to him, and the chase followed till up to a certain position, where he found himself unpursued and was able to come to the surface and free himself from the entanglement. Unknowingly, he had entered the mined area west of Ruytingen Sand. He seems to have escaped the mines, or they may have failed to explode; and, unharmed, he resumed his journey, depositing his 12 mines close off the South Foreland.¹

The moving buoy had been seen by a drifter, which, being unarmed, fired rockets to attract the attention of the destroyer *Nubian* patrolling near. The destroyer came up, slowed down to get the drifter's message, and then observed a periscope 10 yards from the drifter's bows, moving very slowly away. It disappeared in five seconds, whereupon the *Nubian*, whose modified sweep had been fired on an earlier occasion, turned to bring her propellers over the periscope. There was no shock and, in spite of close search by the alert patrol, nothing more was seen of the submarine or of the buoy, which was not an indicator buoy but a red float from the net. The Admiralty ordered a Court of Enquiry into the circumstances of the escape of this submarine; its conclusions were that, while in view of the large force quickly concentrated on the chase the organisation and arrangements of the patrol were highly efficient, the action of the commander of the *Nubian* in not instantly attempting to ram was to blame as an error of judgment. He was relieved of his command.²

Having thus escaped the two perils of the indicator net and the minefield, *U.C.11* made a second journey. On this occasion also she became entangled in a net and freed herself only after a quarter of an hour's effort. There is no report of this from the British side; but possibly it was in the nets SE of the Galloper on June 8 and 9 in which she was caught. The submarine, when once more free, went on to the Sunk Light Vessel, and during the night of June 8-9 laid 12 mines close to it on the northern side.³

The successful laying of these two fields was reported by the Senior Officer on the Flanders coast to headquarters, with a request that the preparation of *U.C.* boats might be hastened, while the opportunities for using them were good. On June 25 two more minelayers, *U.C.1* and 2, arrived from Germany⁴, followed on June 30 by *U.C.3*. The first of these, *U.C.1*, laid a field on the west side of the Kentish Knock Light Vessel on the

¹ *Nordsee* IV, pp. 126, 127, and Karte 14. Probably Field given in "German Statement of Mines Laid" (O.U. 6020B), as extending 660 metres in the direction 170° from 51.8 N, 1.26½ E.

² N.L. 2999/15.

³ *Nordsee* IV, p. 127, and Karte 14. Field 2, extending 660 metres in direction 310° from 51° 24' 24" N, 1° 37' 18" E. (O.U. 6020B).

⁴ Gayer says they arrived on June 14. II 33.

30th.¹ It would appear that *U.C.1* approached the Kentish Knock Light Vessel on a SW course and made off southward after releasing her mines; she thus did not pass over the deep minefield on the east side of the light vessel. Her field was soon observed; at 7 p.m. the same evening the light keeper saw and reported three round black floating mines a mile to the northward. Ships were immediately ordered to use the Black Deep instead of the passage near the Kentish Knock; but in spite of the warning the *Lightning*, a destroyer of the Nore Defence Flotilla, passed close north of the light vessel and was blown in half. There was some doubt whether this was due to a mine or torpedo; floating mines of many strange patterns were frequently reported, only to prove to be casks, dan buoys, or even dead mules feet upwards. A thorough sweep of the Knock Deep failed to bring any mines to light, probably because they had been laid on the other side of the shoal; the passage being clear the Admiralty ordered shipping for the east coast to pass through Knock Deep and the Shipway, the intention being to net the gaps between the banks to eastward of this route.²

The destruction of the *Lightning* brought out a large number of vessels to search for the enemy. It was some time before it was realised that the losses north of the Sunk Light Vessel were due to mines, partly because the hunting destroyers made such circumstantial reports of the tracks of torpedoes. In fact, it was concluded that submarines were present and their ability to torpedo such a light-draught vessel in the midst of a search by so many armed vessels was looked upon as a sinister development.³ But mines were exploded by paddle sweepers on the 19th between the Shipwash and Sunk Light Vessel, and the Admiral of Minesweepers in reporting this observed that these mines had been found "after submarine activity."⁴

The losses in the Hoofden were increased before the end of the month by the steamer *Leuctra*, near the Shipwash Light Vessel on the 12th—a victim to *U.B.16*—and the *Dulcie*, also near the Shipwash, on the 19th, sunk by *U.B.13*.⁵ Trawlers and drifters with nets went out to the spot but returned with nothing to report.⁶

On the 23rd the grain steamer *Tunisiana* was torpedoed near Lowestoft in sight of a patrol trawler which, sighting a periscope, opened fire at 500 yards and attempted to ram. The submarine, probably *U.B.16*, dived and escaped.⁷

¹ Probably Field 3 given in "German Statement of Mines Laid" (O.U. 6020B) as extending 660 metres in the direction 315° from 51° 39' 24" N, 1° 40' 6" E.

² Papers titled X. 9125/15. "Safe routes for Shipping passing through the Downs, etc."

³ Papers titled C. 519/15.

⁴ Mining Statement No. 69, June 23.

⁵ Gayer.

⁶ Lowestoft A.P. Reports. H.S. 161, p. 74.

⁷ M. 04999/15.

Besides these undoubted appearances of submarines there was an unusually large amount of more or less credible reports of torpedoes seen or periscopes sighted, all tending to show that the Hoofden was now an area of energetic enemy operations. This activity demanded some special attempt at counter measures other than the somewhat haphazard employment of the trawlers, drifters and defence force. Captain E. C. Villiers, Commanding the Nore Auxiliary Patrol, elaborated a scheme for using all his boats on a 25-mile square, whose centre should be the position in which a submarine had been reported, the whole hunt to be moved by wireless signals, as the quarry showed itself. The scheme, as a whole, seemed to the Admiralty one for the control of the hunting operations by a shore station; and, reluctant in principle to support any proposal which would limit the initiative of the Senior Officer afloat, they approved only the ordering of the first concentration, limiting subsequent signals from the shore to the imparting of further intelligence.¹

127. The Western Approaches; the First Half of June.—

The South-western Approach, that is, the water between Ireland and the north coast of France, had already been the scene of many losses of merchant vessels. The commerce warfare in that area was continued during June by six submarines in succession. The first of these, *U.34*, was midway between Cape Clear and Cornwall on June 1. That evening she shelled and sank the fishing vessel *Victoria*; taking the crew of the vessel on board—the position was 60 miles from the nearest land—the submarine proceeded southward and, soon after daybreak next morning, transferred them to the boats of another fishing vessel, the *Hirose*, which also she sank. This was somewhat nearer land, being 35 miles west of the Scillies.² Another fishing vessel was in sight; this also *U.34* fired on, but did not sink.³ A marine closed the Scilly Islands and early in the afternoon of June 2 destroyed a Belgian trawler named *Delta* within sight of Commander Oliver, who was in charge of the Auxiliary Patrol Sub-base in the Scillies, and was then at the war signal station. Armed trawlers went after her but she submerged directly they came near, after having been on the surface and under watch from the shore for 2½ hours.⁴

The continuous presence of submarines on or near the route of the transports sailing from Devonport for the Mediterranean brought about a change in their sailing orders. By those in force they were allowed to sail only after dark; but now, at the suggestion of the Commander-in-Chief, Devonport, they were permitted to leave in daylight in order to ensure their being past Ushant before daybreak.⁵ Their first rendezvous, it will be

¹ M. 05042, 05112, 05345/15.

² M. 23273, 23510/15.

³ H.S. 122, p. 361.

⁴ Falmouth A.P. Reports. H.S. 665, p. 239.

⁵ A. 513.

remembered, was 30 miles south of the Lizard; and it was there that *U.34* took up position, though there is no evidence that she was aware of the transports' sailing orders. Here on June 3 she chased the British steamer *Pontypridd*; this vessel had a gun in her stern and the submarine soon abandoned the chase in favour of a French steamer, the *Penfeld*, which, being unarmed, was an easier prey. Another French steamer in sight hoisted the Norwegian flag and was not attacked.¹ After torpedoing without warning a British store ship, the *Inkum*, 40 miles SW of the Lizard, on June 4, *U.34* seems to have had no more successes at the mouth of the Channel. On the 7th she sank a Norwegian sailing vessel off the south-west corner of Ireland and, passing north of the Shetlands, was back in Germany on the 13th.

Once more Captain Phillimore drew attention to the danger of merchant vessels following the mid-channel route. "An outlying squadron of yachts or large fast trawlers is urgently required," he wrote on June 7,² "to patrol in mid-channel, Ushant to midway between Channel Islands and Start Point. This is a very dangerous ground and cannot be patrolled with present force of ships in this area without leaving a holiday further in to our coast. If the patrol is moved further out the submarines will move further in inside them, and there are not enough to cover the whole ground right out into mid-channel." His suggestion was received without remark and no action was taken. The yacht squadron, originally based on Belfast, had recently been transferred to Milford and was used by Admiral Dare to patrol the south coast of Ireland as far as 40 miles from shore.³

Operations against commerce in the Western Approaches were continued by *U.35*, which left Heligoland at noon, May 29, and proceeded northabout for her station. On June 2 she sank a Norwegian steamer west of the Hebrides. Two days later, at the landfall off Eagle Island, south of Blacksod Bay, she shelled and sank a sailing vessel, the *George and Mary*.⁴ The Auxiliary Patrol for Area XIX, that is, Blacksod Bay, had been allotted only one unit in the early days before submarines had become so active in western waters. The Vice-Admiral, Queenstown, now asked that one more unit should be allotted to each of the three areas, XIX, XX and XXI—that is, Blacksod Bay, Galway Bay, which also had been allotted one unit, and Queenstown, where there were only two units. Though an additional reason for strengthening the Irish patrols was to be found in an intelligence report that there was a base and wireless station for German submarines on the west coast of Ireland,⁵ the request for more trawlers was more natural to make than easy to grant; practically all the available fishing vessels had been taken up and, though trawlers were under construction, no boats could at the moment be sent to Ireland without taking them from the east coast or the Fleet

¹ H.S. 122, pp. 826, 947.

² Falmouth A.P. Reports. H.S. 665, p. 322.

³ M. 04390/15.

⁴ M. 23569/15.

⁵ M. 04323/15.

bases. This the Admiralty did not intend to do and they did not yet see their way to supplying Ireland with a less scanty patrol, though they informed the Admiral, Queenstown, that the matter was under consideration.¹

By June 5 *U.35* had reached the south-west corner of Ireland. There she stopped and released a Danish steamer. That evening she had a brief encounter with one of the Queenstown Auxiliary Patrol trawlers, the *Ina Williams*, which, having a 12-pdr. gun, engaged the submarine at a longer range than usual. She claimed a hit on the enemy and the Admiralty awarded her £500.²

Unfortunately the submarine escaped any particular damage; she continued actively at work till the 17th, choosing as her operations area the middle of the entrance between Ireland and Cornwall, sinking in all 11 vessels: on June 7, Norwegian *Trudvang*; on June 8, British s.s. *Strathcarron*; British s.v. *Susannah, Express*; French s.v. *La Liberté*; on June 10, Russian s.v. *Thomasina*; on June 12, British s.v. *Crown of India*; Norwegian s.v. *Bellglade*; on June 13, British s.s. *Hopemount, Pelham*, French s.v. *Diamant*.³

All these sinkings had occurred in close proximity to the boundary between the Milford and Falmouth Auxiliary Patrol areas. This ran from Newquay, in Cornwall, to 51.40 N, 7.10 W. Admiral Dare, Commanding at Milford, had altogether under his command the armed railway steamer *Scotia*, 9 armed yachts, 30 armed trawlers and 70 net drifters; of the trawlers he maintained three units at sea. Observing where submarine activity was taking place he concentrated his vessels in the southern part of his command, leaving unpatrolled the Bristol and St. George's Channels, whence for some time no credible reports of submarines had been received.⁴ One of his yachts which came up soon after the *Trudvang* had been sunk was missed by a torpedo on the 5th; on the 17th, off the south-west corner of Ireland a Queenstown yacht opened fire on a submarine, forcing it to dive hastily; these two appear to be the only Auxiliary Patrol vessels which came near *U.35*. As the submarine was operating most of the time on the Falmouth side of the boundary and 40 miles from land, she was left practically undisturbed, since the Falmouth Patrol did not come so far out to sea. The merchant vessels had to look after their own safety and indeed one, the *Teespool*, did escape, though unarmed, by clever manœuvring.⁵

While *U.35* had been operating in the south, another submarine, *U.33*, which had left the Bight on June 4, was cruising to westward of the Hebrides, where the 10th Cruiser Squadron was known by the Germans to be on patrol. On this cruising ground she examined several neutral vessels and sank two

¹ M. 04349/15.

² M. 04484/15; M. 41218/15.

³ Papers re these sinkings are M. 04438, 04472, 23699, 40265, 23732, 42167, 23885, 24126, 24027, all of 1915.

⁴ Milford A.P. Reports, H.S. 590, p. 115.

⁵ M. 40443/15.

steamers.¹ While she was engaged with the last steamer near the Flannan Islands the armed merchant cruiser *Motagua* came up and opened fire. Patrol boats, hearing the firing, hurried up; but the submarine had submerged and disappeared by the time they arrived.²

Another of the 10th Cruiser Squadron, the *Oratava*, came across *U.33* on the 15th, just as she was about to stop a Danish steamer about 90 miles north of the Butt of Lewis. The armed merchant cruiser opened fire and the submarine submerged. She seems to have remained off the Hebrides for a few more days; on June 22 at 6 p.m. she reported herself in 58.1 N, 4.22 E, proceeding to List with a prize, and as having sunk one Russian and one Norwegian steamer with war stores for Archangel.³

128. The Western Approaches; the Second Half of June.—No sooner had Admiral Dare moved the bulk of his patrol to the southern boundary of his command to deal with *U.35* than a submarine appeared in the Irish Channel, apparently making her way southward. This was *U.22* which, coming out by Horn Reefs on June 7, had crossed between June 10 and 12 outside the Hebrides, examining a couple of neutral vessels and engaging an armed trawler.⁴

U.22 then continued her voyage southward. For a long time the North Channel had been left alone by submarines, but *U.22* now attempted it and succeeded in making the passage,⁵ not only unobstructed but also unobserved, although the net barrage was in full working order, 48 net drifters generally being out, each towing half a mile of nets 60 ft. deep.⁶ Outside the eastern end of the barrage, at the Maidens, *U.22* was seen at dawn of June 13 by two armed trawlers, one of which nearly rammed her.⁷ Off the Isle of Man, another trawler fired two shots at her.⁸ On the 15th the steamer *Alt* saw a torpedo pass under her stern and almost immediately felt a shock as of ramming something. If this last were the submarine, which the Admiralty doubted, *U.22* survived all these varied perils, and an hour after meeting the *Alt* torpedoed without warning the collier *Strathmairn*, bound for Archangel.⁹ She was now close to St. George's Channel.

Part of Admiral Dare's duty was that of keeping a net barrage in St. George's Channel, and he had under him for this purpose

¹ Russian s.s. *Dania* on June 10 and Norwegian s.s. *Davanger* on June 14.

² H.S. 124, p. 982.

³ Signal 1900 of June 22, in I.D.H.S. Current Log.

⁴ *Yokohama*, of Stornoway Patrol. M. 04765/15.

⁵ "North Channel can easily be passed." Signal from *U.22*, 2230 of June 22. I.D.H.S. Current Log.

⁶ Larne A.P. Reports.

⁷ M. 04766/15.

⁸ M. 24037/15.

⁹ *Alt*, 8.20 p.m., 52.17 N, 5.14 W (M. 02675/15); *Strathmairn*, 9.30 p.m., 52.20 N, 5.30 W (M. 24123/15).

70 net drifters; of the nets and buoys supplied him 635 nets and 658 buoys remained. He had organised his drifters in units of eight boats; six units were based on Milford and three on Rosslare on the Irish coast. The operations of *U.35* on the southern boundary of his command had attracted the Milford drifters to that vicinity, and in the middle of June only the Rosslare boats were actually in the St. George's Channel.¹ Consequently *U.22* made the passage of this second barrage with no more difficulty than that in the North Channel, and on the 16th at 1.30 p.m. opened fire on the steamer *Turnwell*, which, having obediently passed midway between the Tuskar and the Smalls, was keeping well away from the Irish coast. The *Turnwell* could make no resistance. The submarine Commander attached bombs to her side and then proceeded for a tiny steamer, the *Trafford*, which was in sight. The skipper of the *Trafford*, perhaps over-estimating the fighting power of his command, attempted to ram the submarine, only to come under her fire when she reappeared after submerging. It was no difficult task to finish the *Trafford* and *U.22* then turned her attention once more to the *Turnwell*. Meanwhile, six of Admiral Dare's patrol had come up and the submarine had to depart, leaving the *Turnwell* afloat and, in fact, sufficiently seaworthy to be brought in to Milford Haven under her own steam.²

This was the last ship attacked by *U.22* in the South-western Approach. She returned for home round the south-west of Ireland and on the 20th sank a fishing vessel, the *Premier* midway between the Orkneys and Faeroes.

Her place in the attack on Atlantic trade was taken by *U.24*, which left Germany on June 19. She proceeded northward up the meridian of 5° E and crossed the North Sea on the Ekersund-Moray Firth line, examining and releasing several Scandinavian steamers. Off the Butt of Lewis she was engaged, on the 23rd, by the Stornoway Patrol trawler *Bush*. The trawler was struck by three of the submarine's shells and claimed a hit in return;³ but *U.24*, apparently undamaged, passed Eagle Island on the 25th and appeared close to the south coast of Ireland two days later. There, within a few miles of Capel Island, County Cork, she sank by gunfire two British sailing vessels, the *Edith* and the *Lucena*, and attacked a steamer. Before she had hit this she was vigorously engaged by the armed trawler *Rodney*, which fired 22 rounds, and the crew of the *Lucena* in their boat had the satisfaction of seeing the submarine make off to the eastward with oil spurting out of her. Whatever damage the *Rodney* had inflicted did not prevent *U.24* from firing on the steamer *Indrani* that evening. Three patrol trawlers, attracted by the sound, came up, one of them closing near enough to fire on *U.24*, which thereupon torpedoed the *Indrani* and submerged. The *Indrani*

¹ Milford A.P. Reports, H.S. 590.

² Papers titled *Board of Trade*, 22 June 1915.

³ H.S. 126, pp. 651, 746.

did not sink at once. The submarine reappeared and was again driven under by the patrols; but before dark the *Indrani* was again torpedoed and sank. The enemy had not revealed her number, though the patrol trawlers thought they had seen the figures 31 on her.¹

Early on June 28 a vessel bringing valuable cargo from America sighted a submarine 20 miles SW of the Smalls. Her signal for assistance was taken in by one of the Milford yachts. Coming up in time she drove off the submarine, which, proceeding southward, torpedoed the sailing vessel *Dumfriesshire*. This vessel, bringing barley from San Francisco, had arrived at Falmouth and been ordered on to Dublin.

So many sailing vessels had been destroyed in May and June that shipowners and insurers pressed for some special measures to secure their safety. They were particularly easy prey for submarines and it was clear they should not cruise about in submarine infested waters longer than was absolutely necessary. A conference was held and its conclusions were conveyed to intelligence officers abroad, who, in addition to supplying the Admiralty with intelligence, advised shipping as to routes. Sailing vessels were in future to remain west of the 100-fathom line till they could run in on a favourable wind direct to their destination;² and owners were advised always to charter for a western port.³

Another steamer was sunk in the South-west Approach on June 28, 20 miles west of Trevoze Head, Cornwall. This was the *Armenian*, bringing mules from the United States. She received 50 shells from the submarine and finally was sunk by two torpedoes, after the crew had abandoned ship. They reported that the submarine was *U.38*; but it was without doubt *U.24*.⁴ She was now about to return, but sank two more vessels off the south coast of Ireland.⁵

By July 6 she was near Lindesnaes and made a wireless report that she had sunk five British steamers, four British sailing vessels and one Norwegian; in addition, she had caused the cargo of one Norwegian vessel to be thrown overboard. The submarine was off List next day, and a little later made by wireless a more detailed report of her cruise. She had found the usual patrol off Fair Island and strong patrols extending 25 miles from shore in the north and west of the Hebrides, off Eagle Island and off the south coast of Ireland, some of the patrol boats carrying a heavy armament. The Norwegian whose cargo she had forced to be jettisoned was the *Venus*, off Peterhead on June 21. She also reported having torpedoed the *Dumfriesshire* on June 28 and having destroyed four other vessels in July.

¹ M. 24855, 24776, 05017, 05098/15.

² Papers titled *Lloyds*, 6 July 1915, M. 05059/15, etc.

³ M. 05059/15.

⁴ Signal 0015/8 July in Vol. 3012, I.D.H.S.

⁵ British s.s. *Scottish Monarch*; Norwegian sailing vessel *Thistlebank*, with wheat from South America for Queenstown.

These reports, made on July 6, 7 and 8,¹ were not received in time to affect, though they could but have confirmed, the Admiralty appreciation of the situation as regards submarines towards the end of June.

129. Admiralty Appreciation of the Submarine Situation, June 26.—After four months' experience of the submarine attack on commerce it was possible to come to some conclusions as to the enemy's methods, and these were embodied in a memorandum entitled, "Remarks on Submarine Patrols," sent to the Senior Officers in the west on June 26.² The Admiralty considered that, generally, there were from six to eight submarines acting against commerce, of which one or two would always be in the South-western Approach. The boats operating in this region were estimated to take about a week on passage out or home and to remain four days on their station; thus, to maintain one boat constantly in the South-western Approach there would be three out at any given time, somewhere on the passage. Besides these, two or more submarines operated in the North Sea, and others of smaller class, coming from Zeebrugge and Ostende, worked between the Maas Light and the mouth of the Thames. Since no vessel had been sunk in the English Channel since April 15, it was considered the Dover barrage of nets and mines had proved to be a great deterrent.

It will be observed that the memorandum included no remarks as to the number of German submarines available, though this was fairly accurately known through intercepted signals. Nor did it mention the submarine minelayers, the *U.C.*-boats from Flanders; indeed, the existence of these seems at that time to have been only dimly suspected.

The repeated remarks of Captain Phillimore as to the difficulty of simultaneously patrolling the coast and also the route of merchant vessels, if these were to continue steering a mid-channel course, were tacitly acknowledged in the memorandum, which concluded with an outline of a slight reorganisation of the methods of the Auxiliary Patrol in the west. In future as many units as could be spared from other necessary duties were to be pushed out 30 to 40 miles from Scilly, Queenstown and Milford, ready when a vessel was attacked to close the position of the attack and surround it, moving on to the position of any later attack, "being careful not to be led away by false reports." In carrying out this scheme the dividing lines between the areas were to be disregarded, and to provide enough patrol vessels for the scheme units were to cease patrolling near the coasts in the Falmouth area, off Queenstown, and to the east of Queenstown. Further, 50 drifters from Poole were to be sent to the Scillies to establish a line of indicator nets to the southward of the islands, three

¹ Signals 1330/6 July, 0309/7 July, 0015/8 July, in I.D.H.S. Current Log.

² See Appendix O.

trawler units from Dover to support them. The St. George's Channel barrage was to be increased by 30 drifters from Larne, these being supported by two trawler units, also from Dover. Admiral Dare was to be in general control of these operations in the South-west Approach.¹

130. Transport of Troops in the South-west Approach.—Troops going to the Mediterranean and arriving from Canada all passed by way of the South-west Approach, the ports used being Avonmouth and Devonport. The LIInd (Lowland) Division and the balance (8,000 officers and men) of the XXIXth Division were not clear away from Devonport till June 11. They were followed between June 16 and 30 by the XIIIth Division, for which Avonmouth was reinstated as the port of embarkation. This division occupied 20 troopships and a corresponding number of store ships. Besides these outgoing transports, 12 troopships arrived from Canada during June, as well as several ammunition and remount ships from America, which required escorting in. As before, the escorts were provided by Commodore (T) from his Harwich force, with the result that at times nearly all the Harwich destroyers not in dockyard hands were based on either Milford or Devonport.

During the despatch of the LIInd and XXIXth Divisions in the first half of June, no submarine had approached their line of passage, except on June 3 and 4. The escort of these two divisions and of the Canadian transports arriving in the fortnight had been provided by "L" class destroyers. These the Admiralty now wished to relieve, and on June 13 they ordered the 10th Flotilla to proceed to Avonmouth for the escort work connected with the departure of the division, four of the destroyers to work from Plymouth, at which port a certain number of transport arrivals and departures would take place. Captain Nicholson, the Captain (D), 10th Flotilla, was also to go to Milford in the *Aurora* and have charge of the destroyers.² By these orders the latest and best British destroyers, the "M" class, were removed from the North Sea and, during their absence, from any possibility of co-operating in a fleet action or in repelling a raid.

Three transports of the XIIIth Division were ready to sail on June 14, but had to be delayed, since the escorting destroyers had not arrived. The escort orders were now issued. Each transport was to have two destroyers and none was to sail without escort. After leaving Avonmouth they were to steer so as to pass midway between Lundy Island and St. Govans Light Vessel and thence to a position in 50° N, 9° W. There the escort was to part company.³

That day, June 14, the *Laurel* and *Liberty* proceeded from Devonport to Queenstown to bring back the *Sutlej*, which was now to be used as a boys' training ship. In the course of the day the

¹ Letter M. 04734/15, of June 26, H.S. 665, pp. 501-533.

² A 522.

³ A 523, 524.

Moorsom and *Miranda* arrived at Devonport, and the *Aurora* with the *Mansfield*, *Matchless*, *Minos* and *Myngs* arrived at Milford. By Admiralty orders the two last proceeded to Queenstown also to escort the *Sutlej*, only to find on arrival that they were not wanted for that particular service; they came back to Avonmouth escorting an ammunition ship. It was thus not till the 16th that any start could be made with the despatch of the XIIIth Division. That night the *Matchless* and *Mansfield* took out one transport, while the *Laforey* and *Lysander* were sent up from Devonport to take out another. On the 16th also the *Temeraire*, having finished a refit, and ready to rejoin the Grand Fleet, had to be screened from Devonport clear of the Channel by the *Loyal*, *Lucifer* and *Miranda*; the *Lark* and *Milne* met the *Amphitrite* and escorted her to Portsmouth; while the *Morris* and *Manly*, having escorted a cable repair ship as far as 48.52 N, 8° W, returned to Devonport. Thus, on June 16, seven "L" class and eight "M" class destroyers were engaged in escort duties in the South-western Approach.

The "L" class destroyers were ordered back to Harwich on June 17 and the *Liberty* and *Lark* left that day, followed on the 18th by the *Laurel*. The *Laforey*, *Lysander*, *Loyal* and *Lucifer* were, however, still retained for escort duty, the two latter bringing in a Canadian transport on the 19th. By that time there was a congestion of transports of the XIIIth Division at Avonmouth, waiting to sail, and the Commander-in-Chief, Devonport, proposed to send the *Loyal*, *Lucifer* and *Lawford* to Avonmouth to assist in the escort. This the Admiralty would not allow, though the *Laforey* and *Lysander* continued with escort work for several more days.

Nevertheless the Admiralty had to order a division of the 3rd Flotilla back to Devonport on the 22nd, by which time the arrears of transports ready to sail were accumulating; and, moreover, the *Aquitania* was soon to leave Liverpool with a large number of troops, requiring a special escort. Two hours after the despatch of this order it was learned that the departure of the *Aquitania* was postponed; the order was cancelled but, to cope with the transport situation at Avonmouth, instructions were sent for Devonport to retain only four effective "M" class, sending the remainder to the *Aurora*. The order did nothing to relieve the situation, since there were only four effective "M" class at Devonport.

However, on the 24th Captain (D) wired from Avonmouth that the last transport was leaving that day. He was told to send the *Laforey* and *Lysander* back to Harwich, and take the 10th Flotilla to Devonport except for two boats which were to escort out a transport from Liverpool. The last of the "L" class left Devonport on the 26th for Harwich. Captain (D) was evidently mistaken when he reported that the last transport had left, for on the 26th he had to send "M" class destroyers to Avonmouth to take out four transports of the XIIIth Division

leaving on the 27th, 29th and 30th. This concluded the despatch of the XIIIth Division.

The next division for the Dardanelles, the XIth, was to begin its move on July 1, mainly from Devonport, with the two largest vessels *Aquitania* and *Empress of Britain* sailing from Liverpool; its escort was deputed to the 10th Flotilla which, therefore, remained at Devonport.

Only once had a submarine approached the route of the transports from Avonmouth; this was when *U.24* sank the mule-ship *Armenian* on June 28. The crew of this vessel had been rescued by a Belgian trawler and were taken over from her by the *Mansfield* and *Milne*, sent out to hunt on receipt of the S O S signal from the *Armenian*.

Besides the escorting destroyers following the two transport routes from Avonmouth and Devonport, there were other armed craft proceeding to the Dardanelles throughout the month. Trawlers and drifters proceeded from Falmouth; the fast net-layers *Queen Victoria* and *Prince Edward* were escorted out from Devonport by two "L" class destroyers on June 8; the *Venus* sailed from Queenstown for the Mediterranean on the 19th; the *Diana* from Devonport on the 29th; and towards the end of the month monitors sailed, accompanied by sloops or war-vessels such as the *Snaefell* and *Hazel*. Cruiser Force "G" thus entirely disappeared, and of Cruiser Force "E" there was left only the *Juno* and a boarding steamer. The German submarines and the call of the Dardanelles had between them removed from the Western Approaches to the British Isles everything except the auxiliary patrol and such destroyers as the Admiralty sent to perform special and temporary duties.

Though temporary, the detention of the Harwich force of destroyers so far from the North Sea, and their employment either singly or in pairs, seemed to Commodore Tyrwhitt so much to impair their efficiency that on June 10 he wrote to the Admiralty that the constant use of the 3rd and 10th Flotillas for escort and submarine hunting "is rapidly reducing their value as flotillas, for they are never together and flotilla training is at a standstill; one of these two flotillas is included in the Commander-in-Chief's Battle Orders to work with the Grand Fleet, and without flotilla training they will be of no value, and in fact a danger to him."¹

This was realised at the Admiralty; but no other plan for meeting the situation seemed possible. "The employment of destroyers of the 3rd and 10th Flotillas from Harwich in the west," minuted the Chief of Staff on the Commodore's letter, "is the outcome of the submarine activity in the entrance to the English Channel, and in the approaches to the Bristol and St. George's Channels and the ever increasing transport movements in these waters.

¹ See Appendix N.

"There are now as many troops being maintained east of Gibraltar as there were in France in the early months of the war, and there is also a continual stream of reinforcements arriving from Canada which have to be met and brought in to Plymouth or Avonmouth.

"Until there are more destroyers available, which will not be until the repeat 'M' class relieve the 2nd Flotilla, there seems no option but to continue to draw on the Harwich Flotillas for the Western Channel."

To meet the situation, it was decided that that part of the Harwich flotillas which would be operating in Western waters should in future be based on Devonport or some other convenient port on the West coast.

131. **Operations of British Submarines, June 1915**¹.—The submarine flotilla under Captain Waistell had contributed four boats, *E.7*, 11, 12 and 14 to the Dardanelles force. With the remainder various cruises in the German Bight were carried out. In almost every case, the motive of their despatch was that they should interfere with some particular German movement anticipated as a deduction from intercepted enemy signals. It was expected that on June 1 several old battleships would leave the Ems, and *E.16* left Yarmouth at 10 a.m. May 31 to catch them. Though she was off the Ems from daylight June 1 to nightfall June 2, she saw nothing but trawler patrols.²

On June 8 the Admiralty, deducing from previous experience of the dates of the supposed exercises of the High Sea Fleet, considered another exercise cruise likely to take place in the course of the next few days. Accordingly they ordered submarines across to wait in the Bight, having impressed on them that they must not be seen before the critical time.³

On June 10 five boats—*D.6*, 7, 8, *E.2* and 4—went over to the Bight. Of these *E.4* and *D.8* were the only boats to note anything unusual. They observed a squadron of merchant vessels patrolling on the meridian of 6.35 E but neither boat attacked, as each looked upon this patrol as a prelude to a sortie of the High Sea Fleet. All five boats proceeded for home at 8.30 p.m., June 13.

It was thought that the German Auxiliary Cruiser *Meteor* was likely to be found outside the Skagerrack, and on June 19 three submarines were ordered to Norderney, Horn Reefs and the entrance to the Skagerrack respectively, with instructions to look out for the *Meteor* or any other fleet auxiliaries.⁴ *E.8* proceeded to the Skagerrack that evening and remained there till the 27th; she saw no German auxiliaries but scuttled a German trawler, the *Nord*, which, though she had only fishing gear on board, was open to the suspicion of being on patrol.⁵

¹ Comm. (S) Memos. and Reports, H.S. 294.

² A. 512; H.S.A. 270, pp. 318, 321.

³ A 519.

⁴ A 527.

⁵ H.S. 294, p. 128.

D.4, Lieutenant-Commander J. R. G. Moncrieffe, proceeded early next morning to take up the Norderney station. On the 22nd she torpedoed a 6,000-ton steamer and was immediately driven under by the German patrols. This steamer was a fleet auxiliary, the barrage-breaker *Bielefeld*, which, in company with two similar vessels, was performing a test-journey from the Jade in the direction of the Ems to discover if mines had been laid there.¹ Next morning *D.4* saw the steamer, beached, and guarded by a destroyer. Lieutenant-Commander Moncrieffe fired two torpedoes at this destroyer, but both missed owing to gyroscope failures; he himself was nearly rammed by the destroyer. His next encounter was with a seaplane which on the 28th he sighted on the water; he engaged her with his gun at 2,700 yards, but scored no hits before she flew away. His report produced for him a letter of appreciation from the Admiralty.²

The third submarine employed on this occasion was *S.1*, Lieutenant-Commander G. H. Kellett, on her maiden voyage. Her station was off Horn Reefs. On the 21st Lieutenant-Commander Kellett passed 10 miles north of Heligoland through a combined Zeppelin, seaplane, trawler and destroyer patrol and reached Horn Reefs. There his port engine broke down. Airships maintained a continuous patrol and it was only possible to attempt repairs while diving. On the 23rd the starboard engine broke down; but next day it was possible to get the port engine to work spasmodically, though it was subject to continual choking. In this awkward situation, practically broken down off Horn Reefs, Lieutenant-Commander Kellett captured a German trawler named *Ost* and forced her to take him in tow. With this reluctant assistance he made Skegness on the 27th. The pigeons he had released when 100 miles from England brought the news of his breakdown. The *Firedrake* set out immediately to find him, but when she met him he was already off Haisborough with his useful prize. Lieutenant-Commander Kellett also received a letter of appreciation.³

On June 28 there were once more signs that the High Sea Fleet might be coming out. All preparations for the departure of the Grand Fleet were made and as before submarines were sent to the Bight to lie in wait.⁴ Six boats—*D.1*, 3, 6, *E.4*, 6, 16—left on the 28th for stations as follows:—

D.1 between 54.29 N, 6° E and 54.23 N, 6.30 E.

E.6 between 54.23 N, 6.30 E and 54.17 N, 7° E.

E.16 off Norderney Gat.

D.3 between Borkum and 6° E.

D.6 between Horn Reefs and 55.15 N.

E.4 between 55.15 N and 55° N.

¹ *Novdsee* IV, 196. Signals 0644/21 June and 0110/22 June, in I.D.H.S. Current Log.

² M. 05932/15.

³ M. 05160/15.

⁴ Tel. 575 to Captain (S), June 28, 11.35 a.m.

They were all in position by 9 a.m., June 29. The first two saw nothing; *E.16* sighted a large steamer close in shore, being towed by tugs and escorted by trawlers; she had no opportunity of attacking it. *D.3* was in process of attacking two large armed patrol craft when she grounded and had to abandon the attack; on July 1 she fired two torpedoes at the leading boat, but both missed. *E.4* saw a Zeppelin, a seaplane, some destroyers and two submarines but was unable to attack any of them. *D.6* watched some trawlers fishing near Horn Reefs and noticed that they made signals which appeared to have the effect of bringing up an airship by day or a destroyer at night; on July 1 at daybreak a seaplane attacked her, dropping three bombs just after she dived. The first four submarines left their stations at 8 p.m., July 2, the two at Horn Reefs remaining another 24 hours.

Experiments to increase the range of wireless transmission by submarines were in progress. *E.4* carried a kite, by means of which she was able to call up Grimsby at a distance of 170 miles.

CHAPTER XIII.

DISCOVERY OF THE SUBMARINE MINELAYER.

132. **U.C.-Boat Rammed by a Merchant Ship.**—On July 2 the small steamer *Cottingham*, when navigating the Stanford Channel, near Yarmouth, on the way from Calais to Leith, came into collision with some submerged object, first on the starboard quarter and then on the port side. There was a considerable disturbance in the water, as if a strong blast of air had come up; there was also a strong smell of gas, while a quantity of oil appeared on the surface. The *Cottingham's* master thought that he must have collided with a submarine and he so reported it to the next patrol boat that he met.¹ Two minesweepers went out from Lowestoft and swept the spot, soon finding their sweeping wires become fast in an obstruction. Indicator nets were laid out and the spot was continually watched. That night at 9.40 p.m. a loud explosion came from the submerged obstruction and small black objects came to the surface. Next morning divers went down to investigate. They found that the submerged object was a submarine marked *U.C.2*, practically intact. Captain Ellison, Senior Naval Officer at Lowestoft, proposed to salvage the wreck, but to this the Admiralty objected. "It is most necessary," minuted the First Sea Lord,² "to keep the fact of locating this submarine secret and salvage is of no importance compared to secrecy."³

¹ M. 05466/15. H.S. 128, pp. 499, 827.

² Now Admiral Sir Henry B. Jackson, K.C.V.O., who had relieved Lord Fisher as First Sea Lord on 27 May 1915.

³ A 532.

On July 5 a mine was discovered close to the sunken submarine. It had remarkable new features and it was brought into harbour for investigation.¹

It had already been noted that the mines found in the swept channels generally became apparent after submarine action in the vicinity. On July 3 the Department of the Admiral of Minesweepers pointed out that in three recent cases a group of four to six moored mines had been found close to well-known light vessels; as on June 1, near the South Goodwin; June 19, near the Sunk Light Vessel; and on June 30, near the Kentish Knock Light Vessel. These mines were all laid shallow and some of them had been visible at low water springs. These facts seemed to show that the mines had probably been laid at night or in foggy weather by a submarine or other small vessel, the spot selected being chosen so as to enable operating submarines to avoid the mined area for the time.²

The connection between the mines and submarines was established beyond all doubt when the divers had had time to study closely the structure of the sunken submarine. No trace of any torpedo tube could be discovered in her, but in the forepart of the vessel, before the conning tower, were seven vertical tubes, extending from the upper deck to the bottom; the three foremost tubes still contained mines. The wreck was in two distinct parts, separated by some considerable distance, the break having taken place about 12 ft. abaft the conning tower. It was thought possible that there had been more vertical tubes in that part of the vessel which had been blown away, in which case the explosion of one of her own mines might have been the cause of the final destruction of *U.C.2*.³

U.C.2, commanded by Lieutenant May, was on her first voyage from Flanders. She left there on June 29 to lay mines near Lowestoft.⁴ It was her first and last minelaying expedition.

133. **Extension of the East Coast War Channel.**—The discovery that some of the disasters in the close neighbourhood of the coast were not due to the torpedoes of submarines, but to the mines laid by them, increased the importance of maintaining the swept channels along the east coast and out from it to seaward. Although the coast channel had been extended by June 1915 to a position off the Tees 4 miles east of Saltburn, by this time there were enough minesweepers to keep it regularly swept if they were fully employed on that only;⁵ but Germany's new weapon, the submarine minelayer, was likely to prove difficult to counter. Until the discovery of *U.C.2*, nothing definite was known of the new type of submarine nor of its powers. No wireless messages had given any clue even to its existence,

¹ H.S. 128, pp. 1113 and 1125.

² Minesweeping Statement No. 72, dated July 3.

³ M. 05394, 06114, 06574/15.

⁴ *Nordsee* IV, p. 128.

⁵ C.B. 1553. History of British Minesweeping, pp. 23, 24.

and nothing was known as to how many such boats Germany possessed. A particularly baffling feature of the method of operation of these craft was their habit of laying two or three mines in one place and then going on to another to deposit some more of their cargo. Thus, whereas with the minefield laid by surface craft the discovery of one mine indicated a field, whose extent could be limited after investigation, the finding of a mine laid by a submarine offered no clue as to the position of the rest of the dozen she had carried.

So long as the Belgian ports remained open and in the possession of Germany the operations of the *U.C.*-boats could only be countered by the activity of the net patrols in catching the boats themselves and by the minesweepers in abolishing the mines as soon as possible after they were laid. The prospect of the future seemed scarcely bright.

134. **Review of German Policy, February to June 1915.**—The relief of Admiral von Ingenohl by Admiral von Pohl, after the loss of the *Blücher* in the Dogger Bank action, certainly ushered in various developments and new factors in the activity of the German Fleet, but only after prolonged strife between those various authorities who had a say in the matter of naval policy. These changes may be grouped under three main heads:—

- (a) Operations of the battlefleet.
- (b) The Flanders base.
- (c) The submarine blockade.

One function of the High Sea Fleet was to make advances into the North Sea for the purpose of attacking and destroying detachments of the British battle fleet; but at the time when Admiral von Pohl succeeded to the command the High Sea Fleet was not sufficiently trained to permit of advances which might lead to serious encounters—at least, Admiral von Pohl expressed that opinion, and urged it as a reason for devoting his energies at first to improving the efficiency of his squadrons by exercises in safe waters rather than by excursions into the North Sea. His view was accepted, partly because all were expecting some sort of heavy offensive by Britain in reply to the institution of the submarine blockade.¹

The final decision as to the direction of naval policy in Germany rested nominally, and to a large extent actually, with the Kaiser. To advise him he had a Chief of the Naval Cabinet, Admiral von Müller, late Commander-in-Chief of the High Sea Fleet. As Chief of the Naval Staff, Admiral Bachmann, who had succeeded Admiral von Pohl, had a considerable voice in the matter; while Admiral von Pohl himself, as Commander-in-Chief, was in a strong position. All these authorities were united in holding the policy of "saving the fleet until peace comes," rather than of "risking the fleet to gain peace."²

¹ *Nordsee* IV, pp. 26, 27.

² Von Trotha to von Tirpitz, *Nordsee* IV, p. 45.

To these personalities must be added Admiral von Tirpitz, Secretary of State for the Navy, who was all for activity, apparently sharing Lord Fisher's opinion that the way to make war was to strike first, strike hard and strike all the time. Although his official position did not entitle him to any influence over naval policy or operations, he could not be restrained from expressing his views, and Admiral Bachmann was especially influenced by him.

The general opinion seems to have been that the High Sea Fleet would have no possible chance in an action with the concentrated Grand Fleet; but the Commander-in-Chief had authority to initiate advances if these would ensure that he should meet no more than detachments of the Grand Fleet and always be in superior force at the time of meeting. Admiral von Pohl, on succeeding to the command, expressed the opinion that the High Sea Fleet would need a considerable amount of training before it could be considered efficient. But he proposed, after enough training, to undertake active operations, though, unlike his predecessor, he intended that no operations should be undertaken unless the whole High Sea Fleet participated. In this he was supported by Admiral Bachmann, who considered that to ensure safety the whole fleet must go to sea on every occasion, or at least on any occasion when reliable information as to the distribution of the British Force was not available. The Commander-in-Chief, however, was not sanguine of any good results from any such advances. Although it was possible that a detachment of the Grand Fleet might be surprised and defeated, there was the chance that any advance might develop into a major action, which would involve risking the fleet; and in view of his orders he was not disposed to undertake the responsibility for such a course of action. However, he was anxious not to let the first new moon period after hoisting his flag pass without some activity and he proposed a minelaying operation, in which the whole fleet should co-operate as support. In this type of operation he saw almost the only practicable means of inflicting direct damage on the British in the North Sea as opposed to indirect damage by means of the submarine war on commerce.¹ It would seem from this that the bombarding raids of his predecessor did not meet with his approval as a desirable method of war. The site he proposed for the new minefield was on the Dogger Bank, in the route of approach of the Grand Fleet from Cromarty and the Firth of Forth, towards Heligoland Bay. This position for the field met with some opposition from Admiral Bachmann. He pointed out that the mines would almost certainly be located by fishing vessels in a very short time; moreover, it would be impossible to fix accurately their position and they would be a danger to the German forces. There was also difficulty with

¹ *Nordsee* IV, p. 48.

neutral powers to be anticipated, for, though the German announcement of the blockade zone had claimed the waters near Great Britain as an area for war operations, it had stated that the eastern part of the North Sea would be safe, and neutral powers would certainly consider the eastern half of the Dogger Bank as included in the safe area. The Commander-in-Chief held to his point, but he would not commence the minelaying operation until he had made, as it were, a trial trip. It was this which led to the sortie of March 29.¹

Meanwhile, the Russians were making an advance, and immediately the question of detaching forces into the Baltic became pressing. The idea that the proper place for the High Sea Fleet was the Baltic and not the North Sea was held by several Admirals in high command, who were partly influenced by the idea that the British intended an excursion into the Baltic. On this occasion, Admiral von Pohl proposed to send strong forces and even to take the command himself,² but Admiral Bachmann refused to consider this proposal. He informed the Commander-in-Chief that the reinforcement of a few light cruisers was quite sufficient and that the Commander-in-Chief could not be allowed to go himself. He further stated that, since the British light forces were engaged in anti-submarine operations and several ships of force had been despatched to the Mediterranean, there might easily be an opportunity for the favourite idea of destroying a detachment of the Grand Fleet.

Admiral von Pohl noticed the suggestion that a greater activity was expected of him, but could not refrain from pointing out that the Chief of the Naval Staff was jumping to conclusions. The British battlefleet had surrendered no units to the Mediterranean Station, nor for anti-submarine operations; none of the submarines had ever encountered any Grand Fleet cruisers patrolling either the trade routes or the coast; and it was certain that Great Britain kept three squadrons of Dreadnoughts, a battle cruiser squadron and five destroyer flotillas, solely for meeting and destroying the German High Sea Fleet. He could not believe that the British would send an inferior portion of the Grand Fleet right into the German Bight, for to believe that was to credit the enemy with "quite exceptional stupidity."³ These divergences of opinion between the Chief of the Staff and himself led Admiral von Pohl to protest to the Kaiser that it was impossible for him to make sorties with the fleet and still ensure that it should encounter no risk. Any advance beyond 70 miles from Heligoland might bring about a collision, first between scouting forces, then between battle cruisers, and finally between battle squadrons, for since the action of the Dogger Bank it was quite impossible for him to send out cruisers unsupported. The view of the German Army Command, if we

¹ *Nordsee* IV, pp. 50, 51.

² *Nordsee* IV, p. 56.

³ *Nordsee* IV, p. 59.

may judge from a remark made by a staff officer in high position, was that the present war was the First Punic War; as soon as that was won the Second Punic War for the destruction of England would begin, and then the German Navy would have its opportunity.¹ This remark was made to Prince Adalbert of Prussia, a Commander in the Fleet, who was complaining that the Navy was ashamed to sit still and do nothing while the Army was so hard at work fighting. It may be presumed that this view of the function of the fleet was held by most of the Kaiser's advisers and, indeed, by the Kaiser himself; and it explains their anxiety to keep the High Sea Fleet intact until the declaration of peace. However, on March 30, the Commander-in-Chief received a new Order from the Kaiser, which read as follows:—

"His Majesty the Kaiser, after receiving the report of the Commander-in-Chief of the High Sea Fleet, has been pleased to decide that the leader has complete freedom of action in attaining the operational objective set him. Decisions in regard to initiating advances are, therefore, within the discretion of the Commander-in-Chief of the High Sea Fleet. In this connection, His Majesty would point out that it is of course to be understood that in such undertakings the necessary caution is to be exercised with regard to reconnaissances, and that engagements must be broken off whenever circumstances become unfavourable."²

The responsibility for the employment of the fleet was thereby laid principally on the Commander-in-Chief, and it was conceded that, if he so wished, he could disregard further suggestions from the Naval Staff for an increased activity of the Fleet. This order abrogated a previous order that no sorties of heavy ships were to take place without first obtaining the permission of the Kaiser himself, and in that sense gave Admiral von Pohl considerable freedom of action. Altogether he made five sorties up to the end of May with the object that these advances on the part of the united High Sea Forces, repeated as often as possible, should have the effect of luring the British into the North Sea, when partial successes might be possible and might even lead to a decisive battle fought under favourable conditions in the vicinity of German waters.³

It must be remembered that the disposition of the Grand Fleet was quite unknown to the Germans⁴ and that Admiral von Pohl never realised how near to a meeting some of his advances took him, in spite of the fact that he had the advantage in scouting through the presence of his airships. He considered that, in order to secure safety from torpedo attacks, the time covering a fleet sortie should not exceed a day and a night; and, consequently, his cruises were limited to this extent. Their failure to secure a meeting might well have been traced to this fact; but the Navy Control, not realising this, took it for granted

¹ *Nordsee* IV, p. 59, 60.

² *Nordsee* IV, p. 76.

³ *Nordsee* IV, p. 161.

⁴ *Nordsee* IV, p. 61.

that the British intentionally avoided fighting and would only give battle off their own coasts or far away to the north.

"So, upon the grounds that the enemy was as good as out of reach and that the position of affairs did not justify forcing the issue, recourse was had to the methods of petty warfare which, after nearly a year of war, should have been recognised as inefficient. The Commander-in-Chief hoped to accomplish, with submarines and minelayers, that which could only be obtained by battle squadrons."¹

135. Growth of the Flanders Base.—The comparison of the general situations at the end of January and at the end of June brings the Flanders Base into prominence, and its development is one of the main features of this period. The Germans, it appears, had no scheme ready for utilising the opportunity for damaging British interests which fell into their hands when the Belgian coast was abandoned to them.² The Admiral Commanding the Naval Corps in Flanders repeatedly urged that he should be given cruisers, destroyers and submarines, with which to carry on operations from his very favourable position; but the Commander-in-Chief of the High Sea Fleet always succeeded in resisting these demands and managed to secure the delay of the development of the Flanders Base until the small submarines, specially built in sections, should be ready. Even the torpedo boats of the "A" class were specially built for use at the Flanders bases and were not suitable for work with the High Sea Fleet. For several months the only offensive weapons possessed by the Admiral of the Naval Corps were seaplanes and aeroplanes, and these he used with considerable effect to attack the shipping thickly crowded in the Downs and the various patrols between Dover and Harwich. The suggestion of basing naval airships on sheds in Belgium was at first received with some favour, but was abandoned after the very first flight.³

The first of the *U.B.*-boats was commissioned on March 29, and these craft sank their first steamer on April 10. At the end of April the Admiral in Flanders made another appeal for cruisers and torpedo boats, while the nights were still dark enough for them to make their passage from Heligoland into Flanders ports unobserved; without them he could not drive off the Dover Patrol, and the Dover Patrol was preventing the *U.B.*-boats from passing the Straits of Dover. Although Admiral von Tirpitz strongly advocated the despatch of the cruisers and destroyers, the Commander-in-Chief of the High Sea Fleet strongly objected. He gained the day, with the result that the Dover Patrol was left unmolested.

But though the offensive value of the naval bases in Flanders was not exploited so fully as it might have been, their defence and the defence of the whole coast received a full measure of

¹ *Nordsee IV*, p. 163.

² *Nordsee IV*, p. 24.

³ *Nordsee IV*, p. 117.

attention. By the end of March 1915 both Ostende and Zeebrugge were protected by well-concealed guns. West of Ostende were four batteries, mounting together 12 6-in. and four 4·7-in. guns, while east of the town were three 6-in., and the Hindenburg Battery with four 11-in. guns. Guarding Zeebrugge were four 11-in., four 8·4-in., four 6·8-in., seven 6-in., and three 4·7-in.; and west of Blankenberghe was the Hertha Battery, mounting four 8·4-in. guns. In addition to these were numerous smaller guns for anti-torpedo boat and anti-aircraft use.¹ The project of capturing the Belgian coast, so desirable from the naval point of view, and so hopefully put forward by the Admiralty at the beginning of the year, became, after the erection of these batteries, less practicable; or rather, naval support in an army advance was rendered likely to be more costly as time progressed and the Germans were left to make their bases impregnable against attack from the sea. The German Marine Corps in Flanders was, in March, a formidable body, consisting of five brigades, each of two regiments, either of seamen or marine infantry; it had also two squadrons of reserve cavalry, a due proportion of field artillery, two squadrons of aeroplanes and a well-equipped seaplane station at Zeebrugge.² The coast defence artillery, manned by the Marine Corps, has already been described. It will be seen that all the arms concentrated on the defence of and attack from the Belgian coast were under one officer, Admiral von Schröder, commanding the Naval Corps, who could at least secure synchronisation of effort if ever the occasion arose for the simultaneous employment of submarines, land guns, cavalry and seaplanes.

136. The Submarine Policy.—The principal new feature of the period under review is, however, not the sorties of the High Sea Fleet, nor the development of the Flanders Base, neither of which held any hope of a defeat for England, but the submarine campaign against British commerce, officially commenced on February 18. Until that date the German submarine commanders had acted only against military vessels, or at least such had been their avowed intention; it is claimed that the little ships torpedoed without warning off Havre at the end of January had been so treated because the submarine commander thought they were transports. The attack off Liverpool at the same period was nominally against military or store transports, and it was not till February 18 that normal tramp steamers were sunk because they were ordinary merchant vessels engaged in trade on behalf of the civil populace of Great Britain. There was as yet no intention on the part of Germany to distinguish between passenger ships and cargo carriers, and in fact none had been made. After the German Government had stated that it would sink every British vessel in the war zone it had defined, it considered that any persons who permitted themselves to be found in that zone

¹ *Nordsee IV*. Sketch on p. 132.

² *Nordsee IV*, Appendix 10.

must take the consequences of disregarding so plain a "verboten" notice. With neutral vessels the inference was the same; if time or circumstances did not seem to the submarine commander to permit of boarding, he either torpedoed them or let them go, according to his individual temperament, and could always justify his action by referring to the acknowledged order of the British Government for British ships to wear neutral ensigns.

The moment chosen for the declaration of the submarine war on commerce has been adversely criticised by several German authorities, chiefly on the grounds that in February 1915 there were too few submarines available to effect any large results. The few that could be trusted for so long a sea voyage as that to western Ireland, a station rightly considered as likely to prove the most profitable, were very reluctantly released by Admiral von Pohl, whose views as to their employment seem to have suffered a marked change when he took up the Command of the High Sea Fleet. As Chief of the Naval Staff he had been responsible for the order instituting the submarine war on commerce; but as soon as he found, as Commander-in-Chief, that it was the vessels of his own command that were being taken for the dangerous and sometimes fatal work of the commercial war, his enthusiasm for it seems to have cooled. It was only when his policy of frequent sorties of the whole fleet, repeated as often as possible, had failed in securing any obvious result that he was obliged to relegate the actual operations of war to his submarines.

The successes and failures of the first five months of the submarine war have been outlined in this volume,¹ as have also been the operations of the defence. It is probable that the development of the British anti-submarine organisation had not been fully foreseen by the Germans; it was certainly meeting with considerable success. Moreover, there were difficulties with neutral powers, which had to be met by restricting the freedom of action of the submarine commanders. The spectacular incident of the sinking of the *Lusitania*, for instance, was to bring about results which were to modulate into a minor key the hymn of praise which at first greeted Commander Schwieger's involuntary exploit. As yet this first submarine campaign in home waters seemed to be the most successful of Germany's naval enterprises. How it was brought to an end will be the subject of the next volume.

¹ The actual effect upon commerce is discussed in Fayle: *Seaborne Trade*, Vol. II.

APPENDIX A.—TELEGRAMS.

Tuesday, 26th January 1915.

- A 1.** Adty. to S.O., Cruiser Force G. Sent 1.30 p.m.
18 A cruiser will be required to convoy transports to Gibraltar and Malta, sailing about 1st February. Further orders will be given as to date and port of departure. Report name of ship detailed.
- A 2.** Capt.-in-Charge of Minelayers Sent 2.22 p.m.
to Adty. (C.O.S.). Recd. 2.39 p.m.
Alert not yet arrived. Propose *Alert* proceed on Wednesday to lay buoys. Minelayers to proceed on Thursday, 2 p.m., for first trip. Submit two destroyer divisions be detailed to work with minelayers until operations are complete. They should be at Sheerness by noon, Thursday. (1235.)
- Reply.* Sent 6.45 p.m.
Your telegram to-day. There is no chance of two destroyer divisions being available by Thursday, as none have yet returned to Harwich from Sunday's operations.
- A 3.** Adty. to C.-in-C., Devonport. Sent 4.40 p.m.
868 1st Cruiser Squadron will not now proceed to Devonport. Question of searchlights is being put forward before Army Council.
- A 4.** R.A., Dover Patrol, to Adty. Recd. 5.4 p.m.
114 Fortress Commander, Dover, has information from London of projected air raid. Steps are being taken accordingly. Presume I shall be informed if there is anything to communicate.
- A 5.** Adty. to Commonwealth Navy Board. Sent 9.10 p.m.
180 Result of battle cruiser action in North Sea should enable a stronger control to be maintained. We should like *Australia* to serve as Flagship with *New Zealand* in a new battle cruiser squadron it is proposed to form. She can readily be detached if the situation changes and any attempt is made by the enemy to break out into the Atlantic. Pray let us know your views.

27th January 1915.

- A 6.** Adty. to all Ships and Naval Centres. Sent 1.10 a.m.
The following area has been declared dangerous on account of mines:—
From lat. 54.45 N to lat. 55.50 N; from long. 8 W to long. 9 W; but steps are being taken to clear this area as weather permits. The entrance to Lough Swilly and the passage south of Inishtrahull and Rathlin is clear except for drifting mines.
- A 7.** Adty. to C.-in-C., H.F. (240), Sent 3 a.m.
A.O.P. (68).
Following received from Copenhagen, 26th January (begins). I have just learnt from a sure source that several German trawlers passed through Sound last week, heavily laden, going north. The last seen passed Elsinore 22nd inst. (ends).
To Naval Centres.
Reported yesterday from Copenhagen from a sure source that last week several German trawlers, heavily laden, passed through Sound, going north. Last one seen passed Elsinore on 22nd January.

A 8. Adty. to C.-in-C., H.F. (242),
A.O.P. (70),
Admiral, Rosyth (160). Sent 4.25 a.m.

Following received from Venice. Five or six units, preceded by three submarines, have planned to pass through Skagerrak, crossing to bombard Aberdeen, Montrose, and Peterhead, or else Sunderland and Shields. Airship raid between Norfolk and Yorkshire may precede naval raid, which will not take place should informers along east coast notice precautions being taken.

A 9. Adty. to R.A., Cruiser Force G. Sent 11.35 a.m.

20 Transfer your flag, if necessary, to another vessel, and send *Bacchante* or *Euryalus* to Port Said with all convenient despatch. She should take as many common and shrapnel shell as she can stow, and obtain long-range time fuzes. Your patrol is of less importance now and should be reduced to admit of providing vessel for escorting transports already ordered.

A 10. C.-in-C., H.F., to Adty. Sent 1.5 p.m.
Recd. 2.20 p.m.

234 Your 242. I am sending 1st Cruiser Squadron and one division—4th Destroyer Flotilla—to cruise for 48 hours between lat. 57 and 58 N, long. 0 to 3.30 E.

A 11. Adty. to V.A., *Lion*. Sent 3.20 p.m.

34 Report what light cruisers and battle cruisers will be ready for service at Rosyth to-morrow evening.

A 12. Adty. to all Ships (Cleethorpes 40). Sent 3.30 p.m.

799 French coast lights between Dieppe and Calais, both inclusive, will be reduced in range of visibility to 10 miles from to-morrow night until further notice.

A 13. Adty. to Capt.-in-Charge of Minelayers,
C.-in-C., Nore (728),
A.O.P. (105). Sent 5.30 p.m.

No destroyers will be available from Harwich until Tuesday, and mining operations should be deferred.

A 14. Adty. to C.-in-C., H.F. Sent 7.10 p.m.

246 German steamer *Alma* probably leave Thameshaven (63.19 N, 9.55 E), 28th January. She will be in 62.5 N 22 hours after leaving Thameshaven.

A 15. Adty. to S.O., Cruiser Force G (23),
C.-in-C., H.F. (249),
Admiral, Queenstown (69),
S.O., Cruiser Force E (25),
S.N.O., Belfast,
S.N.O., Liverpool,
S.N.O., Larne (23),
Capt. Supt., Pembroke,
Tara, via W.S.S. at Mull of
Cantyre and Tor Head. Sent 8.40 p.m.

It has been ascertained on reliable information that a German submarine is proceeding down Channel to go up to the Irish Channel and operate in the vicinity of Barrow-in-Furness. Her subsequent movements are not known.

28th January 1915.

A 16. Adty. to V.A., 1st B.C.S. (40),
C.-in-C., H.F. (251). Sent 1.50 a.m.

Secret. *Princess Royal*, *Tiger*, and 1st Light Cruiser Squadron will be required if the weather is favourable to support an operation by Harwich Forces which will be carried out on Saturday morning, 30th inst., if the weather remains favourable. They should be ready to sail on Thursday night or Friday morning, very early. Further orders will be sent. Acknowledge.

A 17. C.-in-C., H.F., to Adty. Sent 10.27 a.m.
Recd. 11.20 a.m.

240 Your 251. Have given directions for *Queen Mary* to take the place of *Tiger* which, though efficient, not desirous should be exposed to possible stress of weather until upper deck girders are repaired between stations 82 and 94. Repair now in hand.

244 My 240. For between stations 82 and 94 read at station 182.

A 18. Adty. to C.-in-C., H.F. (254),
V.A., 1st B.C.S. (43). Sent 1.35 p.m.

Very Secret. Orders for Operation Z.2.

1. Force A consists of—
2 light cruisers,
16 destroyers,
3 seaplane carriers.

Force B consists of—
1 light cruiser,
12 destroyers.

Forces A and B are under Commodore (T).

Following vessels are under Commodore (S):—

Lurcher and *Firedrake*.
Six "E" class submarines,
Two "D" " " "

2. Force A will start seaplanes from Position III in lat. 54.17 N, long. 7.29 E, between 6.30 and 7 a.m. on 30th January. Seven seaplanes will attack Cuxhaven air sheds; two seaplanes will keep station over Force A to attack Zeppelins.

3. Force A will approach Position IV in lat. 53.57 N, long. 7.1 E, on a south course, arriving at 9 a.m., to pick up seaplanes.

4. Force B will be in lat. 54 N, long. 6 E, at 7 a.m., ready to reinforce, and will be at Position IV at 9.30 a.m.

5. Two submarines will watch the swept channel at Norderney, and two will watch the Ems River from daylight to dark on the 30th.

6. *Lurcher*, *Firedrake*, and four submarines will cover the vessels picking up seaplanes and protect their retreat.

7. All the above vessels, except submarines, will retire at 20 knots to the westward about 10.30 a.m., when the seaplanes are recovered.

8. *Princess Royal*, *Tiger*, and 1st Light Cruiser Squadron will pass through lat. 54.15 N, long. 4 E, at 7 a.m. on 30th January, and proceed at 20 knots to lat. 54.4 N, long. 5.55 E, arriving there at 10.30 a.m., and altering course to west.

9. Commodore (T) will report to battle cruisers when he has passed westward of the Western Ems. The battle cruisers and 1st Light Cruiser Squadron are then to proceed to the northward of lat. 56 N.

10. The Commodore (T) with destroyers and light cruisers will operate on the morning of 31st January against German flotillas returning from patrolling at daylight.

11. At 7 a.m. on the 31st January the battle cruisers and 1st Light Cruiser Squadron are to be in lat. 54.52 N, long. 5.52 E, and are to remain near this position, steaming at a good speed, until 9 a.m.

12. On both days the duty of battle cruisers and 1st Light Cruiser Squadron is to support the Commodore (T) if he signals for assistance.

13. Should Commodore (T) signal for assistance the Light Cruiser Squadron should be sent to him, but the battle cruisers are not to approach within 40 miles of Heligoland or within 20 miles of Borkum. Commodore (T) has orders to draw off his forces in the direction of the battle cruisers.

14. Wireless telegraphy during either night is almost certain to destroy any prospect of success.

A 19. Adty. to Comm. (T) (67),
Comm. (S) (42). Sent 1.40 p.m.

Battle cruisers detailed for plan are *Queen Mary* and *Princess Royal*. Acknowledge.

A 20. Adty. to C.-in-C., H.F.,
V.A., 1st B.C.S. Sent 6.35 p.m.

My 254. In eighth paragraph for *Tiger* read *Queen Mary*. Acknowledge. Sent to C.-in-C. and 1st Battle Cruiser Squadron.

A 21. Comm. (T) to Adty. Recd. 8.31 p.m.
79 For Chief of Staff. I intend to sail at 8 a.m. to-morrow morning, Friday, to carry out Z.2. (2000.)

Reply. Sent 12.25 a.m.
70 Your 79. Approved.

29th January 1915.

A 22. Adty. to C.-in-C., Channel Fleet. Sent 11.25 a.m.

41 *Cornwallis* is to be sent to Malta to join flag of Vice-Admiral Carden. *Irresistible* is also being sent from England. Acknowledge.

A 23. Adty. to C.-in-C., Channel (42). Sent 12.5 p.m.

42 Your 32. Remain at sea and keep well to the westward until nights are darker.

A 24. Comm. (T) to Adty. Recd. 1.5 p.m.

80 Weather unsuited for "Z" two—strong NW wind; rising sea. Propose waiting until 3 p.m. and then, if there are no signs of improvement, sending seaplane carriers back and carrying out operations detailed for second night, providing sea does not become too heavy. (1230.)

Reply. Sent 2.20 p.m.
71 Your 80. Approved. Should seaplane carriers be sent back? Tell *Lurcher* and *Firedrake* to return to England with their submarines. Battle cruisers will be informed.

A 25. Comm. (T) to Adty. Recd. 2.23 p.m.

81 Weather is worse—wind and sea rising rapidly. I am returning to harbour and have informed Commodore (S).

Reply. Sent 4.20 p.m.
72 Your 81. Approved. Send one division of destroyers to Pembroke and hunt submarines in Irish Channel, and one division to Sheerness, and another to Portland. The two latter are for escorting duty.

A 26. Adty. to S.O., 1st B.C.S. Sent 3.50 p.m.

48 Orders are cancelled owing to unsuitable weather. Return to your base. Acknowledge.

A 27. S.N.O., Liverpool, to Adty.

Request small flotilla of destroyers or torpedo boats be placed at my disposal for dealing with submarines and supply vessels.

Reply. Sent 30th, 12.20 a.m.
Some destroyers are being sent.

A 28. Adty. to R.A., 6th B.S. Sent 5.5 p.m.

22 Your 28. The event you are preparing for is postponed. The paddle sweepers should follow the orders of A.M.S.

A 29. Adty. to C.-in-C., H.F.,
V.A., 1st B.S. (18),
R.A., Cruiser Force B (27). Sent 8.55 p.m.

Hostile submarines in Irish Channel. No ships to be sent to Liverpool until further orders.

A 30. Adty. to V.A., 1st B.S., Scapa. Sent 9.5 p.m.

19 A submarine opened fire on Walney Island Battery to-day, and was fired at in return. Three submarines were seen off Bardsey Island and three were seen near Pembroke. Destroyers are being sent from Harwich to work up from the south, and you should send one or two divisions of destroyers to work down from the north as far as Holyhead.

30th January 1915.

A 31. Comm. (T), Shotley, to Adty. (C.O.S.). Recd. 12.11 a.m.

83 Your 72. Propose to send three divisions from 1st Destroyer Flotilla, observing that this will only leave 20 destroyers available at Harwich. Suggest that the divisions for Pembroke be detailed from *Beagle* class. It is hoped to be able to carry out Z.2, leaving Sunday, 31st January.

Reply. Sent 8.35 a.m.
74 Your 83. *Beagle* class not available. Z.2 cannot be carried out on Sunday owing to other requirements. Send eight destroyers to Sheerness to escort minelayers on Sunday evening. Commanding Officers to be on board *Naiad* for instructions at 1 p.m. on Sunday.

A 32. Adty. to C.-in-C., H.F. Sent 7.30 a.m.

98 After 8 a.m. cruise as most convenient. We have no news.

A 33. Adty. to R.A., Aultbea. Sent 12.10 p.m.

36 In view of enemy submarines on west coast take special precautions for safety of Special Service Squadron.

A 34. R.A., Cruiser Force C, to Adty. Recd. 12.44 p.m.

With reference to order received for *Euryalus* to draw Mediterranean charts, Engineer Manager informs me *Euryalus* will not be ready to go abroad until 8th February. Request I may be informed of probable movements of ship, as all remaining of my ships have small defects, which have to be arranged for with dockyard.

Reply.
Euryalus will go to Port Said when ready. No occasion to keep a strong patrol at present, as moon is bright and submarines active, so defects of remaining ships can be attended to.

A 35. Comm. (T) to Adty. Sent 2 p.m.
Recd. 2.11 p.m.

86 For C.O.S. Your 75. Have sufficient force to carry out Z.1. If you concur, suggest leaving 5 p.m., Sunday, 31st January; four destroyer divisions, three light cruisers.

A 36. Adty. to S.N.O., Stornoway.

Six enemy submarines now in Area XVI may be expected to work north, through Area I. Report what steps you propose to take to attack them. They were off Barrow at noon yesterday. Make every effort to protect Loch Ewe from attack.

A 37. To C.-in-C., Home Fleets (No. 270),
C.-in-C., Nore (No. 756),
C.-in-C., Portsmouth (No. 830),
C.-in-C., Devonport (No. 919),
V.A., 1st B.S. (No. 25),
Admiral of Patrols (No. 80),
Comm. (T) (No. 76),
Comm. (S) (No. 51),
Commodore, Harwich,
R.A., Dover (No. 127).

Sent 3.50 p.m.

The following area will be dangerous on account of mines from 31st January onwards:—Lat. 51.6 N to lat. 51.21½ N; long. 1.41 E to long. 2.25 E.

A 38. Fleetwood to Adty. Recd. 5.28 p.m.

George Turner, just in from sea, reports enemy submarine has sunk steamer outside in Morecambe Bay, and that 20 survivors are now being brought to this port in sailing trawler *Margaret*.

Spanish Head, Isle of Man, to Adty. Recd. 5.56 p.m.

5.10 p.m. . . . Liverpool pilot boat reports that steamer *Kathleen*, of Belfast, reported noon to-day that enemy's submarine sank steamer *Linda Blanche* and another unknown steamer 20 miles NW of Bar Light Ship, Liverpool Bay.

S.N.O., Fleetwood, to Adty. Recd. 6.49 p.m.

British steamer *Ben Cruachan*, bound Scotland to Liverpool, cargo coal, was sunk 15 miles NW Morecambe Light by German submarine *U.21*, about 10.15 a.m.

Later:—*Ben Cruachan*, transport collier, bound Liverpool from Scapa Flow.

S.N.O., Fleetwood, to Adty. Recd. 7.31 p.m.
Reported two more vessels sunk.

A 39. Marine, Paris, to F.N.A. Recd. 5.45 p.m.

62 This morning the British s.s. *Tokomaru*, coming from New Zealand with a cargo of frozen meat, has been torpedoed to the west of Cape Antifer by a submarine, whose periscope was clearly seen. Torpedo boats and trawlers from Havre hurried to the rescue, and have saved the crew, composed of 58 men. The ship has sunk.

Transport Officer, Havre, to Adty. Recd. 7.30 p.m.

Steamer *Ikaria* was torpedoed to-day 20 miles NNW of Cap de la Hève.
Staff Note:—Bound Buenos Ayres to Havre.

A 40. Adty. to C.-in-C., Channel Fleet. Sent 6.15 p.m.

43 Eight destroyers will escort *Majestic* and *Irresistible* to lat. 49 N, long. 5.36 W, sailing Sunday night or Monday night. The destroyers will be available to escort Channel Fleet to Portland. Time of sailing from Portland will be signalled to you later, and *Irresistible* will report time of reaching rendezvous. (1815.)

Sent 5.59 p.m.
Recd. 6.36 p.m.

A 41. S.N.O., Liverpool, to Adty.

With reference to your message to-day, as the speed of my patrol craft approximately 8 knots, they are quite inadequate to deal with submarines of 12 or 14 knots speed. I therefore asked for destroyer flotilla or torpedo boat flotilla in my wire 1610 yesterday.

A 42. Adty. to Comm. (T). Sent 7.5 p.m.

Urgent. 78. Send twelve destroyers with one light cruiser and a Capt. (D) to Irish Channel to hunt submarines. Four steamers have been sunk off Fleetwood and Liverpool by submarines to-day. Destroyers are also being sent from Scapa Flow.

A 43. F.N.A. to Marine, Paris. Sent 8.10 p.m.

1161 The British steamer *Linda Blanche* and *Ben Cruachan* have been torpedoed by submarines to-day between Liverpool and Fleetwood. On account of the submarines off Antifer and of the full moon, the sailing of the transports to-night has been put off.

A 44. Adty. to C.-in-C., Devonport (925),
S.N.O., Queenstown (83),
R.A., Cruiser Force E,
R.A., Cruiser Force G,
S.N.O., Gibraltar (188).

Sent 8.30 p.m.

Enemy submarines are in English and Irish Channels. Warn homeward-bound shipping to keep sharp look-out and display ensign of neutral country, or show no colours. Men-of-war should inform merchant vessels by M.V. Code. (2020.)

A 45. Adty. to S.N.O., Liverpool. Sent 9.58 p.m.

Caribbean, *Alsatian* and *Oropesa* are not to sail until further orders.

Sunday, 31st January 1915.

A 46. Adty. to Capt. (D), *Undaunted*. Sent 12.30 p.m.

Captain (D) of *Undaunted* is to take charge of all destroyers operating against submarines in Irish Channel including the four from Scapa Flow. Captain (D) should be supplied with Intelligence from Naval Centres with as little delay as possible, but his dispositions should not be interfered with.

Sent 11.34 a.m.
Recd. 12.59 p.m.

A 47. C.-in-C., H.F., to Adty.

267 One division, 4th Destroyer Flotilla, under Commander Stirling of H.M.S. *Faulknor*, is being sent to assist off Liverpool. Submit he may be informed name of Senior Officer conducting operations, so as to ensure concerted action. Submit indicator net and (trawls?) be used across North Channel, and that Irish ports be closely watched for the submarine tenders.

Reply.

Your 267. *Faulknor* has been told to follow orders of Captain (D), *Undaunted*.

A 48. From F.N.A. to Marine, Paris. Sent 2.45 p.m.

1165 Admiralty warns squadrons in home waters that from 31st January the region within the limits following will be dangerous, mines having been laid there: Between 51.6 N and 51.21½ N, and between 1.41 E and 2.25 E (Greenwich).

A 49. Adty. to all Ships (5), Sent 3.30 p.m.
Naval Centres. Sent 3.20 p.m.

Following instructions have been issued to the British mercantile marine (begins). Confidential. British shipping should be advised to keep sharp look-out for submarines and display ensign of neutral country or show no colours while anywhere in vicinity of British Isles. British ensign must, however, be displayed when British or Allied men-of-war are met. House flag should not be flown, and identification marks such as name and port of registry should be obscured. Pass this on confidentially whenever possible.

A 50. Adty. to *Faulknor*, W/T via Pembroke. Sent 9 p.m.

You should follow the orders of Captain (D), *Undaunted*.

1st February 1915.

A 51. From C.-in-C., Nore, to Adty.

979 Referring to Admiralty telegram 502 (1) of 4th January, and 966 (2) of 31st January, and in view of existing dangers to mercantile fleet auxiliaries from attack by submarines, instructions are requested as to whether any, and, if so, what class of mercantile fleet auxiliaries should be escorted.

- (1) Admiralty permission to be obtained before large ships are sent to sea.
(2) Instructions issued to British mercantile marine *re* enemy submarines.

A 51a. Transports to Adty. Transports, Southampton,
Principal Transports, Havre. Sent 1.55 p.m.

1st Canadian Division will embark Southampton for Havre on 8th and 9th and 10th inst.

A 52. Adty. to Naval Centres:—

Pembroke,
Devonport,
Buncrana,
Kingstown,
Queenstown,
Liverpool,
Greenock,
Cromarty,
S.N.O., Pembroke Dock.

Sent 5.40 p.m.

All reliable information received by you (To S.N.O., Pembroke Dock only—" or Fishguard W/T Station ") of enemy submarines off the coast of Ireland and west coasts of England and Scotland is to be telegraphed without delay to Coastguard Wireless, Pembroke, for the information of H.M.S. *Undaunted*. The same information is to be repeated to Admiralty with the words "*Undaunted* informed."

A 53. Adty. to *Undaunted*. Sent 6.50 p.m.

A German submarine was 20 miles west of Fishguard this morning. You should consider the possibility of making a sweep with destroyers in case she is on the surface by night. She is probably making to the southward on her return journey.

2nd February 1915.

A 54. Adty. to R.A., Cruiser Force G. Sent 3.50 p.m.

33 Until further orders the cruisers of your patrol should be kept in harbour ready for sea at short notice, the sea work being confined to the armed boarding steamers. Acknowledge. (1550.)

A 55. Adty. to R.A., Cruiser Force E. Sent 3.50 p.m.

30 Until further orders and as a precaution against submarine attack the cruisers of your patrol should be kept well to the westward, 100 miles off the land. Acknowledge.

A 56. Adty. to R.A., Dover. Sent 4.35 p.m.

138 As submarines may be expected to be returning from the Irish Channel shortly, indicator nets should be laid off Zeebrugge, and watched by drifters, supported by destroyers, commencing at daylight on Thursday, if weather permits.

Reply. Recd. 6.35 p.m.

151 Your 138. About 2,000 yards of net are available here, and will be laid as ordered, weather permitting. No indicator buoys have yet arrived. Captain Bowring will be in charge, with four destroyers.

A 57. Adty. to C.-in-C., Channel. Sent 8.30 p.m.

45 Your destroyer escort should remain at Portland until further orders.

A 58. Adty. to S.N.O.s. Sent 9.30 p.m.

It is essential that shipping should not be held up in ports of United Kingdom through submarine danger, except in cases of extreme urgency, and then only for as brief a time as possible. Government Insurance Scheme is designed to keep ships running and cover losses. Under no circumstances should vessels be told that they sail at their own risk. If considered necessary to close a port Admiralty is to be informed at once. Advise vessels, particularly those of low speed, to sail at dusk and make ports at dawn, so far as consistent with particular trades, ports of call, and state of tides. Explain that submarines cannot work in shoal water without great risk. This information should be given confidentially to masters only.

3rd February 1915.

A 59. Adty. to C.-in-C., Nore. Sent 3 a.m.

994 Your 979. It is not possible to escort mercantile fleet auxiliaries owing to the number of men-of-war requiring escort and the limited number of destroyers available. The most important fleet auxiliaries are ammunition ships, and their sailing dates should be reported in order that the Admiralty can consider the question of escort. The *Baron Ardrossan* and *Trostan*, sailing shortly, should be escorted down Channel.

A 60. Adty. to Naval Centres, Sheerness and
Guernsey,
C.-in-C., Portsmouth (868),
C.-in-C., Devonport (980),
S.N.O., Portland,
Admiral, Dover (143),
S.O., Cruiser Force G, Devonport (35). Sent 5 a.m.

Intercepted Press telegram from Amsterdam states that following has been issued by the German Navy Staff (begins). England intends to ship shortly to France large troops and great quantities of war material. We shall prevent this as much as possible, and warn ordinary ships to keep away from north-west coast of France, while further trade to North Sea is recommended to go round Scotland (ends).

A 61. Adty. to C.-in-C., Devonport. Sent 10.50 a.m.

Prince George should sail for Malta this evening. Two destroyers will be sent from Portland to escort her clear, and are then to return to Portland. *Prince George* should steam as fast as possible until to southward of Ushant, and then proceed at 11 knots. Acknowledge.

A 62. Adty. to C.-in-C., Channel (53),
R.A., 6th B.S. (25). Sent 11.25 p.m.

Venerable should remain at Sheerness with 6th Battle Squadron for the present.

4th February 1915.

A 63. Cdr. Samson, Dunkirk, to Adty.
(Aircraft). Recd. 9.50 a.m.

At midnight, Samson pilot, passenger Collet, made flight to Zeebrugge. Nine bombs thrown—three hit mole—considerably damaged sheds and railway lines. Submit will probably have four aeroplanes ready Dunkerque, preferable Dover.

A 64. Transports to Principal Transports, Havre. Sent 11 a.m.

To reduce danger of torpedo attack a number of fast paddle steamers being engaged to convey troops only to French ports. Horses, guns, wagons, etc., will be sent in present transports.

A 65. Adty. to *Jupiter*, Tynemouth, and
97 to A.O.P. Sent 1 p.m.

Jupiter is to proceed to Archangel and act as ice-breaker, as the proper ice-breaker has broken down and the port is closing. It is of vital importance to keep the port open. The Russian Navy will be asked to send an officer on arrival to advise captain as to ice conditions. Ships should sail to-night and proceed at a good speed until north of lat. 60 N, and should not sight the coast of Norway to the southward of Aalesund in case of submarines. Charts are being sent at once by special messenger. A collier will be sent as soon as possible to Archangel. Acknowledge.

A 66. F.N.A. to Marine, Paris. Sent 1.10 p.m.

1199 Following transports crossing to-night:—

From Southampton	1	with troops and remounts for Havre and Rouen.
From Newhaven	2	with ordnance stores for Boulogne. 1 with ordnance stores for Havre. 1 with forage for Rouen.
From Avonmouth	1	with mechanical transport for Rouen.
From Belfast	1	with hay for Havre.

A 67. Adty. to C.-in-C., Channel. Sent 1.25 p.m.

55 Forty-eight hours' leave may be given to Channel Fleet ships. Half the ships at a time should remain ready for service. Men leaving the port should be granted free railway passes.

A 68. Adty. to C.-in-C., Devonport. Sent 4.15 p.m.

1 *Braemar Castle* and *Cawdor Castle*, with marines, should sail for Malta immediately after nightfall on the 6th February. They should proceed independently at full speed until south of Ushant, and should pass 40 miles off Ushant, and keep 30 miles to west of usual track as far as Gibraltar Straits. It is important that they should sail soon after dark, to get well to the southward before the moon rises.

A 69. R.A.C., 10th C.S., to Adty. Recd. 5.30 p.m.

18 Your 37.¹ Propose to sail 6 p.m., Saturday, 6th February. Will then have eight hours' darkness before moon rises.

A 70. Intercepted Amsterdam to Central News. Recd. 7.25 p.m.

Berlin official "Reichsanzeiger" publishes in official department following communique: (1) Waters round Great Britain and Ireland, including whole Channel, are herewith declared war region. From 18th February every hostile mercantile ship met in this region will be destroyed, without there being always possibility to turn threatening danger from crew and passengers. (2) Neutral ships also run danger, for, considering fraud with neutral flags ordered by British Government and as incidents cannot always be avoided in naval war, attacks aimed at hostile ships can strike neutral ships as well. (3) Navigation north of Shetland Is. in eastern region of North Sea and strip of at least 30 sea miles along Dutch coast not exposed to attacks. Signed by Chief of Admiralty Staff, Von Pohl.

A 71. British Minister, Copenhagen, to Adty. Recd. 8.4 p.m.

Following from good source. A German naval officer who has been in Copenhagen told a Danish friend that in a week's time there would be more than 20 German submarines in the Channel, with the object of disturbing communications between Great Britain and France.

¹ Ships must wait until there is less moon.

A 72. Adty. to R.A., Dover. Sent 8.20 p.m.

151 Information from Holland states that two submarines left the Ems to-day for English Channel. Look out for them to-morrow.

A 73. Adty. to Adty. Transports, Avonmouth. Sent 8.45 p.m.

Very urgent. Secret. 17,500 men, 6,000 horses, with guns, wagons, etc., Canadian E.F. will embark at Avonmouth on 8th, 9th and 10th February, for conveyance to St. Nazaire. Ships will be sent round from Southampton each day ready for embarkation. Telegraph when you want each day's ships to be at Avonmouth.

A 74. Adty. Transports to Adty. Transports, Southampton. Sent 8.45 p.m.

Very urgent. Secret. Canadian Division will embark at Avonmouth and disembark at St. Nazaire. Ships for each day's embarkation to be sent round from Southampton ready. Three ships from Dublin can be sent to Avonmouth if you wish. Time ships are to arrive, also whether staff and brows are to be sent, will be communicated later. Acknowledge.

A 75. Adty. Transports to Principal Transports, Havre. Sent 8.45 p.m.

Very urgent. Secret. Canadian Division, about 17,500 men, 6,000 horses, with guns, wagons, etc., will embark at Avonmouth, 8th, 9th and 10th February, and disembark at St. Nazaire. Fast ships will leave evening 8th February. Staff to be sent at once to prepare and empty ship to be sent with all brows which can be spared.

A 76. R.A., Dover Patrol, to Adty. Recd. 10.50 p.m.

156 Your 151. Will do my best, but I have very few destroyers available—11 are in dockyard hands, 4 are off Zeebrugge laying nets, 1 at Dunkirk, 3 on escort duty—so that I cannot keep proper guard of Straits of Dover. I have already reported this several times.

5th February 1915.

A 77. F.N.A. to Marine, Paris. Sent 2 p.m.

1209 Transports crossing to-night:—

From Southampton	1	with remounts and details for Havre and Rouen.
From Newhaven	1	with food for Boulogne; 1 with food for Havre; 1 with food and forage for Rouen.

A 78. Comm. (T) to Adty. Recd. 2.2 p.m.

99 State of flotillas at noon to-day:—

Ships ready for service	<i>Aurora</i> , <i>Penelope</i> , 4 of 1st Destroyer Flotilla, 1 of 3rd Destroyer Flotilla.
Ships at sea	2 destroyers of 1st Destroyer Flotilla escorting <i>Ariel</i> to Sheerness.
Ships detached	<i>Undaunted</i> and 12 of 3rd Destroyer Flotilla at Pembroke. <i>Miyanda</i> , 6 of 10th Destroyer Flotilla and 1 of 1st Destroyer Flotilla escorting minelayers; 4 of 1st Destroyer Flotilla escorting ships.

99 State of flotillas at noon to-day—*continued*.
 Ships defective At Portsmouth—*Fearless*.
 At Chatham—*Arethusa*, 5 of 1st Destroyer
 Flotilla, 5 of 3rd Destroyer Flotilla,
 1 of 10th Destroyer Flotilla.
 At Glasgow—2 of 3rd Destroyer Flotilla.
 At Southampton—*Meteor*.
 At Harwich—4 of 1st Destroyer Flotilla,
 1 of 10th Destroyer Flotilla.
 Movements *Penelope* arrived here and 5 of 1st
 Destroyer Flotilla yesterday from
 escorting; 2 of 1st Destroyer Flotilla
 sailed this morning escorting *Ariel* to
 Sheerness.

A 79. Adty. to *Undaunted*, W/T via Pembroke. Sent 2.45 p.m.
 Send two destroyers to Queenstown to escort Cunard steamer *Transylvania*
 to Liverpool. Inform Admiral, Queenstown, probable time of their arrival.

A 80. F.N.A. to Marine, Paris. Sent 4.20 p.m.
 1211 S.S. *Philadelphian*, which left Baltimore on 24th January, is carrying
 horses for La Pallice and general cargo to Havre. The owners say that on
 account of congestion at Havre, ships are obliged to wait in the roads,
 exposed to attacks by submarines, and to take their turn to enter the
 docks. They have proposed that their ships should go to Havre to register
 their turn, and then wait in a British port until their turn comes round,
 but French authorities have not agreed. Would it be possible to arrange
 that their turn should be arranged for a date previously fixed, and that the
 ship should be authorised to wait at La Pallice, in order to present herself
 at Havre on the day and hour agreed upon?

A 81. Rotterdam to F.O. Recd. 5.15 p.m.
 41 Referring to your telegram No. 28 of 2nd February, regarding
 confidential advice to British ship masters in view of German submarines
 peril, the "Koelnischer Zeitung" of 4th February publishes contents
 of this telegram. I am sending cutting to-night.

A 82. Adty. to Principal Transports, Havre. Sent 7.15 p.m.
 D.N.T.O.s have been instructed to order masters of transports to anchor
 in the shallow water south of Whistle Buoy when waiting to enter Havre.

A 83. Havre to F.O. Recd. 11 p.m.
 10 Belgian Consul at Maestricht telegraphs as follows: Conversation
 with German Colonel of Engineers overheard at Liège, from which it appears
 that enemy intend to withdraw from above-mentioned (*sic*) centre and
 attack two wings. They have been reinforced on Yser. 100,000 men are
 preparing to cross by means of 3,000 iron boats, each carrying 30 to 40
 men. These are ready; also tugs. The invasion will be supported by
 a dozen dirigibles, and 10 or 12 28-cm. pieces will keep British ships at a
 distance, and prevent them from shelling troops while they cross the river.

6th February 1915.

A 84. Adty. to Admiral, Queenstown. Sent 12.5 a.m.
 116 As weather is too bad for destroyers, permit *Transylvania* to sail
 without escort.

A 85. Petrograd to F.O. Recd. 11.40 a.m.
 142 Following from Acting Military Attaché in the absence of Naval
 Attaché. Russian General Staff have received information which they
 believe to be reliable from Military Attaché at Rome, that Germany

intends to send as many as 110 submarines into English waters to sink all
 commercial ships met with in these waters, irrespective of nationality.
 Russian Military Attaché in Rome obtained the above information from
 a source in close touch with the German Embassy there.

A 86. F.N.A. to Marine, Paris. Sent 12.56 p.m.
 1215 Transports crossing to-night:—
 From Southampton .. 1 with remounts for Havre.
 From Newhaven .. 1 with forage for Dieppe; 1 with ord-
 nance stores for Boulogne; 1 with
 forage for Havre.

The *Dunmore Head* will leave London to-morrow on the morning tide with
 hutting for Boulogne, Dieppe, Havre and Rouen.

A 87. Comm. (T) to Adty. Recd. 2.10 p.m.
 100 State of flotillas at noon to-day:—

Ships ready for service .. *Aurora*, *Penelope*, 1 destroyer of 1st
 Destroyer Flotilla, 1 of 3rd Destroyer
 Flotilla.

Ships at sea 2 of 1st Destroyer Flotilla escorting
Baron Ardrossan.

Ships detached *Undaunted*, 12 of 3rd Destroyer Flotilla
 at Pembroke; *Miranda*, 6 of 10th
 Destroyer Flotilla, and 1 of 1st
 Destroyer Flotilla escorting minelayers;
 4 of 1st Destroyer Flotilla escorting
 ships.

Ships defective At Portsmouth—*Fearless*.
 At Chatham—*Arethusa*, 5 of 1st Destroyer
 Flotilla, 5 of 3rd Destroyer Flotilla,
 1 of 10th Destroyer Flotilla.
 At Glasgow—2 of 3rd Destroyer Flotilla.
 At Southampton—*Meteor*.
 At Harwich—2 of 1st Destroyer Flotilla,
 1 of 10th Destroyer Flotilla.

Movements 2 of 1st Destroyer Flotilla arrived here
 yesterday after escorting (group cor-
 rupt); 2 of 1st Destroyer Flotilla
 sailed for Sheerness this morning to
 escort *Baron Ardrossan*. (1350.)

A 88. Marine, Paris, to F.N.A.
 91 We have ordered Channel patrols to recommend vessels belonging to
 Allies coming from the Western Channel to Havre to hug the coast between
 Barfleur and Havre, in order to diminish risk of attack by hostile
 submarines.

A 89. Adty. to V.A., 1st B.C.S. (73),
 C-in-C., H.F. (319),
 V.A.C., 1st B.S. (64),
 A.O.P. (107),
 Capt. Supt., Tyne. Sent 3.30 p.m.

Very secret. *Lion* is to proceed to Tyne, arriving on Tuesday, 9th
 February, at a time to be arranged with Captain Power. She is to be
 escorted by destroyers from the Forth. *Tiger* will leave the river imme-
 diately before *Lion* enters, and *Lion's* destroyer escort should escort her to
 sea until out of sight of land. *Tiger* to proceed to Scapa Flow. Pilot
 who takes out *Tiger* will bring in *Lion*. A.O.P. is to have the approaches
 to Tyne thoroughly scoured by destroyers and patrol vessels during Monday
 and Tuesday until the operation is over. Impress on all concerned the
 necessity for every precaution and great vigilance.

A 90. Adty. to S.N.O., Gibraltar.

Sent 9.10 p.m.

236 18 Australian and New Zealand transports proceeding from Egypt to England should be ordered to ports shown: Plymouth—*Themistocles*. Avonmouth—*Ceramic*, *Ulysses*, *Suevic*, A.43, A.44. London—*Borda*, *Ajana*, *Persic*, *Berrima*, *Verdala*, *Knight of the Garter*. Failing later instructions *Ayrshire*, *Port Macquarie*, A.36, A.37, A.41, A.42 should be ordered to ports for which cargo is stowed on top for first discharge. These ports should be reported. All transports should be informed of precautions to be observed respecting submarine danger. *Themistocles* should proceed 30 miles to the west of usual route, arriving in latitude of Ushant at night-fall. She should then proceed full speed to Plymouth, arriving before daylight. If her speed does not admit of this she should pass latitude of Ushant earlier, keeping well to westward. *Ceramic* should keep 30 miles to west of usual route from Gibraltar northwards, and should pass at least 30 miles west of Scilly Is., do last part of journey in dark hours, and arrive off Avonmouth just before daylight.

A 91. Adty. to Comm. (T) (94),
R.A., Dover (161).

Sent 11.10 p.m.

Six destroyers of 3rd or 10th Destroyer Flotillas should be sent to Dover to arrive by the evening of the 10th February. They are required for an air operation and will be given their orders by R.A., Dover.

Sunday, 7th February 1915.

A 92. Adty. to *Undaunted*, W/T via Pembroke. Sent 1.25 a.m.

Secret. Two transports will leave Avonmouth at 2 a.m. on Monday, and four transports at the same time on Tuesday. The Bristol Channel should be swept to-day, and four destroyers should escort the transports on each occasion from Portishead to the meridian of 6 W.

A 93. Comm. (T) to Adty.

Recd. 10.14 a.m.

101 Your 94. Only one destroyer of 3rd Destroyer Flotilla and none of 10th Destroyer Flotilla are at present available at Harwich. Request information whether 3rd Destroyer Flotilla or 10th Destroyer Flotilla will have returned to Harwich in time to carry out this duty. (1000.)

Reply.

The 10th Flotilla will have finished escorting minelayers before the 10th February. (H.F.O.)

A 94. Adty. to Divisional Transports, Marseilles. Sent 10.20 a.m.

55 Secret. Warn masters all transports there is possibility submarine attack in Mediterranean—special vigilance to be observed there and between England and Gibraltar. To keep well clear of ports used by H.M. ships, unless specifically ordered to call there. In approaching harbours by daylight to maintain high speed as long as navigation permits, and frequently alter course. Neutral flag, preferably American, to be used, especially in English Channel.

A 95. Adty. to Marine, Paris.

Sent 1.5 p.m.

1225 Transports crossing to-night:—

From Newhaven	1 with ordnance stores for Boulogne.
	2 with forage and firewood for Havre.
	1 with forage for Rouen.
From Avonmouth	1 with petrol for Boulogne.

A 96. Comm. (T) to Adty.

Recd. 1.56 p.m.

102 State of flotilla at noon to-day:—

Ships ready for service .. *Aurora*, *Penelope*, 7 destroyers of 1st Destroyer Flotilla, 1 of 3rd Destroyer Flotilla.

Ships at sea Nil.

Ships detached *Undaunted* and 12 of 3rd Destroyer Flotilla at Pembroke; *Miranda* and 6 of 10th Destroyer Flotilla, and 1 of 1st Destroyer Flotilla escorting mine-layers; 2 of 1st Destroyer Flotilla at Portland escorting ships; 2 of 1st Destroyer Flotilla escorting *Baron Ardrossan*; 4 of 1st Destroyer Flotilla will arrive Harwich this afternoon from escorting ship.

Ships defective At Portsmouth—*Fearless*.
At Chatham—*Arethusa*, 3 of 1st Destroyer Flotilla, 5 of 3rd Destroyer Flotilla, 1 of 10th Destroyer Flotilla.

At Glasgow—2 of 3rd Destroyer Flotilla.
At Southampton—*Meteor*.
Movements 2 of 1st Destroyer Flotilla left Chatham and arrived at Portland this morning for escort duty. (1325.)

A 97. Adty. to *Undaunted*.

Sent 4.5 p.m.

The escort of transports should be dependent on weather. If it is too bad for destroyers there will probably be safety from submarines.

A 98. Adty. to Adty. Transports, Avonmouth. Sent 6 p.m.

Following special instructions should be issued to transports conveying Canadian Divisions to St. Nazaire, viz., four destroyers will escort transports on each morning from Portishead to 6th meridian W longitude. After passing Lundy I. transports should keep well to westward, out of sight of Cornish coast, and pass 35 miles west of Scilly Is., and thence to their destination. Full speed must be maintained till south of Ushant. All outward and visible signs of the vessels being transports should be removed.

A 99. Adty. to C.-in-C., H.F.

Sent 7.5 p.m.

323 Your 295. Smith's Knoll Channel, $\frac{1}{2}$ mile wide, is marked on north side by Cross Sand Light Vessel, Smith's Knoll Pillar Buoy in position of Smith's Knoll Light Vessel, and two buoys on the line between. Arrangements are being made to comply with your second request.

A 100. Adty. to S.O., Cruiser Force E.

Sent 7.35 p.m.

35 Your 155. *Sutlej* should sail after dark and get a good offing before daylight. Your cruisers should not in future enter or leave Queenstown or other harbours where there is risk of submarine attack during daylight.

A 101. F.N.A. to Marine, Paris.

Sent 10.40 p.m.

1229 Admiralty is preparing a list of ports of refuge for merchant steamers which may happen to be pursued by submarines. This list includes not only fortified ports but ports and even areas where merchant ships may hope to fall in with armed trawlers. This list will be sent with confidential instructions to merchant steamers navigating in waters where hostile submarines may be encountered. Admiralty proposes that there should be added to the list names of French harbours in the Channel and on the Atlantic coast. The instructions mentioned above will be communicated to you as soon as their form is decided upon.

(C7213)

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A 102. Comm. (T) to Adty. Recd. 11.30 p.m.

103 Your 95. Six destroyers of 10th Destroyer Flotilla have been ordered to arrive at Dover in the evening of 10th February. (2320.)

A 103. Admiral, *Marseillaise*, to F.N.A.

373 Position of ships of 2nd Light Squadron (6th February):—

Available.

Dunkirk.—Torpedo craft *Dunois*, *Intrepide*, *Capitaine Mehl*, *Aventurier*, *Glaive*, *Gabion*; submarine *Prarial*; minesweepers *Blanc Nez*, *Turbot*, *Europe*, *Maris-Stella*.

Straits of Dover.—Torpedo craft *Sylet*, *Fleuret*, *Claymore*, *Rapier*, *Arquebuse*, *Flamberge*, *Fanion*.

Cherbourg.—Armoured cruisers *Marseillaise*, *Gueydon*; torpedo craft *Harpon*, *Sagaie*, *Epieu*, *Foucault*, *Franklin*, *Amiral Bourgeois*, *Mongolfier*, *Watt*, *Giffard*; minelayers *Cerber*, *Pluton*; auxiliary cruisers *Rouen*, *Newhaven*.

Western Channel Patrol.—Armoured cruiser *Amiral Aube*; auxiliary cruisers *Savoie*, *Niagara*; fast cruiser *Chateau-Renault*.

Brest.—Armoured cruisers *Gloire*, *Guichen*, *Kleber*; third-class cruisers *Lavoisier*, *Surcouf*, *D'Estrees*.

Cruising in Atlantic.—Armoured cruiser *Dupetit-Thouars*.

Portsmouth.—Torpedo craft *Francisque*; submarines *Germinal*, *Floreal*, *Pluviose*.

In the Downs.—Torpedo craft *Obusier*, *Bran-le-Bas*, *Oriflamme*, *Tromblon*, *Etendard*, *Carquois*.

Not Available.

Cherbourg.—Torpedo craft *Francis Garnier*, *Belier*, *Fauconneau*, *Yatagan*; submarines *Archimede*, *Thermidor*, *Gustave Zede*.

Brest.—First-class cruiser *Jeanne D'Arc*.

8th February 1915.

A 104. F.N.A. to Marine, Paris. Sent 12.20 p.m.

1233 Transports crossing to-night:—

From Newhaven 1 with ordnance stores for Boulogne.

From Avonmouth 7 with Canadian Division for St. Nazaire.

A 105. Adty. to *Undaunted*. Sent 12.35 p.m.

Seven transports are sailing from Avonmouth to-night with troops and escort should be increased to at least eight destroyers.

A 106. Adty. to C.-in-C., Plymouth (39),
Comm., Portland. Sent 12.50 p.m.

It was not intended that C.-in-C., Plymouth, should assume charge of Area XIII, responsibility for which is with Commodore, Portland. It is desirable, nevertheless, that when the enemy's submarines are located in the vicinity concerted action should be arranged.

A 107. Comm. (T) to Adty. Recd. 3.1 p.m.

105 State of flotilla at noon to-day:—

Ships ready for service .. *Aurora*, *Penelope*, 11 destroyers of 1st Destroyer Flotilla, 1 of 3rd Destroyer Flotilla.

Ships at sea Nil.

Ships detached *Undaunted*, 12 of 3rd Destroyer Flotilla at Pembroke; *Miranda*, 6 of 10th Destroyer Flotilla, and 1 of 1st Destroyer Flotilla escorting mine-layers; 2 of 1st Destroyer Flotilla at Portland escorting ships; 2 of 1st Destroyer Flotilla escorting *Baron Ardrossan*.

Ships defective At Portsmouth—*Fearless*.
At Chatham—*Arctusa*, 3 of 1st Destroyer Flotilla, 5 of 3rd Destroyer Flotilla, 1 of 10th Destroyer Flotilla.
At Glasgow—2 of 3rd Destroyer Flotilla.
At Southampton—*Meteor*.
At Harwich—1 of 1st Destroyer Flotilla, 1 of 10th Destroyer Flotilla.

Movements 4 of 1st Destroyer Flotilla arrived here yesterday from escorting ships. (1440.)

A 108. Adty. to all Ships and Bases. Sent 4 p.m.

With reference to Admiralty message of 21st January, Smith's Knoll Channel to the southward of the line of buoys should be taken as $\frac{1}{2}$ mile wide, not 2 miles as previously stated. The eastern end of this track, which has been swept to long. 2.30 E, should not be approached from the southward, as the southern area has not been examined. From Smith's Knoll Pillar Buoy to buoy to north-westward of Jim Howe Bank has been swept. (1540.)

A 109. Adty. to C.-in-C., Portsmouth. Sent 4 p.m.

904 Sail the eight armed drifters lent you from Dover temporarily back to Dover when ready. To be tenders to *Attentive*. Acquaint Admiralty and R.A., Dover, when they sail.

A 110. Adty. to C.-in-C., Nore. Sent 4 p.m.

Sail the 12 armed drifters under Captain Grace to Dover when ready. To be tenders to *Attentive*. Acquaint Admiralty and R.A., Dover, when they sail.

A 111. Adty. to Comm. (T). Sent 8.35 p.m.

98 Captain Arthur K. Waistell has been appointed to *Maidstone* vice Addison, with title of Captain (S). He will be in command of all submarines of the Harwich Striking Force. He is to have the use of a light cruiser when he requires it for active operations.

A 112. F.N.A. to Marine, Paris.

1236 S.S. *Seamew*, with clothing for troops, should have left the Thames to-day for Havre. Her departure has been postponed on account of the impossibility of obtaining an escort for her. Would it be possible to send her an escort of destroyers which should be at the Downs to-morrow at 2 p.m.?

A 113. F.N.A. to Marine, Paris.

1237 The transports proceeding to St. Nazaire mentioned in my 1233 will arrive Wednesday evening or early Thursday morning, passing well out to seaward of the Scillies, Ushant and Penmarch. They will be followed on succeeding nights by other groups of transports proceeding under the same circumstances. Admiralty suggests that the approaches of the Loire should be guarded if possible by destroyers.

9th February 1915.

A 114. Adty. to *Undaunted*. Sent 12.55 p.m.

Rossetti, *Courtfield*, and *City of Benares* with Canadians sailing from Avonmouth to-night will require escort. One division of destroyers can now return to Harwich.

A 115. C.-in-C., H.F., to Adty. Recd. 7.10 p.m.

312 Can any estimates be given of the duration of stay of the two North Destroyer Flotillas in Irish Channel? They will shortly require stores.

A 115a. Adty. to Senior Officers ashore in Home Waters. Sent 9.40 p.m.

In view of the special danger to which merchant vessels will be exposed from submarine attack while undergoing identification in examination anchorages, report with the least possible delay after consultation with military authorities what modifications can at once be made in the existing procedure, in order to expedite to the utmost the entry of merchant vessels into (your port). Matter is urgent. War Office have been requested to give similar instructions at defended ports where examination service is carried out by military.

10th February 1915.

A 116. Adty. to C.-in-C., H.F. Sent 12.20 a.m.

341 Your 312. Four destroyers should be recalled now, and the remainder after, *Magnificent*, *Hannibal* and *Conqueror* have passed.

A 117. Adty. to all Ships. Sent 12.40 a.m.

A dangerous area which should be carefully avoided exists within the following limits: Lat. 51.28 N and lat. 51.7 N; long. 1.35 E and long. 2.30 E. (0025.)

A 118. Adty. to S.N.O., Malta. Sent 2.5 a.m.

38 *Agamemnon* is being sent out to relieve *Inflexible*, which is required for the Battle Cruiser Squadron. *Inflexible* to return to England on relief.

A 119. Adty. to *Undaunted*. Sent 1.45 p.m.

Five transports with Canadian troops leave Avonmouth to-night and will require escort.

A 120. Adty. to C.-in-C., Devonport (71),
C.-in-C., H.F. (344),
V.A.C., 1st B.S. (87),
V.A.C., 1st B.C.S. (79). Sent 8.10 p.m.

Australia should sail immediately after dark on the 12th, and proceed at high speed until to westward of Scilly Islands, keeping well clear of the land. Afterwards she should proceed west of Ireland and the Hebrides to join Battle Cruiser Squadron as may be directed by C.-in-C., Home Fleet. She should communicate with C.-in-C., Home Fleet, before reaching Pentland Firth. Keep 50 miles clear of Ireland and the Hebrides.

A 121. Admiral, Longhope, to Adty. Recd. 11.11 p.m.

74 Minefield now laid and complete.

11th February 1915.

A 122. Adty. to *Undaunted*. Sent 12.45 p.m.

Six transports sailing to-night from Avonmouth with Canadian troops require escort. Afterwards *Undaunted* and 3rd Flotilla destroyers should return to Harwich.

A 123. Adty. to R.A., Dover. Sent 4 p.m.

176 We have good information that German submarines have lately been making the Varne Light Ship and Buoy when passing Dover Straits. Submarines may be expected to pass Dover Strait to-morrow and following days, west bound.

A 124. Adty. to Capt. i/c, Falmouth. Sent 8.5 p.m.

You are to send 25 drifters with their nets from Falmouth to Larne. They should report to S.N.O. on arrival. Two sub-lieutenants are to proceed to Larne by rail. Drifters remaining at Falmouth proceed to sea and keep a watch off the Lizard for submarines.

A 125. Adty. to Comm., Portland. Sent 8.50 p.m.

Keep trawlers cruising to-morrow (Friday) and the following days between Portland Bill and St. Albans Head, and 20 miles to seaward of these points, to look out for submarines.

A 126. Adty. to Capt. i/c, Poole. Sent 9.5 p.m.

Keep as many drifters as you can, arrange for cruising to-morrow (Friday) and following days between St. Albans and St. Catherine's, and 20 miles to seaward of these points, to look out for submarines.

A 127. Adty. to C.-in-C., Devonport. Sent 9.5 p.m.

Keep trawlers cruising to-morrow (Friday) and following days between the Eddystone and Start Point, and 20 miles to seaward of the latter, to look out for submarines.

A 128. Adty. to Naval Base, Poole. Sent 9.5 p.m.

Have as many drifters as possible ready to sail at daylight to-morrow.

A 129. Transports to Principal Transports, Havre. Sent 10.40 p.m.

Four transports sail to-morrow with troops for Havre; one, and it is hoped two, being of the new packet-transport class, also one transport with horses and men for Rouen.

A 130. Capt. i/c, Falmouth, to Adty. Recd. 11.44 p.m.

Your telegram to-day, 29 drifters at Falmouth. Nets for only four have been received, and no buoys. Should be send (?) these and 21 others without nets or await arrival of indicator nets and buoys?

12th February 1915.

A 131. Adty. to Capt. i/c, Falmouth. Sent 5.40 p.m.

Twenty-five drifters should sail at once without awaiting arrival of indicator nets and buoys. They should take their fishing nets with them.

13th February 1915.

A 132. Admiral, Portsmouth, to Adty. Recd. 10.23 a.m.

78 Submit I may be informed whether original orders to yachts not to engage submarines while on passage still hold good or whether they should be modified.

Reply.

Your 78. Orders cancelled. Sent 7.45 p.m.

(C7213)

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A 133. Marine, Paris, to Adty. Recd. 4.25 p.m.

124 We are now making arrangements that no merchant ship shall wait in the roads of Havre. We have laid 15 moorings in the Seine for ships going to Rouen. This number will be increased. Cherbourg will be the port for waiting for ships coming from the west and not being able to enter at once Havre or the Seine. For ships coming from the east or the south coast of England, what English port for waiting would the Admiralty propose?

A 134. Adty. to S.N.O., Liverpool. Sent 8.50 p.m.

Six auxiliary patrol trawlers temporarily lent for service in Morecambe Bay are to return to Larne Harbour. (M.01127.)

A 135. Admiral, *Marseillaise*, to Adty.

446 Situation of ships of 2nd (Light) Squadron, 13th February:—

Available.

1. *Dunkirk*.—*Dunois*, *Intrepide*, *Aventurier*, *Capitaine Mehl*, *Europe*, *Blanc Nez*, *Turbot*, *Maris-Stella*.

2. *Calais*.—*Obusier*, *Bran-le-Bas*, *Oriflamme*, *Tromblon*, *Etendard*, *Carquois*.

3. *Straits of Dover*.—*Escopette*, *Durandal*, *Epee*, *Frimaire*, *Brumaire*, *Newton*, *Euler*, *Prairial*, *Berthelot*, *Ventose*, *Pas-de-Calais*, *Au Revoir*.

4. *Havre*.—*Glaive*, *Gabion*, *Fanion*, *Stylet*, *Fleuret*, *Claymore*, *Bombarde*, *Arquebuse*, *Baliste*, *Flamberge*.

5. *Cherbourg*.—*Marseillaise*, *Rouen*, *Newhaven*, *Catapulte*, *Epieu*, *Rapier*, *Sagate*, *Harpon*, *Pluton*, *Cerbere*, *Javeline*, *Volta*, *Giffard*, *Montgolfier*, *Foucault*.

6. *Patrolling in Western Channel*.—*Gloire*, *Guichen*, *Surcouf*, *D'Estree*.

7. *Brest*.—*Amiral Aube*, *Gueydon*, *Kleber*, *Chateau-Renault*, *Lavoisier*, *Niagara*.

8. *Cruising in Atlantic*.—*Dupetit-Thouars*.

9. *Portsmouth*.—*Francisque*, *Floreal*, *Pluviose*, *Germinal*, *Sabre*, *Watt*, *Fructidor*.

Not Available.

1. *Cherbourg*.—*Francis Garnier*, *Belier*, *Fauconneau*, *Archimede*, *Thermidor*, *Mariotte*, *Gustave Sede*, *Franklin*, *Nivose*, *Yatagan*.

2. *Brest*.—*Jeanne D'Arc*, *Champagne*.

Sunday, 14th February 1915.

A 136. Adty. to Supt. Transport Officer, Cardiff. Sent 12.20 a.m.

Urgent. Following Admiralty chartered colliers are to be armed on their arrival at Cardiff with one 12 pdr. aft for defence against submarine attack: colliers *Wragby*, *Tregothnam*, *Ashby*, *Oakby*, *Britannia*, *Knottingley* and *Ekswood*. Work to be carried out under your superintendence. Gun's crew of two Royal Marines will be supplied for each gun. Director of Transports will forward further information. (S.0113/15.)

A 137. Adty. to Adsupt., Newcastle-on-Tyne. Sent 12.25 a.m.

Urgent. Following Admiralty chartered colliers are to be armed with one 12 pdr. aft for defence against submarine attack on arrival in Tyne: colliers *Eros*, *Romsdalen*, *Madeline*, *Ella Sayer*, *Craigendoran*, *Enfield*, *Prince Leopold*, *Britannia*, *Knottingley* and *Ekswood*. Work to be carried out under your superintendence. Gun's crew of two Royal Marines will be supplied for each gun. Letter follows by to-night's post. (S.0113/15.)

A 138. Adty. to S.N.O., Liverpool. Sent 1.5 a.m.

Urgent. Decided to arm defensively vessels engaged in local trade with one 12 pdr. aft for defence against submarine attack. Report immediately names of vessels plying to Liverpool which you consider suitable for so arming. Admiralty will pay cost of mounting guns. Vessels should be selected from those which do not trade to neutral ports, and should not be regular passenger carriers. Vessels should not go north of Glasgow on west coast, and much north of Thames on east coast. Following lines are suggested as probably having suitable ships: J. H. Monk & Co.; J. H. Monk (Preston), Ltd.; Powell, Bacon & Hough; Rogers & Bright; W. A. Savage; Clyde Shipping Co. Gun's crew of two Royal Marines will be supplied by Admiralty. Full instructions follow in to-night's post. (S.0113/15.)

A 139. Adty. to C.-in-C., Channel. Sent 1.25 p.m.

67 Your 57. Ships should remain where they are, as available escorts are required for more urgent services, and *Venerable* is better placed at Sheerness.

A 140. Adty. to C.-in-C., Portsmouth. Sent 1.35 p.m.

976 You should keep the four Harwich destroyers for the present to supplement the eight *Beagle* class for escort work.

A 141. Adty. to Capt. Supt., Clyde. Sent 1.45 p.m.

Teutonic, *Virginian* and *Motagua* may sail as proposed. Ships are to proceed separately, and are to steam at high speed, taking all precautions against submarine attack. Pass between Oversay and Skerryvore in daylight.

A 142. Adty. to Intelligence Officers, Abroad. Sent 4.45 p.m.

Confidential. Warn British ships German submarines operating against merchant shipping English Channel, Irish Channel. Make landfall after dark. Approach port at dawn. On no account stop if ordered by submarine. Turn stern towards her, make for nearest port or shore, keeping submarine in wake. Torpedo fired from submarine in wake can be easily avoided by use of helm track shown by line of bubbles. Submarine may fire gun, pay no attention, gun is inferior, can do little damage to iron ship with crew below. If chased fly largest ensign available half mast at foremast head, warning other ships. Boats turned out and provisioned. Danger very small if instructions followed; even if hit by torpedo, time ample man boats. If obliged wait for pilot, keep under way and constantly alter course. Wireless ships attacked make signal SOS, followed by series of S's. Impress on masters importance keeping orders absolutely secret.

A 143. Adty. to C.-in-C., Channel Fleet. Sent 7.12 p.m.

68 Secret. *Queen Elizabeth* has developed unforeseen defects, and it is necessary to send *Lord Nelson* to the Mediterranean. You should transfer your flag to *Prince of Wales*, and *Lord Nelson* should sail for Malta to-morrow evening as soon as possible after dark. She should proceed at high speed until southward of Ushant, and then continue her passage with all convenient despatch. Ushant should be given a wide berth. The inconvenience you are being put to in shifting your flag is much regretted.

15th February 1915.

A 144. Adty. to C.-in-C., Nore. Sent 11 a.m.

88 Your 134. Send destroyers which have been escorting minelayers back to Harwich.

A 160. Adty. to Capt. (S), *Maidstone*. Sent 4.10 p.m.

79 An "E" class submarine is to be sent, weather permitting, to the vicinity of the Maas Light Vessel, to watch for and attack enemy submarines. She is to return after being 48 hours on her station or at any time should the weather be bad. She should avoid all merchant vessels to prevent the possibility of her being treated as an enemy by friendly vessels. She is not to attack enemy merchant vessels.

A 161. Adty. Law Agent, Hull, to Adty. Recd. 4.52 p.m.

Incoming neutral captains report over 30 German steam trawlers lying in Kattegat loaded with mines, ready to sail 18th inst.

A 162. Naval Base, Poole, to Adty. (I.C.M.S.). Recd. 6.27 p.m.

Sixteen drifters sail at a.m. for Larne.

A 163. C.-in-C., Grand Fleet, to Adty. Recd. 6.46 p.m.

355 Make following dispositions against minelayers between p.m., 17th, and a.m., 20th, and issue necessary orders. After completing gunnery practice three ships of 2nd Light Cruiser Squadron to remain at sea, watching area between North Shoal and Solan Bank. The fourth ship returning to Scapa Flow for coal, Wednesday night, 17th, and relieve one of the others later as necessary. One division of 2nd Destroyer Flotilla to sap East Approach of Fair Island channels, another division to be stationed to the east of Pentland Firth. Fleet sweepers to be employed to the eastward of Pentland Firth. 1st Cruiser Squadron to leave Scapa after dark on 17th, watching to the eastward, cruising between L.L. and F.F. at night and in the direction of M.M. by day.¹ Two divisions of 4th Destroyer Flotilla are being sent, one to watch area 30 miles off shore off Buchan Ness, and one approaches to Cromarty. Two light cruisers from Rosyth and four fleet sweepers from Dundee have been ordered to watch Eastern Approach to Forth between 16th and 20th, and to secure safe entry for *Australia* and *Tiger*. Addressed to V.A.C., 1st Battle Squadron, repeated to Admiralty.

17th February 1915.

A 164. British Minister, Copenhagen, to Adty. Recd. 12.20 a.m.

My immediately preceding telegram. I hear on good authority that 30 mine-carrying trawlers at Warnemunde will probably leave to-night, proceeding by Flint Channel, and are expected to be outside Skaw on morning of 18th February. On night of 12th February eight mine barges towed by three steamers escorted by T.B.s and submarines passed Flint Channel going north. They have not yet been seen at Skaw but may have passed on Swedish side during night.

A 165. C.-in-C., Nore, to Adty. Recd. 12.25 a.m.

164 Urgent. Re Admiralty message 98 of 16th February, Naval Ordnance Officer, Woolwich, reports (begins). *Wenning* left Woolwich 11 p.m. yesterday, and will arrive at the Nore 3.30 a.m. No sailing orders have been received by ship (ends). Request instructions.

A 166. Adty. to C.-in-C., Home Fleets. Sent 12.50 a.m.

389 In view of minelayers possibly coming to lay mines on our coast a sweep of light cruisers should be carried out. Four or more light cruisers should leave the Forth on the evening of the 17th, and proceed to lat. 57 N, long. 2.30 E, and sweep to the southward during daylight on the 18th, examining suspicious vessels. They should not go to the southward of lat. 55 N. Movements during night of 18th should be arranged so

¹ F.F.—57.15 N, 0 10 E; L.L.—58.40 N, 0.30 W; M.M.—59.50 N, 1 E (Memo. H.F. 0015 of 26.1.15, p. 2, copy of which is in H.S. 342 at p. 18).

as to be on the parallel of 55 N lat. at daylight on the 19th. Squadron should then sweep to the northward until evening and then return to the Forth. Each light cruiser should be accompanied by a destroyer to avoid the necessity of the cruiser stopping to examine vessels. When sweeping the vessels should not get out of visual touch. Repeated to Commodore (T), whose orders will be repeated to you. Acknowledge. Telegram addressed to C.-in-C., Home Fleets, and V.A.C., 1st Battle Cruiser Squadron (No. 83), repeated to V.A.C., 1st Battle Squadron.

A 167. Adty. to Comm. (T). Sent 1.20 a.m.

106 *Fearless* and eight destroyers should proceed to Rosyth to be followed on receipt of later orders by *Woolwich* and remainder of 1st Flotilla. An air reconnaissance should be carried out from Harwich to-morrow (17th February) to look for submarines. Arrange this with Flying Station, and send out a small force of destroyers to act in conjunction with aeroplanes.

(A) To-morrow evening, 17th February, send out two light cruisers, accompanied by two fast destroyers, to patrol between lat. 52 N and lat. 55 N during daylight hours on 18th and 19th to examine suspicious vessels. Destroyers are detailed to obviate cruisers stopping to examine vessels. This patrol is not to go to eastward of long. 5.30 E, and is to return to Harwich during night of 19th. Vessels carrying mines are to be sunk.

(B) Acknowledge.

Following is extract from a telegram sent to Commodore (T) (begins). (A) to (B) (ends). Sent to C.-in-C., Home Fleets, repeated to V.A.C., 1st Battle Squadron, and V.A.C., 1st Battle Cruiser Squadron.

A 168. Adty. to all Ships and all S.N.O.s.

Ships are not to pass within the area bounded by lines drawn between the following points:—

Lat. 51.9 N	Long. 1.29 E
Lat. 51.4 N	Long. 1.18 E
Lat. 50.54½ N	Long. 1.32 E
Lat. 51.5½ N	Long. 1.52 E

A 169. Adty. to R.A., Dover Patrol. Sent 2 a.m.

First Lord is most anxious to have nets down at night, especially on night of 17th inst. Naval Secretary.

A 170. Adty. to S.N.O.s, Home Ports, Transports Officers, etc. Sent 4.50 a.m.

In view of submarine menace telegram is to be despatched nightly about 10 p.m. to transports, London, giving expected departures during succeeding 36 hours of all royal fleet auxiliaries, unarmed mercantile fleet auxiliaries and any armed only for defensive purposes, together with route and destination. First telegram should be despatched 10 p.m. on 17th February.

A 171. Adty. to Admiral, Chatham. Sent 7 a.m.

102 Your 164. Sailing orders forwarded *Wenning*, 15th February, to Woolwich. She is proceeding Scapa Flow, usual directions as to route and entering Scapa Flow and passing Scarborough.

A 172. V.A.C., B.C.S., to Adty. Recd. 7.55 a.m.

88 Acknowledge receipt of Admiralty message 83. Submit I may be informed what destroyers are to join light cruisers from Firth of Forth, and where. Four will be required. Addressed to Admiralty. Repeated to C.-in-C., Grand Fleet. (0645.)

Reply. Sent 11.45 a.m.

85 Your 88. Destroyers from 2nd or 4th Flotilla. None available at Harwich.

A 173. C.-in-C., Grand Fleet, to Adty. Recd. 11.15 a.m.
360 In view of your 389 cancel last paragraph of my 355 beginning two light cruisers from Rosyth.

A 174. Admiral, Rosyth, to Adty. Recd. 12.20 p.m.
210 Indicator nets have been laid down from eastern end of Inchgarrie to Longcraig Pier, and are to be carefully watched. Divers and soundings have failed to locate any submerged obstruction; explosive charges have been kept ready from at first but not used yet. Work of completing outer netting and making new inner ones being pushed on as fast as possible.

A 175. Adty., F.N.A., to Marine, Paris. Sent 2.15 p.m.
1306 Transports crossing to-night:—
From Southampton .. 4 with troops for Havre and Rouen.
1 with remounts and hay for Havre.
1 with 15-in. howitzers for Boulogne.
From Newhaven. . . . 1 with ordnance stores for Boulogne.
2 with forage respectively for Rouen and Havre.
From Liverpool 1 with hay for Havre.

A 176. Comm. (T) to Adty. Recd. 3.33 p.m.
124 Statement of Destroyer Flotillas noon to-day:—
Ships ready for service .. *Aurora, Penelope, Undaunted, Miranda,*
4 destroyers 1st Flotilla, 9 3rd Flotilla,
and 1 at six hours' notice, 4 10th
Flotilla.
Ships at sea *Fearless* and 8 1st Destroyer Flotilla
en route to Rosyth.
Ships detached 4 3rd Destroyer Flotilla at Portsmouth.
Ships defective At Chatham—*Arethusa*, 5 1st Destroyer
Flotilla, 3 3rd Flotilla, 1 10th Flotilla.
At Glasgow—1 3rd Flotilla.
At Harwich—3 1st Flotilla, 2 3rd Flotilla,
3 10th Flotilla.
At Southampton—*Meteor*.
Movements 2 1st Destroyer Flotilla arrived here this
morning from Sheerness; 1 3rd Flotilla
arrived here yesterday from Glasgow;
Fearless and 8 1st Flotilla sailed for
Rosyth this morning; 4 10th Destroyer
Flotilla sailed for patrol this morning
and have returned; *Aurora, Penelope*
and 4 10th Destroyer Flotilla will sail
for patrol this evening. (1500.)

A 177. C.-in-C., H.F., to Adty. Recd. 4.53 p.m.
363 Your 0945. Approved *re* 4th Battle Squadron and destroyers modifying orders given in my 1410, 16th, as follows: (1) to sail to-night, Wednesday, M.M., and patrol from it to Utvaer Light, keeping well out of sight of land by day and to the eastward of 100-fathom line by night. *Blanche, Bellona*, and *Boadicea* to sail to-night for position 320 F.F. 26, and patrol 60 miles in direction north of 37 E in front by night. By day they are to sweep south of 53 E, ships to be in visual touch. (2) Destroyers are to join the attached cruisers as soon as weather moderates, the East Pentland patrol may be reduced to provide them if necessary. Informed these ships of disposal ordered by Admiralty telegram 38 in full commission. Addressed to V.A.C., 1st Battle Squadron, repeated Admiralty. (1401.)

A 178. British Minister, Copenhagen, to Adty. Recd. 8.51 p.m.
I hear from another well-informed source that 30 German trawlers passed Skaw going west between 2 and 4 o'clock this afternoon.

A 179. Adty. to C.-in-C., H.F. Sent 10.5 p.m.
400 *Fearless* and two divisions of 1st Flotilla left Harwich to-day for Rosyth. Remainder with *Woolwich* will follow later when they return from various services.

A 180. Tidal, Dover, to Adty. Recd. 10.22 p.m.
East boom defence carried away this morning in a heavy south-west gale

A 181. Sir A. Johnstone, The Hague, to F.O. Recd. 11.45 p.m.
49 Very urgent. Norwegian engineer whose business took him to Germania yards on 15th and 16th February has travelled to-night in order to give certain secret information on the subject of the rendezvous of new German submarines. He impresses Military Attaché as being reliable and declares positively that 1st Flotilla of eight submarines are under orders to leave Kiel to-morrow mid-day, 18th February. They are to proceed singly to a rendezvous at some protected point on Belgian coast.

A 182. Expeditionary Force.
Transports sailing during the next 24 hours:
From Southampton .. *Khephren, Willow Branch, Glenarm Head,*
Minnesota with reinforcements for Havre
and Rouen.
Tintoretto with remounts for Havre.
Pentwyn with 15-in. howitzers for Boulogne.
From Newhaven .. *Dieppe* with ordnance stores for Boulogne.
Louga with forage for Rouen. (Did not sail
last night.)
Milo with forage for Havre.
From Liverpool .. *Poland* with hay for Havre.
From London .. *Golden Eagle* empty for Southampton.
From Glasgow .. *Jupiter, Atalanta* empty for Southampton.
From Avonmouth .. None.

18th February 1915.

A 183. Adty. to A.O.P. Sent 12.15 a.m.
152 Ammunition ship *Wenning* is at Harwich waiting for an escort.

A 184. Adty. to R.A., Dover. Sent 1.6 a.m.
211 For the next few days two destroyers should patrol to the north-east of the minefield during daylight hours to make German submarines dive instead of passing over the mines. It is necessary that destroyers should have correct positions of line of mines G.1 and Buoy No. 8, also line of mines in old minefield. A chart is being prepared and an officer should be sent for it by 9 a.m. to-morrow.

A 185. Adty. Transports to War Office. Sent 8.45 a.m.
Next division proceeding France will cross by Southampton-Havre route, packet transports being utilised to the fullest extent.

A 186. Capt. (S) to Adty., C.O.S. Recd. 10.55 a.m.
Submarine *E.13* returned owing to bad weather; nothing to report. Is another submarine to be sent when weather improves?

Reply. Sent 7.10 p.m.
Send another vessel when weather is suitable. Give her the same orders.

A 187. British Minister (The Hague) to F.O. Recd. 3 p.m.

50 Very urgent. My immediately preceding telegram. Military Attaché believes his informant to be veracious and reliable. Report comes direct from two civilian engineers detailed to accompany the first flotilla to rendezvous. Following information is added. These submarines are approximately 1,000 tons, will leave singly this afternoon at about one hour's interval and steer course, if possible, through neutral waters. Of this I am advising Netherland Government. On 20th February second flotilla composed of 10 submarines of largest type, estimated 1,500 tons, will proceed to South Shetlands, where they will disperse. They are said to have capacity of 11 days and refilling to be arranged from fuel and supply ships at a rendezvous south of Iceland. On 22nd February four more submarines leave probably for the same destination as the first flotilla, that is some defended point on the Belgian coast. No other submarines of larger types are ready, but Kiel engineers anticipate having 12 more ready in about two months' time. Norwegian engineer's sketch of mechanism and details of new armament of these submarines follows by post.

A 188. F.N.A. to Marine, Paris. Sent 3.3 p.m.

1313 Transports crossing to-night :—

From Southampton ..	3 with troops for Havre and Rouen. 1 with remounts for Dieppe. 1 with hay for Havre.
From Newhaven ..	1 with ordnance stores and 1 with forage for Havre. 1 with ordnance stores for Boulogne.
From London.. ..	1 with hutting for Boulogne, Dieppe, Havre and Rouen.
From Glasgow ..	1 with hay for Havre.

A 189. Comm. (T) to Adty. Recd. 3.50 p.m.

125 Statement of Destroyer Flotilla at noon to-day :—

Ships ready for duty ..	<i>Undaunted, Miranda</i> , 4 destroyers 1st Flotilla, 12 3rd Flotilla.
Ships at sea	<i>Aurora, Penelope</i> and 4 10th Flotilla patrolling; <i>Fearless</i> and 8 1st Flotilla en route to Rosyth; 1 3rd Flotilla en route to Harwich from Portsmouth.
Ships detached ..	Nil.
Ships defective ..	At Chatham— <i>Arethusa</i> , 5 1st Flotilla, 3 3rd Flotilla, 1 10th Flotilla. At Glasgow—2 3rd Flotilla. At Harwich—3 1st Flotilla until 5 a.m. to-morrow 19th, 2 3rd Flotilla, 2 10th Flotilla. At Southampton— <i>Meteor, Mastiff</i> .
Movements	2 3rd Flotilla arrived here to-day from Portsmouth. (1530.)

A 190. F.N.A. to Marine, Paris. Sent 4 p.m.

1311 S.S. *Antwerp*, of the Great Eastern Company, commanded by Lieut. Herbert, R.N., is armed under the same conditions as the French auxiliary ship *Marguerite*, and is operating at present in the neighbourhood of Antifer. There has been no time to furnish the captain with the special papers. Please warn any local patrol. The name of the ship may have been changed.

A 191. F.N.A. to Marine, Paris. Sent 4.45 p.m.

1312 Contrary to the general recommendations to merchant ships which have to wait outside a harbour, namely that they should keep under way, the Admiralty advises very strongly that ships going to Havre should go as close in shore as possible south of the Whistle Buoy, where they will find shallow water where submarines cannot dive. Havre pilots might usefully give the same advice to ships arriving.

A 192. Rosyth N.C. to Adty. Recd. 4.57 p.m.

670 Message 18th, 4.50 p.m. *Fearless, Acheron, Attack, Ariel, Beaver, Badger, Sandfly, Lapwing, Jackal* arrived.

A 193. Adty. to all S.N.O.s. Sent 5.33 p.m. to 6.18 p.m.

Reported that 30 German minelayers passed the Skaw last night. They are probably trawlers.

A 194. F.O. to Sir F. Bertie, Paris. Sent 7 p.m.

364 French Minister of War agreed recently with Lord Kitchener that arrangements should be made for rendering Dunkirk available as a subsidiary base for British Army, and Sir J. French has been in communication with French military authorities, but is experiencing difficulty in obtaining permission for indispensable detailed survey of that port. It is most important that the survey should be made by qualified officers without delay, and War Office are anxious that it should be allowed to include the port of Calais, which would be valuable for disembarkation of troops and evacuation of wounded. Pray make necessary representations to French Government with a view to facilities being given to Sir J. French.

A 195. F.N.A. to Marine, Paris. Sent 7.20 p.m.

1316 Reply to your 124.¹ For ships coming from the east or south coast of England the port of waiting will be Spithead. It will be desirable that Havre telegraphs to King's Harbourmaster, Portsmouth, that the turn of such and such a ship to enter Havre is shortly due.

A 196. Adty. to C.-in-C., Devonport, Admiral, Queenstown. Sent 8.40 p.m.

Endeavour to pass to homeward-bound British steamers brief advice to assist them in case of attack. The following is suggested but may be transposed or altered as you consider necessary. It may be passed at your discretion through Signal Station or brief extracts from it sent by M.V. code. In the latter case the wording and length of message should be altered from day to day so as not to compromise the code. Queenstown to arrange with R.A., Cruiser Force E, as to latter informing vessels met with (begins). German submarines operating in English and Irish Channel. Make landfall after dark. Approach port at dawn. Allied submarines have orders not to approach merchant ships. On no account stop if ordered by submarines. Turn stern towards submarine and make at full speed for nearest port, keeping submarine in wake. Torpedo fired from submarine in wake easily avoided by use of helm. Track shown by line of bubbles. Submarine may fire gun. This can do little damage. Keep boats turned out and provisioned (ends). Sent to C.-in-C., Devonport, and Admiral, Queenstown, only.

A 197. Transports to Adty. Transports, Southampton. Sent 9.45 p.m.

Conveyance required from Southampton on 20th February. To Havre 1 officer, 24 other ranks. To Rouen 4 officers, 318 other ranks. Report name of ship allocated.

¹ See 13th February.

A 198. Naval Centre, Rosyth, to Adty. Recd. 9.46 p.m.
609 9.38 p.m. *Tiger* arrived.

A 199. Transports to Adty. Transports, Avonmouth. Sent 11.25 p.m.
Conveyance required from Avonmouth to Rouen on 19th February or as soon as possible after for No. 8 Motor Ambulance Convoy: 8 officers, 157 other ranks, 50 motor ambulances, 4 motor cars, 7 motor cycles, 1 30-cwt. lorry, 1 workshop lorry and 2 store lorries. Report name of ship allocated.

A 200. Admiral, Rosyth, to Adty. Recd. 11.50 p.m.
230 I am directing submarines in Firth of Forth and Aberdeen to remain in port until further notice.

19th February 1915.

A 201. Comm. (T) to Adty. Recd. 2.41 a.m.
126 *Aurora* reports weather unsuited for destroyers. I have directed destroyers return to harbour. (0230.)

A 202. S.N.O., Harwich, to Adty. Recd. 8.18 a.m.
Albatross, *Earnest* with ammunition ship *Wenning* sailed 0800.

A 203. F.N.A. to Marine, Paris. Sent 1.50 p.m.
1319 Transports crossing to-night:—

From Southampton ..	3 with troops for Havre.
	1 with troops for Havre and Rouen.
	1 with remounts for Rouen.
	1 with mechanical transport for Havre.
From Newhaven ..	1 with ordnance stores for Boulogne.
	1 with forage for Rouen.
From Liverpool ..	1 with hay for Havre.

Transport *Corsican Prince* leaves London to-day for Bordeaux.

A 204. Comm. (T) to Adty. Recd. 2.28 p.m.
127 Statement of Destroyer Flotilla noon to-day:—

Ships ready for duty ..	<i>Undaunted</i> , <i>Miranda</i> , 7 destroyers 1st Destroyer Flotilla, 13 3rd Destroyer Flotilla.
Ships at sea	<i>Aurora</i> , <i>Penelope</i> , 4 10th Destroyer Flotilla.
Ships detached ..	<i>Fearless</i> and 8 1st Destroyer Flotilla at Rosyth.
Ships defective ..	At Chatham— <i>Arethusa</i> , 5 1st Destroyer Flotilla, 3 3rd Destroyer Flotilla, 1 10th Destroyer Flotilla. At Glasgow—2 3rd Destroyer Flotilla. At Harwich—2 3rd Destroyer Flotilla, 2 10th Destroyer Flotilla. At Southampton— <i>Meteor</i> , <i>Mastiff</i> .
Moving	4 10th Destroyer Flotilla now on the way to Harwich from patrol owing to bad weather, 1 3rd Destroyer Flotilla arrived here yesterday from Portsmouth. (1355.)

A 205. Adty. to Comm. (T). Sent 7.30 p.m.
112 Weather permitting, a relief patrol should be sent out to remain out until morning of 21st.

20th February 1915.

A 206. Adty. to S.N.O., Folkestone. Sent 12.4 a.m.
Report at once at any time if you consider there is any possibility of cross-Channel steamers being delayed for any length of time, however small, outside Folkestone. Also report if at any time in your opinion there is any possibility of the cross-Channel steamers being delayed outside Calais, Dieppe or Boulogne.

A 207. C.-in-C., H.F., to Adty. Recd. 12.35 p.m.
378 Am ordering all fleet sweepers escorted by destroyers to search fleet route from Scapa Flow, Cromarty and Rosyth to the point of fleet concentration, leaving to-morrow Sunday night with four destroyers as screen. Destroyers have been instructed to sink all drifting mines. Request approval in regard to 3rd Cruiser Squadron.

Reply. Sent 12.25 p.m., 21.2.15.
418 Your 378. Approved.

A 208. Admiral, Devonport, to Adty. Recd. 1.3 p.m.
167 *Re* Admiralty telegram 975 of 2nd inst.¹ I have directed ships leaving here to-day to postpone sailing till after dark on account of submarine reported off Rame Head this morning.

A 209. Adty. to Marine, Paris. Sent 2 p.m.
1330 Transports crossing to-night:—

From Southampton ..	1 with troops, remounts and provisions.
	1 with troops for Havre and Rouen.
	1 with frozen meat for Boulogne.
From Newhaven ..	1 with forage for Havre.
	1 with ordnance stores and 1 with forage for Boulogne.

From London on the morning tide, 21st, a transport with hutting for Havre and Rouen.
A transport will perhaps leave Avonmouth with troops and mechanical transport stores for Rouen.

A 210. Comm. (T) to Adty. Recd. 3.40 p.m.
129 State of Destroyer Flotillas at noon to-day:—

Ships ready for service	<i>Aurora</i> , <i>Penelope</i> , <i>Miranda</i> , 6 destroyers 1st Flotilla, 10 3rd Flotilla, 1 10th Flotilla.
Ships at sea	<i>Undaunted</i> , 4 3rd Flotilla.
Ships detached ..	<i>Fearless</i> , 8 1st Flotilla at Rosyth.
Ships defective ..	At Chatham— <i>Arethusa</i> , 5 1st Flotilla, 3 3rd Flotilla, 1 10th Flotilla. At Glasgow—2 3rd Flotilla. At Harwich—1 1st Flotilla, 1 3rd Flotilla, 5 10th Flotilla. At Southampton— <i>Meteor</i> , <i>Mastiff</i> .
Movements	<i>Aurora</i> , <i>Penelope</i> arrived here from patrol; <i>Undaunted</i> , 4 3rd Flotilla sailed for patrol this morning. (1515.)

A 211. Adty. to Comm. (T). Sent 4.35 p.m.
114 Send one division of 3rd Flotilla to Devonport to wait orders in view of their presently being required to hunt submarines.

A 212. Adty. to *Tara*. Sent 4.35 p.m.
Send two destroyers to work off Liverpool Bay—a submarine has been reported off Great Ormes Head. She should be kept on the move.

¹ See A 58.

A 213. Naval Centre, Liverpool, to Adty. Recd. 4.55 p.m.
54 3.42 p.m. Following received from S.N.O., Liverpool (begins). Instruct shipping to give Skerries and Point Lynas a wide berth and proceed direct to Mersey Bar for pilot. Pilot station off Point Lynas is being removed to station off Isle of Man between Chicken and Douglas Head. New station will be established midnight 20th inst. Aberdeen, Pembroke, Kingstown and Greenock informed (ends).

A 214. Adty. to Comm. (T). Sent 6.25 p.m.
113 Patrol to return night of 21st.

A 215. Adty. to R.A., Dover. Sent 7.10 p.m.
219 Report what extent of nets you have got laid and how many vessels with guns or explosive sweeps are watching them.

Reply. Recd. 10.14 p.m.
264 Your 219. Eight miles of nets are laid, watched by 3 destroyers and 1 armed yacht. The position of destroyer patrol to-day was as follows: 2 north-east of minefields, 3 watching nets, 1 in the Downs, 3 on escort duty, 1 watching traffic from Dover to Dungeness.

Sunday, 21st February 1915.

A 216. Adty. to Transports, Southampton, Dover. Sent 3.15 a.m.

Masters of hospital ships should not take any offensive action in relation to submarines. Instruct accordingly.

A 217. Adty. to S.N.O., Larne. Sent 11.20 a.m.
Get indicator nets laid at once.

A 218. S.N.O., Liverpool, to Adty. Recd. 12.5 p.m.
Dee and *Dove* arrived, have directed them to patrol triangle area of Bar Light Ship, Skerries, Calf of Man, pending further instructions. (1125.)

A 219. R.A., Dover Patrol, to Adty. Recd. 12.14 p.m.
269 *Zulu* attacked by aeroplane 11 a.m. Position 51.8 N, 1.37 E. Four bombs dropped. No damage. Aeroplane went east.

A 220. F.N.A. to Marine, Paris. Sent 1.5 p.m.
1336 Transports crossing to-night:—
From Southampton .. 3 transports with troops for Havre.
From Newhaven .. 3 with ordnance stores, food and forage for Boulogne.
2 with ordnance stores and food for Havre.
1 with food for Rouen.
From Avonmouth .. Probably one with troops, ambulances and mechanical transport for Rouen.

A 221. R.A., Dover Patrol, to Adty. Recd. 3.30 p.m.
274 Only 8 miles of netting out to-day. Flotilla still not recovered from the recent gale. More nets are required and supply was stopped recently. Please take steps to re-establish. Regret to say that some of nets do not float. I am sending full report to-night.

A 222. C.-in-C., H.F., to Adty. Recd. 4.1 p.m.
387 Propose to send 2nd and 4th Battle Squadrons to sea to-morrow night, 22nd, to position NE Shetland Is. for tactical exercises and night firing. 2nd Battle Squadron to return to Invergordon. 4th Battle Squadron to Scapa Flow before dawn 25th.

A 223. C.-in-C., H.F., to Adty. Recd. 4.5 p.m.
Begins. Following has been sent to Grand Fleet. With reference to Grand Fleet 1915, 76 new organisation for Battle Fleet and Light Cruiser Squadron is to be brought into force at 6 p.m. to-day 21st inst. (1515.)

A 224. Adty. to *Sagitta*. Sent 6.50 p.m.
Columbia appears to have been sinking a line of mines purposely laid awash. What was her position from the land?

A 225. Adty. to R.A., Dover Patrol. Sent 7.5 p.m.
224 Your method of using the nets has been wrong. You were told to keep them spread by night as well as day, but you had full discretion in regard to weather. Efficacy of net depends on each net being readily detachable; this is the main principle of the device and your method vitiates it and very likely lost a good chance of a capture. In future you are to endeavour to keep a line of nets across the Channel day and night unless the weather is too bad; each net to be readily detachable and each section of eight nets is to be watched by its own trawler, but the trawler is not to be attached to the net. A prize of £500 will be paid to any trawler whose net is found attached to a captured submarine. You should particularly spread nets across the passage where you think a submarine broke through, and keep these sections in place, even if others have to be weighed. The Fourth Sea Lord states that you have at your disposal 25 miles of nets. If you have lost 90 nets you should still have 20 miles available. You should report night and morning the state of the indicator nets—how much is spread—how many trawlers are out, etc. You are to regard the maintenance of the indicator nets line as a most important part of your duties at the present time, and you must get it into complete and thorough order. If you had followed your instructions in the first instance disadvantage would have been avoided. A report is to be made as to why the *Viking* did not explode a charge over the submarine instead of waiting for slack water. (W.S.C.)

A 226. Transports to Principal Transports, Havre. Sent 7.20 p.m.
Move of the North Midland Division *via* Southampton and Havre will take place on 25th inst. and following days.

A 227. Adty. to C.-in-C., Devonport. Sent 8.30 p.m.
212 Send the four destroyers belonging to 3rd Flotilla to Bristol Channel to hunt submarines under the orders of their own Senior Officer. They will refuel at Pembroke, and intelligence will be transmitted to them from Pembroke. Report name of Senior Officer's vessel.

A 228. Adty. to C.-in-C., H.F. Sent 9 p.m.
422 Your 387. The Germans are aware that we have recently sent a number of pre-dreadnought ships to Mediterranean. In addition to two *Lovd Nelsons* we are also sending out some special service ships to Mediterranean, to make them believe that we are weak at home and to tempt their fleet out. In this event it would be better to postpone this cruise and keep all your heavy ships coaled and ready in harbour during the next week.

A 229. British Minister, Copenhagen, to Adty. Recd. 9.20 p.m.
I hear from a good source that on 20th February same ships were at Kiel as were reported to be there on 18th February. The "U" class of submarines at Emden are said to be intended for attacking British transports. They will be supported by some of newest torpedo boats and T.B.D.s which have been disguised.

A 230. R.A., Dover Patrol, to Adty. Recd. midnight.
277 I do not understand telegram 224. I received telegram on 17th from Admiralty that it was of the utmost importance to have nets down on the night of 17th. I made every effort to comply with this; nothing was said about weather. These nets are entirely new and are still in the experimental stage; they would not have been across the Channel so soon unless great efforts had been made by all persons concerned. I have found that the nets will not stand bad weather, and this information is very valuable, and was apparently not known before. If I had waited for proper clips no lines of nets would have been across the Channel yet. I consider I did right to put the nets across as I did, because clips were not available then and are not available now, and I am continuing to lay nets with spun yarn until clips are available. I desire approval of this without delay.

Please send me copy of telegram No. 224 by post as there are certain points about it that I do not understand. I will report on all points more fully by letter; in the meantime I feel sure that most of telegram No. 224 was sent because I have not been able to make clear all the difficulties attending on the upkeep of the indicator net lines. If nothing unforeseen occurs may I come to Admiralty to-morrow, Monday, at 11.30 a.m.? I am sure I can clear up all points.

22nd February 1915.

A 231. Adty. to Dockyard, Pembroke. Sent 12.30 a.m.
Four destroyers of 3rd Flotilla have been sent to Bristol Channel to hunt submarines under orders of their own Senior Officer in *Lance*. They will refuel at Pembroke. All information respecting enemy submarines in Bristol Channel is to be passed by Pembroke W.S. Station to *Lance*.

A 232. Adty. to R.A., Dover Patrol. Sent 2 a.m.
226 Your 274. 27 miles were sent to Dover and supply was then diverted to Larne. More nets will be sent as soon as possible. The great wastage at Dover was not anticipated. The lack of flotation is not easy to understand. The matter will be dealt with as soon as the report is received.

A 233. *Columbia* to Naval Base, Lowestoft. Intercepted 9.37 a.m.
Enemy's aeroplanes going west two in number, dropped two bombs. (0930.)

A 234. Cdr. Samson, Dunkirk, to Adty. Recd. 11.6 a.m.
Last night, 11 p.m., made small raid two machines: No. 50, Samson, bombs on Middlekerke and Mariakerke guns. 1241, Collet, pilot, passenger Butler, bombs on mole Zeebrugge, one searchlight hit.

A 235. Admiral, Rosyth, to Adty. Recd. 11.27 a.m.
244 R.F.A. *Avo* reports that whilst on passage from Southampton to Rosyth she sighted on 16th February at 10.10 a.m. a cask of oil apparently moored Lizard bearing N 38 E (true), 2 miles. 17th February at 12.30 p.m. cask of oil Nun Island bearing S 88 W, 6 miles (true). Another cask Altarcy Head bearing S (true), 10 miles. All cask(s) apparently moored.

A 236. Adty. to C.-in-C., Devonport.
216 Rear-Admiral Dare is to take up his appointment at Milford Haven forthwith. Sub-Lieutenant Yorke is to accompany him as Assistant. Appointment follows for Sub-Lieutenant.

A 237. C.-in-C., H.F., to Adty. Recd. 12.20 p.m.
392 I have returned to full duty. *Iron Duke* will leave for Scapa as soon as platform for director tower is complete, probably to-morrow afternoon, 23rd February.

A 238. Adty. to Marine, Paris. Sent 1.20 p.m.
1345 Transports crossing to-night:—
From Southampton .. 1 with troops for Havre and Rouen.
1 with remounts for Rouen.
From Newhaven .. 1 with ordnance stores for Boulogne.
2 with forage for Havre and Rouen
respectively.
From Liverpool .. 1 with frozen meat for French Government.

A 239. R.A., Dover Patrol, to Adty. 3.25 p.m.
283 In view of your telegram 224. Please answer my question as to whether indicator nets are to be laid with spun yarn or to wait for clips. I still recommend spun yarn as temporary expedient, and I have slightly reduced it in strength. The drifters relieving will leave harbour this evening, so the matter is urgent. If clips only are allowed I shall reduce patrol to 4 miles. (1510.)

Reply. Sent 7.15 p.m.
229 Your 283. Use your own judgment and use as much net as possible.

A 240. Adty. to Comm. (T). Sent 4.10 p.m.
117 The remainder of 1st Flotilla and *Woolwich* should be sent to Rosyth. Communicate time of sailing to C.-in-C., Home Fleet.

A 241. Transports to Adty. Transports, Avonmouth. Sent 11.25 p.m.
Following are details of mechanical transport of North Midland Division to embark on 23rd inst. for Rouen: 11 officers, 645 other ranks, 21 motor ambulances, 6 motor cars, 16 motor cycles, 106 3-ton lorries, 4 store lorries, 5 workshop lorries, 50 tons ammunition.

23rd February 1915.

A 242. Adty. to C.-in-C., Nore (137), Comm. (T) (119), A.O.P. (164). Sent 1.25 a.m.

Dredger No. 6 belonging to Port of London Authority will be towed by three tugs to the Tyne, sailing about 23rd February. It is to be escorted by two destroyers from the Nore Flotilla as far as Harwich. The escort from Harwich to the Humber is to be supplied by Commodore (T). The escort from Humber to Tyne is to be supplied by A.O.P. Officers providing escorts are to arrange with one another.

A 243. Adty. Transports to Transport Officers. Sent 9.50 a.m.
Following instructions to be given to transports making coastwise voyages: Transports making coastwise voyages should keep in shallow water where conditions permit as in eastern part of English Channel. Where there is no extent of shoal water, for example the Start, the Lizard and Land's End, they should keep right away to sea off usual track. In moonlight they should keep good look-out for submarines on surface and act in accordance with the directions given by Admiralty to merchant shipping should they see one.

A 244. Admiral, Portsmouth, to Adty. Recd. 11.45 a.m.
It is reported to me by escorting destroyers that certain transports are extremely slow and dangerous, and an easy victim for any submarine, even with two destroyers each as escort on any night but a pitch dark one; their speeds are between 7 and 9 knots.

A 245. Adty. to *Lance*, Pembroke. Sent 11.50 a.m.
Two steamers carrying horses now at Queenstown are to be escorted to Liverpool, names *Armenian* and *Hydaspes*.

A 246. Adty. to C.-in-C., H.F. Sent 1.30 p.m.

437 Approved to move 2nd Battle Squadron as proposed in your letter to First Sea Lord.

A 247. Devonport to all homeward-bound British ships.

German submarines are operating in English and Irish Channels. Allied boats will not approach British merchant ships. If attacked, run away full speed, keeping submarine in wake; look out for bubbles astern; avoid by using helm; turn out and provision boats. (In M.V. code.)

A 248. C.-in-C., H.F., to Adty. Recd. 4.8 p.m.

404 My 378. Sweeping programme was postponed on account of bad weather, following will leave about noon to-day Tuesday for rendezvous 57 N, 2.30 E: 8 fleet sweepers from Cromarty, Captain Preston in *Reindeer* in charge, escorted by 4 destroyers; 4 fleet sweepers from Dundee, escorted by 4 destroyers. 3rd Cruiser Squadron and 3 destroyers will leave for rendezvous to-night. Force will assemble at rendezvous about 11.10 a.m. to-morrow, Wednesday, and combined sweep will be carried out under the orders of R.A.C., 3rd Cruiser Squadron, during daylight to short distance in the direction of Heligoland; distance depends on number of drifting mines met. R.A.C., 3rd Cruiser Squadron, has been ordered to report when force reaches position furthest south and turns north. Addressed Admiralty, repeated V.A.C., 1st Battle Squadron.

A 249. F.N.A. to Marine, Paris.

1354 Transports crossing to-night:—

From Southampton	..	1 with troops for Havre. 6 with troops for Rouen. 1 with remounts for Havre.
From Newhaven	..	2 with ordnance stores; 1 for Boulogne, the other for Havre.

A 250. Marine, Paris, to Adty., F.N.A.

161 Please let me know at once if as a result of the conference which should have taken place at the Admiralty in accordance with your 1118, a decision has been arrived at regarding the patrols in the Western Channel, and what the decision is.

Reply.

1356 No decision has been arrived at, the question is still under discussion. The only changes made in the British patrol are the departure of Admiral Wemyss, who is succeeded by the Senior Captain, and the replacing of some of the cruisers by auxiliary cruisers. The British line comprises at present two cruisers and four auxiliary cruisers.

A 251. Adty. to Divisional Transports, Newhaven. Sent 7.25 p.m.

When not required for escort duty with transports, two of the torpedo boats stationed at Newhaven are to patrol off Beachy Head and look out for enemy submarines.

A 252. C.-in-C., H.F., to Adty. Recd. 8.5 p.m.

409 Your 346¹ and Admiralty letter M.0299 of 12th January and M.01033/15 of 8th February. Battle Cruiser Fleet and 3rd Cruiser Squadron, Rosyth. 1st Cruiser Squadron, 2nd Cruiser Squadron, 6th Cruiser Squadron and 7th Cruiser Squadron will alternate between Scapa Flow and Cromarty. Changes will be notified to Naval Store Officer, Grand Fleet. Present position of 1st Cruiser Squadron, 7th Cruiser Squadron, Scapa Flow; 2nd Cruiser Squadron, 6th Cruiser Squadron, Cromarty.

¹ Allocation of store carriers in relation to reorganisation of cruiser squadrons.

A 253. R.A., Dover Patrol, to Adty. Recd. 8.24 p.m.
300 Your 211.¹ After being out for five days I have removed special patrol in order to have more destroyers available to watch nets and trade routes.

A 254. Adty. to Comm. (T). Sent 8.30 p.m.
Send two destroyers to Sheerness to convoy ammunition ship *Race Fisher* to Portsmouth, where *Race Fisher* and the destroyers are to remain.

24th February 1915.

A 255. V.A.C., 2nd B.S., to Adty. Recd. 10.21 a.m.
22 2nd Battle Squadron, *Boadicea*, arrived at Cromarty.

A 256. Cdr. Oliver, Kingstown, to Adty. Recd. 12.21 p.m.
Rear-Admiral Le Marchant has this day assumed charge of Naval Base, Kingstown.

A 257. S.N.O., Larne, to Adty. Recd. 1.50 p.m.
47 Have taken over command here. Admiral Barlow.

A 258. F.N.A. to Marine, Paris. Sent 2.15 p.m.
1364 Transports crossing to-night:—

From Southampton	..	3 each with 1,200 troops for Havre. 1 with remounts for Rouen.
From Newhaven	..	1 with ordnance stores and 1 with forage for Boulogne.
From Avonmouth	..	4 for Rouen carrying mechanical transport stores and 680 men.
From London	..	1 with war stores for Bordeaux, 1 with hutting for Boulogne, Dieppe, Havre and Rouen.
From Manchester	..	1 with hay for Rouen.

A 259. Adty. to C.-in-C., Portsmouth. Sent 3.25 p.m.
74 In view of *City of Edinburgh*, *Inventor*, *Rosetti* and *City of Lucknow* sailing from Southampton to-night with troops and horses, being slow ships each vessel should have three destroyers to escort her. Detain any ships which you cannot provide sufficient escort for.

A 260. Admiral, Portsmouth, to Adty. Recd. 4.58 p.m.
209 Your 74. Southampton told to send two transports only. Cannot escort more to-night, and there are six to go on Thursday (25th), which will now become seven, of which only three can be escorted if they require three each till ex-coastal boats are ready for duty.

A 261. Adty. to C.-in-C., H.F. Sent 5.20 p.m.
447 When may the destroyers referred to in para. 3 of A.L. M.01270 be expected to arrive at their new stations?

A 262. Adty. to *Lance*, via Pembroke. Sent 5.35 p.m.
Your division should be at Avonmouth by sunset on 27th to escort transports.

A 263. Adty. to Comm. (T). Sent 5.55 p.m.
121 Four destroyers should be sent to Avonmouth by sunset on 27th inst. to escort transports. They should complete with oil at Plymouth or Pembroke en route.

¹ Probably 219—see A 215.

A 264. Adty. to Principal Transports, Havre. Sent 6.15 p.m.
Urgent. Wire how many ordinary transports you can take in addition to three packet transports on one tide. Information required for to-morrow's move.

A 265. Adty. to all Ships and Bases. Sent 7.5 p.m.
A minefield has been reported about 6 or 7 miles ESE from Beachy Head.

A 266. R.A., Dover Patrol, to Adty. Recd. 7.31 p.m.
314 Have cancelled order in my telegram 313 *re* traffic and have substituted that from Portsmouth. Have ordered *Syren* and *Amazon* to remain west of Beachy Head.

A 267. R.A., Dover Patrol, to Adty. Recd. 7.40 p.m.
315 *Syren* reported submarine. Steamer *Hungarian Prince* reported submarine this afternoon. Master of *Oakby* sunk yesterday off Beachy Head reported seeing a torpedo strike. I think it is submarine off Beachy Head. Asking *Syren* for more information. This has been passed to Portsmouth.

A 268. Adty. to Admiral Charlton, Harwich. Sent 8.5 p.m.
A minefield is reported about 6 miles ESE from Beachy Head. Stop clearing the British minefield and set the vessels from there to work off Beachy Head as soon as possible.

A 269. Adty. to C.-in-C., Portsmouth. Sent 9.30 p.m.
80 Your 209 approved. The fast steamers will become available again shortly, and three destroyers for each of them will not be necessary. Owing to the bright moon lasting practically all night it is unsafe at present to send slow or moderate speed transports with less than three destroyers each. The congestion cannot be helped, matters will improve when more fast vessels are available.

A 270. Adty. to *Cyclops*, for Admiral, Longhope (152),
C.-in-C. (450),
Alsatian (70). Sent 9.45 p.m.
American, formerly German, steamer *Dacia* from Norfolk 11th February for Rotterdam with cotton, should be brought in. She may have now been renamed *Margaret*. She is fitted with W/T. She is probably using southabout route, but may turn north. She is now in W/T touch with Valencia, and is enquiring about pilots for English Channel.

A 271. Admiral, Portsmouth, to Adty. Recd. 10.46 p.m.
212 Transport officer informs me eight transports from 11 to 13 knots and three of 19 knots will cross to-morrow night, Thursday. I have not sufficient destroyers available as escort—only eight. Instructions are requested.

Reply. Sent 11.45 a.m., 25.2.15.
83 Your 212. 19-knot vessels should proceed without escort at full speed. Available destroyers should escort slow transports, three destroyers to each transport. Transports for which no destroyers are available should be detained. More destroyers will be sent later to work off the accumulation, and the two which are escorting the *Race Fisher* can be used when they become available.

25th February 1915.

A 272. Adty. to Divisional Transports,
Dunkerque. Sent 1.55 a.m.
The Admiralty boat to Dover is in future to leave only after dark and at such time as will ensure her arrival Dover at dawn.

A 273. Adty. to Admiralty Transports,
Avonmouth. Sent 10.55 a.m.
Four of the eight transports conveying Royal Naval Division should leave on evening of 27th and four on evening of 28th to enable stronger escort to be provided.

A 274. C.-in-C., H.F., to Adty. Recd. 11.33 a.m.
417 Your 447. "C" class destroyers from Rosyth have not yet arrived Scapa. I am ordering them up and will send "E" class immediately on their arrival.

Reply. Sent 2.5 p.m.
451 Your 417. The destroyers should be sent direct as the reinforcements to the Army in France are being delayed for want of them.

A 275. Admiral, Portsmouth, to Adty. Recd. 4.49 p.m.
222 Immediate. Dockyard proposes sailing *Lake Michigan* and *Cardigan-shire* this evening. They carry no passengers but are important vessels. I can give them no escort as I am using some of the extended defence craft to escort as many as possible transports. Request instructions as the night promises to be as clear as daylight.

Reply. Sent 8.55 p.m.
94 Your 222. The vessels should sail as it is important to get them to Egypt at once and the risk must be accepted.

A 276. F.N.A. to Marine, Paris. Sent 5.40 p.m.
1376 Transports crossing to-night:—
From Southampton .. 6 certain with troops—including 2 which did not sail yesterday for lack of escort—5 others if escort can be provided; all 11 for Havre.
From Newhaven .. 4 for Havre with food supplies, firewood, forage and ordnance stores respectively.
1 for Rouen with food supplies.
1 for Dieppe with forage.
3 for Boulogne with ordnance stores, forage and food supplies respectively.
From Avonmouth .. 1 with Headquarters Staff of Mediterranean Expedition.
From Manchester .. 1 left at noon with hay for Havre.

A 277. Adty. to all Ships. Sent 7.10 p.m.
Beachy Head Light has been permanently relit. Orders have been given to replace Owers, Royal Sovereign, Varne and South Goodwin Light Vessels to their peace positions as given in Admiralty Light Lists. This will be carried out as quickly as possible and ships will be kept informed of progress.

A 278. Adty. to A.O.P. (170),
S.N.O., Lowestoft (76). Sent 7.50 p.m.
Two or three armed trawlers from Area 10 may occasionally cruise in vicinity of Swarte Bank to look for submarines. S.N.O., Lowestoft, will inform A.O.P. when they do so.

A 279. Chief Censor, Adty., to Press. Sent 11 p.m.

The Secretary of the Admiralty authorises the publication of the following figures:—

Arrivals and Sailings of Oversea Steamers (over 300 tons) of all Nationalities at United Kingdom Ports.

Week.	Arrivals.	Sailings.
31st December to 6th January	605	575
7th to 13th January	632	723
14th to 20th January	821	763
21st to 27th January	823	680
28th January to 3rd February	677	743
4th to 10th February	754	664
11th to 17th February	752	686
18th to 24th February	708	673

British Vessels Sunk by German Submarines since 18th February.

Date.	Ship.	Tons.	Position.
20th February ..	<i>Cambank</i> ..	3,112 ..	Off Anglesey.
20th ..	<i>Downshire</i> ..	337 ..	Off Calf of Man.
23rd ..	<i>Branksome Chine</i> ..	2,026 ..	Off Hastings.
24th ..	<i>Oakby</i> ..	1,976 ..	Off Beachy Head.
24th ..	<i>Rio Parana</i> ..	4,015 ..	Off Beachy Head.
24th ..	<i>Western Coast</i> ..	1,165 ..	Off Beachy Head.
24th ..	<i>Harpalion</i> ..	5,867 ..	Off Beachy Head.

N.B.—S.S. *Deptford* sunk off Scarborough on 24th February probably struck a mine.

26th February 1915.

A 280. Shotley to Adty. Recd. 12.32 p.m.

H.M.S. *Fervent* and *Cordova* report the latter having been attacked by two enemy aeroplanes 2 miles west of Sunk Light Vessel at 10.20 a.m. to-day has sustained no damage. One aeroplane proceeded NE and one NW, (1225.)

A 281. F.N.A. to Marine, Paris. Sent 2 p.m.

1382 Transports crossing to-night:—

From Southampton ..	8 for Havre with troops; 3 of these did not sail yesterday for lack of escort.
From Newhaven ..	1 for Boulogne with ordnance stores.
From Liverpool ..	1 for Rouen with frozen meat.
From Manchester ..	1 for Havre with hay.

A 282. Adty. to R.A., Dover. Sent 6.45 p.m.

259 A destroyer or torpedo boat is to escort the packet boat conveying military from Folkestone to Boulogne to-night. Boat sails at about 9 p.m. Destroyers should wait and convoy military boat back, leaving 4 a.m.

A 283. Sir A. Johnstone, The Hague, to F.O. Recd. 7 p.m.

58 Urgent. Military Attaché is reliably informed civilian traffic to-day is suspended in certain districts in Belgium owing to large movements of troops; and also that Admiral von Ingenohl has been removed from his command and sent to Kiel. It is surmised that Prince Henry will replace him.

A 284. Adty. to C.-in-C., H.F. Sent 8 p.m.

Very Secret. *Carnarvon* has run on shore at Arolhos Rocks and there is little prospect of salving her. *Bristol* has been badly on shore in Magellan Strait, rudder damaged and must be docked. *Dresden*, *Kronprinz Wilhelm* and two supply vessels are operating off south-east coast of America and have sunk four vessels. Send *Liverpool* and *Gloucester* to Gibraltar en route to south-east coast.

A 285. Adty. to *Lance*. Sent 8.25 p.m.

Two destroyers are to escort the *Dunluce Castle* from Avonmouth to sea to-morrow evening 27th. *Dunluce Castle* should be escorted to a position lat. 51 N, long. 6.30 W, and directed to pass 50 miles west of Scilly Is. and to keep 50 miles west of the usual track as far as Cape Trafalgar. Destroyers to return to Avonmouth afterwards. Acknowledge. (2025.)

A 286. Adty. to *Ganges*. Sent 8.30 p.m.

Direct Sunk and Longsand Light Ships to extinguish lights between 10 p.m. and 4 a.m. until further notice, instead of as at present. Similar orders given to Kentish Knock, Edinburgh, Tongue and North Foreland.

A 287. Adty. to S.N.O., Gibraltar (357),
V.A.C., Queenstown (194),
R.A., Cruiser Force E (53).

Endeavour to inform Liverpool ships inwards to keep mid-channel course up Irish Channel, avoid Anglesey, pick up pilot at Bar, but in heavy north-westerly weather pilot obtainable between Chickens Rock and Douglas.

A 288. C.-in-C., H.F., to Adty. Sent 8.55 p.m.

429 Submit if weather conditions favourable, colliers proceeding from Cardiff to North Base be directed to pass west of Ireland and Hebrides 30 miles off shore, in order to avoid submarines. Submit for favourable consideration that all fleet auxiliaries should have foreign name and port substituted for their British name, and be directed to fly corresponding colours. Am making neutral flags for fleet auxiliaries now at this base, and if approved, will carry out above suggestion for ships here.

27th February 1915.

A 289. Comm. (T) to Adty. Recd. 12.28 p.m.

141 *Hydra* and *Lizard* conveying ammunition ship *Race Fisher*. *Lance*, *Lennox*, *Legion* and *Loyal* were sent to Devonport to await further orders. Senior Officer reports *Legion* and *Loyal* have been detached to Queenstown for escort duty. *Ferret*, *Forester*, *Druid* and *Defender* detached to Avonmouth to escort transports. (2300.)

A 290. Adty. to C.-in-C., H.F. (460),
A.O.P. (174),
Comm. (T) (127),
Capt. (S) (88),
All Naval Centres.

Sent 10 a.m.

British Minister, Copenhagen, reports following (begins). Naval Attaché was informed at Danish Ministry of Marine to-day (26th) that altogether about 20 German trawlers have lately been fishing in Kattegat; 18 of these returned south through Flint Channel two days ago. A Danish torpedo boat has been among them all the time, and reports none of them have been north of Anholt (56.40 N, 11.40 E), that none of them are fitted with W/T, and that all those boarded are quite innocent. A number have put in at various places for provisions and in every case have been boarded by naval authorities but nothing the least suspicious has been seen (ends).

A 291. Admiral, Portsmouth, to Adty. Recd. 12.18 p.m.

249 Referring to your messages 74 and 80, 24th February, and 83, 25th February, I submit for consideration whether it would not be safer to give faster transports one destroyer, and slower two, because faster transports are paddle steamers which can be heard at great distance. This to some extent nullifies value of their speed as a submarine can lay for them before they come up on their known track and choose the moment to fire torpedo.

Reply.

115 Your 249. Approved. Sent 6.8 p.m.

A 292. Lowestoft to Adty. Recd. 12.27 p.m.

138 Two German air officers picked up at sea off Dutch coast by smack *L.T.12* from a sinking German seaplane No. 203 have been brought in here. Their names are Ober Lieutenant Zur See Proudnynski and Fähnrich Zur See Heyn. They will be transferred to custody of military at Bury St. Edmunds.

A 293. Adty. to S.N.O., Newhaven. Sent 12.35 p.m.

Two torpedo boats are to proceed at once to Folkestone for temporary service under the R.A., Dover.

A 294. R.A., Scapa, to Adty. Recd. 1.42 p.m.

458 H.M.S. *Exe*, *Teviot*, *Ure*, *Boyne*, *Foyle* sailed for Dover and Devonport eastabout.

A 295. Adty. to R.A., Dover Patrol. Sent 2.25 p.m.

263 A report should be sent to the Admiralty daily giving the state of the patrol and the number of miles of nets laid at sea.

A 296. Adty. to C.-in-C., H.F. Sent 3.40 p.m.

464 Your 429. Orders will be given for colliers to proceed from Cardiff to North Base as requested. Your other suggestion is under consideration; take no further steps at present.

A 297. R.A., Dover Patrol, to Adty. Sent 6.8 p.m.

342 Calais reports a German submarine 7,000 metres west of Calais Pier keeping close alongside hospital ship *Dougay Trouin* so that they are unable to fire without hitting hospital ship. I have ordered to sea the French destroyers at Calais and am sending my nearest destroyers to assist.

A 298. F.N.A. to Marine, Paris.

*1393 Transports crossing to-night:—

From Southampton .. 9 for Havre with troops and horses, including 3 which did not go last night on account of bad weather.

From Newhaven .. 2 for Boulogne with ordnance stores.

2 for Havre with ordnance stores and forage.

From Liverpool .. 1 with frozen meat for Rouen.

1397 Add:— 1 transport with hutting from London for Boulogne.

A 299. Adty. to Comm. (T). Sent 6.47 p.m.

129 Your letter received. Action proposed is approved.

A 300. R.A., Dover Patrol, to Adty. Recd. 7 p.m.

343 My 342. Am receiving signals about German submarine about 3 miles off Calais. I have wired to French Senior Officer of Torpedo Flotilla to send out the destroyers which are there and which were put under my orders and that they should go out whenever enemy submarines are in the vicinity. Could it be suggested that the French patrol their own coast as necessary, observing that indicator nets are easily seen by day and are well clear of the coast.

A 301. S.O., Cruiser Force O, via Rame Head, Recd. 7.53 p.m.
to Adty.

312 *Amiral Aube* (Fr.) reports that s.s. *Dacia* arrested by French patrol. (1818.)

A 302. Adty. to Adty. Transports, Newhaven. Sent 8.10 p.m.
Transports to-night will sail without escort.

A 303. Adty. to C.-in-C., H.F. Sent 9.55 p.m.

470 It is necessary to transport the troops to France in the fastest steamers which can be obtained, the transports hitherto in use are too liable to submarine attack. Great difficulty is being found in obtaining suitable steamers. Could you spare *Cambria* or *Anglia* or any similar vessels if replaced by slightly slower vessels?

A 304. C.-in-C., H.F., to Adty. Recd. 10.20 p.m.

431 To render stoppage of German trade and watch on German ships more effective consider desirable for a cruiser squadron to operate in vicinity of Norwegian coast in about 62 N. Ships making for land there and those coasting must come out of fjords. Propose to attach one small ship of 10th Cruiser Squadron for boarding purposes. Squadron will shift position frequently and keep well clear of the coast by day. Request approval.

A 305. D. of T. to D.O.D.

Expeditionary Force.

Transports Sailing during the next 24 hours.

From Southampton:		Gross Ton.	Speed.
* <i>Blackwell</i>	With 347 men	4,712	12
* <i>Glenarm Head</i>	" 348 "	3,908	12½
* <i>Maiheran</i>	" 155 "	7,654	12
* <i>Trafford Hall</i>	" 177 "	5,321	12
<i>Empress Queen</i>	" 1,054 "	1,995	20½
<i>King Edward</i>	" 494 "	551	19
† <i>Atalanta</i>	" 460 "	486	17
† <i>Golden Eagle</i>	" 700 "	793	18½
† <i>Glen Sannox</i>	" 550 "	610	19

* These ships also take horses.

† These ships sailed last night but put back on account of rough weather.

From Newhaven .. **Achille Adam* with ordnance stores for Boulogne.

Dieppe with ordnance stores for Boulogne.

Eider with forage for Havre.

Louga with ordnance stores for Havre.

* Sailed last night but put back on account of rough weather.

From Avonmouth .. *Dunluce Castle* with Headquarters Staff of Mediterranean Expedition, 45 officers, 747 other ranks, will sail to-night, if escort can be provided. Gross tonnage 8,124, speed 14½.

From London .. *Santaren* empty for Cardiff.

Inkonka (probably) empty for Devonport.

Minnewaska empty for Portsmouth, then Avonmouth.

From Liverpool .. *Royston Grange* with frozen meat for Rouen (did not sail last night).

Ulysses Australian transport empty for Barry.

Hydaspes empty for South Wales.

From Portsmouth .. *Atlantian*, *Californian*, *Indian*, *Australind* probably sail to-night empty for Mediterranean.

From London .. *Juno* with hutting material for Boulogne.

Sunday, 28th February 1915.

A 306. Adty. to *Cornwall*, Avonmouth. Sent 12.30 a.m.

Report names of destroyers arriving at Avonmouth for escort of transports. Inform S.N.O. of destroyers that each transport carrying Naval Division is to be escorted by two destroyers to lat. 51 N, long. 6 W, the destroyers are then to refuel at Pembroke if necessary and return to Avonmouth for more transports. Give orders to transports that after leaving lat. 51 N, long. 6 W, they are to pass 50 miles west of Scilly Is. and keep 50 miles to westward of usual track until in latitude of Gibraltar Straits. A submarine has been reported on Spanish coast and great precautions should be taken on approaching Gibraltar Straits. Transports should proceed singly and transports not carrying men do not require destroyer escort. If weather is too bad for destroyers, transports should sail without them. Report sailings of transports. Acknowledge.

A 307. Pembroke Dockyard to Adty. Recd. 3.47 a.m.

Following message received from *Lance* (begins). There is no good anchorage for destroyers near Avonmouth. I have had to slip my cable and am now at anchor in Barry Roads with my division. Request submission be made to Admiralty that destroyers remain at Milford Haven, proceeding as necessary to escort transports (ends). Request instructions.

A 308. R.A., Dover Patrol, to Adty. Recd. 11.17 a.m.

344 Your 262. Torpedo boats are too small for escorting Boulogne steamer. I am arranging for tribal destroyers to do so to-night and following nights. I have kept destroyers near to Beachy Head since 24th. Suggest that torpedo boats might do this if C.-in-C., Portsmouth, concurs, and I can then get back my destroyers from Beachy Head.

Reply. 4.35 p.m.

Your 344. Approved.

A 309. Hull to Adty. Recd. 11.28 a.m.

204 Following from A.O.P. (begins). Steamship *Romany* reports that on 26th February at 11.30 a.m. when 3 miles SSW of Shipwash Light Vessel a German Taube dropped three bombs about 15 to 20 yards off ship; also two or three bombs at another steamer, which also missed; then turned and went south (ends).

A 310. Adty. to *Lance*, W/T via Pembroke. Sent 12.10 p.m.

You should endeavour to find anchorage nearer Avonmouth, use of Milford adds a long distance to each escorting trip, already nearly 300 miles. Newport Deep may prove suitable as tides are not so strong as in King Road. If Newport Deep is unsuitable after trial you will have to use Milford. Captain of *Cornwall* has your instructions about escort duty.

A 311. Adty. to *Cornwall*, Avonmouth. Sent 12.15 p.m.

Lance reports destroyers cannot use anchorage off Avonmouth with safety. Report whether destroyers can be berthed in Avonmouth Docks and be taken out at same time as transports they escort; also whether they could go into docks on return from escort without necessity of anchoring. Report if Newport Deep is a suitable anchorage; get local advice.

Reply.

Four destroyers can be berthed in Avonmouth Dock. Suggest remainder should be sent to Alexandra Dock South at Newport, Monmouth, where they will be in telephone communication with Naval Transports, Avonmouth. Newport Deep unsuitable for anchorage. Destroyers can be docked three hours before and after high water.

A 312. R.A., Dover Patrol, to Adty. Recd. 12.57 p.m.

347 Big steamers are still passing slowly past Dover. Please issue urgent orders for ships to steam full speed; I have informed S.N.O., Ramsgate.

A 313. F.N.A. to Marine, Paris. Sent 1 p.m.

1401 Admiralty is looking for two or three rapid mail steamers of moderate displacement for transport of troops to France, the greater part of the ships now employed being too exposed by their lack of speed to submarine attacks. Would it be possible to come to their assistance by placing at their disposal ships like the *Charles Roux*, whose regular service might perhaps be carried on by slower vessels?

A 314. F.N.A. to Marine, Paris. Sent 1.15 p.m.

1402 Transports crossing to-night:—

From Southampton .. 6 for Havre with troops and horses.
From Newhaven .. 1 for Boulogne with ordnance stores.
1 for Rouen with forage.

A 315. Adty. to R.A., Dover Patrol. Sent 1.45 p.m.

270 When the weather is too bad for the torpedo boats to keep up with the military packet boat she should run without escort.

A 316. C.-in-C., H.F., to Adty. Recd. 4 p.m.

437 Your 470. Certainly. Both can be spared if replaced. Vessels of 12 knots speed could now do the work provided they can steam about 500 miles at 10 knots.

A 317. Adty. to all Ships and S.N.O.s. Sent 4.15 p.m.

The area outside Beachy Head has been thoroughly investigated by exploratory sweeps and no mines found. It is not thought there are any moored mines in this vicinity.

A 318. Adty. to R.A., Dover Patrol. Sent 5.30 p.m.

275 To-night is the last night the military packet boat will run, as further leave will be stopped. If weather is too bad for torpedo boat escort send a destroyer instead, as Admiralty are particularly anxious nothing should happen to packet on last night of running.

A 319. First Lord to C.-in-C., H.F. Sent 5.35 p.m.

475 Secret and Personal. I have arranged with Commonwealth Government that Patey shall shift his flag to *Leviathan* and command North American and West Indies Squadrons. I propose to give Pakenham 2nd Battle Cruiser Squadron, which I am sure will be in accordance with your wishes, as with Beatty's. Grant would seem indicated for 3rd Cruiser Squadron. What do you say to this?

A 320. V.A.C., Battle Cruisers, to Adty. Recd. 7.22 p.m.

101 For Admiralty and C.-in-C., Grand Fleet. Commodore Brock will hoist Commodore's broad pennant temporarily in *Tiger*, at 9 p.m., 1st March, in command of 1st Battle Cruiser Squadron. He will continue to be accommodated in *Princess Royal*, to which ship his correspondence should be addressed. (1530.)

A 321. Adty. to C.-in-C., H.F. Sent 7.40 p.m.

476 Your 431. Approved. It seems desirable that the presence of the cruiser squadron off the Norwegian coast should be intermittent. A force kept permanently off the coast, even though it shifts position frequently, will in time be found by submarines.

(C7213)

M

1st March 1915.

- A 322.** Adty. to C.-in-C., Portsmouth (132),
C.-in-C., Devonport (291),
V.A.C., Queenstown (203),
S.N.O., Liverpool. Sent 12.55 a.m.

It is reported that merchant vessels are passing much closer than usual to Beachy Head. It is of utmost importance vessels should avoid all prominent headlands and keep well in mid-channel, and British shipping should be confidentially warned accordingly. Dover reports big steamers passing slowly past that port. Vessels should be warned to pass at full speed.

- A 323.** Adty. to C.-in-C., Home Fleets. Sent 1.30 p.m.
478 Your 445. Secret. It is necessary that during the next three weeks the whole fleet should be kept in immediate readiness for action.

- A 324.** Adty. to C.-in-C., Grand Fleet. Sent 4.20 p.m.
479 Your 443. All available material in this country has been allocated to manufacturers. Nets will be supplied as soon as deliveries make it possible to do so. In view of the importance of Dover and Larne it has been decided to send supply to those places first.

- A 325.** Adty. to Comm. (T). Sent 4.20 p.m.
131 The remainder of the 1st Flotilla are to be sent to Rosyth. Send vessels of 3rd or 10th Flotilla to relieve the four 1st Flotilla vessels at Avonmouth at once. Two of the four destroyers relieved are to return to Harwich and two are to proceed to Liverpool to escort the vessel with 1st Flotilla stores northabout to Rosyth. The two 1st Flotilla destroyers which escorted *Race Fisher* ammunition ship have been ordered to return to Harwich.

- A 326.** Adty. to C.-in-C., Devonport. Sent 4.25 p.m.
293 Send the two 1st Flotilla destroyers which escorted *Race Fisher* ammunition ship back to Harwich as soon as they have sailed (with *Inkonka*). Report when they will sail for Harwich.

2nd March 1915.

- A 327.** Adty. to all Naval Centres. Sent 1.30 a.m.
Minefield previously reported off Beachy Head does not exist. It is of utmost importance vessels should avoid all prominent headlands and keep well in mid-channel. Warn British merchant vessels confidentially. This does not apply in the recognised channels on east coast or between Folkestone and South Foreland, or off Scarborough, where regulations remain as already laid down. Vessels should pass ports such as Dover at full speed.

- A 328.** Adty. to Cornwall, Avonmouth. Sent 3.45 p.m.
Direct the division of 1st Flotilla at Avonmouth to proceed to Harwich on relief by a division of 3rd Flotilla. The destroyers due for refit at Chatham are to proceed there instead of Harwich.

- A 329.** Adty. to Marine, Paris. Sent 4.25 p.m.
1430 Transports crossing to-night :—
From Southampton . . . 8 with 4,500 men for Havre.
From Newhaven . . . 1 with ordnance stores for Boulogne.
1 with forage for Rouen.

- A 330.** Adty. to Capt. (S), *Maidstone*, Harwich. Sent 6.55 p.m.
91 Weather permitting, one "E" class submarine is to sail to-night for Heligoland Bight. She should endeavour to attack ships exercising to south-east of Heligoland or passing between the Elbe and Jade Rivers. She should exercise care not to be seen by aircraft which generally scout in the mornings, returning in the afternoons. She is to return at any time if necessary owing to bad weather or other circumstances, and is to return to her base after being three days in Heligoland Bight. Acknowledge and report name of vessel sent.

- A 331.** R.A., Dover Patrol, to Adty. Recd. 7.45 p.m.
367 Your 275 of 28th February. I think there is some mistake. There were over 700 officers and men in Folkestone boat last night, so I provided destroyer escort. I shall do the same to-night and will report to-morrow.

- A 332.** Adty. to R.A., Dover. Sent 7.50 p.m.
281 The bringing into force of compulsory pilotage for the Downs has been delayed owing to stormy weather having retarded replacement of navigational aids. No moored nets should, therefore, be placed in the Downs until you receive further instructions, and the vessels indicating the gate passage should not yet be placed although Trinity House may have already laid the buoys marking the passage.

3rd March 1915.

- A 333.** Adty. to S.N.O.s, Dover to Queenstown. Sent 10.45 a.m.
Merchant vessels are still being reported passing close to prominent headlands such as Beachy Head, St. Catherine's, Prawle Point, Lizard, St. Anne's Head. If necessary armed trawlers must deflect and divert shipping at local points.

- A 334.** Adty. to R.A., Dover. Sent 6.35 p.m.
285 Indicator nets are to be boarded at night pending further experience.

- A 335.** Adty. to C.-in-C., Portsmouth. Sent 8.20 p.m.
160 Slow transports carrying vehicles, horses and small numbers of men should be escorted by two destroyers each. Fast transports carrying troops should be escorted by one destroyer each when the moon is bright. When fast transports can be sent across before the moon rises or after it sets they may be sent without escort but should invariably zigzag their course. Some risk must be taken to get the troops across in sufficient numbers. The four torpedo boats at Newhaven may be used to supplement the Portsmouth destroyers. The only vessels from Newhaven requiring escort as a general rule are those carrying ammunition and ordnance stores. "Ordnance stores" is meant in its strict sense, *e.g.*, stores relating to armament, and not such things as blankets or tents, which are also Army Ordnance stores.

- A 336.** Adty. to Cornwall, Avonmouth. Sent 9.40 p.m.
Weather permitting, *Minnewaska* and *Dongola* are to be escorted by two destroyers each to lat. 51 N, long. 6.30 W. Inform transports they are to proceed from lat. 51 N, long. 6.30 W, so as to pass 50 miles west of Scilly Islands, and are to keep 50 miles west of usual track until in latitude of Gibraltar Straits. Full speed is to be maintained until south of lat. 49 N. Acknowledge and report when S.N.O. destroyers and transports have been informed.

4th March 1915.

- A 337.** Adty. to R.A., Dover. Sent 1.56 a.m.
Your 367. War Office state that leave is stopped but that military boat will run to take officers and men back to France until 9th March. She should be escorted.

A 338. *Cornwall* to Adty.

Recd. 5.58 p.m.

Arrangements have been made for escort destroyers to lie in Newport Dock. Request that oiler may be there from (? Pembroke) so that destroyers can refuel as required. Dock authorities can accommodate her.

A 339. Adty. to Admiral, Queenstown.

Sent 8.10 p.m.

222 Two destroyers are being sent from Avonmouth to escort *Megantic* to Liverpool. Four destroyers now on escort duty from Avonmouth will afterwards go to Queenstown to escort *Southland* and *Missanabie* to Avonmouth.

5th March 1915.**A 340.** Adty. to Admiral, Portsmouth.

Sent 2.15 a.m.

178 Under Section 3, Clause C of Confidential Interim Order 152 merchant vessels are advised to make their ports at dawn. Are there any special circumstances which in your opinion make it desirable to alter this advice as regards St. Helens?

Reply.

320 Your 178. Submitted there are no special circumstances except that daylight is the time at which enemy's submarines may be expected to be most active.

A 341. Adty. to Admiral, Dover Patrol.

Sent 12.15 p.m.

294 Your 381. It is hoped that the replacement of the navigational aids in the Channel will be complete to-morrow, in which case the compulsory pilotage for Downs can be brought into force on 10th March. No nets should be laid before this is done.

A 342. Adty. to C.-in-C., Nore.

Sent 1.15 p.m.

220 Twenty-five men and four officers captured from submarine *U.8* will shortly be sent to Chatham from Dover. On arrival they are to be placed in the Detention Barracks, no distinction being drawn between officers and men. Directions have been given for them to be kept strictly segregated and under naval guard, and this principle is to be observed while in the detention quarters, as they have yet to establish their claim to be treated simply as prisoners of war. Meanwhile they are to be treated as accused persons awaiting trial. They should wear their own clothes but be fed as men under detention. Admiral, Dover, has been directed to inform you of arrangements made for sending them to Chatham. If there is not sufficient room in the detention quarters report what arrangements can be made to make room and also when the Germans have been received.

6th March 1915.**A 343.** Adty. to R.A., Dover.

Sent 12.30 a.m.

302 Compulsory pilotage in the Downs will come into force at 6 a.m., 10th March. The placing of moored nets can commence from then.

A 344. Intercept, C.-in-C., H.F., to S.O.s,
Grand Fleet.

Recd. 1.41 a.m.

8 Memorandum H.F. 0015/3 of 22nd February, 1915. Positions in W/T Messages, Appendix I, to be brought into force 8 a.m. on Sunday, 7th March. S.O.s acknowledge. (2141.)

Sent 1.35 a.m.

A 345. Adty. to Comm. (T).

Sent 6.55 p.m.

137 Send two light cruisers and two or four "M" class destroyers to sea on Sunday evening to exercise and patrol until Tuesday night. They should not proceed north of lat. 55.30 N or east of long. 6 E, and destroyers may be sent in at any time if weather is too bad.

A 346. Adty. to S.O., Cruiser Force E, Queenstown (58),
S.O., Cruiser Force G, Devonport (56),
C.-in-C., Queenstown (228),
C.-in-C., Devonport (354),
C.-in-C., Portsmouth (192),
C.-in-C., Nore (230),
S.N.O., Portland,
R.A., Dover (304),
S.N.O., Ramsgate.

Sent 7.25 p.m.

Warn until further notice incoming merchant ships to call for pilots at Deal instead of at St. Helens after 9th inst., and inform them navigation lights are normal as far as Deal, and that pilotage is compulsory from Deal to Yarmouth, including Thames.

A 347. Adty. to all Ships and Naval Centres.

Sent 11.15 p.m.

Cancel M.03981 of November, 1914. Light Ships in Channel and Downs are restored to their peace-time positions with following exceptions:— Gull Light Vessel, which is N 70 E mag. 600 yards from her peace position. No. 9 special light vessel will be removed as soon as practicable.

Sunday, 7th March 1915.**A 348.** Adty. to Admiral, Portsmouth.

Sent 7.20 p.m.

200 The four torpedo boats now based on Newhaven for escort duties are placed under your orders. The distribution of the escorting torpedo craft between Portsmouth and Newhaven is left to your discretion, subject to the observance of the provisions of Admiralty telegram 160.

A 349. M Branch Acquaint.

M.01659. Confidential. Orders have been given for Vice-Admiral Sir George E. Patey, K.C.V.O., to be Vice-Admiral Commanding the North America and West Indies Station, and he will shortly transfer his flag from H.M.S. *Australia* to H.M.S. *Leviathan*, which will become his flagship. Rear-Admiral Robert S. Phipps Hornby will be Second in Command on the North America and West Indies Station. Rear-Admiral William C. Pakenham, C.B., M.V.O., has been appointed to be Rear-Admiral Commanding the 2nd Battle Cruiser Squadron in succession to Vice-Admiral Patey, and Rear-Admiral William L. Grant to the command of the 3rd Cruiser Squadron vice Rear-Admiral Pakenham. The 6th Cruiser Squadron will be abolished, H.M.S. *Drake* being paid off in due course, and H.M.S. *Cumberland* being attached to Cruiser Force I. With reference to M Branch Acquaint of the 24th ultimo, the pay and drafting sections of the Central Air Office are being removed from Sub-Depôt, Sheerness, to Dewar House, Haymarket, on 8th March.

8th March 1915.**A 350.** Adty. to C.-in-C., Nore.

Sent 1 a.m.

242 Your 360. Make it clear to Woolwich that escort cannot be provided at a moment's notice. If the *Sir E. Wood* has ammunition or valuable ordnance stores she should wait for escort, but if not she should go without escort at night. Torpedo boats are provided at Newhaven for escorting valuable ordnance stores to France, and Woolwich should send them by Newhaven route.

A 351. Adty. to R.A., Dover.

Sent 11.35 a.m.

310 It is believed that a submarine to replace *U.8* will be passing the Downs this evening. Keep a good look-out there. If possible drifters should use their nets in the Straits to-night.

(C7213)

A 352. Adty. to S.N.O., Harwich,
C.-in-C., Nore (244). Sent 12.30 p.m.

Weather permitting, seaplanes should be sent out to-day to scout for submarines.

A 353. F.N.A. to Marine, Paris. Sent 8.55 p.m.

1498 Continuation of my 1483. A light vessel with "No. 9" painted on the sides and showing a Gp. F (4) white light is moored temporarily off Beachy Head in lat. 50.39.25 N, long. 0.9.20 E. With this exception all lights and fog signals on the English coast between Selsea Bill and Deal are now in the same condition as before the outbreak of war. Pilotage will become compulsory between the Downs and Great Yarmouth after 6 a.m. on the 10th. From the same date pilotage will cease to be compulsory between Dungeness and the Downs, except for ships bound into or out of the harbours of Dover and Folkestone. Pilots can be obtained at the Downs, Great Yarmouth, London and Harwich. Also ships crossing the North Sea between parallels 51.40 N and 51.54 N can obtain pilots for the Thames and the Downs at the Sunk Light Vessel. Pilot stations at Dover and St. Helen's will be discontinued on the same date.

A 354. Adty. to all Ships and Naval Centres. Sent 9.30 p.m.

74 Only buoys now in Downs are as follows:—No. 2 special buoy still marking wreck of *Stranton*. Western Gate buoy black and white chequered can, 247 degrees, 4 cables from charted position of Gull Light Vessel. Eastern Gate buoy black conical, 171 deg. $3\frac{1}{10}$ cables from charted position of Gull Light Vessel. It is intended to restore peace buoyage and ships will be kept informed.

9th March 1915.

A 355. Adty. to *Sagitta*.

Proceed with all available paddle sweepers to Dover. Cancel previous orders as to destination. Acknowledge. (1725.)

A 356. Adty. to S.N.O., Dover. Sent 5.55 p.m.

318 From Rear-Admiral Hood. *Crusader*, *Cossack* and four other destroyers are to be ready to go to Dunkirk to-night. I will return to Dover by midnight, probably earlier. Paddle sweepers ordered to Dover are to fill up with coal and water and be ready to sail.

A 357. Adty. to R.A., 6th B.S. (30),
C.-in-C., Nore (261). Sent 6.45 p.m.

Venerable is to proceed to Dunkirk Road in time to arrive at the entrance to the Zuidcote Pass at 6 a.m. to-morrow. Two destroyers from Dover Patrol will escort her and will meet her off the Tongue Light Vessel to-night. The time when *Venerable* will arrive at the Tongue is to be telegraphed to the R.A., Dover, as soon as possible. *Venerable* is to follow the orders of the R.A., Dover, and is to be ready to open fire at 7 a.m. if required. Acknowledge and report when *Venerable* will sail.

A 358. Adty. to S.N.O., Dover. Sent 6.55 p.m.

320 Two of the six destroyers which Admiral Hood has ordered to be in readiness to-night are to escort *Venerable* from the Tongue Light Vessel to Dunkirk. C.-in-C., Nore, has been directed to inform R.A., Dover, of the time when *Venerable* will pass Tongue Light Vessel to-night.

A 359. Adty. to S.N.O., Harwich. Sent 8.55 p.m.

144 For Commodore (T) on arrival. *Severn*, *Mersey* and *Humber* are going abroad without crews in tow of tugs and sail from Sheerness on Thursday afternoon. 12 destroyers are to escort them from Sheerness to lat. 49.30 N. Each monitor has two tugs, and monitors will not put into harbour, the tugs relieving each other for refuelling. Should destroyers require to refuel they must relieve each other. Speed will be low, but destroyers must circle about and keep at a fair speed so as not to make targets of themselves.

10th March 1915.

A 360. V.A.C., 3rd B.S., to Adty. Recd. 12.17 p.m.

52 Following received by W/T from Captain (D), 1st Destroyer Flotilla (begins). *Ariel* rammed enemy submarine *U.20* and took off crew. Submarine sank. I am conveying *Ariel* to Leith to dock (ends). C.-in-C., Grand Fleet, has been informed.

A 361. Adty. to C.-in-C., H.F. Sent 1.25 p.m.

535 Personal and Secret from First Lord. All German naval forces have been ordered to be in a high state of readiness from 11th March onwards, and no underwater repairs to be begun. Whether this is because they are afraid we are going to attack them or because they know how many of our ships are in Mediterranean and mean to attack us, is not certain. We have sent two dummy battle cruisers out to Carden and have advertised our strength out there as much as possible. Therefore you must be ready. I grudge *Orion* going away for refit now.

A 362. Adty. to Admiral, Rosyth. Sent 1.55 p.m.

427 Until further orders German prisoners ex *U.20* arriving by *Ariel* are to be kept close prisoners in naval custody.

A 363. Adty. to Capt. (S). Sent 6.40 p.m.

97 Weather permitting, send an "E" class submarine to Heligoland Bight with the same orders that *E.15* was given on 2nd March. Ships may be passing between Elbe and Jade on 12th March.

A 364. Adty. to S.N.O., Dover. Sent 7 p.m.

326 For Admiral Hood. Firing is not required on Thursday, but it is required on Friday and Saturday. *Venerable* should return to Dover to-night.

Adty. to S.N.O., Dover. Sent 7.10 p.m.

327 For R.A. Hood. Cancel my 326. Acknowledge.

A 365. Adty. to Comm. (T). Sent 7.35 p.m.

145 My 144. Position to which monitors are to be escorted by destroyers is lat. 48.30 N, long. 6 W.

A 366. R.A., Dover, to Adty. Recd. 8.15 p.m.

Urgent. Paddle sweepers have swept all day and continue to-night. Mines were found. *Venerable* and *Excellent* will engage battery near Westende to-morrow. Fire will be deliberate and marked. I do not require any more ships. There is no intention of advancing along the coast, so two days' bombardment will be sufficient. Col. Bridges concurs.

11th March 1915.

A 367. C.-in-C., H.F., to Adty. Recd. 6.20 p.m.

524 Propose if approved to take ships of Grand Fleet at Scapa Flow and Cromarty to sea Sunday, 14th, or Monday, 15th, for two days' exercise before moon becomes inconvenient. Would exercise to the eastward of Shetland Islands.

Reply.

Sent 8.15 p.m.

548 Your 524. Approved.

(C7213)

12th March 1915.

A 368. C.-in-C., G.F., to Adty.

Recd. 12.40 a.m.

527 Sub-Committee. Urgent. In view of submarine action in Irish Sea shall I send half-flotilla to operate between Oversay and North Channel?

Reply.

Sent 3.20 a.m.

545 Your 527. Please do so, it will be most useful. S.N.O. should communicate with Admiral, Larne, who has charge of locality, including nets and drifters.

A 369. Adty. to all Bases.

Sent 8.20 p.m.

Steamship reports that yesterday when 14 miles off Tuskar Lighthouse she saw a schooner flying distress signals; she went to her assistance, when a submarine rose about 1,000 yards away and steamship left. Schooner was apparently a decoy. During attacks on shipping by submarine off Scillies to-day the presence was noted of a suspicious vessel reported as a French three-masted schooner and as a barquentine with French colours. This vessel appeared to be following up the submarine. Patrol vessels should be cautioned that submarine may be accompanied by vessels acting as decoys or as look-outs. There are no three-masted schooners in France. Vessels behaving suspiciously should be brought into harbour for careful examination.

A 370. C.-in-C., H.F., to Adty.

Recd. 9.47 p.m.

532 In order to reduce submarine risks to A.M.C.s proceeding to and from coaling ports I propose that they should pass through position 10 miles W (true) of Barra Head and 10 miles E (true) of Inishtrahull and thence to the south of Rathlin I. instead of passing along the coast of Oversay as at present. Request Larne sweepers search the portion of this route to the east of 50-fathom line before its adoption.

Reply.

Sent 2.50 p.m.

551 Your 532. Sweepers have been ordered to search as you suggest. You will be informed when sweeping is complete.

13th March 1915.

A 371. Adty. to Admiral, Portsmouth (248),
A.O.P. (333).

Sent 3.10 p.m.

French patrol of 60 trawlers is now working in the Channel.

A 372. Adty. to Cornwall.

Sent 8.20 p.m.

Inform S.O. of destroyers that the transports taking the XXIXth Division from Avonmouth are to be escorted by two destroyers to each ship. The route is midway between Lundy Island and St. Govans Light, and then to a position in lat. 51.10 N, long. 5.41 W, where the destroyers will part company. More destroyers will be sent to assist.

A 373. R.A., Dover, to Adty.

Recd. 8.25 p.m.

461 Naval co-operation off Nieuport ended this evening with concurrence of C.-in-C. Firing took place on Thursday and Saturday. On Friday very foggy weather, fog all the time, enemy fire inaccurate owing to fog. Ten mines swept up by sweepers. *Venerable* returning to Sheerness to-night with four destroyers; minesweepers ordered to Harwich. Written report follows.

Monday, 15th March 1915.

A 374. Adty. to S.N.O., Lowestoft.

Sent 5.30 p.m.

115 Select 30 of the fastest mine-sweeping trawlers and sail them for Falmouth. After coaling there they will proceed to Lemnos, calling at Gibraltar and Malta. They should be provisioned for a month, Commander Higginson to go in charge. Charts will be sent to Falmouth from Admiralty.

A 375. Adty. to C.-in-C., H.F.

Sent 8 p.m.

568 Fleet sweepers *Clacton*, *Lynn*, *Gazelle*, *Newmarket*, *Reindeer*, *Whitby Abbey*, *Hythe*, *Folkestone* should be sent to Port Mudros with all despatch, calling at Plymouth for charts and stores.

A 376. A.O.P. to Adty.

Recd. 8.38 p.m.

205 From accidents which have happened between Tyne and Longstone (Light), including *Fingal* (British) off Coquet Island to-day, in my opinion a submarine is off Northumberland coast, as I do not think there are any more mines so near shore.

Reply.

Sent 11.50 p.m.

214 Your 205. Get your destroyers out and hunt the submarine.

A 377. A.O.P. to Adty.

Recd. 2.42 p.m., 16th March.

207 Your 214. Destroyers have been out daily until dark in search of submarines directly reports received here. Aeroplanes are also searching. Areas are being swept in case of their being mined.

A 378. Adty. to Capt. (S), *Maidstone*.

Sent 8.55 p.m.

99 Send a submarine to Heligoland Bight with similar orders to *E.2* to intercept any man-of-war which may be under way between Heligoland and the mouths of Elbe or Jade Rivers.

16th March 1915.

A 379. Adty. to Comm. (T).

Sent 12.20 a.m.

149 Two light cruisers should proceed to patrol and scout as far as the Western Ems, remaining out for 48 hours.

A 380. Adty. to Comm. (T).

Sent 12.20 a.m.

150 Belgian steamer *Baron Bayens* with about 1,000 Belgian recruits on passage from Hook of Holland to Thames will be at Maas Light Ship at midnight, Tuesday, 16th. For political reasons Admiralty have to supply escort. A destroyer should be in vicinity of Maas Light Vessel to escort the steamer. It is recognised that there is little chance of her finding the steamer; if she is found steamer should be escorted to Thames. If she is not found by 1 a.m. destroyer should return to Harwich.

A 381. Adty. to British Consul, Flushing.

Sent 12.30 a.m.

Cross-Channel packet services between Dutch ports and Channel ports are to stop. Steamer advertised to leave Flushing to-morrow morning should not sail. Should she do so the passengers will not be allowed to land.

A 382. Adty. to R.A., Dover.

Sent 12.35 a.m.

341 All cross-Channel packet services between Dutch ports and Channel ports are to be stopped at once. The outward boat due to leave Folkestone to-day may be allowed to leave. Steps are being taken to stop the boat leaving Flushing this morning, but should she sail the passengers are not to be allowed to land. Inform Folkestone.

A 383. Adty. to R.A., Dover (346),
Admiral, Portsmouth (276),
Comm., Portland.

Sent 2 p.m.

Following received from French Admiralty (begins). In order to carry out our submarine training we are marking off an area for exercises limited by lines drawn 8 miles outside the lines Point Barfleur-Cubana Buoy-Port en Bousin. In the same manner from Cherbourg to Barfleur as far as a distance of 8 miles from the coast may be used by our submarines. When the latter are on the way to the training ground they will always

be on the surface and escorted. Patrol of the exercise area will be carried out by two or three torpedo boats. As far as possible Admiral Favereau will inform Admiralty of the movements of submarines and of the days for exercise (ends). Report when all patrols and others concerned have been informed.

A 384. Adty. to Comm. (T). Sent 8.40 p.m.

151 Place a destroyer at the disposal of Commander Evans of the *Prince Edward* to-morrow night to examine a position off Zeebrugge in accordance with instructions he has received from Sir Arthur Wilson. Destroyer should not be there when the tide is lower than half tide on account of possible mines.

A 385. From C.-in-C., H.F., to Adty. Recd. 9.58 p.m.

562 Before the policy of intercepting all supplies to and from German ports can be satisfactorily dealt with by the North Squadron the following points require consideration. About 70 to 100 ships now sent to Kirkwall each month are released from that port. Many of these will under the new condition proceed to a southern port to unload. A decision is required as to which port they are to be sent and how prize crews are to be provided to take them from Kirkwall south; crews for this duty are now taken from the small complements of *Royal Arthur* and *Crescent*, but each ship can only provide two crews. Submit that crews of ships of 10th Cruiser Squadron be sufficiently increased to take ships that are detained into Kirkwall and when necessary on to discharge port; an increase of about two officers and 12 men per ship will probably be required.

17th March 1915.

A 386. Adty. to Marine, Paris. Sent 1.35 a.m.

1601 Reply to your unnumbered telegram of 16th. Orders to the Fleet have not yet received definite approval from the Board. Text of orders has been slightly modified. The qualification "neutral" has everywhere been added to the word "ships." A paragraph has been added to the first article saying that neutral ships other than those coming from or bound for German ports may be sent to a British port, if in the opinion of the Commanding Officer of the cruiser circumstances exist which give rise to suspicion; neutral ships coming up the Channel and which do not stop at an intermediate British or French port will receive orders to go to the Downs for examination. Consequently the paragraph concerning Holland America Line and Royal Holland Lloyd is suppressed. (F.N.A.)

A 387. Adty. to C.-in-C., H.F. (571),
Admiral, Orkneys (207),
R.A., *Alsation* (100),
Cedric.

Sent 4.15 a.m.

In order to give effect to the Order in Council of 11th March the following directions are to be observed. All neutral vessels proceeding to or coming from a German port are to be sent into a British port. Neutral vessels met with in the Atlantic, North Sea or waters round the United Kingdom proceeding to or coming from a neutral or Turkish port, if in the opinion of the Commanding Officer of the boarding vessel they are carrying—

- (a) Goods on the list of absolute or conditional contraband.
- (b) Non-contraband goods consigned to an enemy destination.
- (c) Non-contraband goods consigned to a neutral if of enemy origin, supposed ownership, or ultimate enemy destination.

Vessels proceeding from the Atlantic to a Scandinavian-German or Dutch port should be sent to Kirkwall for examination. Vessels proceeding from a Scandinavian-German or Dutch port to the Atlantic should be

sent to Stornoway unless the S.N.O. considers some other port to be more desirable. The following vessels may be allowed to proceed unless under suspicion of unneutral service:—

- (a) Vessels bound to an Allied port.
- (b) Vessels with green clearance from a British port.
- (c) Vessels with tricolour clearance from a French port.

Full instructions will be issued in Fleet Orders.

A 388. Comm. (T), *Ganges*, to C.O.S. Recd. 7.51 p.m.

177 Is the projected air raid to be carried out? There are sufficient destroyers at Harwich to carry out operations.

A 389. F.N.A. to Marine, Paris. Sent 9.25 p.m.

1609 Continuation of my 1601. The following has been sent to the Fleet: To give effect to the Order in Council of 11th March the following directions are to be observed:—

- A. Every neutral ship coming from or bound to a German port is to be sent into a British port.
- B. The same procedure is to be observed with every neutral ship met with in the Atlantic, North Sea, or waters surrounding the United Kingdom coming from or bound to a neutral or Turkish port, if in the opinion of the Officer commanding the examining ship she carries:—
 - (1) Merchandise appearing in the list of absolute or conditional contraband.
 - (2) Non-contraband merchandise consigned to the enemy.
 - (3) Non-contraband merchandise consigned to a neutral but of enemy origin or supposed to be the property of or destined finally for the enemy.

Vessels proceeding from the Atlantic to a Scandinavian, German or Dutch port should be sent to Kirkwall for examination. Vessels proceeding from a Scandinavian, German or Dutch port to the Atlantic should be sent to Stornoway. The following vessels may be allowed to proceed unless under suspicion of unneutral service:—

- A. Vessels bound to an Allied port.
- B. Vessels with green clearance from a British port.
- C. Vessels with a tricolour clearance from a French port.

A 390. Adty. to Comm. (T). Sent 10.40 p.m.

155 Your 177. Yes. Give orders to Captain (S) as regards submarines. I have telegraphed to him to act under your orders.

18th March 1915.

A 391. C.-in-C., H.F., to Adty. Recd. 5.45 p.m.

567 Think it fairly certain that H.M.S. *Dreadnought* sank *U.29* this afternoon. Submit most desirable not to publish this. Report will be sent when further investigated. (1551.)

19th March 1915.

A 392. Comm. (T) to Adty. Recd. 9.53 a.m.

180 For C.O.S. Operations have been postponed. North-westerly gale and snow. (0915.)

A 393. Adty. to C.-in-C., Channel Fleet. Sent 5.15 p.m.

106 Rear-Admiral Nicholson and Staff have been ordered to Portland at once by special train. Rear-Admiral Nicholson will take *Prince of Wales* and *London* under his orders and proceed to Port Mudros with all convenient despatch. The light cruisers will remain at home. You should

transfer your flag to one of the light cruisers to-night and proceed at your convenience by special train with your Staff to Sheerness and hoist your Flag in *Russell* or *Albemarle*. The inconvenience caused to you by these changes is much regretted by Their Lordships, but you will understand that if you went out to the Mediterranean it would entail transferring the charge of operations there to you out of the hands of an officer who is carrying out his duties most loyally and ably. Acknowledge.

A 394. C.-in-C., H.F., to Adty. Recd. 8.45 p.m.

579 *Re* Adty. letter, 14th March, M.01943, submit crews of old 2nd Destroyer Flotilla boats should bring new "M" boats to my base and effectives transfer there. Loss of services of boats to 2nd Flotilla would be reduced by six days and working up of "M" boats could be carried out best at my base.

20th March 1915.

A 395. Adty. to C.-in-C. Sent 12.55 a.m.

588 Now that you have had your exercise cruises, we hope you will not find it necessary to go to sea again during the present critical period. Losses from submarines may easily be incurred, and Fleet should be kept at its fullest strength and in the highest state of readiness.

A 396. Capt. (S), *Maidstone*, to Adty. Recd. 9.46 a.m.

57 Captain (S) in *Firedrake* and *Lurcher* and submarine *D.7*, submarines *E.6*, *12*, *13*, *14* left between 4 and 6 a.m. to-day.

A 397. *Ganges* to Adty. Recd. 10.30 a.m.

Arethusa, *Aurora*, *Penelope*, *Undaunted*, *Empress*, *Lucifer*, *Laurel*, *Liberty*, *Leonidas*, *Laforey*, *Linnet*, *Laertes*, *Landrail*, *Mentor*, *Murray*, *Morris*, *Moorsom* sailed. (1000.)

A 398. A.D.P., Dover, to Adty. Recd. 11.8 a.m.

506 Four German aeroplanes in Straits. Have dropped bombs near destroyers on patrol, no damage done. Three aeroplanes appear to have returned towards France, one still over Deal.

A 399. A.D.P., Dover, to Adty. Recd. 12.6 p.m.

507 My 506. Ramsgate reports six bombs in all have been dropped near boarding steamer and drifters on gateway in Downs, no damage done. One machine seen and another heard. Machines made off in a north-easterly direction. Sheerness informed.

Sunday, 21st March 1915.

A 400. F.N.A. to Marine, Paris. Sent 11.45 a.m.

1641 The Admiralty has sent the following telegram to all Consuls:— From questions put to the Admiralty, it appears that shipowners and masters of British ships are inclined to think that danger on the trade routes no longer exists and are disposed to follow the old usual routes, while relaxing the precautions of war. These ideas should be fought against, both officially and in private. It is possible that at any moment German ships may escape from the North Sea and infest the trade routes without warning. If guns and ammunition have been accumulated in unfrequented spots, it is possible that German merchant ships, at present sheltered in neutral ports, may become a serious menace. If precautions are neglected, the enemy will know of it and will have an opportunity of inflicting heavy losses in a few days.

A 401. Adty. to A.O.P. Sent 1.45 p.m.

223 *Rinaldo* is to be sent to Sheerness with a destroyer escort as soon as she is ready for sea. She is withdrawn from service on east coast.

A 402. Adty. to A.O.P. Sent 2.5 p.m.

224 *Sirius* is to be sent to Chatham with a destroyer escort. She is withdrawn from service on east coast.

A 403. C.-in-C., H.F., to Adty. Recd. 3.18 p.m.

591 In view of submarine menace propose ordering ships of 10th Cruiser Squadron to make the distance between Oversay and the Firth of Clyde or Mersey River at night and without lights preferably. Also to pass close to Mull of Cantyre in strong tide and then to pass south and west of Rathlin I. It would be risky if this course fouled any obstructions laid.

A 404. Adty. to Transport Officer, Newhaven. Sent 8.30 p.m.
Tell the torpedo boats they must keep busy off Beachy Head.

A 405. Adty. to R.A., Dover. Sent 8.30 p.m.
369 Send some armed drifters to work off Beachy Head.

22nd March 1915.

A 406. Adty. to Comm. (I). Sent 11.30 a.m.

156 As soon as your vessels and the submarines are again ready and the weather conditions are favourable you should start again.

A 407. C.-in-C., H.F., to Adty. Recd. 2.58 p.m.

597 Propose to fit eight destroyers of 1st, 2nd and 4th Flotillas to sweep ahead of Fleet; experiments show that speed of 14 to 15 knots obtainable.

A 408. Adty. to Capt. (S), *Maidstone*. Sent 4.10 p.m.

106 Submarine *E.4* is not to leave without further orders.

A 409. Adty. to C.-in-C., Portsmouth (346),
C.-in-C., Devonport (530),
R.A., Dover (371),
R.A., Cruiser Force G (68),
V.A.C., Queenstown (274). Sent 6.50 p.m.

As British merchant vessels still continue in spite of warning to pass close to headlands, trawlers are to be directed to divert such vessels further out. The vessels should not be stopped but trawlers should keep signal flying to keep further out, and names of vessels which come in close are to be reported to Admiralty. Intelligence Officers and Consuls have orders to warn homeward-bound vessels when making their principal landfall at night not to approach nearer than is absolutely necessary and to keep in mid-channel when passing up English or Irish Channels.

A 410. C.-in-C., H.F., to Adty. Recd. 8.33 p.m.

604 It is understood from remarks of prisoners from *U.12* that German submarines are being fitted with net cutters. Consider it most important and desirable that the obstructions between Neviskerries and Roan Head, Hoxa Sound, and that at Cromarty should be duplicated. Submit this work be carried out.

Reply. Sent 4.20 p.m.

609 Your 604. It is intended to proceed with the duplication of all booms as soon as material becomes available. Hoxa boom will be the first one to be so dealt with.

23rd March 1915.

A 411. C.-in-C., H.F., to Adty. Recd. 10.4 p.m.

619 Am directing ships in Grand Fleet to brace yards forward so that they may mislead submarines in estimating course of ship when attacking. This is being done as far as possible without interfering with signal arrangements. Suggest ships building should have yards fitted so that they are not square and that ships other than in Grand Fleet might conform.

24th March 1915.

A 412. Adty. to *Lance*. Sent 4 p.m.

Four destroyers should remain in Bristol Channel until relieved, the remainder should return to Harwich.

A 413. Longmore, Dunkerque, to Aircraft, London. Recd. 4.40 p.m.

Submit five machines, Nos. 873, 876, 1001, 1003 and 1009, pilots Rosher, Andreae, Meates, Huskisson and Courtney respectively, left to attack submarine shipbuilding yard Hoboken, Antwerp, at 5.30 this morning. Of these, second and fourth-named were forced to return owing thick weather encountered; Rosher and Courtney reached their objectives in spite of this and dropped four bombs each from (?) an altitude under 500 ft. on submarines observed on slips, causing considerable damage to one or two evidenced by fire, which proceeded to break out in the yard. Lieutenant Meates has not returned; he has probably landed in Holland as Belgian frontier route was taken. Flight-Lieutenant Nanson in Seaplane 113 convoyed aeroplanes along the coast and awaited their return off Ostend; 2 miles out a steamer was observed, description from 250 to 300 ft. long, one funnel, painted light grey, flying International Code Flag W, appeared to be small armed merchant vessel, opened fire on seaplanes with rifles and followed her short way south at about 10 knots. Submit I consider performance of Squadron-Commander Courtney and Flight-Lieutenant Rosher in reaching their objective in spite of thick weather encountered, and of carrying out a successful attack at a low altitude under heavy anti-aircraft fire, is deserving of highest praise.

A 414. Adty. to S.N.O., Portland. Sent 5 p.m.

Topaze and *Diamond* are to proceed to Sheerness. They will be escorted by some 3rd Flotilla destroyers en route from Avonmouth to Harwich. S.N.O., *Lance*, has been directed to inform you when destroyers will arrive at Portland.

26th March 1915.

A 415. Adty. to C.-in-C., Portsmouth. Sent 12.55 p.m.

378 Urgent. The eight *Beagle* class destroyers are to proceed to Port Mudros as soon as relieved by other vessels. Sail them as their reliefs become available. If necessary to go into harbour between Portsmouth and Gibraltar, French or Portuguese ports should be used in preference to Spanish. Two "River" class destroyers from Dover, two from Avonmouth, two from the A.O.P. and two from Rosyth will relieve the *Beagle* class at Portsmouth.

A 416. Adty. to Transports, Southampton. Sent 12.55 p.m.

South Midland Division. Following to embark at Southampton:— 193 officers, 4,822 other ranks, 3,770 horses, 48 guns, 585 four-wheeled vehicles, 71 two-wheeled vehicles. Following will embark at Folkestone for Boulogne: 29th March, 76 officers, 1,873 other ranks; 30th March, 56 officers, 1,836 other ranks; 31st March, 118 officers, 3,623 other ranks.

Adty. to S.N.O., Folkestone. Sent 1 p.m.

Portion of South Midland Division will embark on railway boats at Folkestone for Boulogne on 29th, 30th and 31st March. Divisional Transports, Southampton, is sending transport officers to supervise embarkation.

A 417. Adty. to Capt. (S), *Maidstone*. Sent 1 p.m.

Urgent. Three "E" class submarines with *Adamant* or *Alecto* as depôt ship are to proceed to the Dardanelles at once. They are to call at Devonport to complete with fuel but are not to stay a moment longer than necessary. *Lurher* and *Firedrake* are to escort them to Devonport and after leaving

there until as far as Ushant. They should not call at any Spanish port unless absolutely necessary, but if necessary to go into harbour between Devonport and Gibraltar should use a Portuguese port. Telegraph names of vessels selected and time of sailing, and inform S.N.O.s between Harwich and Devonport so that patrols may be warned.

A 418. Adty. to Capt. Supt., Pembroke. Sent 6.50 p.m.

Destroyer patrols need not be maintained.

27th March 1915.

A 419. Adty. to A.O.P. Sent 12.10 a.m.

237 My 232. Search vicinity of Tyne with destroyers during daylight, 27th March, in view of possibility of *Lion* sailing during the night. Division of 1st Destroyer Flotilla is being sent to assist in search and to escort *Lion*.

A 420. Adty. to Comm. (T). Sent 7 p.m.

162 When possible send a division of destroyers or a pair of destroyers to look for submarines in the vicinity of Maas Light Vessel, North Hinder Light Vessel, and towards Schouwen Bank. German trawlers with guns have also been in this locality.

A 421. Adty. to R.A., Dover. Sent 7.5 p.m.

384 To-morrow you should have a patrol of destroyers to the north-east of the minefield as submarines are expected to be passing to the westward.

A 422. Adty. to Capt. (S). Sent 8.15 p.m.

111 Weather permitting, another submarine should be sent to Heligoland Bight. If conditions are unfavourable when she arrives she should remain outside Heligoland.

Monday, 29th March 1915.

A 423. Adty. to Comm. (T). Sent 10.35 a.m.

163 All light cruisers, destroyers and submarines are to be ready for sea at short notice. Inform Captain (S).

A 424. Adty. to C.-in-C., H.F. (637). Sent 10.50 a.m.

Grand Fleet is to be ready for sea at short notice.

A 425. Adty. to V.A., 3rd B.S. (37),
V.A., B.C. (128).

3rd Battle Squadron, 3rd Cruiser Squadron, battle cruisers, light cruisers and destroyers are to be ready for sea at short notice.

A 426. Adty. to Comm. (T). Sent 11.15 a.m.

164 Recall the destroyers off Maas Light Vessel to join you.

A 427. Adty. to C.-in-C., H.F. (640),
V.A., B.C. (129),
V.A., 3rd B.S. (38). Sent 1.45 p.m.

1st and 2nd Scouting Groups and two flotillas with possibly other vessels have sailed from Jade River this forenoon. They will apparently at 6 p.m. be in lat. 54.16 N, long. 5.46 E, steering north-east towards Horns Reef at 15 knots. A German submarine is stationed in lat. 54.57 N, long. 6.36 E, and another submarine in lat. 53.46 N, long. 5.24 E. Nothing more is known. Battle cruisers and light cruisers should proceed to a position B in lat. 55.46 N, long. 3.24 E, arriving there at daylight and sweeping towards Horns Reef. 1st, 2nd and 4th Battle Squadrons and Cruiser Squadrons should proceed to a position A in lat. 56.45 N, long. 3.25 E, arriving about 8 a.m. Arrange as convenient for 3rd Battle Squadron

joining you. After 8 a.m. in the absence of more information battle fleet should steer towards Horns Reef. Should German ships raid our coast our object is to let them do so and have our ships well to the eastward to cut them off. Disposition of 3rd and 10th Flotillas and submarines will follow.

A 428. Adty. to Comm. (T) (165),
Capt. (S) (113). Sent 2.40 p.m.

German battle cruisers and light cruisers with two flotillas sailed this forenoon. At 6 p.m. they will be in lat. 54.16 N, long. 5.45 E, steering towards Horn Reefs at 15 knots. One German submarine is stationed in lat. 53.46 N, long. 5.25 E, and another in lat. 54.57 N, long. 6.36 E. Nothing further is known. Our battle cruisers and light cruisers will be in a position B in lat. 55.46 N, long. 3.25 E, at 5 a.m. to-morrow, and will afterwards sweep towards Horn Reefs. Our battle fleet will be in a position A in lat. 56.45 N, long. 3.25 E, at 8 a.m. to-morrow, and will steer towards Horn Reefs. All submarines and your light cruisers and destroyers are to proceed to a position C in lat. 53.40 N, long. 4.47 E. The submarines with two fast destroyers which Commodore (T) is to place under orders of Captain (S) should be to eastward of the flotillas to screen them from attack by heavy ships. The flotillas are to patrol in vicinity of position C on a NNW and SSE line, but are not to get more than 30 miles away from position C unless attacked by superior force. The flotillas may be ordered by Admiralty to make a night attack on ships returning to Heligoland Bight. If the submarines are ordered by Admiralty to proceed into Heligoland Bight to attack, one group is to proceed to Norderney entrance to swept channel. A second group is to proceed to north-west of Heligoland, and a third group to north-east of Heligoland. After informing the submarines, their attendant destroyers will join Commodore (T). Submarines are to return from Heligoland Bight after being 24 hours there.

A 429. Adty. to C.-in-C., H.F. (642),
V.A., B.C. (130). Sent 3.25 p.m.

Commodore (T) has been ordered to proceed to a position C in lat. 53.40 N, long. 4.47 E, with *Aurora* and two light cruisers and all available destroyers and submarines. Submarines will screen flotillas if attacked by heavy ships. According to circumstances Admiralty may order submarines to proceed by themselves to attack German ships returning to harbour or may order destroyers to intercept ships returning at night.

A 430. Adty. to C.-in-C., Chatham. Sent 6.30 p.m.

399 *Princess Margaret*, *Princess Irene* and *Apollo* are to have steam ready at one hour's notice from midnight to-night. After 48 hours they are to return to normal condition of readiness. Acknowledge.

A 431. Adty. to C.-in-C., H.F. Sent 10.15 p.m.

645 Enemy ships are returning to harbour. Your squadrons should return to harbour.

A 432. Adty. to Comm. (T). Sent 11.30 p.m.

166 Direct submarines to return to harbour. Operation is cancelled. Before returning destroyers should carry out a submarine hunt commencing at daylight off Ymuiden and continuing down to the Maas Light Vessel and North Hinder. A German submarine was reported diving in about 52.34 N, 4.7 E at dark, and is probably lying on the bottom there for the night.

30th March 1915.

A 433. Adty. to Admiral, Devonport. Sent 7.50 p.m.

606 Completion of trawlers for Scilly Is. should be hastened. Pending their completion four trawlers from Area XIV should be sent at once as submarines are about the Scilly Is.

A 434. C.-in-C., H.F., to Adty. Recd. 9.25 p.m.

671 Fleet returned to base this morning without submarine attack so far as I am aware. The conditions however were in the highest degree favourable to submarines. Visibility was at least 5 miles, the Fleet was passing down route mentioned in Admiralty letter of 25th March, Secret, M.02288, as that habitually used by submarines, and a submarine was sighted off Inchkeith yesterday afternoon and one also reported in Moray Firth. Fleet also left and re-entered base within 12 hours, which increased risk of attack. Time occupied leaving Scapa Flow was one and a quarter hours, time occupied in re-entering was three hours. These times cannot safely be reduced. Directions *re* entry necessitate free use of wireless. Am writing on the subject, but consider it desirable to point out the very considerable risk incurred on these bright nights. Your telegram No. 640 was received in *Iron Duke* at 3.30 p.m. and decyphered by about 4 p.m., and although Fleet left while still daylight, I could not concentrate nearer than 40 miles to rendezvous A by 8 a.m., although speed was 18 knots. Had weather not been very favourable, delay would have been much greater.

31st March 1915.

A 435. Adty. to Comm. (T). Sent 12.45 p.m.

168 Four 3rd Flotilla destroyers should be sent to Newport to relieve those in the Bristol Channel.

A 436. Adty. to Comm. (T). Sent 4.40 p.m.

169 Two light cruisers should proceed on patrol, remaining out for three days if the weather remains suitable for airship reconnaissance. Enemy airships have been well to the westward to-day. A favourable place to sight an airship in the forenoon would be anywhere on a line north from Terschelling from the land to a point 60 miles out. Cruisers should not go east of Borkum or north of lat. 55 N.

Reply.

205 Your 169. *Aurora* and *Penelope* will sail at 9 p.m. to-night, Wednesday. (1930.)

Wednesday, 7th April 1915.

A 437. Adty. to Admiral, Devonport. Sent 12.30 p.m.

691 Your 734 of 6th March. Use of Plymouth for embarkation of troops, etc., for long sea voyages has been approved. War Office are arranging to carry out necessary alterations to rails. Captain F. E. Travers, R.N., has been appointed Divisional Naval Transport Officer, and will be responsible under you for embarkation arrangements.

8th April 1915.

A 438. Adty. to *Laforey*. Sent 5 p.m.

Transports leaving Avonmouth to-night and following nights are to be escorted as follows: From Avonmouth passing midway between Lundy Island and St. Govans Light and as far as lat. 51.10 N, long. 5.41 W. Each transport containing more than 300 men is to be escorted by two destroyers. Should more than two transports require escort on one night those for which escort cannot be provided are to wait until next night.

A 439. Adty. to D.N.T.O., Avonmouth. Sent 6.9 p.m.

Owing to presence of a submarine in Bristol Channel only two transports are to sail to-night. Each is to be escorted by two destroyers.

A 440. Adty. to *Laforey*. Sent 6.20 p.m.

Transports carrying less than 300 men may be escorted by one destroyer. Transports carrying over 300 men are to be escorted by two destroyers.

A 441. Adty. to C.-in-C., H.F. Sent 8.10 p.m.

699 There are indications of a movement about Saturday.

10th April 1915.

A 442. C.-in-C., H.F., to Adty. Sent 3.50 p.m.

728 Distance to safe firing area from Scapa Flow is 240 miles and from Cromarty 300 miles. I cannot therefore reach base, fire, and return by dawn, Monday, 12th April, to fuel ready for operations indicated. Am therefore remaining at base.

Reply.

712 Your 728. We think it better you should go to sea before the German movement becomes pronounced, as this avoids the appearance of coincidence and ensures your whereabouts being unknown. You should therefore sail on Sunday night and cruise as convenient until due at the rendezvous on Tuesday morning.

A 443. Adty. to C.-in-C., H.F. Sent 4.15 p.m.

710 *Secret.* There are several important signs pointing to a movement of the main German Fleet on Monday night or Tuesday. You should therefore be cruising at daylight on Tuesday in the vicinity of long. 2.0 E, between lat. 58 N and lat. 59 N. Secondly: W/T on power should be stopped by Fleet; remember, *Iron Duke* can be recognised making wireless and her position located by directional instruments. Thirdly: on 5th April, the Germans ordered all their ships to avoid absolutely the following areas: (1) Between lat. 54.40 N and lat. 56.0 N, long. 2.30 E and 5.0 E. (2) Between lat. 53.0 N and lat. 53.33 N, and long. 2.0 E and 3.40 E. These areas may be mined or be about to be mined or occupied by submarines. Fourthly: Battle Cruiser Fleet will go out unostentatiously on Sunday night and cruise in vicinity of long. 2.30 E, between Lat. 57 N and lat. 58 N. Fifthly: Tyrwhitt, with light cruisers, destroyers and submarines, will be cruising between Terschelling and lat. 54.20 N, NNW and SSE, on Monday and Tuesday. Sixthly: Four submarines will be stationed off the exits from Norderney and Heligoland swept channels from to-morrow night until Wednesday night. Acknowledge.

11th April 1915.

A 444. Adty. to V.A., Battle Cruisers. Sent 3.30 p.m.

137 Battle cruisers and light cruisers should sail to-night.

Monday, 12th April 1915.

A 445. Adty. to D.N.T.O., Avonmouth. Sent 12.40 p.m.

In future after leaving lat. 51.10 N, long. 5.41 W transports are to steer to pass through a position in lat. 50.42 N, long. 7.47 W, afterwards passing through a position in lat. 50 N, long. 9 W. Alter then sailing orders accordingly.

A 446. Adty. to R.A., Dover Patrol. Sent 7 p.m.

426 A 2-in. wire net is laid off Ostend from a position in lat. 51.17½ N, long. 2.50½ E in an E by N direction for 1¾ miles. A destroyer should be sent to patrol towards it to-morrow and see if there is anything going on. If she is fired on from the shore she should get out of range at once. If attacked by aircraft she should get out of the way at high speed. She should return after dark. She should keep a good look-out for small submarines and keep on the move.

A 447. Adty. to Capt. Ellison, Lowestoft. Sent 8.5 p.m.

152 From C.O.S. Your letter. Two of the small new German submarines are finished and off Belgian coast. Mine chart was sent to you to-day. One Dover destroyer will be off Ostend on Tuesday and possibly Wednesday. A 2-in. anti-submarine net is laid off Ostend in lat. 51.17½ N, long. 2.50½ E, extending E by N for 1¾ miles. Your vessels should look at this locality on Thursday or Friday, keeping well out of range. There are six batteries at Ostend very spiteful. German fishing vessels carrying supplies to Zeebrugge pass along coast of Zeeland just outside 3-mile limit, usually in the early mornings. Dutch territorial waters are patrolled by Dutch armed tugs.

A 448. Adty. to Comm. (T). Sent 8.30 p.m.

188 Enemy have observed our submarines in lat. 53.33 N, long. 4.24 E, and will send one flotilla of destroyers to attack them during the night, while on the surface. Withdraw submarines to a safe position and use your destroyers to attack enemy flotilla. Acknowledge.

13th April 1915.

A 449. Adty. to Comm. (T). Sent 12.35 a.m.

189 Nothing doing. Retire at once to southward of Haaks Light Vessel. Acknowledge.

A 450. Adty. to C.-in-C., H.F. Sent 4.40 p.m.

728 It seems likely that things will be quiet for a day at least. If it suits you take main fleet and Battle Cruiser Squadron further to the north for the night.

14th April 1915.

A 451. Adty. to C.-in-C., H.F. Sent 1.20 a.m.

730 Fog put enemy off and it now seems movement will not begin till 15th. 16th might be the important day if they move at all. Settle fuel problem for various ships as you think best. 0115.

A 452. Adty. to C.-in-C., H.F. Sent 5.5 p.m.

734 You should return at once to coal and wait in instant readiness. Enemy's movement has been checked by seeing some of our submarines, but it seems to be intended later.

15th April 1915.

A 453. Adty. to C.-in-C., H.F. Sent 1.10 a.m.

739 Enemy's movement has been postponed because of presence of our submarines being detected near Heligoland Bight, but he is holding himself ready to move in pursuance of his original plan, which we do not know. Our submarines came home evening, 14th April, from Heligoland Bight. Reply will be sent before noon to-day about rendezvous for 16th. We do not know what importance to attach to prohibited areas. They are clearly too large to mine, except in patches.

17th April 1915.

A 454. Adty. to Comm. (T) (196),
Capt. (S) (124). Sent 1.55 p.m.

All destroyers, light cruisers and submarines are to prepare for sea. Recall any destroyers on Dutch coast.

A 455. Adty. to C.-in-C., H.F. (755),
V.A., B.C. (146),
V.A., 3rd B.S. (55). Sent 2 p.m.

There are indications that a German movement has commenced. Grand Fleet is to be ready to go to sea after dark to-night.

A 456. Adty. to Comm. (T). Sent 5.15 p.m.

197 Extreme urgency. Light cruisers and destroyers are to be held in readiness to proceed at one hour's notice.

A 457. Adty. to Capt. (S) (125),
Comm. (T) (198). Sent 5.35 p.m.

Four "E" class submarines are to sail this evening for Heligoland Bight. They are to avoid being sighted off Dutch coast or by aircraft, and are to arrive at the following positions after nightfall to-morrow: (1) Lat. 54.0 N, long. 6.15 E; (2) Lat. 54.0 N, long. 6.41 E; (3) Lat. 53.49 N, long. 6.29 E; (4) NW magnetic, 20 miles from Heligoland. One German submarine is stationed in lat. 54.27 N, long. 6.46 E, and one in lat. 54.27 N, long. 5.42 E. The submarines are to return after nightfall on the 19th or if compelled by bad weather. This telegram addressed to Captain (S) and repeated to Commodore (T).

A 458. Adty. to C.-in-C., H.F. (756),
V.A., 3rd B.S. (56),
V.A., B.C.F. (147). Sent 5.35 p.m.

The 2nd Scouting Group has been sent out and there are the usual indications of other ships going out soon. Enemy intentions are not known, but appear to cover 18th and 19th. Main Fleet should sail after dark to-night and proceed to rendezvous mentioned in Commander-in-Chief's 752, lat. 57.30 N, long. 4.0 E, arriving by noon to-morrow. 3rd Battle Squadron should sail after dark to-night and proceed to lat. 56.30 N, long. 3.30 E, arriving by noon to-morrow. Battle Cruiser Fleet should sail after dark to-night and proceed to lat. 56.30 N, long. 6.0 E, arriving by noon to-morrow. After arrival at their rendezvous, squadrons should cruise 30 miles to southward during daylight and cruise to the northward during the night. Harwich Force is being kept in readiness for the present. Four British submarines will arrive at outlets to swept channels near Heligoland to-morrow evening. One German submarine is stationed in lat. 54.27 N, long. 6.48 E, and one in lat. 54.27 N, long. 5.45 E. This telegram addressed to Commander-in-Chief and has been repeated to V.A., 3rd Battle Squadron and V.A., Battle Cruiser Fleet. Acknowledge.

A 459. Adty. to C.-in-C., H.F. (757),
V.A., 3rd B.S. (57),
V.A., B.C.S. (148). Sent 7.40 p.m.

Commander-in-Chief, with Main Fleet, has been directed to go to the rendezvous given for 3rd Battle Squadron and to arrive as early as possible on 18th. This telegram sent to V.A., 3rd Battle Squadron, and V.A., Battle Cruiser Fleet, and repeated to Commander-in-Chief.

A 460. Adty. to S.N.O.s, East Coast. Sent 7.45 p.m.
Recall minesweeping and auxiliary patrol vessels to harbour at once.

A 461. Adty. to C.-in-C., Nore. Sent 7.50 p.m.

539 Submarines should be outside the entrances to Thames before dawn to-morrow, with destroyers in attendance, so that orders can be communicated to them.

A 462. Adty. to R.A., Dover. Sent 7.50 p.m.

25 Dover submarines should be under weigh before dawn to-morrow, with destroyers in attendance, so that orders can be communicated to them. Take every precaution secretly against a raid from eastward.

A 463. Adty. to C.-in-C., H.F. Sent 7.50 p.m.

758 Enemy are about to carry out the secret plan which they have purposed since 12th inst. This plan seems to involve 1st Scouting Group and 1st and 3rd Battle Squadrons. A flotilla has been attached to each of above and lightships for sailing are being lit at 10 to-night. We do not know what they intend, but if it is a coast raid it seems clear that their two Dreadnought battle squadrons will be at hand to deal with our battle cruisers. You should, therefore, proceed to the 3rd Battle Squadron rendezvous with Main Fleet, as early as possible on 18th. You are not debarred from crossing the suspected area east of the Dogger Bank if you consider it necessary at any time. Acknowledge.

A 464. Adty. to A.O.P. Sent 8.5 p.m.

270 One hour before dawn 18th, all your submarines should be at sea, keeping 7 or 8 miles out, each submarine or group of submarines keeping in touch with a destroyer attached to them, so that further orders can be sent, as circumstances require.

A 465. Adty. to C.-in-C., H.F. (760),
V.A., 3rd B.S.,
V.A., Battle Cruisers. Sent 8.55 p.m.

Battle Cruiser Fleet is to proceed to a rendezvous in lat. 56.10 N, long. 5.0 E.

A 466. Adty. to Comm. (T). Sent 8.55 p.m.

199 German 2nd Scouting Group with destroyers are at sea, and battle cruiser and both Dreadnought squadrons, each with a flotilla, are apparently going to sea to-night. All submarines, with *Lurcher* and another fast destroyer, are to proceed, one division to a position 10 miles west from Haaks Light Vessel and the other to a position 15 miles south-west from Haaks Light Vessel and await orders. Destroyers and light cruisers are to cruise on a WNW line from the mouth of the Texel, between 5 and 25 miles from the land. Be careful of being cut off by cruisers and, if enemy is in force, retire in good time. Acknowledge.

18th April 1915.

A 467. Adty. to C.-in-C., H.F. Sent 1.0 a.m.

761 It is known that enemy has designs which will render area unsafe, but exact details are unknown, neither is present state of area known. We have no evidence that anything has been done to area yet.

A 468. Adty. to Comm. (T). Sent 6.45 a.m.

200 At 4.30 a.m., German light cruisers and other vessels, description not known, were in lat. 53.56 N, long. 4.55 E.

A 469. Adty. to C.-in-C., H.F.

Sent 2.30 p.m.

763 My 758. On 5th April we received information, of which following is actual text, begins: From *Norddeich* to all ships. The following areas are to be absolutely avoided on account of danger from mines. (1) Between lat. 54.40 and 56.0 E long. 2.30 and E long. 5.0; (2) between lat. 53.0 and lat. 53.33 and E long. 2.0 and E long. 3.40, ends. The German text of a previous message made on 12th March has been re-examined; the following is the text, begins: From *Norddeich* to all ships. Avoid, as suspected of mines, the area between long. 2.30 E and 5.0 E, and lats. 54.30 N and 56.0 N, ends. The message of 5th April appears, as regards the northern area, to be a repetition of that of 12th March, and we think this northern area can be considered safe.

20th April 1915.

A 470. C.-in-C., H.F., to Adty.

Recd. 9.20 p.m.

786 *Most secret.* Am of opinion that return of German High Sea Fleet was probably due to a W/T message from trawler, passed to Fleet on 18th April, in lat. 57.7 N, long. 1.50 E, at 9.30 a.m. Letter follows with full details. Meanwhile, consider very desirable that Fleet should avoid direct route to German Base on future occasions and suggest I shall stand over to lat. 57.15 N, long. 5 E, before turning further south, unless it is anticipated that the enemy's force can be intercepted in the vicinity of our own coast, in which case the course would be clear of the direct route. Reports of numerous submarines on 18th April, in area No. 2 of your telegram No. 763, appear to indicate that area was not mined, but was occupied by submarines. Area No. 1 may have been similarly occupied. *Achilles* reports a submarine near northern limit of this area p.m. 18th.

Wednesday, 21st April 1915.

A 471. Adty. to R.A., Dover Patrol.

Sent 2.30 p.m.

42 French submarines will in future exercise at will in the area patrolled by French trawlers east of the meridian of Cape Antifer without giving notice. This area is bounded on the north by the line from Cape Barfleur to the south end of the Colbart and thence to Boulogne.

A 472. Adty. to C.-in-C., H.F. (784),

V.A., 3rd B.S. (59),

V.A., B.C. Fleet (149).

Sent 3.45 p.m.

There are the usual indications that the High Sea Fleet is going to sea shortly. Be ready to go to sea to-night at one hour's notice. Acknowledge.

A 473. Adty. to Capt. (S) (128),

Comm. (T) (212).

Sent 3.50 p.m.

Send four "E" class submarines to Heligoland Bight, leaving to-day:— (1) to lat. 54.1 N, long. 6.44 E; (2) to lat. 54.0 N, long. 6.21 E; (3) to lat. 53.54 N, long. 6.10 E; (4) to lat. 53.47 N, long. 6.23 E. They are to remain in Heligoland Bight for 48 hours after arriving at their stations unless prevented by bad weather. Particular caution is necessary to avoid being seen by aircraft while on their stations or on passage. German submarines will probably be stationed at following positions: lat. 54.26 N, long. 6.46 E; lat. 54.26 N, long. 5.43 E; lat. 54.57 N, long. 6.36 E. Acknowledge.

A 474. Adty. to C.-in-C., H.F. (788),

V.A., 3rd B.S. (61),

V.A., B.C.F. (180).

Sent 6.45 p.m.

Main Fleet is to proceed to a position A in lat. 57.15 N, long. 5.0 E. Battle Cruiser Fleet is to proceed to a Position B in lat. 56.15 N, long. 5.0 E. 3rd Battle Squadron is to proceed to Position A. After arrival squadrons should cruise in the vicinity of their rendezvous and await further orders. Acknowledge.

22nd April 1915.

A 475. Adty. to C.-in-C., H.F.

V.A., 3rd B.S.

V.A., Battle Cruisers.

Sent 5.20 p.m.

(via Cleethorpes, 88)

High Sea Fleet is now returning to harbour. Return to your bases as convenient.

A 476. Adty. to Comm. (T).

Sent 6.15 p.m.

215 Destroyers, light cruisers and submarines, return to Harwich.

27th April 1915.

A 477. Adty. to C.-in-C., H.F. (830),

V.A., B.C.F. (154),

V.A., 3rd C.S. (18),

Comm. (T) (229),

Capt. (S) (139).

Sent 4.30 p.m.

The area enclosed between lat. 54.40 N and lat. 56.0 N, and long. 2.30 E, and 5.0 E, is no longer under suspicion of being mined and may be considered safe. The area enclosed between lat. 53.0 N and lat. 53.33 N, and long. 2.0 E and 3.40 E is still under suspicion.

Wednesday, 28th April 1915.

A 478. F.N.A. to Marine, Paris.

Sent 6.59 p.m.

1999 During the month of May about 160,000 troops will be transported to France by the Folkestone-Boulogne route, that is an average of more than 3,000 a night (*sic*). These troops will be taken across chiefly in small fast boats, but they are obliged to slow down at the entrance to Boulogne and are there exposed to submarine attacks. The Admiralty requests me to report this fact, asking you to be so good as to take precautions to assure their safety at the entrance to Boulogne.

30th April 1915.

A 479. Adty. to all Ships *via* Cleethorpes.

Sent 3.15 p.m.

Moored mines have been found in following area which is to be considered dangerous: From buoys C and D of G Channel which mark north-west extreme of Swarte and Indefatigable Banks to seaward between those banks as far south as 53.20 N and as far east as 2.50 E. Portions of buoys C and D are given on Chart X.74 in a marginal note.

1st May 1915.

A 480. Adty. to Divisional Transports, Cardiff.

Sent 2.25 a.m.

Colliers proceeding to Scapa Flow and Cromarty are to proceed *via* Irish Channel, North Channel and Little Minch. Mid-channel course is to be followed out of Bristol Channel and up Irish Channel. Usual instructions are to be issued as regards passage through North Channel and from Oversay Island to Skerrynore. Colliers proceeding to Rosyth are to proceed *via* east coast, following instructions laid down for merchant vessels.

Wednesday, 5th May 1915.

A 481. Adty. to A.O.P.

Sent 7.25 p.m.

314 Send out some armed trawlers to the fishing fleet about 100 miles north-east of Spurn.

Adty. to S.N.O., Lowestoft.

Sent 7.25 p.m.

198 Send out some armed patrol vessels to the fishing fleet about 100 miles north-east of Spurn. Inform A.O.P. of names of vessels sent as he has been directed to send vessels also.

6th May 1915.

A 482. Adty. to R.A., Dover Patrol. Sent 1.40 p.m.

110 If possible arrange for two destroyers to patrol to North Hinder, Schouwen Bank and Thornton Ridge to-morrow and return to Dover. It has not been possible to send Harwich destroyers as they are all otherwise engaged.

R.A., Dover Patrol, to Adty. Recd. 5.12 p.m.

116 Your 100. Propose to send these vessels on to sketch the prominent marks at Zeebrugge and Blankenberghe for future gunnery reference.

Reply.

112 Your 116. Approved.

Monday, 10th May 1915.

A 483. Adty. to Naval, Ottawa. Sent 1.12 p.m.

174 Please issue following secret orders to Canadian Division ships before sailing: You are to proceed to a point in lat. 48.30 N, long. 10 W, and then steer to pass 30 miles south of the Lizard and thence to Plymouth.

14th May 1915.

A 484. Adty. to Capt. (S). Sent 6.25 p.m.

156 Owing to German mines off Norderney submarines will not be sent there to replace those returned. Send two submarines to cruise off Horns Reef independently. They should keep a good look-out for German submarines which sometimes pass between Horn Reefs and Lister Deep or Heligoland. They should remain four days on their station unless prevented by bad weather.

Sunday, 16th May 1915.

A 485. Adty. to Admiral, Devonport. Sent 5 p.m.

Mentor, Milne, Moorsom, Myngs, Laforey, Leonidas, Loyal, Louis are to proceed to Liverpool, arriving not later than evening of 17th May. They will be required to escort *Mauretania* and *Aquitania* sailing on 18th May. Four destroyers are to accompany each ship. Ships are to be escorted to a point lat. 48.30 N, long. 10 W. Destroyers are then to return to Devonport.

17th May 1915.

A 486. Adty. to Comm. (T). Sent 2.30 a.m.

281 At 2 a.m. a Zeppelin was off mouth of Thames. You may proceed with two light cruisers in case it can be intercepted after daylight.

Reply from Comm. (T).

346 Your 281. The seaplanes will not be ready until this evening. Propose to wait until then. (0400.)

A 487. Adty. to Comm. (T). Sent 2.15 p.m.

283 On the 20th the paddle sweepers will explore part of the area between lat. 54.40 N and 56 N and long. 2.30 E and 5 E, the sweepers will work in the triangle formed by three portions in lat. 54.40 N, long. 2.30 E; lat. 54.40 N, long. 4 E; lat. 55.20 N, long. 2.30 E. Two destroyers should accompany the sweepers and two light cruisers should cruise to the south of lat. 54.40 N and be in W/T touch with the destroyers. The light cruisers should take their seaplanes in case airships are sighted. The paddle sweepers will meet the destroyers at E buoy of G swept channel at 4 a.m. on Thursday, 20th. Buoy E has been moved 10 miles to north-west (May) from its charted position and the swept channel made to conform with its new position.

A 488. Adty. to Comm. (T) (284),
Capt. (S) (157). Sent 3.40 p.m.

Cancel previous arrangements. All light cruisers, destroyers and submarines prepare for sea at once and await orders.

A 489. Adty. to A.O.P. (355),
S.N.O., Lowestoft (220). Sent 4.30 p.m.

Recall all auxiliary patrol vessels from Dogger Bank immediately.

A 490. Adty. to C.-in-C., H.F. (998),
V.A., 3rd B.S. (86),
V.A., B.C.S. (172),
V.A., 1st B.S. (158). Sent 5.0 p.m.

1st and 2nd Scouting Groups, 1st, 2nd and 3rd Battle Squadrons, and six Destroyer Flotillas left Norderney Gat at 2.30 p.m. to-day, steering to north-westward. Grand Fleet, including battle cruisers, are to rendezvous at 4 a.m. to-morrow in lat. 57.14 N, long. 0.18 E. Light cruiser squadrons should proceed to lat. 56.40 N, long. 1.0 E, as soon as possible and look out. This telegram, addressed to C.-in-C., has been repeated to V.A.s, 1st Battle Squadron, 3rd Battle Squadron, and V.A., Battle Cruiser Squadron. Acknowledge.

A 491. Adty. to Comm. (T). Sent 5.20 p.m.

285 High Sea Fleet is either at sea or going to sea. Proceed with available destroyers and light cruisers and patrol between the Texel and a position 40 miles west of it. Divide the Harwich submarines into two divisions. Attach a destroyer to each division and take them with you. The Yarmouth submarines have been sent to lat. 53.35 N, long. 5.0 E, to wait orders; *Lurcher* is to accompany you and be held available for communicating with them. Acknowledge.

A 492. Adty. Minesweepers to *Esther*. Sent 5.25 p.m.

Find Commander Walters and tell him to return to harbour at once with all his ships. If you have not found him by dark, return yourself immediately. (Sent by W/T from Lowestoft in "Transposed Vocabulary.")

A 493. Adty. to all S.N.O.s on East Coast. Sent 5.35 p.m.

Recall awaiting patrol vessels to the vicinity of the War Signal Stations.

A 494. Naval Base, Lowestoft, to *Esther*. Sent 6 p.m.

Return to harbour at once with all minesweepers that are with you. Tell paddle sweepers to return to Grimsby. (Sent by W/T in A.P. Code.)

A 495. Adty. to R.A., Dover Patrol. Sent 6.32 p.m.

166 Send five submarines to Harwich as soon as possible to follow the orders of S.N.O., Harwich. Inform him when they will arrive and send a torpedo boat with them as convoy.

A 496. Adty. to R.A., Dover Patrol. Sent 6.35 p.m.

167 Send the Tribal destroyers to join the Commodore (T) and follow his orders. He will be patrolling on a line west from the mouth of the Texel at daylight to-morrow, and they should join him as soon after daylight as possible. Warn destroyers that Commodore (T) has submarines with him.

A 497. Adty. to Admiral, Rosyth (751),
A.O.P. (358),
C.-in-C., Nore (758),
R.A., Dover Patrol (168).

Have all submarines under way and ready for service outside their ports and in easy communication by means of visual signals at 3.30 a.m. to-morrow. All available destroyers and scouts are also to be in readiness.

To A.O.P. only. *Illustrious* is to be ready for action at anchor with steam up at 3.30 a.m. *Brilliant* and scouts are to be under way inside Spurn Point at 3.30 a.m.

A 498. Adty. to C.-in-C., H.F. (999),
V.A., B.C.S. (173),
V.A., 3rd B.S. (87),
V.A., 1st B.S. (159). Sent 7.50 p.m.

Report that High Sea Fleet was at sea at 2.30 p.m. to-day proves incorrect, but there is every indication that they are going to sea after dark to-night. Battle cruisers and light cruisers should proceed to lat. 56.40 N, long. 1 E, arriving at 8 a.m. Battle squadrons and cruisers should proceed to lat. 57.14 N, long. 0.18 W, arriving 7 a.m.

Continuation.—0.18 W should be 0.18 E. Sent 10.55 p.m.

A 499. Adty. to C.-in-C., H.F. Sent 8.10 p.m.

1 *Personal and Secret.* First Lord to C.-in-C., Home Fleet. It is not impossible that to-morrow may be the day. All good fortune attend you.

18th May 1915.

A 500. Adty. to Comm. (T). Sent 8.45 a.m.

288 *Lurcher* to proceed to lat. 53.35 N, long. 5 E, and order *E.2*, *D.3*, *D.6* and *S.1* to proceed eastward to station ordered. German Fleet is at sea manœuvring.

A 501. Adty. to Admiral, Rosyth. Sent 8.50 a.m.

Pass following by W/T by the "I" method. Admiralty to C.-in-C. 3. We think German Fleet is manœuvring in Heligoland Bight. Cruise at your discretion between lat. 56 N and your present position.

A 502. Adty. to Comm. (T). Sent 11.15 a.m.

289 German Fleet is returning. Return to harbour with light cruisers, destroyers and submarines. *Lurcher* should also return after communicating with the four submarines, which should proceed in execution of their orders.

A 503. Adty. to Admiral, Rosyth (755),
A.O.P. (360),
C.-in-C., Nore (764),
R.A., Dover Patrol (171). Sent 11.50 a.m.

Coast Defence Flotillas and submarines can revert to usual conditions.

A 504. Adty. to R.A., Dover Patrol (172),
S.N.O., Harwich. Sent 11.55 a.m.

Dover submarines should return to Dover.

21st May 1915.

A 505. Adty. to Capt. (S). Sent 9.5 p.m.

164 Send one "E" class submarine to cruise in Heligoland Bight. She should not go inside Heligoland or north of lat. 55.0 N. Sweeping is going on at our northern minefield, lat. 54.43 N, long. 7.15 E, and she should attack the sweeping vessels when clear of the minefield, while they are going out or returning. She should remain 7 days in Heligoland Bight unless compelled to return on account of bad weather or other circumstances. Make sure she has both our minefields correctly charted.

Wednesday, 26th May 1915.

A 506. Adty. to V.A., Milford, etc. Sent 7.55 p.m.

Orders have been given to transfer the Yacht Squadron from Belfast to Milford Haven. They will be under your orders and their duty will be to attack submarines anywhere in the southern approaches to St. George's Channel and the Bristol Channel. Their operations will be confined to Area XV, but they should work wherever submarines may be reported in the area to the eastward of the meridian of 10.30 W, and to the northward of lat. 50 N. The object of this new arrangement is to prevent submarines frequenting any particular locality and picking up successive merchant ships and to harass and keep the submarines on the move.

29th May 1915.

A 507. Adty. to C.-in-C., H.F. Sent 4.15 p.m.

88 *Secret.* We hear a barrier breaker from Jade goes out to-night with cruisers in support. She proceeds to lat. 54.20 N, long. 5.32 E, and then returns. This may be prelude to more serious operations and you should accordingly be ready to leave at two hours' notice. Forces at Rosyth and Cromarty have been told to be ready to leave at two hours' notice. Acknowledge.

A 508. Adty. to C.-in-C., H.F. (90),
V.A., 3rd B.S. (97),
V.A., 1st B.S. (167),
V.A., Battle Cruisers (189). Sent 5.48 p.m.

Enemy plans unknown, but High Sea Fleet is expected to pass Norderney between 10.30 p.m. and 2.20 a.m. to-night. You should sail and concentrate your fleet to west of meridian of Greenwich, between lat. 57° and 58° N to-morrow morning ready for eventualities, with battle cruiser fleet to the southward. Report proposals before sailing with estimated positions at 8.0 a.m. to-morrow. Addressed to C.-in-C., have repeated to Invergordon, Rosyth. Acknowledge.

A 509. Adty. to Comm. (T) (304),
Capt. (S) (172). Sent 6.38 p.m.

German Fleet are leaving harbour to-night, plans unknown. Two submarines and one fast destroyer, whose name is to be reported, are to proceed to position 6 miles NE by N of Winterton to await orders. Two submarines are to remain at Harwich ready for immediate service. Light cruisers and destroyers are to cruise on a line W by N from the mouth of the Texel. During daylight they should be spread as a look-out line. Remainder of submarines, with one destroyer, to support Commodore (T). Acknowledge.

A 510. Adty. to C.-in-C., H.F. (89),
V.A., 3rd B.S. (96),
V.A., B.C.S. (188),
V.A., 1st B.S. (166). Sent 8.4 p.m.

Prepare for sea. German Fleet is leaving harbour to-night.

30th May 1915.

A 511. Adty. to C.-in-C., H.F. (by I Method). Sent 1.50 p.m.

99 Return to your bases as convenient. Germans are returning.

A 512. Adty. to Capt. (S). Sent 8.35 p.m.

173 We believe several old German battleships will leave the Ems river on Tuesday. A submarine should be sent especially to attack them, arriving off the entrance by daylight on Tuesday. She must be very careful not to be observed. If unable to attack she should return on Wednesday night.

Wednesday, 2nd June 1915.

A 513. Admiral, Devonport, to Adty. Recd. 11.29 p.m.

427 With reference to order to transports to sail after dark, I propose to modify this in case of ships under escort on account of short nights by starting them in the afternoon so as to ensure their being past Ushant before daylight.

Reply. Sent 11.35 a.m., 3rd June.

881 Your 427. Approved.

4th June 1915.

A 514. Adty. to A.O.P. Sent 5.35 p.m.

413 Squadron composed of *Skirmisher*, *Topaze*, *Sentinel*, *Adventure*, *Forward* and *Foresight* will be known as the 6th Light Cruiser Squadron.

A 515. Adty. to A.O.P. Sent 5.35 p.m.

414 6th Light Cruiser Squadron is to proceed to sea by way of Flamborough Head and "H" swept channel to a position (A) in lat. 54.5 N, long. 3 E, arriving there as early as possible to-morrow morning. Should no orders be received by W/T en route it will then proceed at 19 knots in single line ahead, ships 4 miles apart to a position (B) in lat. 53.27 N, long. 4.27 E, keeping a good look-out for aircraft. The squadron should then return to the Humber by the same route. Report at what time squadron will sail and when position (A) will be reached. Use of W/T is to be avoided except in case of necessity.

Reply. Recd. 8.58 p.m.

436 Your 414. Two cruisers will sail by 8.30 p.m. and should arrive position (A) about 4 a.m. A third cruiser will leave about 10 p.m. and follows.

5th June 1915.

A 516. Adty. to all Naval Bases. Sent 7.30 p.m.

Until further orders all British merchant and fishing vessels proceeding round the north of Scotland or from east coast ports to northern fishing grounds are to be directed verbally and confidentially to use the Pentland Firth route, passing through the Pentland Firth during daytime only. This order does not affect the special confidential route prescribed for vessels between the west coast and Archangel.

Sunday, 6th June 1915.

A 517. Comm. (T) to Adty. Recd. 10.27 a.m.

388 Weather is very favourable for seaplanes carried in light cruisers. Suggest *Aurora* and *Penelope* and four destroyers operate on 4th meridian, keeping south of 54th parallel.

Reply. Sent 2.25 p.m.

317 Your 388. Approved. They should return after being 48 hours on their stations, and there is no objection to going as far north as 54.40 N. About the Maas there is a suspicious three-masted schooner which is believed to act as a look-out for a submarine which lies alongside her.

A 518. Adty. to C.-in-C., H.F. Sent 2 p.m.

163 For the next two days *Aurora*, *Penelope* and four destroyers will be Zeppelin hunting in the vicinity of long. 4 E, between the Maas and lat. 54.40 N.

8th June 1915.

A 519. Adty. to Capt. (S). Sent 2.10 p.m.

175 Past experience of dates of German Fleet going out for exercise renders it probable they may go out this week end. Two submarines should work on a line SE by E (magnetic) from a position in lat. 54.30 N, long. 6° 0' E, to as far east as long. 7° 0' E. They should arrange their beats beforehand so as to avoid interfering with each other. One submarine should work to southward of lat. 54.0 N, between long. 6.0 E and Norderney Island. Two submarines should work to westward of long. 6° 0' E, between Ameland Island and lat. 54.0 N. All submarines should arrive at above stations by midnight on Friday and remain until after dark on Tuesday unless an earlier return is necessary, owing to bad weather or defects. Impress on them that they must not be observed by aircraft or vessels.

12th June 1915.

A 520. Adty. to R.A., Dover Patrol. Sent 5.15 p.m.

271 Two units of armed trawlers are to be detached temporarily to work under the orders of A.O.P. on the Dogger Bank. They should leave for the Humber for orders as soon as possible.

A 521. A.O.P. to Adty.

488 From 15th June a special fishing area patrol flotilla will be organised consisting of 12 armed trawlers. These will comprise the 12 sent from Dover and 6 added from Areas 8 and 9. Flotilla will be organised in three reliefs, of which two will be out at a time. I do not propose to use any of these vessels for any other purposes unless absolutely necessary.

Sunday, 13th June 1915.

A 522. Adty. to Comm. (T). Sent 4 p.m.

320 10th Flotilla with Captain (D) and *Aurora* is required to escort transports from Avonmouth and Plymouth. Either Milford, Newport or Avonmouth may be used as headquarters, whichever is preferred. The arrangement is temporary and will be considered when the situation admits. Four destroyers should be detached for work at Plymouth, and Captain (D) can change them when necessary. Two of the destroyers detailed for Plymouth should escort cable ship *Cozonias* from Sheerness to Plymouth. Inform C.-in-C., Nore, when they will arrive at Sheerness. 3rd Flotilla destroyers should return to Harwich when relieved. Instructions as to the tracks by which transports are to be escorted will be telegraphed to Captain (D) on arrival.

Reply from Comm. (T).

401 Your 320. *Aurora* and 10th Destroyer Flotilla, eight destroyers, will leave at noon to-morrow, 14th June. Captain (D) will use Milford Haven as headquarters. Request that tracks to be used for transports may be telegraphed to Pembroke. *Meteor* will be ready to sail on 16th June. *Morris* and *Nancy* are detailed to escort *Cozonias*. *Mastiff* remains at Harwich pending further orders.

15th June 1915.

A 523. Adty. to *Aurora*. Sent 6.50 p.m.

Transports are to be escorted from Avonmouth passing midway between Lundy Island and St. Govan's Light Vessel, and thence to a position in lat. 50 N, long. 9 W. Two destroyers are to be detailed to each transport. Inform Divisional Naval Transport Officer, Avonmouth, daily number of destroyers available for escort. Escort is to commence as soon as destroyers reach Avonmouth, and transports can be sailed by day or night.

A 524. Adty. to D.N.T.O., Avonmouth. Sent 7 p.m.

Destroyers will be sent to escort transports commencing to-night and continuing until all are sailed. Each transport is to be escorted by two destroyers and no transport is to be allowed to sail except with escort. *Aurora* is at Pembroke in charge of destroyers and will inform you daily number of destroyers available for escort. Transports are to proceed midway between Lundy Island and St. Govans Light Vessel, and then to a position in lat. 50 N, long. 9 W, where the escort will leave them. Afterwards vessels should proceed as in sailing orders. Transports can be sailed by day or night.

17th June 1915.

A 525. Adty. to C.-in-C., Devonport. Sent 12.20 p.m.

415 Destroyers belonging to 3rd Flotilla should be sent back to Harwich.

A 526. C.-in-C., H.F., to Adty. Recd. 10.55 p.m.

243 Submitted for approval to send 3rd Cruiser Squadron, two light cruisers and four destroyers to sweep North Sea, leaving Rosyth 10 p.m. to-morrow, 18th, proceeding as far east as Little Fisher Bank, then north of 30 miles from 270 from Lister and back to base by 4 a.m., 21st inst.

Reply. Sent 11.2 a.m., 18th June.

275 Your 243. Approved. We have no submarines in the Bight.

19th June 1915.

A 527. Adty. to Capt. (S). Sent 12.5 p.m.

179 Send one submarine to operate between Horn Reefs and lat. 55 N. Send one submarine to work off Norderney Gat. Send one submarine to work between Hantsholm and Christiansand Fjord and the Skaw, preferably an "E" class boat. She should make Horn Reefs and proceed to her station from there as our cruisers may be off Little Fisher Bank. Warn submarines to attack German auxiliary *Meteor* if seen. Description is as follows:— Straight stem, one funnel, two masts, two crows'-nests on foremast, mixed passenger and cargo vessel, about 3,000 tons gross. Funnel and hull dark grey or black, lighter topsides armed with 4-1-in. guns, number unknown. Submarines may attack any fleet auxiliary vessels provided favourable chances occur, but should not waste torpedoes on doubtful shots. Northern submarines should remain seven days on station, the other two five days. I should return earlier if desirable owing to bad weather or other circumstances. No objection to using S.1 if desired.

A 528. Admiral, Devonport, to Adty. Recd. 10.16 p.m.

626 Captain (D), 10th Destroyer Flotilla, submits that if any destroyers, 10th Destroyer Flotilla, are available, they may be sent to Avonmouth where transports are awaiting escort. None of the 10th Destroyer Flotilla now here can be spared, but *Loyal* and *Lucifer* about to leave for Harwich, and *Lawford*, which will be ready to-morrow evening, Sunday, could be sent to Avonmouth instead, subject to your approval. Submitted for immediate directions.

Reply.

Your 626. 3rd Destroyer Flotilla should return to Harwich.

Monday, 21st June 1915.

A 529. C.-in-C., H.F., to Adty. Recd. 6.10 p.m.

270 In view of large number of submarines reported yesterday in area between lat. 56 N and 57.40 N and long. 1 W and 2.40 E, submit for consideration if Fleet goes to sea that Battle Fleet should cruise north of lat. 57.30 N and Battle Cruiser Fleet cruise south of lat. 56 N, unless or until situation develops. Appearances indicate a submarine trap. Alternative is for Battle Fleet to go east of long. 3 E.

22nd June 1915.

A 530. Adty. to Comm. (T). Sent 4.25 p.m.

334 Owing to *Aquitania* leaving Liverpool with troops on 25th and to sailings from Avonmouth being in arrears, you should send one division of 3rd Flotilla to Devonport. The division of 10th Flotilla at Devonport will be sent to *Aurora*. Warn Portsmouth when they will pass Beachy Head.

Adty. to Comm. (T). Sent 6.15 p.m.

335 Cancel my 334. Sailing of *Aquitania* has been postponed.

Monday, 28th June 1915.

A 531. C.-in-C., H.F., to Adty

326 With reference to submission from Admiral, Rosyth, No. 1648 of 17th June, relative to probable successful results from mines laid at Todd Head, it is requested that deep minefields may be laid at once in the positions recommended in my letter No. 987 of 20th May.

Reply. Sent 2nd July.

421 Your 326. The deep mines we have laid off Todd Head, Beachy Head, Dartmouth and Kentish Knock have not yet met with any success against enemy submarines and they have caused the loss of at least two friendly vessels. It is essential for safety that the bottom should be even, which is not the case in the positions mentioned in your letter. The depth of water is too great in these positions and in consequence the variation in depth of mines due to tides and currents will be great. Various suitable positions have been under consideration for laying deep mines, but it is considered advisable to wait until those already laid have produced some favourable results before laying any more on a considerable scale. The surveying trawler *Esther* is on her way north, and if you wish any further places surveyed with a view to laying deep mines Commander Hancock will be ordered to do so. The depth should be less than 30 fathoms and the bottom even and not rocky.

3rd July 1915.

A 532. Naval Base, Lowestoft, to Adty. Recd. 10.53 a.m.

456 Divers have found submarine and report her to be practically intact. Shall endeavour to salve her.

Reply. Sent 12.15 p.m.

344 Your 456. It is most necessary to keep the fact of locating this submarine secret and salvage is of no importance compared to secrecy. Report proposals and give exact positions, depth of water and state of hull if ascertainable. (H.B.J.)

APPENDIX B.

"Iron Duke,"

11th December 1914.

H.F. 0022. Memorandum.

METHOD OF SEARCH FOR SUBMARINES.

The following method of hunting a submarine which has been located is promulgated for information and guidance, and is to be employed by the Grand Fleet flotillas when circumstances admit.

2. The scheme aims at wearing out a submarine through her most vulnerable point, viz., her battery power.

3. It is based on the following facts:—

The later German submarines can travel about 40 miles in 10 or 12 hours after a strenuous attack. When their batteries are fully charged they can dive for some 24 hours and travel 80 miles in that time, or they can run 60 miles submerged in 10 hours.

A submarine harassed by small craft can rest on the bottom, provided that the depth does not exceed about 20 fathoms, a heavy sea is not running, and the bottom is not rocky.

When chased in deep water a submarine will probably dive to about 66 ft. and proceed at slow speed, say, 4-5 knots, rising at intervals to observe through her periscope whether the search has been abandoned.

Note.—The German submarines have a Diesel engine for surface running and charging which, in some cases, exhaust up a funnel 10 or 12 ft. high. When this engine is in use smoke will probably be seen. A submarine without a funnel exhaust will also probably show smoke when using her Diesel engine.

Scheme.

4. The position where the submarine was sighted being known, the flotilla ordered to search for her to proceed to and spread from that position.

For the first hour, counting from the time of the submarine's presence and position being known, e.g., her last appearance, a circular area of about 8 miles radius should be searched; this should be increased by 4 miles every hour up to the ninth, when the radius will be 40 miles; it will probably be best not to increase the area further.

If, during the search, the submarine is seen, the whole search should be closed in at once to the smallest area (8 miles radius from the new position) and a fresh start made.

A quick and simple method of spreading the destroyers is to detail them to work in quadrants, or, if a circular area is not suitable, between certain bearings, so that they are equally disposed over the area to be searched.

5. When submarine hunting, single sweeps should be set to tow at 11 fathoms; torpedoes should be set to run at 23 ft. during daylight, and at 7 ft. during the dark hours.

6. In deep water the search should be continued, if possible, for about 12 hours after each appearance. If nothing is seen of the submarine during this period there is small chance of catching her, unless the locality gives good indication as to her probable direction of escape.

After dark searchlights should be burnt occasionally to aid search and to induce the submarine, if charging batteries on the surface, to dive; zigzagging may also be less frequent.

7. Whilst searching, flotilla cruisers and destroyers must keep on the move, steaming at not less than 15 knots, and constantly zigzagging; they must also vary their beat.

If a submarine is sighted by the search the whole search must be moved so that its centre is near the position where she was last seen.

S. H.F. 0022/7 of 1st September 1914, is hereby cancelled.

(Signed) J. R. JELICOE,
Admiral.

APPENDIX C.

VICE-ADMIRAL SIR LEWIS BAYLY TO COMMANDER-IN-CHIEF, HOME FLEETS.¹

Reply to Admiralty Secret Letter M./G. 01694/14 of 4th December 1914.

An evil is best cured by cutting at the root. The submarine menace should be attacked at its start, viz., at the ports they issue from.

It must be allowed that some will escape, and therefore other precautions must be taken.

The preventive measures herein are laid down in that order.

I. Zeebrugge must be eliminated as a submarine base. The locks being 800 yards up the canal, behind the breakwater, they can only be damaged by a shot at a venture during a bombardment, and the result is unknown to the attackers.

It must therefore be neutralised by blockships sunk in the canal and blown up. About six blockships would be required, to be reasonably certain of getting one in; each should be laden with about 2,000 to 3,000 tons of stones, bricks, etc. The explosives should be under the floor of engine and boiler rooms. It should be done soon.

II. (a) Seize Borkum.

(b) If it is not to be seized, keep a patrol of light cruisers outside the mouths of the Ems, so that submarines coming out stand a chance of being seen while in shallow water. Certain ones will escape in thick weather and at night. Sink ships (as in I) in the middle of the Wester Ems, and Hubert Gat, at the narrowest part (abreast Ballon Platte, over 6 miles from the batteries) so as to make the exit in thick weather and at night more difficult. The ships to be sunk if possible across the channel, and to have four or more iron masts put up in them before they go. Lay down lit buoys in false positions with a view to mislead.

III. Lay down mines outside the Jade, Weser and Elbe. By now, owing to the reports received from our destroyers, submarines, etc., the Admiralty doubtless know roughly where the German minefields are, and therefore where there are their cleared channels for their own ships. Assuming these to be along the coast east of Heligoland, and along the shore under the guns of Wangeroog, these are the only places where our mines need be laid, thus greatly reducing the number required. If we have not enough mines, use oil drums, casks, etc., all to be fired on the percussion principle. As they should become innocuous when adrift, all these mines should be moored so that they won't come adrift.

IV. Watch entrance of Skagerrack with light cruisers.

Note.—Light cruisers should be withdrawn from all destroyer flotillas, so as to give us enough for these patrols.

The light cruiser patrols must of course have a backing of heavier ships at a distance.

¹ Original in M. 04623/14.

V. Give up the idea that ships will keep out of the North Sea on account of our statement that it is too dangerous; and forbid the North Sea, from Cape Wrath round through east to Dover, to everything (including all fishing vessels) of all nations, except belligerents, and neutral convoys convoyed by neutral men-of-war. Treat all vessels not under convoy as sheltering German submarines.

VI. Send warning of "V" all over the world; offer the hospitality of our western ports from Mull to Plymouth to neutral ships waiting for convoy.

VII. We cannot afford to stop and search ships, fishing vessels, etc., in the North Sea, and any ship, vessel, or boat met with and not convoyed must be turned back by a shot across her bows or sunk.

VIII. Divide the coast of the British Isles from Mull to St. Abb's Head, including all outlying islands, Hebrides, Orkneys, Shetlands, etc., into sections, every part of each section to be within six hours steaming radius of a central shore telegraph station called the section centre. Have a certain number of armed trawlers (the number will differ according to the number and depth of bays in each section, etc.) attached to each section, and make each trawler telegraph once every 24 hours to the section centre, and receive orders from it. Have every bay or loch in each section visited at least once every 48 hours by one of these armed trawlers. Let the Commander-in-Chief be communicated with by land wire from the section centre once every 24 hours, or oftener if there is anything to report.

IX. The trawler captains and crews know nothing of warfare, do not understand guns, and are quite unfitted for the work described in VIII. Remove them and replace them by R.N.R. or R.N.V.R. officers and men. Those in the Naval Divisions would do excellently well, and I am sure would volunteer with pleasure to the required number. About 2,000 will be wanted: 10 to each trawler, including stokers. The latter could be got elsewhere if they cannot come from the R.N.V.R. The R.N.V.R. could also supply the officers at the section centres. The forehold of the trawlers should be made into a mess for the men.

X. Arm each trawler with a 3-pdr.; two if possible; a modified sweep; hand grenades; rifles; and a good telescope. Make the trawlers rusty and dirty in appearance; with a dirty red ensign that can be changed for a white one before opening fire. Keep their bottoms clean, and their engines and boilers in good order.

XI. Keep three flotillas of destroyers north at Grand Fleet base, and use one to patrol from Cape Wrath to Duncansby Head.

XII. Ships at sea to always go 15 knots by day, zigzagging; 3rd Battle Squadron, 14 knots.

XIII. I am not acquainted with what is being done south of St. Abb's Head as regards watching our coasts for submarines, but similar sections to VIII should be laid down for the mouth of the Thames, Downs, etc., worked in the same way; the destroyers being thus released to escort ships of war, and transports, etc., in the Channel, and to guard our trade passing to London.

XIV. The object of the trawlers is not only to locate and sink submarines but also to give them no rest day or night. By this means the submarines will be worn out, and be more easily captured. If it were possible I would suggest searchlights in the trawlers to make this more easy. There is no reason why the searching trawlers should not carry lights at night; in some ways it would be better, as they would be seen by submarines, and the latter would be on the continual *qui vive*, which is what we want, next to sinking them.

XV. It will be seen that there must be enough armed trawlers to keep up a continual search day and night in certain localities, so as to give the submarines no rest.

XVI. Watchers should be stationed in certain places, men who are under discipline, to report at once by land wire to section centre of any submarine seen. They must be men who know a submarine when they see one.

(Signed) LEWIS BAYLY,
Vice-Admiral.

9th December 1914.

(I) Zeebrugge is not of importance. It is reported to be silting up owing to removal of dredgers, so that submarines even of light draught can only pass in and out at the top of high water. To block the canal by blockships is to make it useless for us when the Army advances.

(II) (a) Seizing Borkum would not prevent submarines getting in and out. It would be an encumbrance and we should have to maintain an army there and a squadron to support the army.

(b) If a patrol of light cruisers is kept off the Ems they will either be torpedoed, or destroyed by superior force from Wilhelmshaven.

Blocking is never anything but a temporary measure and cannot be made permanent in the neighbourhood of a port with such resources as there are at Emden.

(III) Mines laid outside the river will be swept up by the Germans and cannot furnish a permanent obstacle. As to extempore mines, we have great difficulty in furnishing explosives for regular purposes. There can be no assurance that mines will not break adrift.

(IV) It would require more light cruisers than we possess to watch the Skagerack.

At Dover, out of 20 T.B.D.s, it is barely possible under the best conditions to help.

At Dover, each T.B.D. works an area of about 10 miles square, proceeding continually at high speed. The Skagerack is 60 miles across, and the minimum number present upon patrol at any time must be six. If they were five days out they could be three days in their station, probably as long as ships and men could stand. They are 370 miles from their base. Not less than 18 cruisers could maintain a single line 10 miles broad. A submarine can easily dive under a single line. The Dover Straits patrol extends longitudinally over 30 miles. On the same basis this proposed Skagerack patrol would require at least 54 light cruisers, and would offer no certainty that submarines could not pass.

(V) Our relations with neutrals would not stand this.

(VI) The western ports are fully occupied with our own supplies and with the trade diverted from eastern ports.

(VII) See (V).

(VIII) A scheme of areas round the coast has been drawn up and concurred in by C.-in-C.

(IX) The trawler captains and crews are seamen, which very few of the R.N.V.R. are. What is needed is for officers to teach the trawler men and they will soon pick up the work.

(X) Trawlers are being armed in as large numbers and as fast as guns can be provided.

(XI) This is a question which cannot be settled off hand. Destroyers are needed in the southern area, as well as the northern, for operations of great importance.

(C7213)

(XIII) The destroyers and torpedo boats south of St. Abb's Head are:—

The patrol on east coast at Tyne, Humber, etc.—21 destroyers and 12 torpedo boats.

The Nore patrol—12 destroyers and 20 torpedo boats.

These destroyers and torpedo boats have the duty of attacking transports, minelayers, and blocking ships and escorts of ships on east coast. They cannot be replaced by trawlers, however armed.

(XIV) The proposal involves procuring a very great number of searchlights and dynamos and furnishing them with carbons. The trade cannot supply either of these. There is only one firm in Great Britain which makes searchlight carbons.

(XV) Every effort is already being made to do this.

(XVI) All the disciplined men in the Kingdom are in the Navy and Army.

(Signed) H. F. OLIVER,
C.O.S.,
17th December 1914.

Concur—A.K.W.
Concur—F.

APPENDIX D.

From Rear-Admiral, Dover Patrol.

To Chief of Staff, Admiralty.

Date, 28th January 1915. No. 012.

I send you a copy of the Orders that I have given to the *Excellent*.

2. On 18th October last I was told by the military that they feared a landing west of Nieuport, and I arranged during my operations in October and November that a destroyer patrol remained every night on the coast west of Nieuport.

3. When the operations were suspended I begged the French to maintain sufficient patrol to keep the West Deep clear of mines; they did not do this, and I do not think they attempted it. Consequently, the place is now full of mines and must be properly cleared before ships can work.

4. As it appeared necessary on 26th January to make immediate arrangements to guard the coast I had to use shallow-draught vessels which can make use of the La Panne Pass, which is the only safe passage, and it is one which carries them quickly to the only place where a landing west of Nieuport can take place.

5. The present condition of affairs will probably go on for weeks, and it was with that idea that I recommended that *Bustard* be sent. I am also trying to get the West Deep cleared of mines, and, if necessary, will ask for British minesweepers to assist.

6. It appears to me to be of little use clearing the area of mines if the French will not keep it clear.

7. I must say that I view with grave concern the lack of appreciation of the situation as far as the vessels are concerned by the French General. He asked if a small and slow gunboat, two small torpedo boats and two destroyers could bombard a German position which has withstood the fire of 12-in., 9·2 and 6-in. guns for weeks at a time.

8. Hundreds of heavy rounds have been fired from the ships at the Westende and Slypeberg batteries and not one German gun has been damaged.

9. There is nothing unusual in this. I understand that all the Japanese Fleet and some of the British fired for weeks at a German battery on shore at Tsingtau, and when the place fell it was seen that the guns were quite undamaged.

10. No bombardment of the coast is now possible until the West Deep is cleared of mines, and no bombardment will be of any use unless it is carried out with very heavy guns and is accompanied by an advance in force of the allied troops and allied heavy artillery.

Rear-Admiral, Dover Patrol.

APPENDIX E.

CAPTAIN A. E. H. MARESCAUX, R.N., DIVISIONAL
NAVAL TRANSPORT OFFICER, DUNKIRK, TO
REAR-ADMIRAL HOOD.

Divisional Naval Transport Office,
Dunkirk,
3rd February 1915.

Sir,

I have the honour to inform you that I have received a visit from Captain Bousicaux, who wished me to inform you that his minesweepers had destroyed 13 mines during the past two days, but that the thorough clearing of the minefield east of the West Deep Bell Buoy will be a lengthy operation in view of the difficulties that present themselves.

Frequently the knives of the sweeping arrangement do not sever the moorings (*sic*) completely, and the mines remain caught in the sweep and do not rise to the surface. On these occasions the sweep has to be towed in to shoal water under the lee of one of the banks, and the minesweeper has to wait until the falling tide exposes the mine sufficiently for it to be destroyed.

The sweeping being done during daylight hours exposes the minesweepers to enemy's fire, and even were the field completely swept, unless an efficient night patrol was exercised, there appears to be no guarantee against the enemy resowing mines during the dark hours.

Captain Bousicaux was of the opinion that there were probably 100 mines sown in the area east of the bell buoy. If such is the case, it would appear to discount the probability of any disembarkation of the enemy west of Nieuport if, as I understand, the minefield is irregularly sown.

Commandant Richard, who paid me a visit yesterday, gave me to understand that a French Admiral will probably command the fusiliers marins operating on the coast. I trust this may be so and that the view that seems to have been taken recently that the gunboats, destroyers and torpedo boats are to be considered in the same light as field pieces to be run into position at any moment that is considered favourable may be modified considerably.

I have the honour, etc.,
(Signed) A. E. H. MARESCAUX, Capt., R.N.,
D.N.T.O.

Rear-Admiral the Hon. H. L. A. Hood, C.B., M.V.O.,
Dover.

APPENDIX F.

MEMORANDUM BY ADMIRAL VON POHL.¹

¹ *Nordsee* IV, pp. 141-143. Date not given, but probably end of April 1915 or early in May 1915.

"All intelligence received by us of the enemy's movements is too uncertain for us to be able to base our operations against hostile naval fighting forces upon it. The only thing we know for certain is that the vessels composing the First English Fleet are at the present time stationed in the east coast ports.

"Cromarty Firth, the Firth of Forth and the Tyne are therefore probably used for repairs. We can learn nothing about the use to which the Humber is put, though we are aware that it is of the utmost importance to us on account of the short distance between it and the German Bight, and is open to a flank movement by us towards the north and in the direction of the Hoofden. Rumour has it, it is true, that the enemy by laying mine barrages has organised an extensive manœuvring ground between the Humber and the Wash for himself; this rumour is not exactly reliable, however, as the English Fleet must be obliged to patrol this area closely on account of the lively mercantile traffic carried on near by. Our air scouting round the Humber has so far proved unsuccessful. According to the account of exchanged prisoners of war, the 3rd Squadron (*King Edward* class) is stationed in the Thames.

"The First English Fleet well understands how to veil its operations on the sea. Steamers have several times lately reported its presence north of the Dogger Bank, and recently to the south also. But intelligence of its having been observed south of the Dogger Bank was only received after the movements of our Fleet had been openly discussed in the Press. It is not improbable that the rumours set about by the steamers were originated by the enemy himself.

"It is certain that fast, light enemy forces frequent the trade routes in the North Sea. From what our submarines have seen of the movements of these vessels—high speed on a zigzag course—it would not appear that valuable ships are likely to be exposed to the submarine danger in the North Sea. Gunnery practice is apparently carried on in the extreme north, north of the Shetland Islands. As far as one can form an opinion of the intentions and the activities of the First English Fleet, it appears that it purposes for the present to remain in the northerly portion of the North Sea or else in the ports. An offensive against the German coast is unlikely in the near future. Since the end of January no heavy English fighting forces have been sighted near the German Bight.

"Our Objects.

"The main objective for our naval forces is, as it always has been, the First English Fleet. Our hopes of defeating it in battle on the open sea have not increased. It must not be forgotten that in the event of such a battle, our 2nd Squadron would be opposed to a squadron of 'Dreadnoughts,' and this might easily lead to complete disaster.

"Our task to bring about an equalisation of power by constantly harassing the enemy, has not yet been brought to a successful conclusion. As our submarines are mostly used in mercantile warfare, the only weapons remaining at our disposal are mines. There are two methods open to us in our endeavour to lay mines before the ports used by the First English Fleet: the first is by sending out minelayers (cruisers or mining vessels) to

proceed alone. I do not consider this way advisable. Taking into consideration the disasters to the *Königin Luise*, and the two torpedo boats off Noord-Hinder, were the vessels sent to lay mines to be destroyed either upon the high sea or off the enemy's coasts, and the High Sea Fleet be unable to come to the rescue, our navy would not only suffer great loss of prestige, but also the people would lose confidence in their leaders. In my opinion this moral loss would be in no wise counterbalanced by the loss of this or that enemy vessel, which loss might very likely be kept secret. The second method is by sending out mining vessels protected by the combined strength of the High Sea Forces. Considering the distance back from the Firth of Forth and the Firth of Moray this would probably lead to a battle on the open sea, which we should avoid as long as the preponderance of strength remains as it is.

"No doubt we might be able to intercept and separate enemy fighting forces engaged on long enterprises without too much danger to ourselves; but so far as our experience during the war has gone, we cannot rely on receiving timely intelligence of such opportunities as might arise.

"There remains, therefore, nothing further for us to do than to continue to act in accordance with our present policy and to confine mining operations to the neighbourhood of our own coasts. By laying mines off the Dogger Bank, we may be able to draw the enemy out.

"After good weather set in, long distance scouting by airships proved a very valuable aid to us on our advances. No doubt as the days grow longer and the weather improves still more we shall be able to push out further into the North Sea.

"For freedom of movement in the operations of the Fleet it is greatly to be wished that the Danish waters were open to us, so that we could make use of the Kattegat, which has so far been used by neither the Germans nor the English. Obviously the military position of the enemy would not be improved had we two outlets from coastal waters. On the other hand, an attack by the English is now not likely to take place."

APPENDIX G.

"Iron Duke,"
28th April 1915.

OPERATIONS ORDER No. 20.

OPERATIONS AGAINST ENEMY PATROL VESSELS
IN THE NORTH SEA.

There is reason to suspect that in recent concentrations of the Grand Fleet, warning of our movements have been given by a screen of trawlers flying neutral flags, also possibly by neutral vessels bound to or from British ports, some of which have been suspected of liberating carrier pigeons on sighting the Fleet.

2. The object of these Operations is thoroughly to examine all vessels found in the areas given below, and in which the Fleet usually concentrates, for signs of W/T and submarine sound signalling appliances or carrier pigeons and, if possible, to find out on what system, if any, the vessels are disposed in the North Sea, assuming that they are in the employ of the enemy.

(C7213)

3. *Forces to be employed.*—The Operations are to be carried out by:—

- (i) Scapa Force, consisting of *Phaeton*, *Royalist*, and two divisions of 4th Flotilla, under the command of the Captain of *Phaeton*, which will search Area ZWYA (*see below*).
- (ii) Rosyth Force, consisting of 1st Light Cruiser Squadron and two divisions of 1st Flotilla, under the command of the Commodore Commanding, 1st Light Cruiser Squadron, which will search Area ABCD (*see below*).

Point A is in lat. 57 N, long. 1 E.
 " B " lat. 57.30 N, long. 5 E.
 " C " lat. 56.5 N, long. 5 E.
 " D " lat. 56.5 N, long. 1 E.
 " W " lat. 58.10 N, long. 1.30 E.
 " Z " lat. 57.30 N, long. 0.30 W.
 " Y " lat. 57.50 N, long. 5 E.

Instructions.

4. The forces are to sail on the afternoon of Sunday, 2nd May 1915, in time to begin operations in their areas at dawn on Monday, 3rd May 1915, and are to return to their bases on Tuesday, 4th May 1915, unless the senior officer should consider that valuable service will be rendered by prolonging the operations for another day.

5. As large an area as possible is to be covered, consistent with the necessity for efficient support in the event of attack, due regard being paid to the visibility.

To assist in examining fishing vessels, it is desirable that each destroyer should carry an intelligent skipper, mate or deck hand from the local patrol trawlers or drifters, if they can be spared by the Admiral Commanding, Orkneys and Shetlands, and the Admiral Commanding, Coast of Scotland. They should accompany the boarding officers when searching trawlers. Senior officers are to make the necessary arrangements for embarking them in the destroyers before sailing.

6. It is possible that W/T sets may be thrown or towed overboard by the trawlers on the near approach of men-of-war. Submarine sound signalling apparatus for communicating with submarines, if carried by the trawlers, will probably be fitted in the fish holds.

7. Suspected vessels may be sent into Leith or Aberdeen with a prize crew, to save delay and to enable thorough examination and enquiry to be made. An addition to the complement of each light cruiser, consisting of two or three sub-lieutenants or acting sub-lieutenants and 12 men, armed, is to be furnished by the large ships at Scapa and Rosyth under the direction of the Senior Naval Officer afloat at the respective bases.

8. A German interpreter, if available, should be with each force, and if interpreters in Dutch or Scandinavian languages are available, they would be of great assistance.

9. The senior officer of each force is to arrange for a check position to be given to each destroyer and cruiser on the morning of 3rd May 1915, before spreading, and the position of each trawler on sighting is to be registered.

By recording these positions sufficient data may be obtained to discover their dispositions.

10. A good look-out is also to be kept for floating mines and the position of all mines seen is to be reported. The mines are to be destroyed if practicable.

11. I request that the Vice-Admiral Commanding, 3rd Battle Squadron, will inform me during the forenoon of Sunday, 2nd May 1915, if the weather is unsuitable for the destroyers to carry out these orders.

(Signed) J. R. JELlicoe,
Admiral.

The Vice-Admirals Commanding, 1st, 2nd, 3rd and 4th Battle Squadrons, and Battle Cruiser Fleet.
 The Commodore Commanding, 1st Light Cruiser Squadron. (3 copies.)
 The Officers in Command of H.M. Ships *Phaeton* and *Royalist*.
 The Captains (D), 1st and 4th Flotillas. (10 copies each.)

APPENDIX H.

SAILING ORDERS—"ORVIETO."

"Iron Duke,"
 4th May 1915.

H.F.S.O. 121. *Memorandum.*

Being in all respects ready, *Orvieto* is to put to sea at noon on Thursday, 6th May, escorted by eight destroyers of the 2nd Flotilla under Commander C. D. Roper, in the *Broke*. The destroyers will meet the *Orvieto* north of Swona Island at 0.30 p.m., and the whole force is to be under your command.

2. On clearing the Pentland Skerries, *Orvieto* and the destroyers are to proceed at 16 knots, zigzagging till dark, steering to pass through positions "M," "W" and "K."¹ After dark speed may be reduced, and during daylight on the 7th instant speed is to be adjusted as necessary, the ships zigzagging. It is important to economise fuel in the destroyers.

Four of the destroyers are to form a submarine screen by day, and four are to spread ahead 7 to 10 miles, according to the visibility, and the senior officer in *Broke* is to act as a link between them and the *Orvieto*. At night, *Broke* and the four destroyers should be stationed 5 miles ahead of *Orvieto*, and two destroyers 2 miles on either quarter, unless the nights are light, in which case two should screen on either bow.

There is danger of your being sighted and reported by neutral vessels entering or emerging from the Skagerrack, especially by those eastward-bound. It is desirable on 7th instant that, when in sight of such vessels, your course should be such as not to indicate an intention to proceed towards Heligoland.

Suspicious vessels should not be boarded, but should be avoided if possible, and W/T is not to be used except to reply to calls by the Commander-in-Chief or the Admiralty.

3. The full complement of 600 mines is to be ready for laying; they are to be laid 120 ft. apart, 12 ft. below L.W.O.S.; the rise above this

¹ M = 58.40 N, 0.30 W; W = 58.30 N, 2.30 E; K = 57.30 N, 5 E. (G.F. W/T Memoranda, H.S. 342, date 17th April 1915.)

datum in the locality where they are to be laid is 7 ft.; depth of water probably 14 to 20 fathoms; and the mines will be laid three to four hours after high water.

4. It is improbable that any of H.M. ships or vessels will be met on the route ordered, either when going south or when returning to the base.

5. At 4 a.m. on Friday, 7th May, you are to open the envelope containing sealed orders, and to carry out the instructions contained therein.

(Signed) J. R. JELICOE,
Admiral.

Captain Harry H. Smyth, R.N.,
H.M.S. *Orviato*.

(Enclosure to H.F.S.O. 121 of 4th May 1915.)

SEALED ORDERS—"ORVIETO."

"Iron Duke,"
4th May 1915.

Memorandum.

On passing through position "K" *Orviato* and her escort are to shape course and adjust speed so as to pass 5 miles west of the Horn Reefs Light Vessel at 9 p.m., Friday, 7th May. From thence they are to proceed to a position in lat. 54.44 N, long. 7.27 E, arranging to arrive there about midnight on 7th-8th May.

From this position the mines are to be laid in one line as ordered, in a direction SW (magnetic); the details of the laying are left to your discretion. The destroyers should screen *Orviato* ahead and on each bow during the operation, keeping in sight of *Orviato*.

When the line is laid *Orviato* and her escort are to steam at *Orviato's* full speed for lat. 57.30 N, long. 5 E, and return to the base through positions "W" and "M," the destroyers screening as before.

Should *Orviato* be discovered while approaching the mine position or while laying mines, you are to use your discretion whether to order the destroyers to attack and destroy the observing vessel if a trawler or small craft, or to abandon the operations and retire north; but the latter course is preferable if it is suspected that a W/T report has been made of *Orviato's* position and occupation.

2. A W/T report is to be made to me when north of lat. 57 N on Saturday, 8th May, whether the mines have been laid unobserved in the position ordered.

3. The minelayers *Princess Margaret* and *Princess Irene*, escorted by the 10th Flotilla, will lay mines on lines NE (magnetic) and ENE (magnetic) from a position in lat. 54 N, long. 6 E, at about 11.30 p.m. on the night of 7th May.

(Signed) J. R. JELICOE,
Admiral.

Captain Harry H. Smyth, R.N.,
H.M.S. *Orviato*.

APPENDIX I.

Memorandum H.F. 005 of 15th January 1915 (Edition of 7 May, 1915).

DANGEROUS MINE AREAS.

(The names of areas, and the reference numbers of mine positions may be alluded to for signalling purposes.)

(a) *Newcastle Area*.—Between lines drawn 29 deg. and 92 deg. from Tynemouth; at distances from 20 to 44 miles from that place.

(b) *Scarborough Area*.—This area is considered to be clear of moored mines.

(c) *Humber Area*.—A parallelogram whose two adjacent sides are drawn 50 miles 270 deg. and 26 miles 345 deg. from a position in lat. 53.30 N, long. 1.50 E. That part of the area situated within 27 miles of Bridlington is reported to be clear of moored mines.

(d) *Dogger Bank Area*.—Between lat. 55 N and lat. 55.20 N; between long. 1 E and long. 2 E.

(e) *Area No. 1*.—Between lat. 56 N and lat. 54.40 N; between long. 2.30 E and long. 5 E. *Vide* also mine position 486. This area is to be treated with suspicion, pending the receipt of further information.

(f) *Area No. 2*.—Between lat. 53.33 N and lat. 53 N; between long. 2 E and long. 3.40 E. This area should be avoided until it has been tested by minesweepers.

(g) *Swarte Bank Area*.—Formed by lines joining the following successive positions:—

Lat. 53.31, long. 2.1 E; lat. 53.36, long. 2.10 E; lat. 53.20, long. 2.50 E; lat. 53.20, long. 2.20 E.

Notes.—Moored mines have been located and this area is being further examined; it is considered probable that the mines were laid about 18th April; this area forms a part of Area No. 2 as described above.

(h) *Southwold Area*.—Between lat. 51.54 N and lat. 52.54 N; between long. 2 E and long. 3 E. Those parts of the area situated within 15 miles of the north-west corner and 10 miles of the south-east corner have been reported clear of moored mines.

(i) *British Dover Strait Area*.—Formed by lines joining the following successive positions:—

Lat. 51.40, long. 3 E; lat. 51.16 N and long. 3 E; lat. 51.6 N, long. 2.34 E; lat. 51.6 N, long. 1.53 E; lat. 50.54½ N, long. 1.32 E; lat. 51.4 N, long. 1.18 E; lat. 51.12 N, long. 1.35 E; lat. 51.20 N, long. 1.35 E; lat. 51.40 N, long. 1.43 E; lat. 51.40 N, long. 3 E. No navigation is permitted in this area.

Note.—Many mines are reported to be drifting from this area. Several of those originally laid therein were reported to have drifted at an average daily rate of 5 miles before reaching the waters to the eastward of the Shetland Islands. Those laid at a later date may therefore be expected to drift in a similar manner, and to appear off the Shetland Islands about June 1915. British mines recently laid are marked with the letters H, P, or E, and a number. Some have a yellow cross which merely refers to the minelayer.

(j) *North Irish Area*.—Between lat. 54.45 N and lat. 55.50 N ; between long. 8 W and long. 9 W. Steps are being taken to clear it. At present only the eastern part has been swept and it is probable that many mines are still in place. 45 mines have been destroyed (several recently) inside this area. Over 70 mines have been destroyed on the Irish and west of Scotland coasts, having been encountered on both sides of the Outer Hebrides, in the Minch and the Scottish coasts south of the Minch. It is considered that mines from the north coast of Ireland, west of Rathlin Island, cannot drift up the Firth of Clyde.

(k) *Heligoland Bight Areas*.—A German minefield extends from a position 10 miles 258 deg. from Heligoland towards a gas buoy* situated in lat. 53.52 N, long. 7.15 E, and probably beyond this buoy towards Baltrum Island (lat. 53.44 N, long. 7.23 E). The waters between Heligoland and the northern end of the above line is believed to be mined with a swept channel through. A black conical buoy* is situated in lat. 53.52 N, long. 7.8 E. Vessels should not pass to the eastward of a line drawn 33 deg. from this buoy.

Notes.—* These buoys may be removed or their positions may have been changed ; the position lat. 54.33 N, long. 7.48 E was reported by Admiralty on 11th January 1915 to be " mined and dangerous to approach within 7 miles " ; a swept channel appears to exist between the Western Ems and Jade ; the Eastern Ems is probably blocked and has not been used since war commenced.

APPENDIX J.

Letter 987/H.F. 0022, dated 20th May 1915.

FROM COMMANDER-IN-CHIEF, HOME FLEETS, TO ADMIRALTY.

The interception of enemy submarines in northern waters while on passage northabout presents considerable difficulties. The strength of tides off the headlands and the deep water prevents the successful employment of mines, and renders the use of indicator nets difficult, while the depth admits of the submarines diving under a 60-ft. net, also the depth of these nets may likely be now known by the Germans. On the other hand, the deep water prevents submarines resting on the bottom, which somewhat facilitates attack.

The best places to endeavour to intercept submarines bound northabout are :—

- (i) Off Muckle Flugga (Shetlands),
- (ii) The Fair Island Channels,
- (iii) Butt of Lewis.

The tides off (i) and (ii) do not admit of mining, and the alternative is to use nets, and patrol vessels armed with guns and modified sweeps. Experiments with moored nets are now being made in the Fair Island Channels, but it is doubtful whether they will stand in the strong tides, and probably it will be necessary to shoot them when the presence of a submarine is reported. This has so far been the policy in the Fair Island

Channels. We have as yet no experience of indicator nets off Muckle Flugga, the conditions of depths, tide and weather are much the same as in Fair Island Channels.

Nets 120 ft. deep are required for these channels, and it is requested that a large number may be supplied as soon as possible.

In addition to the action with indicator nets, it is suggested that fields of the Service Mechanical Mines should be laid at about 48 ft. below L.W.O.S., 150 ft. apart, in localities over which submarines regularly pass, and one or two armed trawlers stationed near them in order to force the submarines to dive. Of the three best intercepts, No. (iii) off the Butt of Lewis is the only one where it is considered that minefields of this description can be usefully laid ; and the channel between the Flannan Islands and Lewis on a line 130 deg. from Gealtaire More and 2 to 7 miles from it, is considered to be a better position than off the Butt of Lewis ; 200 mines could be laid here.

There are no other intercepts in northern waters favourable for mining ; it is not thought that submarines on passage use the Pentland Firth, but a deep (48 ft.) minefield would be very useful off Todd Head, north of Montrose, where submarines are constantly reported. It should consist of 200 mines and be laid 90 deg. from Todd Head and 2 to 7 miles off shore.

I suggest that the Todd Head minefield should be laid at once ; the mines should be laid at night, as spies would probably report the presence of so conspicuous a ship as the *Orvieta*. The mines could be laid without arousing suspicion by trawlers or small steamers, but some time would be required to fit them for this service. As the depth is known I suggest that a fixed mooring wire of at least 1½ in. be used, with 7-cwt. sinkers if they are available. A trawler guard will be required near the minefield to make the submarines dive. Experience with the Todd Head minefield will determine whether it is desirable to proceed with the field off the Flannan Islands.

In order to prevent the mines from being swept up in the trawl of trawlers it will be necessary to emphasise the present prohibition of fishing in this locality, since trawlers are habitually now fishing in prohibited areas. I suggest that special emphasis should be laid on the necessity for avoiding the area from the coast line to 1 deg. W long. between the latitudes of Kinnaird Head and Dundee, the reason given being the activity of enemy submarines in that locality and the necessity for strong patrols being established which would be interfered with by trawlers. A heavy fine should be imposed on all vessels disregarding the prohibition.

Submarines are frequently off Broadhaven Bay, west of Ireland ; and, if there is now a good reserve of mines, a 48-ft. minefield might later be laid in this locality :—

315 deg. from Eagle Island (Ireland), 2 to 5 miles off shore—120 mines.

If these minefields stand well and meet with any success their use can be extended in these localities and in other likely spots such as in the locality of Skerryvore.

I am, Sir,

Your obedient Servant,

(Signed) J. R. JELLICOE,

Admiral.

APPENDIX K.

STATEMENT SHOWING PRESENT SCHEME FOR
PATROLLING BY AUXILIARY PATROL VESSELS IN
ORKNEYS AND SHETLANDS.

SHETLANDS PATROL.

Muckle Flugga to 61 deg. N	1 yacht, 6 trawlers.
Fair Island to Sunburgh Head	2 yachts, 12 trawlers, 10 net drifters, 3 motor drifters.
Patrolling the Voes and Examination Service, etc.	1 motor boat, 4 drifters.

ORKNEY PATROLS.

Northern Patrol.

Guardship at Kirkwall	1 yacht.
In and amongst the Northern Islands and Kirkwall approaches	6 trawlers.
Fair Island Channel	1 yacht, 2 whalers, 16 trawlers, 14 steam drifters, 2 motor drifters.
Auskerry to Old Head	6 trawlers.

(Note.—2 yachts ordered to join, 1 of which will become guardship at Kirkwall and relieve present guardship to return to Southern Patrol.)

Southern Patrol.

Pentland Skerries to Duncansby Head, 10 miles to eastward of this line	6 trawlers.
Entrances to Hoxa, Holm and Switha	16 trawlers, 5 net drifters.
Entrances to Hoxa, Holm and Switha and Special Service	1 yacht.

(Note.—1 yacht, now guardship at Kirkwall, when relieved returns to Southern Patrol, 2 additional trawlers ordered to join.)

Western Patrol.

Loch Erribol patrol	1 yacht, 6 trawlers.
Thurso and Western Entrance of Pentland Firth	2 trawlers.
A line NW (true), 10 to 60 miles from Noup Head, <i>i.e.</i> , track of fishing trawlers going north	1 yacht, 14 trawlers.
At entrance to Hoy Sound	2 trawlers.
Inside Hoy entrances	6 net drifters.

In all cases a proportion of vessels are always away refitting or blown down, and some are in harbour resting, so that the numbers given above do not show the numbers actually on patrol at a time.

S. C. COLVILLE,
Admiral.

"Cyclops,"

24th June 1915.

APPENDIX L.

"Iron Duke,"

3rd June 1915.

OPERATIONS ORDER No. 21.

SWEEP OF NORTHERN PORTION OF NORTH SEA FOR
EXAMINING VESSELS ON TRADE ROUTES.

A sweep of the northern portion of the North Sea is to be carried out by the 1st Cruiser Squadron, accompanied by the armed boarding steamers *King Orry*, *Royal Scot* and *Duke of Albany*, with the object of examining vessels on the trade routes :—

St. Abb's Head to Skagerrack, and Rotterdam to Norwegian ports.

Ships taking the latter route probably pass near the Horn Reefs and over the Little Fisher Bank.

2. The force is to leave this base at 9 p.m. on Friday, 4th June, and is to be accompanied by three destroyers to be detailed by Captain (D), 4th Flotilla; the course to be steered is to pass through the following positions :—

- (a) Lat. 58 N, long. 0.
- (b) Lat. 56.30 N, long. 2 E.
- (c) Lat. 57 N, long. 6 E.
- (d) Lat. 58.30 N, long. 4.30 E.

The vessels are to return to this base by 4 a.m. on the third day after sailing, having been absent about 56 hours.

The routes may be varied, but the force is not to approach Mine Area I, or within 30 miles of the Norwegian coast, nor should the period of absence be extended without my approval.

3. Submarines are constantly operating between Skudenaes and the Naze, and also in the area between lat. 56 and 57 N, long. 2.30 to 4 E.

4. The full speed of the armed boarding steamers is :—

<i>King Orry</i>	20 knots.
<i>Royal Scot</i>	16 "
<i>Duke of Albany</i>	18 "

Their speed of advance will not exceed 14 knots on account of zig-zagging. The ships of the 1st Cruiser Squadron are to steam at 17 knots, and adjust the courses of their zigzag accordingly. The cruisers may be spread up to 10 miles apart by day and 5 miles by night; each armed boarding steamer should be astern of a cruiser.

5. Boarding is to be carried out by the armed boarding steamers, which ships will provide armed guards for any ships sent in for examination. It is improbable that heavy ships of the enemy will be met; the cruisers supporting the armed boarding steamers need not be kept in close touch of one another, but rather act as supports to the latter when boarding; a high speed and constant alteration of courses is to be maintained whilst doing so.

6. The line of cruisers should be readjusted at intervals as considered necessary.

7. A division of destroyers will sweep from Pentland Skerries to the east and south-east each night at 17 to 20 knots, commencing at 9 p.m., turning at midnight, and returning to Pentland Skerries by 3 a.m.

8. Wireless telegraphy on power should only be used for important messages, and not for routine purposes.

9. Merchant ships for examination should be sent into Aberdeen or Peterhead, and the armed guards should be directed to return by rail to this base.

10. The three destroyers detailed by Captain (D), 4th Flotilla, are to be detached when approaching the vicinity of 57.40 N, 1.45 E, to search the area within a radius of 30 miles of this position for suspicious fishing boats and trawlers flying Dutch colours, which have been reported as operating in the neighbourhood in company with a submarine between the 25th and 31st May (inclusive).

Any vessels discovered of which there can be any doubt of their *bona fides* are to be sent in to Kirkwall with a prize crew, for examination.

After parting company with the Rear-Admiral Commanding, 1st Cruiser Squadron, the destroyers are to keep strict W/T watch, and the Rear-Admiral is to detail a ship to keep watch on "D" tune, so that in case of emergency he can call the destroyers to his assistance.

On conclusion of the search, the destroyers are to return to Scapa, reporting their movements to the Rear-Admiral Commanding, 1st Cruiser Squadron, and the Commander-in-Chief.

The Rear-Admiral Commanding, 1st Cruiser Squadron, is to arrange for an officer and four men to be lent to each destroyer to act as prize crews if required. If a second crew is required, it is to be supplied from the complement.

Captain (D), 4th Flotilla, is to report the names of the three destroyers to the Commander-in-Chief and the Rear-Admiral Commanding, 1st Cruiser Squadron, by signal, as soon as they are detailed.

11. Memorandum H.F. 0022/54 of 31st May 1915, which was issued to the Vice-Admiral Commanding, 2nd Battle Squadron, Vice-Admiral Commanding, 2nd Cruiser Squadron, Rear-Admiral Commanding, 1st Cruiser Squadron, and *Sappho* is cancelled.

(Signed) J. JELlicoe,
Admiral.

The Vice-Admiral Commanding, 2nd Cruiser Squadron.

The Rear-Admiral Commanding, 1st Cruiser Squadron.

The Captain (D), 4th Flotilla.

The Commanding Officer, *Sappho*, for Armed Boarding Steamers.

Copies also to:—

Vice-Admiral Commanding, 2nd Battle Squadron.

Rear-Admiral, 1st Battle Squadron.

Rear-Admiral, 2nd Battle Squadron.

APPENDIX M.

"Iron Duke,"

6th June 1915.

H.F. 0057/7.

GRAND FLEET EXERCISES.

OPERATION "Q."

First Day (date of leaving Harbour).—All squadrons, except the 3rd Battle Squadron and 3rd Cruiser Squadron, will be at sea on the night on which this order is opened.

2. The squadrons from Scapa are to proceed to rendezvous No. 1 in lat. 62 N, long. 3.30 W, passing through Pentland Firth to the westward, thence between Sule Skerry and North Shoal, arriving at the rendezvous at noon on the second day.

3. *Second Day.*—The 1st Battle Squadron from Cromarty and *Lancaster* and *Donegal* are to proceed to rendezvous No. 1 (*vide* para. 2), passing through Pentland Firth, arriving at the rendezvous not later than 6 p.m. on the second day. They will be screened en route by half of the 2nd Flotilla. *Tiger*, *Active*, *Minotaur* and *Hampshire* are to proceed on ahead at high speed, and arrive at the rendezvous, *Tiger* and *Active* by 3.30 p.m., and *Minotaur* and *Hampshire* by 5 p.m.

4. The Battle Cruiser Fleet and half of the 1st Flotilla are to proceed to rendezvous No. 2 in lat. 62 N, long. 0, passing 50 miles off the Aberdeenshire coast and at least 30 miles to the eastward of the Shetlands. They are to arrive at the rendezvous during the night of the second-third day.

Full Calibre Day Firing.

5. On arrival at rendezvous No. 1, the following 10 ships from Scapa will carry out full calibre practice in the order named:—

Iron Duke, *Emperor of India*, *Warspite*, *Queen Elizabeth*, *Orion*, *Conqueror*, *Benbow*, *Duke of Edinburgh*, *Royalist* and *Blanche*. After these ships have completed, *New Zealand*, *Tiger*, *Active*, *Minotaur*, *Hampshire*, *Superb* and *Hercules* will carry out full calibre practice in the order named. *Comus* will carry out gun trials independently.

6. *Flotillas.*—On completion of the full calibre day firing, the 2nd and 4th Flotillas are to proceed to Swarbucks Min, Shetland Isles, at 20 knots, and, on arrival, are to complete with fuel with all despatch and be ready to sail again at 10 p.m. on the third day.

The destroyers of the 1st Flotilla with the Battle Cruiser Fleet are to be detached at 10 p.m. on the second day and are to proceed to Swarbucks Min to fuel and be ready to leave with 2nd and 4th Flotillas on the third day.

Night Firing with Anti-Torpedo Boats' Guns.

7. All squadrons (not the flotillas) will be ordered to carry out night firing north of lat. 62.30 N in the following longitudes on the night of the second-third day:—

<i>Comus</i> and <i>Royalist</i>	.. .. .	Long. 5 W.
2nd Battle Squadron	.. .. .	Long. 4.30 W.
<i>Iron Duke</i> , 4th Battle Squadron and <i>Blonde</i>	.. .. .	Long. 3.50 W.
1st Battle Squadron and <i>Blanche</i>	.. .. .	Long. 3.10 W.
1st Cruiser Squadron	.. .. .	Long. 2.30 W.
2nd and 7th Cruiser Squadrons	.. .. .	Long. 1.50 W.
Battle Cruiser Fleet	.. .. .	Long. 1 W to 1 E.

Ships to be spread in directions 180 deg. and 360 deg. in the allotted longitudes, the line of fire being 90 deg. and 270 deg. The use of search-lights will be at the discretion of Commanding Officers.

8. On completion of the night firing, each squadron is to cruise in the longitude allotted to it for night firing, keeping to the northward of lat. 62.30 N until it is time to proceed to the rendezvous ordered (*vide* para. 9) preparatory to carrying out a fleet exercise on the third day.

Exercise I.

9. *Third Day.*—*Red Fleet*, consisting of Battle Squadrons, 1st Cruiser Squadron, *Comus* and *Royalist*, are to assemble at rendezvous No. 3 (lat. 63.15 N, long. 4 W) at 4.30 a.m. on the third day.

Blue Fleet, consisting of the Battle Cruiser Fleet, 2nd and 7th Cruiser Squadrons, are to assemble at rendezvous No. 4 (lat. 63.15 N, long. 0) at 4.30 a.m. on the third day.

Each fleet is to cruise on the meridians of longitude, passing through their 4.30 a.m. rendezvous until 7 a.m., when they are to proceed thence from any desired latitude for rendezvous No. 5 (lat. 63 N, long. 2 W). P.Z. Exercise No. 1 will take place on meeting.

10. On completion of P.Z. Exercise No. 1, the Battle Cruiser Fleet will be ordered to proceed to rendezvous No. 6 (lat. 62.30 N, long. 2 W) for such calibre firing as the Vice-Admiral orders. A collier with targets, escorted by *Oak*, will be at the rendezvous.

The remainder of the fleet will be exercised as convenient to the westward of long. 3 W.

11. The whole fleet, except the flotillas, will reassemble at rendezvous No. 7 (lat. 62.30 N, long. 3 W) at about 9 p.m. and will cruise in night dispositions.

12. *Flotillas.*—The 1st, 2nd and 4th Flotillas are to leave Swarbucks Min at 10 p.m. as ordered in para. 6, and proceed to rendezvous No. 8 (lat. 62 N, long. 4.30 W), arriving and meeting the fleet there at 4 a.m. on the following (fourth) day.

Exercise II.

13. *Fourth Day.*—During the forenoon of the fourth day, the Battle Fleet will be exercised in deployments, the Battle Cruiser Fleet and cruisers in taking up battle stations.

On completion of these exercises, the Scapa and Cromarty forces will move south and, when ordered to proceed to their bases, the *Dreadnought* Battle Fleet, *Comus* and *Royalist*, 2nd and 4th Flotillas (except *Active* and eight destroyers of 2nd Flotilla) will proceed to Scapa. The 1st, 2nd and 7th Cruiser Squadrons, with *Active* and eight destroyers, will proceed to Cromarty, and the Battle Cruiser Fleet with the half of 1st Flotilla to Rosyth.

14. The squadrons proceeding to Scapa will cross the line Sule Skerry—North Shoal during the night.

The squadrons proceeding to Cromarty will be detached so as to pass through the Fair Island Channel, crossing the line Fair Island—North Ronaldshay during the night and arriving at Cromarty a.m. on the fifth day.

On arrival at the entrance to Cromarty Firth, *Active* and the destroyers are to return to Scapa.

The Battle Cruiser Fleet are to pass north of the Shetland Islands and arrive at Rosyth as convenient.

The second half of the 1st Flotilla will be ordered to leave Rosyth to meet the Battle Cruiser Fleet about 4 p.m. on the day of return (fifth day) to augment the submarine screen.

(Signed) J. R. JELICOE,
Admiral.

(Enclosure No. 1 in Memorandum H.F. 0037/7 of 6th June 1915.)

ORDERS FOR FULL CALIBRE DAY FIRING.

I. Target.

Two or three Patt. VI targets in tandem will be towed by the collier *Ford Castle*, which will be escorted by *Oak*.

Ford Castle will have marking party and signalmen on board and will carry a number of spare targets.

In case all *Ford Castle's* targets are broken up on the first day's firing, the Battle Cruiser Fleet should have four or five Patts. III or VI targets ready for use as drifting targets.

II. Rounds to be Fired.

(i) *Battleships*, "*Tiger*" and "*New Zealand*"—15, 13.5 and 12-in. guns.

All ships to fire reduced charges; *Queen Elizabeth*, *Warspite*, *Tiger* and *New Zealand* may fire four rounds per gun, *Hercules* and *Superb* four rounds per gun from eight guns, all the remainder three rounds per gun.

6-in. Guns.—Full charges, eight rounds per gun on the engaged side.

(ii) *Battle Cruisers*.

Such ships as the Vice-Admiral desires to practice to fire reduced charges, four rounds per gun from main armament guns.

Tiger and *New Zealand* will fire with ships from Scapa.

(iii) *Cruisers*.

9.2-in. and 7.5-in. guns are to fire reduced charges; 6-in. guns full charges.

Allowance.—Eight rounds per 9.2-in., 7.5-in., or 6-in., bearing on one broadside.

(iv) *Light Cruisers*.

Full charges are to be fired.

Allowance.—Eight rounds per 6-in. or 4-in. gun, bearing on one broadside.

Light cruisers of the Battle Cruiser Fleet to fire at the discretion of the Vice-Admiral Commanding.

III. Range of Opening Fire.

(i) *Battleships and Battle Cruisers*.

About 12,000 yards, if the weather is favourable; otherwise at such a range as will enable the gunlayers to see the target.

(ii) *Cruisers*.

About 10,000 yards, if fine; otherwise as for battleships.

(iii) *Light Cruisers*.

About 10,000 yards, if fine; otherwise as for battleships.

IV. System of Firing.

Iron Duke, *Orion*, *Conqueror*, *Superb*, *Lion* and *Invincible* by director; for other director ships the system to be used is optional.

Extempore directors are *not* to be used unless the conditions are unsuitable for gunlaying.

V. Speed whilst Firing.

Battleships	..	..	..	..	..	17 knots.
<i>Tiger</i> and <i>New Zealand</i>	..	..	..	..	..	20 "
Battle cruisers	..	..	..	..	..	As directed by the Vice-Admiral Commanding.
Cruisers	..	..	..	..	..	17 knots.
Light cruisers	..	..	..	..	..	20 "

VI. *Course.*

Course should be altered one or two points every three minutes during the run.

VII. *Casualties.*

May be exercised towards the end of the run if desired, but the majority of the rounds are to be expended by firing in primary control as a test firing.

VIII. *Time of Firing.*

The ships firing on the first day (commencing with *Iron Duke*) will be allowed eight minutes each; allowing for the speed of the collier to be about 6 knots, the interval between ships should, therefore, be about 2 miles.

IX. *Number of Run.*

In order to assist the marking party, each firing ship is to make her name by searchlight to the collier shortly before commencing the run; she is also to hoist a numeral signal to indicate the number of her run shortly before commencing and keep it flying during the run.

X. *Records.*

Ships should arrange to keep such records of the firing as are necessary for analysis purposes afterwards.

ORDERS FOR NIGHT FIRING WITH ANTI-TORPEDO BOATS GUNS.

Target.—Senior Officers of squadrons are to give the necessary orders as to targets.

Searchlights.—May be burnt or not, at the discretion of Commanding Officers.

Rounds to be Fired:—(i) *Battleships and Battle Cruisers.*

Eight rounds per gun from 6-in. and 4-in. guns; 6-in. guns to fire reduced charges.

(ii) *Cruisers.*

Four rounds per gun from 6-in. guns, reduced charges; eight rounds per gun from 12 or 3-pdrs.

(iii) *Light Cruisers.*

Six rounds per gun from 6-in. or 4-in. guns; 6-in. guns to fire reduced charges.

(Enclosure No. 2 in Memorandum H.F. 0037/7 of 6th June 1915.)

P.Z. EXERCISE No. 1.

The time and place of this exercise will be ordered by signal. The fleets will be composed as follows:—

Red Fleet.

(Under the command of the Commander-in-Chief.)

<i>Iron Duke</i> , 1st, 2nd and 4th Battle Squadrons ..	23 ships.
1st Cruiser Squadron	3 or 4 ships.
Three attached cruisers	3 ships.
<i>Comus</i> and <i>Royalist</i>	2 ships.

Blue Fleet.

(Representing the German Fleet.)

(Under the command of the Vice-Admiral Commanding, Battle Cruiser Fleet.)

<i>Lion</i> , 1st, 2nd and 3rd Squadrons of the Battle Cruiser Fleet.	9	}	*
2nd and 7th Cruiser Squadrons	7 or 8		
Eight light cruisers	8		

(* Representing 24 or 25 battleships.)

Three light cruisers Representing minelayers.

Maximum speeds are to be:—

Ships representing battleships	18 knots.
1st Cruiser Squadron	20 ..
"Blue" light cruisers representing minelayers ..	23 ..
"Red" light cruisers	21 ..

The objects of the exercise are:—

- (i) To represent some of the possible conditions of action with the High Sea Fleet as far as the Battle Fleets only are concerned.
- (ii) To exercise the fire control parties and the gunlayers in selecting the correct target.

Blue's tactics are to include:—

- (a) An endeavour to manœuvre for position before commencing the action.
- (b) An attempt to close the range.
- (c) A turn away in succession with the object of:—
 - (i) Inducing Red Commander-in-Chief to follow and thus to place Blue Fleet in a position favouring torpedo attack by Red, either from his battle line or by light cruisers, each representing a torpedo flotilla.
 - (ii) Luring the Red Fleet over a minefield.

The three Blue light cruisers which represent minelayers may also be used to represent the torpedo flotillas attacking the Red van, each light cruiser representing a German flotilla or 11 destroyers.

The supposed bearing and distance of Heligoland will be signalled on the morning of the exercise.

It is improbable that all the tactical objectives laid down for Blue can be attempted in one exercise. The Vice-Admiral Commanding, Battle Cruiser Fleet, may assume that two exercises will be ordered.

(Enclosure No. 3 to H.F. 0037/7, dated 6th June 1915.)

EXERCISE No. 2.

ALL SIGNALS, W/T OR OTHERWISE, PURPORTING TO REPORT ENEMY'S SHIPS OR MOVEMENTS ARE TO BE PREFACED BY THE WORDS "FOR EXERCISE."

Red Force.—Grand Fleet, less 3rd Battle Squadron and 3rd Cruiser Squadron.

Blue Force.—Imaginary High Sea Fleet.

Object of the Exercise.—To practice the battle cruisers, cruisers, light cruisers and flotillas in taking up battle stations on the Battle Fleet shortly before or after forming line of battle, and to represent the early phases of a general action when the Battle Fleets come within sight of one another.

Speed.—All ships and T.B.D.s are to have steam for full speed.

Method of Conducting the Exercise.—The fleet will be in cruiser disposition No. 6 or 7 at the commencement of the exercise; if No. 6 is ordered, the 2nd Cruiser Squadron will, in the absence of the 3rd Cruiser Squadron, occupy position T.

Sealed envelopes will be issued to the Vice-Admiral Commanding, Battle Cruiser Fleet, and certain of the light cruisers, each envelope being marked with the time at which it is to be opened.

A timing signal will be made at least half-an-hour before the exercise commences. Subsequently another signal to "start watches" will be made, followed by the executive; the exercise will then commence.

Envelopes are to be opened at the intervals ordered after the executive is made.

Example.

At 11.30 a.m. Make a timing signal to correct all clocks to G.M.T.

When ready to carry out } *Carry out exercise ordered. Start the watch.*
 exercise, say at 0-05, } To be followed by executive. All watches
 make } should then be started.

The information contained in the envelopes which refers to the bearing and course of the enemy will be given relative to the course that the Battle Fleet was steering at commencement of the exercise, and which is to be taken as 360 deg. The actual bearing in the envelope is to be read as being from the position of the ship concerned at the time of opening the envelope.

Example.—Our Battle Fleet is steering north at commencement of exercise. A cruiser in position A opens an envelope at 0-15 having as contents:—Enemy cruiser bearing 45 steering 225. This means that the enemy's cruiser bears NE from the cruiser at A, and is steering SW.

The officer opening the envelope is to take such action on the information contained therein as he would were he in the presence of the enemy.

Although for the purpose of the exercise it has been necessary to refer the bearing and course of the enemy to the course of the Battle Fleet, it must be understood that all reports of enemy are to be signalled in accordance with the usual service procedure, Form S.1324 being employed when required.

The Senior Officers of the remaining cruiser units will not be aware of the contents of the envelopes opened on board other ships but should make their own deductions—

(i) From observing the action taken by the ships in touch with the enemy, and

(ii) From intercepting their signals.

Senior Officers of units are to be guided by the instructions contained in Section III, page 3 of the Cruiser Addendum to Grand Fleet Battle Orders.

When the Commander-in-Chief has decided the disposition of the enemy fleet from the information furnished to him he will proceed as if in the actual presence of the enemy. He will make a general signal indicating the probable direction of deployment and, *on this occasion*, will direct the Battle Cruiser Fleet and cruisers to take up battle stations, although when the enemy's fleet is actually encountered such direction may not be necessary. Battle cruisers, cruisers and light cruisers will then proceed as in action.

To the Vice-Admiral Commanding,
3rd Battle Squadron.

H.F. 0037/6.

6th June 1915.

If the fleet is ordered to sea by the Admiralty to carry out Operation "Q," the orders for this operation which are being sent in a sealed envelope are to be opened as soon as the fleet is under way.

The 3rd Cruiser Squadron is to accompany the 3rd Battle Squadron.

My directions to the fleet will be to leave base as soon as ready after 9.30 p.m.

(Signed) J. R. JELlicOE,
Admiral.

"Iron Duke,"

6th June 1915.

H.F. 0037/8. Memorandum.

ORDERS FOR OPERATION "Q."

The 3rd Battle Squadron and 3rd Cruiser Squadron screened by one-half the 1st Flotilla are to proceed into the North Sea to a position selected by you as being clear of submarine tracks and mines, and are to exercise as convenient, returning to your base within 36 hours of the time of departure.

2. The remainder of the Grand Fleet will be exercising north of the Shetland Islands until the 13th instant.

The Vice-Admiral Commanding, Battle Cruiser Fleet, has received instructions to rendezvous north of the Shetland Islands with the force from Scapa.

3. After your return to harbour the ships should be kept at 2½ hours, notice until the Battle Cruiser Fleet returns, when the usual notice should be reverted to.

(Signed) J. R. JELlicOE,
Admiral.

The Vice-Admiral Commanding,
3rd Battle Squadron.

"Iron Duke,"

7th June 1915.

H.F. 0037/11.

SAILING ORDERS—"CAMPANIA."

OPERATION "Q."

Day of leaving Harbour.—On the occasion of the fleet proceeding to sea to carry out Operation "Q," the *Campania* is to follow the *Royalist* (the last light cruiser) out of harbour and will give the necessary orders for the closing of the gates.

Note.—The envelope containing the orders for Operation "Q" is to be opened as soon as the *Campania* is under way.

Second Day.—A full power steam trial is to be carried out by the *Campania* on the morning after leaving harbour.

Two seaplanes are to be ready for service by noon, bombs not being required.

Third Day.—Two seaplanes are to be ready for service during the forenoon and two during the afternoon, bombs not being required.

Fourth Day.—Three or four seaplanes are to be ready for service, bombs not being required.

(Signed) J. R. JELlicOE,
Captain Oliver Schwann,
H.M.S. *Campania*.
Admiral.

OPERATION "Q."

Second Day.—On completion of the steam trial, the *Campania* is to rejoin the Commander-in-Chief at rendezvous No. 1 (see orders for exercises attached) by noon, if possible.

Two seaplanes are to be hoisted out when ordered by the Commander-in-Chief, and they are to scout over the firing area for submarines.

On completion of the firing, the *Campania* is to hoist in the seaplanes and join the 1st Cruiser Squadron for night firing.

Third Day.—The *Campania* is to take part with the Red Fleet in Exercise No. 1.

The Commander-in-Chief will order seaplanes to be hoisted out while the Red and Blue Fleets are approaching one another.

The seaplanes are to act as scouts to the Red Fleet and are to report the enemy's position, formation, course, etc.

When the fleets have deployed, the seaplanes are to endeavour to take up a favourable position for observing movements of any submarines and minelayers belonging to Blue Fleet, and are to endeavour to attack these craft with bombs.

Fourth Day.—The *Campania* will take part in Exercise No. 2. The Commander-in-Chief will give the order for seaplanes to be hoisted out.

The seaplanes are to scout ahead of the light cruiser line and make reports of the movements of our own cruisers and battle cruisers during the exercises.

The *Campania* is to take up a suitable position for picking up her seaplanes after they have, in the opinion of the Captain of the *Campania*, been in the air a sufficiently long period.

He must be careful not to place his ship in such a position as to hamper the movements of the opposing fleets.

The Captain of the *Campania* is to decide whether the sea and weather conditions are suitable for flying, and is to inform the Commander-in-Chief if this is not the case.

It is not desired to risk damage to the machines owing to bad weather, though the experience to be gained will prove of great value.

ERRATA.

Memorandum H.F. 0037/7 of 6th June 1915—Grand Fleet Exercises—Operation "Q."

1. *Para. 6. Line 4. For "10 p.m." read "8 p.m."*

2. *Para. 9. The time of arrival at rendezvous Nos. 3 and 4 is to be 4 a.m. instead of 4.30 a.m., and each fleet is to leave the meridians of those rendezvous at 5.30 a.m. instead of 7 a.m.*

In consequence:—

Line 3, for "4.30 a.m." read "4 a.m."

Line 6, for "4.30 a.m." read "4 a.m."

Line 8, for "4.30 a.m." read "4 a.m."

Line 8, for "7 a.m." read "5.30 a.m."

3. *Para. 12. Line 2. For "10 p.m." read "8 p.m."*

4. *Enclosure No. 2—P.Z. Exercise No. 1.—Amend the first sentence to read:—*

"For time and place of carrying out this exercise, vide para. 9 of Memorandum H.F. 0037/7 of 6th June 1915, quoted above."

(Signed) J. R. JELLICOE,
Admiral.

"Iron Duke,"
7th June 1915.

"Iron Duke,"
9th June 1915.

H.F. 0011/9. *Memorandum.*

ORDERS FOR LEAVING SCAPA.

If a signal is made that the fleet, as now assembled, is leaving Scapa Flow for Operation "Q," the order of departure will be as follows:—

- (1) *Gloucester* and 4th Light Cruiser Squadron in company, under charge of *Gloucester*.
- (2) 1st Cruiser Squadron.
- (3) 2nd Cruiser Squadron.
- (4) Battle Fleet in 5th Organisation, the divisions leaving in the following order:—6th, 5th, 4th and 3rd.

Iron Duke will follow *Emperor of India* in the 3rd Division of the Battle Fleet.

New Zealand will follow the 5th Division of the Battle Fleet.

Successive groups will leave with an interval of 1 mile between the last ship of one group and the leading ship of the next; the ships of each group are to keep close order throughout.

2. On clearing the Hoxa obstruction, all groups are to pass to the westward between Swona and Cantick Head, and are to proceed through a position 5 miles north of Dunnet Head Light.

3. The 2nd and 4th Flotillas will meet the divisions of the Battle Fleet off Cantick Head and form submarine screens.

4. From the position 5 miles north of Dunnet Head, squadrons are to proceed as follows:—

Gloucester and 4th Light Cruiser Squadron, the leading division of 1st Cruiser Squadron, and 6th Division of the Battle Fleet are to pass through positions 9 miles N 42 W from Dunnet Head Light and 7½ miles east of Sule Skerry.

The leading division of 2nd Cruiser Squadron, and 4th Division of the Battle Fleet are to pass through a position 13 miles east of Sule Skerry.

When course has been shaped for the positions east of Sule Skerry, the rear division of each cruiser squadron is to take station 5 miles 60 deg. abaft the starboard beam of its leading division. Similarly, the 5th and 3rd Divisions of the Battle Fleet are to take station 5 miles 60 deg. abaft the starboard beam of the 6th and 4th Battle Divisions respectively.

5. On arrival at the positions east of Sule Skerry, all groups are to steer direct for rendezvous No. 1 (position given in sealed orders for Operation "Q") until 4 a.m., when they are to commence closing in to form divisions in line ahead, disposed abeam to port, the cruisers and light cruisers taking up cruising disposition No. 7.

(Signed) J. R. JELLICOE,
Admiral.

The Flag Officers and Officers in Command of
H.M. Ships at Scapa.

APPENDIX N.

EMPLOYMENT OF THIRD AND TENTH FLOTILLAS.¹¹ M. 010094/15.*"Arethusa,"*

10th June 1915.

No. 526/0081.

Sir,

I have the honour to submit that the present method of employing the 3rd and 10th Flotillas may be reconsidered.

Their constant employment for escort and submarine work is rapidly reducing their value as flotillas, for they are never together, and flotilla training is at a standstill.

2. I submit that if it is imperative for these destroyers to be employed in the English and Irish Channels, the headquarters of one or other of the 3rd and 10th Flotillas be transferred to a more central position, such as Portland. The selected flotilla to be accompanied by the Captain (D), who would be under the direct orders of the Admiralty, and would be able to administer to the defects and other details of the flotilla, which are at present entirely disregarded by the officers under whose orders these destroyers are placed.

By selecting a central base such as Portland, a considerable saving will be effected in wear and tear of machinery, etc., besides offering advantages of safe anchorage, repair shops, oil fuel, water, etc., all at hand.

The remaining flotilla to be used as much as possible as a flotilla and only in the North Sea.

3. It is respectfully submitted that one of these two flotillas is included in the Commander-in-Chief's Battle Orders to work with the Grand Fleet, and without flotilla training they will be of no value and in fact a danger to him.

I have the honour to be, Sir,

Your obedient Servant,

(Signed) R. Y. TYRWHITT,

Commodore (T).

The Secretary of the Admiralty,
Whitehall, S.W.

The employment of destroyers of 3rd and 10th Flotillas from Harwich on the west is the outcome of the submarine activity in the entrance to the English Channel and in the approaches to the Bristol and St. George's Channels and the ever-increasing transport movements in these waters.

There are now as many troops being maintained east of Gibraltar as there were in France in the early months of the war, and there is also a continual stream of reinforcements arriving from Canada which have to be met and brought in to Plymouth or Avonmouth.

Until there are more destroyers available, which will not be until the repeat "M" class relieve the 2nd Flotilla, there seems no option but to continue to draw on the Harwich Flotillas for the Western Channel.

It will add very much to efficient working to adopt the suggestion of the Commodore (T) and send Captain (D), 10th Flotilla, in *Aurora* to Devonport with three divisions of 10th Flotilla. Portland is too far east, as the destroyers are required to work at Plymouth and to the westward.

When the preponderance of escorting work is in the Bristol Channel, the Captain (D) would shift to Milford Haven or Newport in *Aurora*.

The C.-in-C., Devonport, would be directed to give the Captain (D) the requirements and leave him as free a hand as possible in detailing the destroyers for the duties.

Periodically the 10th Flotilla destroyers could be relieved and return to Harwich, and Captain (D) and three divisions of 3rd Flotilla taking his place, if the Commodore (T) desires it.

(Signed) H. F. OLIVER.

12th June 1915.

The situation to be reconsidered periodically, as it is not desirable to use this flotilla for escort work longer than is absolutely necessary.

(Inild.) H. B. J.

APPENDIX O.

REMARKS ON SUBMARINE PATROLS.

DISTRIBUTION OF ENEMY'S SUBMARINES.

The attempt to ascertain the distribution of the enemy's submarines at any given time is rendered extremely difficult by the enormous number of false reports of submarines being seen which are received, and in arriving at a conclusion it is necessary to eliminate all reports which cannot be absolutely authenticated.

There are few really reliable reports except the cases where a vessel is actually sunk or fired at.

By putting together all the information available it would appear that there are generally from six to eight submarines at sea acting against our commerce at any given time.

Of these, one, and occasionally two, will be acting in the approaches to the English and Irish Channels.

They go both ways round the north of Scotland, sometimes between Orkney and Shetland, and sometimes north of Shetland. They often pick up vessels on the west coasts of Scotland and Ireland on their way, especially off the Flannan Islands, the neighbourhood of Achill Head and the south-west of Ireland. It is estimated that they take about six or seven days to make the voyage each way, and probably remain for about four or five days in the neighbourhood of the approaches to the English and Irish Channels.

To maintain one boat in this neighbourhood there will probably be three at any given time somewhere on the passage.

Besides these, two or more submarines are generally operating in the North Sea. The favourite ground for these until lately was the line between the Farn Light and Lindesnaes; but lately they have taken to attacking the fishing craft along the east coast of Scotland and on the Dogger Bank.

There are also some submarines believed to be of a smaller class which operate from Zeebrugge and Ostende, in the area between the Maas Light and the mouth of the Thames.

Although submarines have been frequently reported in the English Channel lately, no ship has been sunk there since the 15th April; so it is considered that the fear of the mines and nets in the Straits of Dover has proved to be a great deterrent.

The following are the movements of a submarine believed to be *U.34* :—

On the 1st June, at 6 p.m., she sunk the trawler *Victoria* by gunfire 145 miles W by S from St. Ann's Head. On the following morning

(2nd June) at 6 a.m., she sunk the *Hirose* trawler, also by gunfire, 130 miles W by S from Lundy Island. The crews of these two vessels were picked up by the s.s. *Ballater*, and the news only reached Pembroke Dock at 6 p.m. on the 3rd June, so no action was possible.

At 4 p.m. on the 2nd June, a submarine—also believed to be *U.34*—sank the Belgian trawler *Delta B* 10 miles SW by S of St. Mary's, Scilly, 43 miles from the position where she had sunk the *Hirose* at 6 a.m. on the same day. The crew of the *Delta B* were picked up by an auxiliary patrol vessel, and the news was telegraphed at 7.5 p.m.

At 3.20 p.m. on the following day (3rd June), *U.34* sank the French steamer *Penfeld* midway between Land's End and Ushant, and on the 4th, at 4 a.m., she torpedoed the *Inkum* 40 miles south-west of the Lizard. After that she seems to have worked homewards, but fell in with nothing more till 11 a.m. on the 7th June, when she sunk the Norwegian barque *Superb* 60 miles west of the Fastnet.

Apparently *U.34* was followed by *U.35*, and the following appears to have been her record on this trip:—

The sailing ship *Sunlight* was sunk 20 miles south-west of Galley Head at 3.30 p.m. on the 6th, and this was reported to Queenstown at 8 a.m. on the 7th. This vessel was probably sunk by *U.35*, but it may possibly have been by *U.34*.

U.35 then sank the Norwegian steamer *Trudvang* at 12.30 p.m. on the 7th, the *Strathcarron* at 6.30 a.m. on the 8th, and the French barquentine *La Liberté* shortly afterwards, in nearly the same position—lat. 51.5 N, long. 6.10 W. At 7.30 p.m. on the same day she sank the *Susannah* about 20 miles to the eastward of the other ships.

An armed yacht (*Jeannette*) was in the neighbourhood when *Trudvang* was sunk, and had a torpedo fired at her.

The Russian sailing vessel *Thomasina* on the 10th, the *Crown of India* on the 12th, the *Hopemount* on the 13th, and the *Diamant* on the 14th, were afterwards sunk in this area, but it is not possible at present to say whether they were sunk by *U.35* or another submarine arriving later.

Arrangements should be made to patrol the area between the coast of Ireland, the Scilly Islands and Milford with as large a number of vessels as possible. As many units as can be spared from other necessary duties should be pushed out 30 or 40 miles from Scilly, Milford and Queenstown respectively, and as soon as information is received that a vessel has been attacked—provided it is received within 24 hours of the occurrence—they should all close to within 20 or 30 miles of the position and endeavour to surround it, keeping on their own sides of the position where the vessel was attacked in the first place, and afterwards on their own sides of any position in which the submarine is subsequently seen, being careful not to be led away by false reports.

In carrying this out, the dividing lines between the areas should be disregarded, but the units should not go further than 80 miles from Scilly, Milford or Queenstown respectively.

In the Falmouth area the units now employed in patrolling near the coast should be taken for this service, and in the Queenstown area those now acting to the east of Queenstown and off Queenstown. Those acting to the west of Queenstown should be maintained as at present.

Admiralty, S.W.,
26th June 1915,
M. 04734/15.

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Aurora (l.c.). 3; to 10th T.B.D. Flot., 16; hunting s/ms in Hoofden, 17 Feb., 27; escorting minelayers in the Bight, 8–9 May, 92; *re* attempt at Operation T.W., 20 March, 100; patrolling off Haaks L.V., 29 April, 106; on Zeppelin patrol, 6–7 June, 112; to Milford, 14 June, 130.
Ausonia (Br. s.s.). Escorted from Queenstown to Liverpool, Feb., 6.
Australia (battle cruiser). Flag of V.A. Patey in 2nd B.C.S., Feb., 20; refitting of, Feb., 20, 26.
Bacchante (cruiser). In Cruiser Force G on W. Channel Patrol, Jan., 4.
Bachmann, Admiral. Succeeds von Pohl as Chief of Naval Staff, 134; *see also under* Chief of Naval Staff (German).
Bacon, Rear-Admiral Reginald H. S., C.V.O., D.S.O. Appointed to command Dover Patrol, 13 April, 74; *re* duties of Dover Patrol, 104; proposed operations off Belgian coast, end of April: instructions to, 104; returns from Dunkirk, 104; orders to, *re* false alarm, 29 April, 104; renews experiments with mines and indicator nets, 108.
Badger (t.b.d.). Escorting transports and movements in Channel, Feb., 23; to Rosyth, 18 Feb., 16.
Balduin (Norw. s.s.). Sunk in N. Sea by *U.39*, 1 May, 90.
Ballard, Rear-Admiral George A., C.B. *See under* Admiral of Patrols.
Balmoral (transport). One of first four packet transports ready Feb., 23.
Baralong (anti-s/m decoy ship). Under command of Lieut.-Comm. Godfrey Herbert, March, 70; operating in Channel, 70; operating in S.W. Approach, end of May, 81.
Barbados (armed tr.). Encounter with *A.2* and *A.6* off N. Hinder, 1 May, 105.
Bardolph (Br. f.v.). Sunk in N. Sea by *U.19*, 5 June, 115.
Barlow, Admiral C. J., D.S.O. Commanding Area 17 (Larne): also controlling Areas 16 and 15, Feb., 17; orders *re* N. Channel net patrol, 20 Feb., 44; arrives Larne, 24 Feb., 44; *re* Channel drifter patrol, Feb.–Mar., 48; more effective anti-s/m measures urged on, 48; succeeded by R.A. Boyle, end of March, 75.
Battle Cruiser Fleet (Br.). Formation of, Feb.: commanded by V.A. Beatty, 20; exercises 7–10 March, 63; exercises 5–9 April, 82; *Lion* rejoins, end of March, 83; operations of 11–14 April, 84; operations of 17–18 April, 87; operations of 29–30 May, 99.
1st Battle Cruiser Squadron. Composition of, Feb.: under Comm. Brock, 20.
2nd Battle Cruiser Squadron. Composition of, Feb.: under V.A. Patey, 20; R.A. Pakenham relieves V.A. Patey, 10 March, 63.
3rd Battle Cruiser Squadron. Composition of, 20; under R.A. Hood: flag in *Invincible*, 27 May, 99; operations of 29–30 May, 99.
Battle Fleet (Br.). Operations of 11–14 April, 84; operations of 17–18 April, 87; operations of 21–23 April, 88; operations of 29–30 May, 99.
1st Battle Squadron. Movements in Dogger Bank Action, 1; *re* sinking of *U.29*, 18 March, 65; operations of 17–18 April, 87.
2nd Battle Squadron. Movements in Dogger Bank Action, 1; temporarily based on Cromarty for exercise and recreation, 24 Feb., 63; *re* sinking of *U.29*, 18 March, 65; operations of 17–18 April, 87.
3rd Battle Squadron. Movements in Dogger Bank Action, 1; detached to Rosyth after Dogger Bank Action, 1; 1st Destroyer Flot. attached to, Feb., 16; exercises, 5–9 April, 82; operations of 11–14 April, 84; operations of 17–18 April, 87; gunnery exercises, beginning of May, 90; operations of 29–30 May, 99.
4th Battle Squadron. Movements in Dogger Bank Action, 1; *re* sinking of *U.29*, 18 March, 65; operations of 11–14 April, 84; operations of 17–18 April, 87.
5th Battle Squadron. Composition of, 4; exercises in Bay of Biscay, 25–30 Jan., 4; remains in harbour, Feb., 69; departure of units to Mediterranean, Feb. and March, 69; *Venerable*, only remaining ship, attached to Dover Command, 69; *Venerable* to Mediterranean, 15 May, 69.

Battle Fleet (Ger.).
3rd Battle Squadron. Under V.A. Scheer: exercising in Kiel Bay, 2; anticipated movements of, 6-7 Feb., 27.
Bayano (a.m.c.). Sunk in N. Channel by U.27, 11 March, 48.
Bayly, Vice-Admiral Sir Lewis, K.C.B., C.V.O. His Borkum project, 8; to command bombarding squadron, 8; removed from command of Channel Fleet, 8; his bold anti-s/m schemes, 12.
 "Beagle" Class Destroyers. Escort 28th Division, 15-18 Jan., 4; remain at Portsmouth to escort transports, Feb., 16; escort work of, 23, 29, 34, 36; ordered to Dardanelles, end of March, 72.
Beagle (t.b.d.). In Portsmouth Escorting Flot.: heavy strain on, 36.
Beatty, Vice-Admiral Sir David, K.C.B., M.V.O., D.S.O. In Dogger Bank Action, 1; difficulties in signalling, in Dogger Bank Action, 2; advocates mining Heligoland Bight, 12; Commanding Battle Cruiser Fleet: flag in *Lion*, Feb., 20; re N. Sea Areas 1 and 2, 95. See further under Battle Cruiser Fleet.
Beaver (t.b.d.). Escorts transports in Channel, Feb., 23; to Rosyth, 18 Feb., 16.
Bell, Captain J. W. Master of *Thordis*: rams U.6, 28 Feb., 37; receives commission and reward, 37.
Bellglade (Norw. s.v.). Sunk in S.W. Approach by U.35, 12 June, 127.
Bellona (l.c.). Anti-minelaying dispositions, Feb., 26.
Belridge (Norw. s.s.). Sunk by U.16, near Varne L.V., 19 Feb., 30.
Bembrook (Br. collier). See under *Hartdale*.
Ben Cruachan (Adty. collier). Sunk by U.21, 30 Jan., 6.
Bengrove (Br. collier). Sunk off Ilfracombe by U.20, 7 March, 47.
Benington (Br. f.v.). Sunk off Peterhead by U.39, 7 May, 90.
Ben Lawers (armed tr.). Encounters U.10, 28 April, 89.
Benning, Lieutenant-Commander C. S. Commanding E.5: torpedoes *Schwarzwald*, 14 April, 86.
Ben Stroud (Br. tr.). Sights U.12, 8 March, 63.
Berkeley, Commander Hastings G. F. Commanding A.P. Area 17, 5.
Bethell, Vice-Admiral The Hon. Sir Alexander E., K.C.B., K.C.M.G. Assumes command of Channel Fleet, 17 Jan., 4; exercises fleet in Bay of Biscay, 25-26 Jan., 4; hoists flag in *Russell* at Sheerness, 19 March, 69; Channel Fleet ceases to exist: Adl. Bethell returns to shore, May, 69.
Biarritz (minelayer). Lays Tod Head Minefield, 13 June, 118.
Bielefeld (Ger. barrage-breaker). Torpedoed by D.4, 22 June: beached, 131.
Bigsworth, Flight-Commander Arthur W. Bombs airship L.Z.39, 17 May, 108.
Birmingham (l.c.). In 2nd L.C.S., Feb., 20; sweep in N. Sea, 18-20 June: attacked by s/m, 121.
Bjorn (Sw. s.s.). Captured in N. Sea by U.36, 10 May: taken to List, 90.
Blackwood (Br. collier). Sunk in Channel by U.35, 9 March, 39.
Blanche (l.c.). Anti-minelaying dispositions, Feb., 26; searches spot where U.29 sank, 18 March, 65.
Blonde, Captain Arsène. Skipper of unarmed Belgian trawler *Jacqueline*: gallant action with U.41 in S.W. approach, 26 May, 81.
Blonde (l.c.). Anti-minelaying dispositions, Feb., 26.
Blücher (Ger. cruiser). Re loss of, in Dogger Bank Action, 2, 134.
Blue Jacket (Br. s.s.). Sunk off Shoreham by U.34, 18 March, 68.
Boadicea (l.c.). Anti-minelaying dispositions, Feb., 26.
Bob White (Br. tr.). Sunk in N. Sea by U.9, 3 May, 90.
Boving, Captain Humphrey W. In charge of Drifters Dover Patrol, 30; suggestions re indicator nets, Feb., 30; Germans intercept signal re 17 May, 93.
Boy Horace (Br. fishing smack). Sunk in Hoofden by U.B. 16, 3 June, 125.
Boyle, Rear-Admiral The Hon. R. F., M.V.O. Succeeds Adl. Barlow commanding Area 17 (Larne), 2 April, 75; change in functions of Adl. Larne: in charge of N. Channel Patrol, 75; dispositions re transport of 10th Division from Ireland to England, April-May, 76.

Boyne (t.b.d.). Left Scapa eastabout, 27 Feb., 16; in Plymouth local defence engaged on escort work, 73; s/m hunt off Plymouth Sound, 2 April, 73; escorting Mediterranean convoy from Devonport, May, 80.
Branksome Chine (Adty. collier). Sunk off Beachy Head by U.8, 23 Feb., 35.
Brazen (t.b.d.). Sights s/m off Shipwash, 20 Feb., 62; rescues survivors of *Lady Salisbury*: s/m hunt, 9 June, 125.
Brilliant (l.c.). Guardship in the Tyne: fires at L10, 15-16 June, 113.
Britannia (battleship). Grounds on Little Hermit Shoal, 25 Jan., 1; proposed practices early May deferred due to s/m danger, 90.
Britannia (Br. f.v.). Sunk off Lowestoft by s/m, 9 June, 125.
Brock, Commodore Osmond de B. Commanding 1st B.C.S.: pendant in *Princess Royal*, Feb., 20.
Broke (flotilla leader). Escorting *Orvieto*, 6 May, 92.
Brussels (Br. s.s.). Rams s/m off Maas, 28 March, 101.
Bulldog (t.b.d.). In Portsmouth Escort Flot., March, 36.
Burney, Vice-Admiral Sir Cecil, K.C.B., K.C.M.G. Deputises for C.-in-C. while latter on sick list, end of Jan., 1.
Bush (armed tr.). Encounter with U.24 off Butt of Lewis, 23 June, 128.
Bustard (gunboat). 25; operating off Coxyde, March, 42; proposed operations off Belgian coast, end of April, 104.
 C.14 (s/m). Working from Tyne, end of June, 123.
 C.16 (s/m). Working from Tyne, end of June, 123.
 C.21 (s/m). Working from Humber, end of June, 123.
 C.24 (s/m). Working submerged with *Taranaki*: sinks U.40, 23 June, 123.
 C.26 (s/m). Experiments in Firth of Forth with cork float lines as anti-s/m defence, Jan., 55; working from Scapa, end of June, 123.
 C.27 (s/m). Experiments in Firth of Forth with cork float lines as anti-s/m defence, Jan., 55; working submerged with *Taranaki*: fails to sink U.19, 8 June, 123; working from Scapa, end of June, 123.
 C.29 (s/m). Working from Humber, end of June, 123.
 C.32 (s/m). Patrolling off N. Hinder, 5 April, 101.
 C.33 (s/m). Working from Harwich, end of June, 123.
 C.34 (s/m). Working from Harwich, end of June, 123.
 "C" Class Destroyers. In Rosyth and Cromarty Defence Flot., 16; returned to Scapa, Feb., 16.
Cadeby (Br. s.s.). Sunk in mouth of Channel by U.41, 27 May, 81.
Cairntorr (Br. s.s.). Sunk off Beachy Head by U.34, 21 March, 68.
Calliope (l.c.). Joins at Scapa in 4th L.C.S. early July, 110; broad pendant of Comm. Le Mesurier, 110.
Calvert, Lieutenant-Commander T. F. P. Proposes rules for British merchant ships, 19.
Calyx (a.m.c.). Reports s/m in Firth of Forth, 15 March, 64; held up in Firth of Forth, 15 March, 64.
Cambank (Br. s.s.). Sunk off Anglesea by U.30, 20 Feb., 45, 47.
Cambria (transport). Re passage of North Midland Division, 36.
Cameleon (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; escorts *Conqueror* to Liverpool, 14 Feb., 22; damaged at Greenock, Feb., 22; to Scapa 24 Feb., 22; Division hunting U.27, May: *Cameleon* and *Ruby* maintain hunt to N.W. of Ireland, 79.
Cameron, Captain John E., M.V.O. Commanding *Phaeton*, Feb., 20.
Campania (seaplane carrier). Operating with battle squadrons, 11 June, 110; seaplane from, in s/m hunt, 22 June, 122.
Cancer (Br. f.v.). Sunk in sortie of H.S.F., 22 April, 88.
Candidate (Br. s.s.). Sunk in St. George's Channel by U.20, 6 May, 78.
Candy, Acting-Captain Algernon H. C. Commanding *Dolphin*: submits anti-s/m scheme, Feb., 56.
Captain-in-Charge, Lowestoft. Commanding Lowestoft A.P. vessels, 17; method of using indicator nets, Feb., 57.
Captain-in-Charge of Minelayers. Re Dover Barrage, Jan., 14.
Captain (S). Capt. Waistell appointed, Feb., 27; Comm. (T) to provide light cruiser for, when required, 27, 131.

Cardiff (Br. tr.). Sunk in N. Sea by *U.25*, 9 June, 116.
Carib (U.S.A. s.s.). Mined off Ems, Feb., 29a.
Carisbrook (Br. s.s.). Sunk in N. Sea by *U.38*, 21 June, 122.
Carmania II (Br. minelaying tr.). Lays Tod Head Minefield, 14 June, 118.
Caroline (l.c.). In 1st L.C.S., Feb., 20.
Carron (armed boarding steamer). On W. Channel Patrol, Jan., 4.
Carver, Captain E. C. Commands net base at Poole, Jan., 13.
Castor (Br. tr.). Sunk in N. Sea by *U.25*, 9 June, 116.
Cayley, Commodore George C. Commodore, Harwich, 54. See under Commodore, Harwich.
Centurion (battleship). Stands by to hoist flag of C-in-C., 1.
Centurion (Br. s.s.). Sunk in St. George's Channel by *U.20*, 6 May, 78.
Channel Fleet. Ordered to remain in Portland Harbour, 6 Jan., 4; under command of Adl. Bethell, 17 Jan., 4; exercising in Bay of Biscay, 25-30 Jan., 4, 23; proceeds for Portland, 30 Jan., 7; transfer of 5th B.S. to Mediterranean, Feb. and March, 69; disposition of remaining ships, March, 69; Adl. Bethell hoists flag in *Russell* at Sheerness, 19 March, 69; *Russell, Albemarle* and *Exmouth* proceed to Rosyth 8 April, 69; ceases to exist, May: Adl. Bethell returns to shore, 69.
Charcot, Dr. Jean. Intelligence re possible s/m bases in Faeroes: offers services to search for these, Feb., 59.
Charlton, Rear-Admiral Edward F. B., C.B. Adl. commanding mine-sweeping service: opinion re Beachy Head dangerous area, Feb., 35; re Dogger Bank mined area, May, 97; re German s/m mines, July, 132.
Chateau Briand (Fr. s.v.). Sunk off Vergoyer Shoal by *U.32*, 8 April, 73.
Cherbury (Adty. collier). Sunk off N.W. corner of Ireland by *U.30*, 29 April, 77.
Cherwell (t.b.d.). To Avonmouth for escort work, 27 March, 71; joins Portsmouth Escort Flot., end of March, 71, 72.
Chester (armed tr.). Sights *U.12* off Red Head, 9 March, 63.
Chief of Naval Staff (British). Doubts benefit of more defensive minefields, Jan., 14; consents to resume Havre transport route Feb., 34; minute re variance between W.O. and Adty. on searchlights, 54; orders to transports of Mounted Division, 6 April, 71; anti-Zeppelin dispositions, 4 June, 111; minute re Comm. (T)'s Memo. of 10 June, 130.
Chief of Naval Staff (German). Relieved after Dogger Bank Action, 2; Adl. Bachmann as, 134; re naval policy, 134.
Chieftain (armed tr.). As s/m decoy: sights *U.38*, June, 122.
Chirsit (armed tr.). Patrolling Hoofden, April, 103; encounter with *A.2* and *A.6* off N. Hinder, 1 May, 105.
Christopher (t.b.d.). Escorting Canadian Division from Avonmouth, Feb., 22; grounds at Barrow, 13 Feb.; repaired in Clyde, 22; returns to Invergordon, 22 Feb., 22.
Chrysolite (Br. tr.). Sunk in N. Sea by *U.23*, 19 May, 98.
Chrysoprassus (Br. f.v.). Sunk in N. Sea by *U.19*, 3 June, 115.
Churchill, The Rt. Hon. Winston L. S., M.P. Minute of 21 Dec., 1914, 8; doubts benefit of more defensive minefields, Jan., 14; re transport of Canadian Division by route Avonmouth-St. Nazaire, Feb., 22; re Dover indicator nets and Adml. Hood, Feb., 30; re Folkestone-Gris Nez Boom, 32; comment on British mines, 33; re transport of 29th Division from Avonmouth, March, 53; minute of 3 Feb., re fitting of anti-s/m decoy ships, 70.
Churston (Br. s.s.). Gives false alarm re s/m near Hebrides, Feb., 29, 59.
City of Bremen (Br. s.s.). Sunk S. of Wolf Rock by *U.24*, 4 April, 73.
City of Cambridge (Br. s.s.). Damaged in S.W. approach by *U.28*, 28 March, 70.
Claymore (Fr. t.b.d.). Finds *Adenwen* abandoned, 11 March, 49.
Clementina (armed yacht). N. Channel Patrol, Feb., 44.
Cleopatra (l.c.). In 5th L.C.S. under Comm. (T), June, 110; in dockyard hands throughout June, 110.

Cobbe, Captain Mervyn H. Head of minelaying service: lost in *Princess Irene*, 27 May, 108; his experiments with mines and indicator nets, 108.
Cocos (Dan. s.v.). Burned in N. Sea by *U.17*, 12 June, 117.
Colchester (Great Eastern Railway packet). Attacked by s/m, 11 Dec., 1914, 58; mistakes *E.13* for hostile s/m, 17 Feb., 27.
Collingwood (battleship). Refitting at Portsmouth, Feb., 23; leaves Portsmouth for Scapa, 14 Feb., 23.
Colossus (battleship). Escorted up Channel to Devonport, 8 May, 76.
Columbia (armed tr.). Patrolling in Hoofden, April, 101, 103; reports s/m in Hoofden, 20 April, 106; sunk in encounter with *A.2* and *A.6* off N. Hinder, 1 May, 105.
Colville, Admiral The Hon. Sir Stanley C. J., K.C.B., C.V.O. (Adml. commanding Orkneys and Shetlands). Suggestions re observation minefields, Jan., 54; orders restriction of fishing, Jan., 55; requests more drifters, March, 57, 115.
Commander (Br. drifter). Sunk off Shetlands by *U.38*, 24 June, 122.
Commander-in-Chief, Devonport. See under Commander-in-Chief, Plymouth.
Commander-in-Chief, Grand Fleet. See under Jellicoe.
Commander-in-Chief, High Sea Fleet. Von Pohl succeeds von Ingenohl as, 2; empowered with more liberty of initiative, Jan., 11. See also under Ingenohl and Pohl.
Commander-in-Chief, Plymouth. See under Egerton.
Commander-in-Chief, Portsmouth. See under Meux.
Commander-in-Chief, Queenstown. See under Adml., Queenstown.
Commodore (Harwich). Commanding Harwich A.P. vessels, 17; patrol and minesweeping dispositions, Jan., 54; methods adopted in use of indicator nets, 57; report re shipping off Harwich, Feb., 57.
Commodore (S). To report on anti-s/m methods, 4 Dec., 12; Comm. Keyes succeeded by Comm. Hall, Feb., 27; change in nature of appointment, 27; opinion re *Thordis* case, 37; disbelieves that German s/ms replenish supplies during cruises, Feb., 56; opinion re *Alexander Hastie* incident, 60.
Commodore (T). Movements in Dogger Bank Action, 1; escorts *Lion* after Dogger Bank Action, 3; plans air raid on Cuxhaven airship sheds, 3; abandons Cuxhaven air raid, 29 Jan., 3; dispersal of his destroyers end of Jan., 6; departure from his War Orders, in employment of Striking Force, 22; anti-minelaying dispositions, Feb., 26; to provide Capt. (S) with light cruiser when required, 27; two destroyers to Sheerness for escort duty, 23 Feb., 35; to send division of 3rd T.B.D. Flot. to Devonport 20 Feb., for s/m hunt, 45; sends destroyers to escort R.N. Division from Avonmouth, end of Feb., 46; sends destroyers on s/m hunt in Hoofden, 5 March, 67; ordered to patrol Hoofden danger zone whenever possible, March, 67; operations of 11-14 April, 84; operations of 17-18 April, 87; operations of 21-23 April, 88; anti-Zeppelin arrangements, May, 94; re mine-sweepers on Dogger Bank, May, 94; operations of 17-18 May, 94; re N. Sea Areas 1 and 2, 95; attempts Operation T.W., 20 March, 100; sends destroyers to patrol off Maas and N. Hinder L.Vs., end of March, 101; steps to ensure his knowing movements of Lowestoft armed trawlers, April, 101; re proposed operations off Belgian coast, end of April, 104; ordered to N. Hinder on false alarm, 29 April, 104; attempt at Operation T.W., 3 May, 107; attempt at Operation T.W., 6 May, 107; last attempt at Operation T.W., 11 May, 107; opinion re air raids on Bight, 107; protecting paddle-sweepers, 23 May; picks up German airmen, 108; 5th L.C.S. to work under, June, 110; supporting paddle minesweepers, early June, 110; encounter with aircraft, 2 June, 110; returns to Harwich, 3 June, 110; sends *Aurora* and *Penelope* on Zeppelin patrol, 6 June, 112, 113; sends destroyers on s/m hunt, 9 June, 125; provides escorts for transports in S.W. approach, June, 130; memo. re employment of 3rd and 10th Flots., 10 June, 130. See also under Striking Force.

- Commonwealth* (battleship). Proposed practices early May deferred due to s/m danger, 90.
- Comus* (l.c.). Arrives Scapa, 3 June : in 4th L.C.S., 110.
- Concord* (Br. s.s.). Sunk off Beachy Head by *U.34*, 22 March, 68.
- Conqueror* (battleship). To Cromarty after collision, Jan., 5 ; repairs at Liverpool, Feb., 22.
- Conquest* (l.c.). In 5th L.C.S. under Comm. (T), June, 110 ; in dockyard hands throughout June, 110.
- Contest* (t.b.d.). Escorting Canadian Division from Avonmouth, Feb., 22 ; grounds at Barrow, 13 Feb. : repaired in Clyde, 22 ; returns to Invergordon 22 Feb., 22.
- Coquet* (Br. tr.). Sunk in N. Sea by *U.9*, 3 May, 90.
- Cordelia* (l.c.). In 1st L.C.S., 20.
- Cornwall* (cruiser). At Avonmouth to refit, 27 Feb., 46 ; in charge of escort of R.N. Division from Avonmouth, end of Feb., 46 ; sends *Lance's* Division to hunt s/m in Bristol Channel 7 March, 47 ; completes refit : leaves Avonmouth for Sierra Leone, 23 March, 53.
- Cornwallis* (battleship). In 5th B.S., Jan., 4.
- Cortes* (Br. f.v.). Sunk in N. Sea by *U.19*, 4 June, 115.
- Cottingham* (Br. s.s.). Rams *U.C.2* in Stanford Channel, 2 July, 132.
- Crane* (t.b.d.). On patrol N. of Dover minefield : observes explosion, 28 March, 73.
- Creagh, Lieutenant-Commander James V.* Commanding *Ariel* : sinks *U.12*, 10 March, 63.
- Crimond* (Br. tr.). Sunk in N. Sea by *U.23*, 19 May, 98.
- Crown of Castile* (Br. s.s.). Sunk in S.W. approach by *U.28*, 29 March, 70.
- Crown of India* (Br. s.v.). Sunk in S.W. approach by *U.35*, 12 June, 127.
- Cruiser* (Br. tr.). Sunk in N. Sea by *U.41*, 2 May, 90.
- Cruiser Force E.* Based on Queenstown : operating off Ireland, Jan., 5, 6 ; measures in view of s/m danger Feb., 7, 43 ; reduced to *Juno* and one armed boarding steamer, end of June, 130.
- Cruiser Force G.* On W. Channel Patrol : composition of, Jan., 4 ; measures in view of s/m danger, Feb., 7, 43, 49, 73 ; ceases to exist, June, 130.
- Cruiser Force I.* Commanded by R.A. Moore, Feb., 20 ; *Europa*, flagship of, 23 ; *Cumberland* joins, March, 63.
- Cruiser Squadrons (British).*
- 1st Cruiser Squadron.* Movements after Dogger Bank Action, 1 ; anti-minelaying dispositions, Feb., 26 ; operations of 17-18 April, 87 ; sweep to Skagerrack, 4-7 June, 110.
- 2nd Cruiser Squadron.* Movements in and after Dogger Bank Action, 1 ; at Cromarty, end of Feb., 63 ; operations of 17-18 April, 87.
- 3rd Cruiser Squadron.* Movements in and after Dogger Bank Action, 1 ; anti-minelaying dispositions, Feb., 26 ; protecting fleet sweepers 23-27 Feb., 63 ; R.A. Pakenham relieves R.A. Grant, 10 March, 63 ; exercises 5-9 April, 82 ; operations of 17-18 April, 87 ; gunnery exercises early May, 90 ; sweep in N. Sea, 18-20 June : attacked by s/m, 110, 121.
- 6th Cruiser Squadron.* Movements in and after Dogger Bank Action, 1 ; at Cromarty, end of Feb., 63 ; patrolling off Norwegian coast, March, 63 ; disbanded, 10 March, 63.
- 7th Cruiser Squadron.* Movements in and after Dogger Bank Action, 1 ; anti-minelaying dispositions, Feb., 26 ; composition of, March, 63 ; operations of 17-18 April, 87.
- 10th Cruiser Squadron.* 17 ; loss of *Bayano*, 11 March, 48 ; *Ambrose* encounters s/m, 11 March, 48 ; new route for vessels of, 48 ; vessel from, assists 6th C.S. off Norwegian coast, March, 63 ; Hebrides-Faroes patrol shifted due to s/m danger, May, 79 ; attempted attacks by *U.27*, May, 79, 127.

- Crusader* (t.b.d.). On patrol N. of Dover minefield : observes explosion, 28 March, 73 ; patrolling off Flemish coast, 6 May, 106 ; *re* loss of *Maori*, 7 May, 106.
- Cumberland* (cruiser). Temporarily in 7th C.S. : movements in Dogger Bank Action, 1 ; in 6th C.S., March, 63 ; transferred to Cruiser Force I, March, 63 ; escorting Second Canadian Contingent, April, 71.
- Curlew* (Br. f.v.). Sunk in N. Sea by *U.19*, 5 June, 115.
- Cyrus* (Dan. s.s.). Sunk in N. Sea, 2 June, possibly by *U.14*, 114.
- Cysne* (Port. s.s.). Sunk in mouth of Channel by *U.41*, end of May, 81.
- D.1* (s/m). *Re* last attempt at operation T.W., 11 May, 107 ; operations in the Bight, 28 June-2 July, 131.
- D.3* (s/m). Operations in Bight, 26-29 April, 93 ; operations of 17-20 May, 96 ; operations of 29-30 May, 99 ; attempt at Operation T.W., 6-9 May, 107 ; operations in the Bight, 28 June-2 July, 131.
- D.4* (s/m). Bombed by *L.9*, 3 May, 107 ; operations in the Bight, end of June : torpedoes *Bielefeld*, 22 June, 131 ; misses destroyer, 23 June, 131 ; engages seaplane, 28 June, 131.
- D.6* (s/m). Operations of 17-20 May, 96 ; operations in Bight, 10-13 June, 131 ; operations in Bight, 28 June-2 July, 131.
- D.7* (s/m). Operations in Bight, 30 April-3 May : bombed by aeroplane, 3 May, 93 ; abortive expedition to Bight, 15 May, 96 ; operations in the Bight, 10-13 June, 131.
- D.8* (s/m). Operations in the Bight, 10-13 June, 131.
- "*D*" Class Destroyers. In Rosyth and Cromarty Defence Flots., 16 ; concentrated at Cromarty Feb., 16.
- Dahlia* (fleet sweeper). S/m hunt, 18-19 June, 122.
- Daisy* (minesweeping gunboat). Rescues survivors of *Recruit*, 1 May, 105.
- Dania* (Russ. s.s.). Sunk off Hebrides by *U.33*, 10 June, 127.
- Danzig* (Ger. l.c.). To Baltic for Libau Operations, 93 ; strikes mine in Bight, 18 May, 93.
- Dare, Rear-Admiral C. H., M.V.O.* Commanding Area 15 (Milford), Feb., 17 ; instructions to, Feb., 44 ; takes charge at Milford, 26 Feb., 44 ; Yacht Squadron patrolling S. coast of Ireland, June, 127 ; forces under him, June, 127 ; concentration in southern part of command, June, 127 ; *re* St. George's Channel barrage, 128 ; controlling anti-s/m operations in S.W. approach, end of June, 129.
- Davanger* (Norw. s.s.). Sunk off Hebrides by *U.33*, 14 June, 127.
- Dee* (t.b.d.). To N. Channel Patrol, 16 ; sent to hunt s/m in Liverpool Bay, 20 Feb., 45 ; encounter with *U.20* in Liverpool Bay, 11 March, 47 ; in N. Channel Patrol, March, 75.
- Defender* (t.b.d.). To Sheerness for escort end of Jan., 6 ; escorting *Implacable* Feb., 23 ; further escort work in Channel, Feb., 23 ; escorting R.N. Division from Avonmouth end of Feb., 46.
- Delmira* (transport). Sunk in Channel by *U.37*, 25 March, 68.
- Delta* (Belg. tr.). Sunk in S.W. approach by *U.34*, 2 June, 127.
- Demevara* (Br. s.s.). Encounter with s/m in S.W. approach, 31 May, 81.
- Deptford* (Br. s.s.). Mined off Scarborough, 24 Feb., 61.
- Derfflinger* (Ger. battle cruiser). Under repair after Dogger Bank Action, 2.
- De Robeck, Rear-Admiral John M.* Relinquishes command of Cruiser Force I, 20.
- Desabla* (Br. oiler). Sunk off Tod Head by *U.17*, 12 June, 117.
- Destroyer Flotillas (British).*
- 1st T.B.D. Flot.* Recalled to Harwich after Dogger Bank Action, 3 ; destroyers from, hunting s/ms in Hoofden, 16-17 Feb., 27 ; half-flot. moved from Harwich to Rosyth, Feb., 16 ; condition on 18 Feb., 16 ; two divisions rendezvous with 2nd L.C.S., 19 Feb., 26 ; anti-minelaying dispositions, Feb., 26 ; remainder of Flot. ordered to Rosyth, 1 March, 46 ; chase and destruction of *U.12*, 9-10 March, 63 ; destroyers from, proceed for s/m hunt off Scurdyness, 15 March, 64 ; s/m hunt in Firth of Forth,

Destroyer Flotillas (British)—continued.

17 March, 64; destroyers from, escort *Lion* from Tyne, 28 March, 83; destroyers from, in s/m hunt, 2-5 April, 83; operations of April 11-14, 84; sighted by U.6, 12 April, 84; operations of 17-18 April, 87; screening 1st B.S., 9-10 May, 90; half-flot. in sweep of Scandinavian routes, 2-4 May, 91; escorting damaged *Roxburgh* to Rosyth, 20 June, 121; s/m hunt, 21 June, 121.

2nd *T.B.D. Flot.* Movements in and after Dogger Bank Action, 1; anti-minelaying dispositions, Feb., 26; division carries out s/m hunt for U.30, 27-28 April, 77; destroyers from, hunting U.27, May, 79; *re* operations of 29 March, 82; operations of 11-14 April, 84; operations of 17-18 April, 87; destroyers from, escorting *Orvieto*, 6 May, 92; division in s/m hunt, 18-19 June, 122; division in s/m hunt for U.22, 20 June, 122; division in s/m hunt, 22 June, 122; impending relief of, by repeat "M" class destroyers, 130.

3rd *T.B.D. Flot.* Recalled to Harwich after Dogger Bank Action, 3; carries out sweep in N. Sea and Hoofden after Dogger Bank Action, 3; destroyers from, to Irish Channel for s/m hunt, end of Jan., 6; destroyers from, escorting minelayers, Feb., 14; destroyers from, in Air raid on Belgian coast, Feb., 14; condition on 18 Feb., 16; destroyers from, escorting Canadian Division from Avonmouth, Feb., 22; recalled to Harwich, Feb., 22; division to Devonport, 20 Feb., for s/m hunt, 45; division to Avonmouth for escort work, beginning of March, 46; s/m hunt in Hoofden, 20 Feb., 62; destroyers from, on s/m hunt in Hoofden, 5 Mar., 67; *Lance's* Division in Bristol Channel relieved, 4 April, 71; destroyers from, on escort work in S.W. approach, June, 130; *re* Comm. (T)'s memo. of 10 June, 130.

4th *T.B.D. Flot.* Movements in and after Dogger Bank Action, 1; anti-minelaying dispositions, Feb., 26; six destroyers to Irish waters, March, 48; at Cromarty, end of Feb., 63; division hunting off N. Ronaldshay for U.20, returning, May, 78; *re* operations of March, 29, 82; operations of 11-14 April, 84; operations of 17-18 April, 87; half-flot. in sweep of Scandinavian routes, 2-4 May, 91.

8th *T.B.D. Flot.* *Re* supposed escape of s/ms from Firth of Forth, 15-17 March, 64; s/m hunt, 2-5 April, 83.

9th *T.B.D. Flot.* Composition of, after reorganisation, March, 66; anti-s/m operations under A.O.P., March, 66; destroyers from, on s/m hunt, 8 June, 116.

10th *T.B.D. Flot.* *Beagle* class destroyers not to join, 16; composition of, 16; condition on 18 Feb., 16; hunting s/ms in Hoofden, 17 Feb., 27; destroyers from, escorting minelayers in the Bight, 8-9 May, 92; escort work in S.W. approach, June and July, 130; *re* Comm. (T)'s memo. of 10 June, 130.

Destroyer Flotillas (German).

9th *T.B.D. Flot.* Protecting Amrum Bank minesweepers, Feb., 29a. *Devonshire* (cruiser). S/m alarm in N. Sea, 14 April, 84; in 3rd C.S. sweep in N. Sea, 18-20 June, 121; attempts to ram s/m, 20 June, 121.

Diamant (Fr. s.v.). Sunk in S.W. approach by U.35, 13 June, 127.

Diamond (I.c.). Attached to 5th B.S., Jan., 4; one of remaining ships in Channel Fleet, March, 69; to Rosyth, 8 April, 69.

Diana (I.c.). In Cruiser Force G on W. Channel Patrol, Jan., 4; escorting transports to Mediterranean, Feb., 7; leaves Devonport for Mediterranean, 29 June, 130.

Diana (Br. s.s.). Sunk in mouth of Channel by U.41, end of May, 81.

Diana (Dan. s.s.). S/m report off E. coast, 15 March, 66.

Dido (I.c.). To 10th T.B.D. Flot., 16.

Dimorah (Br. s.s.). Torpedoed off Dieppe by U.16, 18 Feb.; reaches port, 30.

Director of Transport. Minute of, *re* Avonmouth as embarkation port, Feb., 22; *re* return to Havre route, Feb., 34.

Dogberry (Br. f.v.). Sunk in N. Sea by U.19, 3 June, 115.

Donville, Lieutenant Sir James H., Bart. Clearing Tory Is. minefield, 5; operations in Hoofden, beginning of April, 101; encounter with A.2 and A.6 off N. Hinder, 1 May, 105.

Don (Br. s.s.). Sunk in N. Sea by U.9, 8 May, 90.

Donaldson, Captain Leonard A. B. President of Submarine Attack Committee, 12.

Donegal (cruiser). In 7th C.S., March, 63.

Doon (t.b.d.). In 9th T.B.D. Flot., March, 66.

Dove (t.b.d.). Left Scapa for N. Channel Patrol, 16 Feb., 16; hunting s/m in Liverpool Bay, 20 Feb., 45; in N. Channel Patrol, March, 75.

Dover Patrol. Paucity of available destroyers, Feb., 7; operations of, Feb., 7; small number of destroyers available, Feb., 27; details of, end of Feb., 31; success of Dover barrage, April, 74; Adl. Bacon succeeds Adl. Hood in command, 13 April, 74; western boundary shifted to 4 miles W. of Beachy Head, April, 74; *re* duties of, 104; drawn on, to provide Dogger Bank Patrol, June, 116.

Downs Boarding Flotilla. 15.

Downshire (Br. s.s.). Sunk off Calf of Man by U.30, 20 Feb., 45, 47.

Drake (cruiser). Paid off, March, 63.

Dreadnought (battleship). Rams and sinks U.29, 18 March, 65, 82.

Dromio (Br. f.v.). Sunk in N. Sea by U.19, 6 June, 115.

Druid (t.b.d.). To Sheerness for escort, end of Jan., 6; escorting *Prince George*, Feb., 23; escorting R.N. Division from Avonmouth, end of Feb., 46.

Drunccree (Br. s.s.). Sunk in Bristol Channel by U.27, 18 May, 79.

Duke of Edinburgh (cruiser). Escorted out from Devonport, 9 May, 76.

Dulcie (Br. s.s.). Sunk off Shipwash L.V. by U.B.13, 19 June, 126.

Dulwich (Br. collier). Torpedoed and sunk in Channel by U.16, 15 Feb., 29.

Dumfries (Br. collier). Sunk in Bristol Channel by U.27, 19 May, 79.

Dumfriesshire (Br. s.v.). Sunk in S.W. approach by U.24, 28 June, 128.

Dunedin (Br. s.s.). Chased by U.28 in S.W. approach, 28 March, 70.

Dunnet Head (Br. s.s.). Sunk in N. Sea by U.19, 4 June, 115.

Duster (armed tr.). Chases U.12, 6 March, 63.

E.2 (s/m). Operations of 17-18 April, 87; operations in Bight, 26-29 April, 23; operations of 17-20 May, 96; attempt at Operation T.W., 6 May, 107; operations in the Bight, 10-13 June, 131.

E.3 (s/m). Intelligence that Germans intended to salve s/m, Jan., 54.

E.4 (s/m). Operations in Bight, end of May, 96; encounter with L.10, 24 May, 96; fails to torpedo destroyers, 24 May, 96; bombed by seaplane, 29 May, 96; attempt at Operation T.W., 6-9 May, 107; operations in the Bight, 10-13 June, 131; operations in the Bight, 28 June-2 July, 131; W/T experiments, 131.

E.5 (s/m). Operations in the Bight, 6-8 Feb., 27; operations of 11-14 April, 84; torpedoes *Schwarzwald*, 14 April, 86; attacked by aeroplane, 14 April, 86; encounter with L.9, 3 May, 107; *re* last attempt at Operation T.W., 11-13 May, 107.

E.6 (s/m). Operations of 11-14 April, 84; misses German destroyer S.168, 14 April, 86; operations in Bight, 30 April-3 May; bombed by aeroplane, 3 May, 93; operations of 29-30 May, 99; misses *Molthe*, 30 May, 99; *re* last attempt at Operation T.W., 11-13 May, 107; operations in the Bight, 28 June-3 July, 131.

E.7 (s/m). Operations in Bight, 2-4 April, 82; operations in Bight, 30 April-3 May, 93; suspects minefield being laid off Ems, 13 May, 96; *re* last attempt at Operation T.W., 11-13 May, 107; proceeds to Dardanelles, 131.

- E.8* (s/m). Operations of 11–14 April, 84; misses barrage-breakers, 14 April, 86; operations of 17–18 April, 87; operations in Bight end of May, 96; attempt at Operation T.W., 6–9 May, 107; operations in Skagerrack, 19–27 June, 131; sinks German trawler *Nord*, 131.
- E.11* (s/m). Operations in the Bight, 6–8 Feb., 27; proceeds to Dardanelles, 131.
- E.12* (s/m). Operations in the Bight abandoned, Feb., 27; operations of 11–14 April, 84, 86; operations of 17–18 April, 87; proceeds to Dardanelles, 131.
- E.13* (s/m). Off Maas L.V.: mistaken for hostile s/m by s.s. *Colchester*, 17 Feb., 27, 62; *re* last attempt at Operation T.W., 11–13 May, 107; misses fleet auxiliary apparently laying minefield, 13 May, 107.
- E.14* (s/m). Off Maas L.V., 19 Feb., 27; proceeds to Dardanelles, 131.
- E.15* (s/m). Anti-s/m operations off Maas L.V., Feb., 62.
- E.16* (s/m). Operations of 17–18 April, 87; operations in Bight, 16–19 May, 96; operations in Bight, June 1 to 2 and 28 June to 3 July, 131.
- E.17* (s/m). 99.
- "E" Class Destroyers. Seven of these detached from Scapa, Feb., 16.
- E & C* (Br. fishing smack). Sunk in Hoofden by *U.B.* 16, 3 June, 125.
- Earl of Lathom* (Br. s.v.). Sunk off Old Head of Kinsale by *U.20*, 5 May, 78.
- Ebenezer* (Br. f.v.). Sunk in N. Sea by *U.19*, 4 June, 115.
- Eclipse* (l.c.). In Cruiser Force G on W. Channel Patrol, Jan., 4.
- Economy* (Br. fishing smack). Sunk in Hoofden by *U.B.* 16, 4 June, 125.
- Edale* (Br. s.s.). Sunk off Scilly Is. by *U.30*, 1 May, 77.
- Edgar Class Cruisers*. As minelayers, Jan, 92.
- Edith* (Br. s.v.). Sunk off S. of Ireland by *U.24*, 27 June, 128.
- Edward* (Br. fishing smack). Sunk off Lowestoft by s/m, 9 June, 125.
- Edwards, Commander Graham, R. L.* Commanding *Laforey*: suggestions *re* procedure for merchant ships, 81.
- Edwards, Lieutenant-Commander*. Commanding *Taranaki*: *re* sinking of *U.40*, 23 June, 123.
- Egerton, Admiral Sir George Le C., K.C.B.* (Commander-in-Chief, Plymouth), 43; inconvenienced by W.O. regulations *re* searchlights, Jan., 54; sends destroyers on s/m hunt, 10 May, 80; suggests transports leave Devonport in daylight, June, 127; *re* escorts in S.W. approach, June, 130.
- Eileen Emma* (Br. drifter). Attempts to ram *U.28* in S.W. approach, 28 March, 70; picks up survivors of *Falaba*, 28 March, 70.
- Elida* (Swed. s.s.). Sunk in N. Sea by *U.38*, 30 April, 89.
- Elizabeth* (Br. drifter). Sunk E.N.E. of Shetlands by *U.38*, 23 June, 122.
- Ellerton, Captain Walter M.* Commanding *Cornwall*: in charge of escort of R.N. Division from Avonmouth, end of Feb., 46; asks for more destroyers, March, 46.
- Ellison, Captain Alfred A.* Captain-in-charge Lowestoft: proposes salvaging of *U.C.2*, July, 132.
- Ellispontos* (Greek s.s.). Sunk in Hoofden, 17 April, 103.
- Elsa* (Swed. s.v.). Sunk in N. Sea by *U.39*, 1 May, 90.
- Elsa* (Swed. s.v.). Sunk in N. Sea by *U.39*, May, 90.
- Emden* (Ger. l.c.). *Re* destruction of, 20.
- Emma* (Fr. s.s.). Sunk in Channel by *U.28*, 31 March, 70.
- Emperor, German*. See under Kaiser.
- Empress* (seaplane carrier). Last attempt at Operation T.W., 11 May, 107; stationed at Harwich, 107.
- Empress of Britain* (Br. s.s.). Armed merchant cruiser on Atlantic trade route, 80; disarmed and operating as transport, May, 80; transport work from Liverpool, July, 130.
- Ena May* (Br. f.v.). Sunk in N. Sea by *U.19*, 3 June, 115.
- Engadine* (seaplane carrier). Last attempt at Operation T.W., 11 May, 107; stationed in Firth of Forth, 107.

- Epworth* (Br. tr.). Reports missed by torpedo in Nairn Bay, 16 Feb., 59.
- Erna Boldt* (interned Ger. s.s.). Blown up off Sunk L.V., 9 June, 125.
- Essex* (cruiser). Escorts three transports across Atlantic, Feb.–March, 46; proceeds to refit at Barrow, March, 46; escorted to Avonmouth, 30 April–1 May, 76.
- Ethiopia* (Br. s.s.). Sunk in mouth of Channel by *U.41*, end of May, 81.
- Ettrick* (t.b.d.). In 9th T.B.D. Flot., March, 66; joins Portsmouth Escort Flot., end of March, 72.
- Europa* (cruiser). Flag of R.A. Moore, Cruiser Force I, 23; leaves Portsmouth for station, 13 Feb., 23.
- Europe* (Fr. s.s.). Attacked off Scilly Is. by *U.30*, 1 May, 77.
- Euryalus* (cruiser). In Cruiser Force G on W. Channel Patrol, Jan., 4.
- Eva* (Norw. s.v.). Sunk in N. Sea by *U.38*, 22 April, 89.
- Evans, Captain J.* Master of *Lizzie*: rams *U.37*, 25 March, 68.
- Evans, Commander Edward R. G. R., C.B.* Commanding *Viking*: *re* sinking of *U.8*, 4 March, 40; sights indications of supposed s/m, 10 March, 40.
- Evelyn* (U.S.A. s.s.). Sunk by mine off Ems, Feb., 29a.
- Evening Star* (Br. f.v.). Sunk in N. Sea by *U.19*, 4 June, 115.
- Excellent* (gunboat). 25; operating off Coxyde, March, 42; proposed operations off Belgian coast, end of April, 104.
- Exe* (t.b.d.). Left Scapa eastabout, 27 Feb., 16; joins Dover Patrol, 2 March, 39; joins Portsmouth Escort Flot., end of March, 72.
- Exmouth* (battleship). One of remaining ships of Channel Fleet, March, 69; sails for Mediterranean, 14 May, 69, 80.
- Explorer* (Br. f.v.). Sunk in N. Sea by *U.19*, 4 June, 115.
- Express* (Br. s.v.). Sunk in S.W. approach by *U.35*, 8 June, 127.
- Falaba* (Br. s.s.). Sunk in S.W. approach by *U.28*, 28 March, 70, 75.
- Falkenhayn, General*. Requests Naval interference with Archangel shipping, May, 99.
- Falmouth* (l.c.). Proceeds to Cromarty after Dogger Bank Action, 1; flag of R.A. Napier in 3rd L.C.S., Feb., 20.
- Fane, Commander Robert G.* A.E.D.O., Inchkeith: anti-s/m measures, 15 March, 64.
- Faulknor* (flot. leader). Hunting s/ms in Irish Channel, Feb., 6; escorting Canadian Division from Avonmouth, Feb., 22; to Irish waters, March, 48.
- Favereau, Vice-Admiral*. Receives 5th B.S. in Quiberon Bay, 27 Jan., 4; moves anti-s/m nets towards Boulogne, end of March, 73.
- Fearless* (l.c.). Hunting s/ms in Hoofden, 16–17 Feb.: attacked by seaplane, 27; with 8 destroyers of 1st Flot. to Rosyth, 18 Feb., 16; rendezvous with 2nd L.C.S., 19 Feb., 26; chase of *U.12*, 9–10 March, 63; tows damaged *Ariel* into Leith, 10 March, 63; proceeds for s/m hunt off Scurdyness, 15 March, 64; escorting damaged *Roxburgh* to Rosyth, 20 June, 121.
- Ferret* (t.b.d.). To Sheerness for escort, end of Jan., 6; escorting *Irresistible*, 31 Jan., 7; escorting *Implacable*, Feb., 23; escorting *Collingwood* to Portsmouth, Feb., 23; escorting Royal Naval Division from Avonmouth, end of Feb., 46.
- Fervent* (t.b.d.). 33; missed by torpedo off Galloper, 9 June, 125.
- Filey* (armed tr.). In Scilly Is. A.P.: escorting *Gulfight* when latter torpedoed by *U.30*, 1 May, 77.
- Fingal* (Br. s.s.). Sunk off E. coast, 15 March, 66.
- Firedrake* (t.b.d.). In air raid on Cuxhaven, 29 Jan., 3; proceeds to assistance of *S.1*, end of June, 131.
- First Lord of the Admiralty*. See under Churchill.
- Fisher, Admiral of the Fleet John Arbuthnot, Lord Fisher of Kilverstone, G.C.B., O.M., G.C.V.O., LL.D.* Baltic project, 8; *re* German s/ms in Channel, 17 Jan., 14; urges mining of Dover Straits, Jan., 14; succeeded by Adl. Jackson, 27 May, 132, 134.
- Flaminian* (Br. s.s.). Sunk in S.W. approach by *U.28*, 29 March, 70.

Flanders Submarine Flotilla. To attack transports in area Yarmouth-Maas-Portland-Cape le Hague, April-May, 90; attempts to pass Dover barrage, May and June, 124; attacks on shipping in Hoofden, 1-9 June, 125; growth of Flanders base, 135.

Florazan (Br. s.s.). Sunk by *U.20* off entrance to Bristol Channel, 11 March, 50.

Flotillas, Destroyer. See under Destroyer Flotillas.

Flotillas, Net Drifter. See under Net Drifter Flotillas.

Folke (Swed. s.s.). Sunk in N. Sea by *U.6*, 14 April, 84.

Foresight (l.c.). In 6th L.C.S. in Humber, end of May, 109.

Forester (t.b.d.). Escorting R.N. Division from Avonmouth, end of Feb., 46.

Formidable (battleship). Torpedoing of, 4, 8, 14.

Forstmann, Lieutenant-Commander. Commanding *U.39*: operations in N. Sea, 29 April-10 May, 90.

Förstner, Lieutenant-Commander. Commanding *U.28*, *q.v.*

Forward (l.c.). At Hartlepool, Feb., 16; in 6th L.C.S. in Humber, end of May, 109.

Four (Br. drifter). Sunk E.N.E. of Shetlands by *U.38*, 23 June, 122.

Foxglove (fleet sweeper). Ready, 14 May, 115; s/m hunt, 18-19 June, 122.

Foxhound (t.b.d.). In Portsmouth Escorting Flot., March, 36.

Foyle (t.b.d.). Left Scapa eastabout, 27 Feb., 16; in Plymouth local defence: engaged on escort work, 73; s/m hunt off Plymouth Sound, 2 April, 73; escorting Mediterranean convoy from Devonport, May, 80.

Frauenlob (Ger. l.c.). Avoids mine, 30 May, 99.

Frédéric Franck (Fr. s.s.). Sunk in W. Channel by *U.24*, 11 April, 73.

French, Field-Marshal Sir John. Asks for naval demonstration off Belgian coast, March, 42; asks for naval co-operation off Flanders, 25-27 April, 104.

Fryatt, Captain Charles A. Commanding *Wrexham*: chased by s/m off Maas L.V., 2 March, 67; commanding *Brussels*: rams s/m off Maas, 28 March, 101.

Fulgens (Br. s.s.). Picks up crew of s.s. *Deptford*, sunk by mine, 24 Feb., 61.

Fulgent (Br. s.s.). Sunk off S.W. corner of Ireland by *U.30*, 30 April, 77; *U.30* captures secret papers from, 77.

Fürbringer, Lieutenant-Commander. Commanding *U.40*: sunk by *C.34*, 23 June, 123.

Galatea (l.c.). Broad pendant of Comm. Alexander-Sinclair in 1st L.C.S., Feb., 20.

Garron (armed boarding vessel). Runs over periscope, 12 March, 49.

Garry (t.b.d.). Left Scapa for N. Channel Patrol, 16 Feb., 16; in N. Channel Patrol, March, 75; s/m hunt, 19 April, 75; on escort duty, April, 76.

Gayer, Commander. As historian, 124.

Gazehound (Br. f.v.). Sunk in N. Sea by *U.19*, 5 June, 115.

Gazelle (Norw. s.v.). Stopped by *U.23* off E. coast, 15 March, 66.

George and Mary (Br. s.v.). Sunk off Eagle Is. by *U.35*, 4 June, 127.

German Emperor. See under Kaiser.

Ghurka (t.b.d.). To Beachy Head for s/m hunt, 23 Feb., 35; sinks *U.8*, in Dover Straits, 4 March, 40; explodes sweep over supposed s/m, 10 March, 40.

Gibbons, Captain F. K. C. Capt.-Supt. Pembroke Dock: commanding A.P. Area 15, 5; transferred to Tyne, Feb., 17.

Gilgallon, Private Michael, R.M. In s.s. *Atalanta*: sights *U.29*, 14 March: forces s/m to submerge by gunfire, 52.

Glenartney (Br. s.s.). Sunk off Royal Sovereign L.V. by *U.34*, 18 March, 68.

Glencarse (Br. tr.). Captured in N. Sea by *U.6*, 18 April, 84.

Glenholm (Br. s.v.). Sunk off Fastnet by *U.27*, 21 May, 79.

Glenlee (Br. s.s.). Sunk in mouth of Channel by *U.41*, end of May, 81.

Glennie, Commander Hugh G. Directs laying of Tay minefield, beginning of March, 54.

Glittertind (Norw. s.s.). Sunk in N. Sea by *U.25*, 7 June, 116.

Gloucester (l.c.). In 3rd L.C.S., Feb., 20.

Gloxinia (Br. tr.). Sunk in N. Sea by *U.10*, 1 April, 83.

Goldsmith, Commander Malcolm L. Commanding *Laertes*: reconnaissance off Ostende, 6 April, 102; net laying operations off Ostende, 8-9 April, 102.

Goodenough, Commodore William E., M.V.O. Commanding 2nd L.C.S.: pendant in *Southampton*, Feb., 20.

Goshawk (t.b.d.). Boards *Roxane*: fails to discover German prize crew, 3 May, 91; sweep in N. Sea, 18-20 June, 121.

Grace, Captain Henry E. Commanding Ramsgate Patrol, Feb., 15; Drifters patrolling N. of Downs, from 12 Feb.: details of patrol, 31.

Grackle (armed tr.). Encounters and damages *U.29* W. of Achill Head, 14 March, 52.

Graeff, Lieutenant-Commander. Commanding *U.36*: operations in N. Sea, 29 April-10 May, 90.

Grand Fleet. See under Jellicoe: also under Battle Fleet, Battle Cruiser Fleet, Cruiser Squadrons, Light Cruiser Squadrons, Destroyer Flotillas, and individual ships and officers.

Grant, Rear-Admiral William L., C.B. Relieves R.A. Pakenham, commanding 3rd L.C.S., 10 March, 63; flag in *Antrim*, 121; sweep of 3rd C.S. in N. Sea, 18-20 June: s/m attacks, 121; suspicious re Dutch fishing vessels, 121.

Grisnez (Fr. tr.). Sunk in Channel by *U.35*, 9 March, 39.

Gulfight (U.S. oil tank s.s.). Torpedoed off Scilly Is. by *U.30*, 1 May, 77.

Gwatkin-Williams, Commander Rupert S. S.N.O., N. Channel Patrol, April: s/m hunt, 19 April, 75.

Haggard, Captain Vernon H. S. Superintends trials of decoy trawler towing submerged s/m, 123.

Hall, Captain Sydney S., C.B. Succeeds Comm. Keyes as Comm. (S), Feb.: duties of, 27. See also under Comm. (S).

Hamburg (Ger. l.c.). Cuts *S.21* in two, 21 April, 88.

Hammerle, Lieutenant. Commanding *U.14*: sunk by *Hawk*, 3 June, 114.

Hampshire (cruiser). In 7th C.S.: movements in Dogger Bank Action, 1; in 7th C.S., March, 63.

Hanna (Sw. s.s.). Sunk by s/m off Flamborough Head, 13 March, 66.

Hannibal (battleship). To Mediterranean for Dardanelles operations, Feb., 22.

Hansen (Dan. s.s.). Gives N. Sea route to *U.10*, 5 April, 83.

Hansen, Lieutenant-Commander Klaus. Commanding *U.16*: chases s.s. *Laertes*, 10 Feb., 27; Commanding *U.41*: operations in N. Sea, 29 April-3 May, 90; operations in mouth of Channel, end of May, 81.

Hardy (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; escorting Canadian Division from Avonmouth, Feb., 22; to Barrow, 13 Feb., 22.

Harpalion (Br. s.s.). Sunk off Beachy Head by *U.8*, 24 Feb., 35.

Harpalyce (Br. s.s.). Belgian relief ship: sunk in Hoofden by *U.B.4*, 10 April, 103.

Harpy (t.b.d.). In Portsmouth escorting Flot., March, 36.

Harvier (gunboat). To Mediterranean, 40.

Hartdale (Br. collier). Sunk in Irish Channel by *U.27*, 13 March, 48, 53.

Hawk (armed tr.). Sinks *U.14*, 3 June, 114.

Hawksley, Captain James R. P., M.V.O. Commanding *Galatea*, Feb., 20.

Hazel (armed boarding steamer). Attached to Cruiser Force E, 5; to Mediterranean, June, 130.

Headlands (Br. s.s.). Sunk off Scilly Is. by *U.29*, 12 March, 51.

Hearty (special service vessel). Reports hostile aircraft over Maplin L.V., 23 Feb., 33.

Hector (Br. tr.). Sunk in N. Sea by *U.9*, 3 May, 90.

Heimdall (Sw. s.s.). Rescues crew of *Hartdale*, 13 March: sequel to this, 48.

- Helen* (Br. s.s.). Chased in Liverpool Bay by *U.20*, 11 March, 47.
- Henry of Prussia, Admiral Prince*. C.-in-C., Baltic: suggests naval co-operation in attack on Libau, 93.
- Herbert, Lieutenant-Commander Godfrey*. Commanding anti-s/m decoy *Vienna*, Jan., 58; *Vienna* renamed *Antwerp*, 58; sights *U.29 W.* of Scilly Is., 12 March, 51; turns over to *Baralong*, March: operating in Channel, 70.
- Hercules* (tug). To the Loire for transport of Canadian Division, Feb., 22.
- Hermes* (s.v.). Sunk in Channel by *U.33*, 4 April, 73.
- Hero* (Br. tr.). Sunk in N. Sea by *U.9*, 3 May, 90.
- Heroic* (armed boarding steamer). Attached to Cruiser Force E, 5; damaged off N.W. Ireland in storm, 15 Jan., 5.
- Hersing, Lieutenant-Commander*. Commanding *U.21*, 6.
- High Sea Fleet*. See under Ingenohl and Pohl; also under Battle Fleet, Scouting Groups, Destroyer Flotillas, and individual ships and officers.
- Hind* (t.b.d.). To Sheerness for escort, end of Jan., 6; escorting *Prince George*, Feb., 23; further escort work in Channel, Feb., 23.
- Hindustan* (battleship). S/m alarm in N. Sea, 14 April, 84.
- Hipper, Rear-Admiral*. Movements in Dogger Bank Action, 1.
- Hirose* (Br. f.v.). Sunk in S.W. approach by *U.34*, 2 June, 127.
- Homer* (tug). Spirited encounter with *U.32* in Channel, 8 April, 73.
- Hood, Rear-Admiral The Hon. Horace L. A., C.B., M.V.O., D.S.O.* Commanding Dover Patrol, 7; sends destroyer to Dunkirk, 7; unaware of British mined area, 7; anti-s/m methods, 12; orders to, *re* net drifters, 13, 14; inaugurates Dover Netted Area, Feb., 15; warned of s/m's: small number of destroyers available, Feb., 27; further anti-s/m dispositions, Feb., 27; urged to have nets down at night, Feb., 30; difficulties with indicator nets, Feb., 30; to send destroyers N.E. of minefield, Feb., 30; details of Dover Patrol, end of Feb., 31; sends *Ghurka* and *Maori* to Beachy Head for s/m hunt, 23 Feb., 35; sends destroyers and minesweepers to Beachy Head, Feb., 35, 36, 39, 40; *re* drifters and sinking of *U.8*, 40; considers indicator nets useless at night, 40; opinion *re* naval demonstration on Belgian coast, 10-13 March, 42; arranges patrol of West Deep with French, March, 42; *re* Dover net barrage, 43; sends destroyers on s/m hunt to Royal Sovereign L.V., 18 March, 68; routine destroyer patrol off Beachy Head, March, 68; sends A.P. unit to Beachy Head, 21 March, 68; withdraws A.P. unit from Beachy Head, 2 April, 68; A.P. unit to guard Folkestone boom, 2 April, 68; sends *C.32* to N. Hinder on s/m hunt, 5 April, 101; institutes destroyer patrol N. of minefield, 74; suggestion *re* Channel shipping protection, March, 68; believes some German s/m's destroyed in Dover minefield, 74; proposes extension of minefield and lines of deep mines. 74; succeeded by Adl. Bacon in command of Dover Patrol, 13 April, 74; to command Cruiser Force E, April, 74; flag in *Juno*, 7 May, 78; hoists flag in *Invincible*, commanding 3rd B.C.S., 27 May, 99.
- Hope, Captain George P. W.* Commanding *Queen Elizabeth*, 6.
- Hope, Captain Herbert W. W.* In charge of Adty. decoding staff, 27.
- Hopemount* (Br. s.s.). Sunk in S.W. approach by *U.35*, 13 June, 127.
- Hornet* (t.b.d.). To Portland for escort work, end of Jan., 6, 7; returns to Harwich, 3 Feb., 23.
- Hughes, Commander Harry W. C.* In *Dreadnought*: rams *U.29*, 18 March, 65.
- Hyacinth* (Br. drifter). In Dover Patrol: nets fouled by *U.33*, 6 April, 74.
- Hydra* (t.b.d.). In 1st T.B.D. Flot.: escort work, end of Feb., 36; recalled to Harwich, beginning of March, 46; on anti-s/m patrol off Sunk, 21 Feb., 62.
- Hyndford* (Br. s.s.). Torpedoed by *U.35*, 15 March: reached Thames, 41.
- "I" Class Destroyers. (1st Flot.): at Rosyth, Feb., 16.

- Iago* (armed tr.). In Scillys A.P.: escorting *Gulflight* when latter torpedoed by *U.30*, 1 May, 77.
- Ikavia* (Br. s.s.). Torpedoed in Channel by *U.20*, 30 Jan., 7.
- Illustrious* (battleship). Operations of 17-18 May, 94.
- Implacable* (battleship). In 5th B.S., Jan., 4; changing guns at Devonport, Feb., 23; sails for Mediterranean, 13 March, 69.
- Ina Williams* (armed tr.). Encounter with *U.35* in S.W. approach, 5 June, 127.
- Inconstant* (l.c.). In 1st L.C.S., Feb., 20.
- Indefatigable* (battle cruiser). In 2nd B.C.S., 20.
- Indian City* (Br. s.s.). Sunk off Scilly Is. by *U.29*, 12 March, 51.
- Indian Empire* (armed tr.). Rescues 170 survivors from *Lusitania*, 7 May, 78.
- Indomitable* (battle cruiser). Tows *Lion* after Dogger Bank action, 1; in 3rd B.C.S., Feb., 20; sights supposed s/m off Firth of Forth, 11 March, 63.
- Indrani* (Br. s.s.). Sunk off S. of Ireland by *U.24*, 27 June, 128.
- Inez* (Fr. armed tr.). Attacks German s/m, 23 Feb., 73.
- Ingenohl, Admiral von*. Relinquishes command of H.S.F. after Dogger Bank Action, 2, 134; Naval policy of, 2.
- Inflexible* (battle cruiser). In 3rd B.C.S., 20.
- Inkum* (Br. s.s.). Sunk in S.W. approach by *U.34*, 4 June, 127.
- Intrepid* (Br. fishing smack). Sunk off Lowestoft by s/m, 10 June, 125.
- Invergyle* (Br. s.s.). Sunk by s/m off E. coast, 13 March, 66, 83.
- Invincible* (battle cruiser). In 3rd B.C.S., 20; flag of R.A. Hood, 27 May, 99.
- Iolanthe* (Br. tr.). Sunk in N. Sea by *U.9*, 3 May, 90.
- Iona* (Br. s.s.). Sunk in N. Sea by *U.19*, 3 June, 115.
- Iron Duke* (battleship). In dry dock after Dogger Bank Action, 1.
- Irresistible* (battleship). In 5th B.S.: in dockyard hands, end of Jan., 4; to sail for Mediterranean, 6; sailed from Portland to Mediterranean, 1 Feb., 7, 8.
- Isis* (l.c.). In Cruiser Force E, Jan., 5.
- Isle of Wight* (armed tr.). Patrolling Hoofden, April, 103.
- Itchen* (t.b.d.). In 9th T.B.D. Flot., March, 66.
- Jacinth* (armed tr.). On watch off Tod Head minefield, June, 118.
- Jachal* (t.b.d.). To Portland for escort work, end of Jan., 6; movements in Channel, Feb., 23; to Rosyth, 18 Feb., 16.
- Jackson, Admiral Sir Henry B., K.C.B., K.C.V.O., F.R.S.* Succeeds Adl. Fisher as First Sea Lord, 27 May, 132; minute *re* proposed salvaging of *U.C.2*, July, 132.
- Jackson, Captain Thomas, C.B., M.V.O.* Director of Operations Division, March: policy *re* Channel shipping, 68.
- Jacqueline* (Belg. unarmed tr.). Gallant action with *U.41* in S.W. approach, 26 May, 81.
- Japonica* (Br. f.v.). Sunk in N. Sea by *U.9*, 5 June, 115.
- Jason* (Br. tr.). Sunk in N. Sea by *U.10*, 1 April, 83.
- Jellicoe, Admiral Sir John R., K.C.B., K.C.V.O.* (C.-in-C., Grand Fleet); movements in Dogger Bank Action, 1; on sick list after Dogger Bank Action, 1; capacity of his destroyers influences his strategy and tactics, 2; report on anti-s/m methods called for, 4 Dec., 12; advocates anti-s/m deep minefields, 12; delay *re* destroyers, Feb., 16; Orkneys A.P. Flot. at his disposal, 17; special arrangements for his receipt of intelligence from War Signal Stations, 17; believes minelaying carried out by German trawlers, Feb., 26; anti-minelaying dispositions, Feb., 26, 36; suggests indicator nets and trawlers across N. Channel, 31 Jan., 44; sends *Faulknor* and six destroyers to Irish waters, March, 48; suggestions *re* route of 10th C.S., March, 48; suggests observation minefield in Firth of Forth, 54; submits W.O. instructions *re* searchlights be amended, Jan., 54; directs G.F. ships to brace yards forward: suggests extension of principle, March, 55; suggestion approved that colliers to Scapa pass W. of Ireland and

Hebrides, 55; suggests fleet auxiliaries have foreign markings and colours, Feb., 55; requests colliers be moved from Loch Ewe to Scapa, end of Feb., 55; sends trawlers to watch line of drums, Feb.-March, 56; requests material for manufacture of indicator nets, 1 March, 57; exercises G.F., 7-10 March, 63; exercises G.F., 16-18 March, 65; arrangement *re* route for fleet auxiliaries, W. of Hebrides, April, 77; accurate deduction *re* U.20 returning, May, 78; sends destroyers from 2nd Flot. to hunt U.27, May, 79; *re* operations of 29 March, 82; permission granted for G.F. exercises, 9 April: does not proceed, 84; operations of 11-14 April, 84; operations of 17-18 April, 87; opinion *re* return of H.S.F., 18 April, 87; suggestions *re* future operations, April, 87; operations of 21-23 April, 88, 90; warning sent to, *re* German s/m operations in N. Sea, April-May, 90; warning to, *re* U.39 proceeding to Kirkwall, May, 90; operations of 17-18 May, 94; warning to G.F. to avoid Areas 1 and 2, April, 95; *re* N. Sea Areas 1 and 2, 95; operations of 29-30 May, 99; disposition of 4th L.C.S., June, 110; requests secrecy *re* loss of U.14, June, 114; advocates defensive deep minefields, 118; Tod Head selected as first deep minefield, June, 118; suggests *Orvieta* be transferred from Scapa to Humber, June, 118; suggests laying more deep minefields, June, 118; plans sweep by 3rd C.S., June, 121; suspicions *re* Dutch fishing vessels, 121; proposal *re* future operations, June, 121; anti-s/m dispositions, June, 122; *re* traffic regulations, 122; suggestions for safeguarding fishing vessels, June, 122; requests two s/ms for trawler decoy scheme, June, 123.

J.M. and S. (Br. drifter). Sunk E.N.E. of Shetlands by U.38, 23 June, 122.

Johnson, Captain Charles D., M.V.O. Capt. (D), 6th T.B.D. Flot.: *re* sinking of U.8, 4 March, 40.

Josephine (Br. drifter). Sunk E.N.E. of Shetlands by U.38, 23 June, 122.

Juno (l.c.). In Cruiser Force E, Jan., 5; probably sighted by U.20, 7 May, 78; sent to assistance of *Lusitania*, 7 May, 78, 130.

Kaiser, The. Limits initiative of C-in-C., H.S.F., 2; calls for memo. on naval policy, 27 Dec., 9; *re* policy, 9; refuses permission to bombard London, 9; refuses to sanction s/m blockade, 9 Jan., 9; finally sanctions s/m blockade, 9; empowers C-in-C., H.S.F., with more liberty of initiative, Jan., 11; *re* naval policy, 134.

Kale (t.b.d.). In 9th T.B.D. Flot., March, 66.

Kangaroo (t.b.d.). *Re* sinking of U.8, 4 March, 40.

Kaphreda (armed minesweeping tr.). With group of minesweepers clearing Tory Is. minefield, 5.

Kathleen (Br. f.v.). Sunk in N. Sea by U.19, 3 June, 115.

Katwijk (Dutch s.s.). Sunk off N. Hinder, 14 April, 103.

Kellett, Lieutenant-Commander Gilbert H. Commanding S.1: operations in the Bight, end of June, 131.

Keyes, Commodore Roger J. B., C.B., M.V.O. Comm. (S): relinquishes post and appointed C.O.S. to Adl. Commanding at Dardanelles, Feb., 27. *See also under* Comm. (S).

Kilcoan (Br. s.s.). Sunk by U.21, 30 Jan., 6.

King Edward (transport). One of first four packet transports ready Feb., 23.

King Edward VII (battleship). Missed in N. Sea by U.39, 9 May, 90.

King Emperor (minelaying tr.) Lays Tod Head minefield, 14 June, 118.

Kingstonian (transport). From St. Nazaire to Havre with brows, after transport of Canadian Division, Feb., 22.

Kophamel, Lieutenant-Commander. Commanding U.35: operations in Channel, March, 39, 41.

L.3 (Ger. airship). Wrecked on Danish coast, 17 Feb., 29a.

L.4 (Ger. airship). Wrecked off Danish coast, 17 Feb., 29a.

L.5 (Ger. airship). Air raid of 15-16 April, 85, 86; reconnaissance of 20 April, 88; abortive raid on Humber, 12 May, 93; protecting minesweepers: encounter with *Arethusa*, 2 June, 110.

L.6 (Ger. airship). Reconnoitres for minesweepers on Amrum Bank, Feb., 29a; with H.S.F. in operations of 29 March, 82; further reconnaissances, end of March, 82; air raid of 15-16 April, 85, 86; reconnaissance *re* operations of 22 April, 88.

L.7 (Ger. airship). Reconnaissance for H.S.F. in operations of 29 March, 82; further reconnaissances, end of March, 82; reconnaissance of 12 April: encounters Striking Force, 84, 86; air raid of 15-16 April, 85, 86; reconnaissance *re* laying of Swarte Bank minefield, 18 April, 87; reconnaissance *re* laying of Dogger Bank minefield, 17 May, 93; protecting minesweepers, 2 June, 110.

L.8 (Ger. airship). Abortive raid on London, 26 Feb., 67; attempted raid of 4 March: disaster to airship, 67.

L.9 (Ger. airship). Reconnaissance for H.S.F. in operations of 29 March, 82; reconnaissance in N. Sea and air raid on Tyne, 14 April, 85, 86; reconnaissance *re* laying of Swarte Bank minefield, 18 April, 87; abortive raid of 19-20 April, 88; reconnaissance *re* operations of 22 April, 88; encounter with *E.5* and *D.4*, 3 May, 107; reconnaissance *re* laying of Dogger Bank minefield, 17 May, 93; air raid of 6-7 June, 112.

L.10 (Ger. airship). Air raid of 4-5 June, 111; air raid of 15-16 June, 113.

L.11 (Ger. airship). Attempts raid 15 June, 113.

L.Z.37 (Ger. airship). Air raid of 29-30 April, 108; air raid of 17 May, 108; destroyed by Flight Sub-Lieut. Warneford, 6 June, 112.

L.Z.38 (Ger. airship). Air raid of 10 May, 108; air raid of 17 May, 108; air raid of 26 May, 108; first airship raid on London, 31 May, 108; destroyed in shed by aeroplanes, 6 June, 112.

L.Z.39 (Ger. airship). Air raid of 17 May: hit by aeroplane, 108.

"L" Class Destroyers. Escorting 28th Division, 15-18 Jan., 4.

Lady Salisbury (Br. s.s.). Blown up off Sunk L.V., 9 June, 125.

Laertes (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; sweeping Bristol Channel, 7 Feb., 22; escorting Canadian Division from Avonmouth, Feb., 22; reconnaissance off Ostende, 6 April, 102; net laying operation off Ostende, 8-9 April, 102; protecting paddle-sweepers, 1 June, 110.

Laertes (Br. s.s.). Escapes from U.16 in Hoofden, 10 Feb., 28.

Laforey (t.b.d.). To Irish Channel for s/m hunt, end of Jan., 6; escorting Canadian Division from Avonmouth, Feb., 22; escorts transports from Portsmouth, 13 Feb., 23; retained at Portsmouth, Feb., 23, 29; returns to Harwich, Feb., 23; s/m hunt off Harwich, 14 March, 67; division escorting transports from Southampton, 1-2 April, 71, 72, 73; to Bristol Channel to escort Mounted Division, 4 April, 71; s/m hunt in S.W. approach, 12 April, 71; division sails for Harwich, 22 April, 71, 76; s/m hunt in Hoofden, 1 May, 105; action in Hoofden, 1 May: A.2 and A.6 sunk, 105; s/m hunt in S.W. approach, 30-31 May, 81; escort work in S.W. approach, June, 130.

La Liberté (Fr. s.v.). Sunk in S.W. approach by U.35, 8 June, 127.

Lancaster (cruiser). In 7th C.S., March, 63; in dockyard hands, March, 63.

Lance (t.b.d.). To Devonport and Bristol Channel for s/m hunt, Feb., 45; division escorting R.N. Division from Avonmouth, end of Feb., 46; escort work early March, 46; collision with tug: under repair till 25 March, 46, 53; division hunting for s/m in Bristol Channel, 7 March, 47; division in Bristol Channel relieved, 4 April, 71; protecting paddlesweepers, 1 June, 110.

Landrail (t.b.d.). To Irish Channel for s/m hunt, end of Jan., 6; escort work in Channel: refit in Clyde, Feb., 23; damaged in collision with *Undaunted*, 23 May, 100; protecting paddle sweepers, 1 June, 110.

Lapland (Br. s.s.). Reports s/ms N. of Bardsey Is., 29 Jan., 6.

Lapland (Sw. s.s.). Sunk by U.14, 3 June, 114.

Lapwing (t.b.d.). To Rosyth, 18 Feb., 16; sweep in N. Sea, 18-20 June, 121.

Lark (t.b.d.). S/m hunt in Hoofden, 1 May, 105; action in Hoofden, 1 May: A.2 and A.6 sunk, 105; escort work in S.W. approach, June, 130.

- Lark* (armed tr.). Reports supposed s/m in Firth of Forth, 15 March, 64.
- Larne* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; returns to Scapa, Feb., 22.
- Lawel* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; rejoins 3rd T.B.D. Flot. at Milford, Feb., 22; patrolling in Hoofden, end of March, 101; s/m hunt in Hoofden, 21 April, 106; proposed operations off Belgian coast, end of April, 104; escort work in S.W. approach, June, 130.
- Laurestina* (Br. fishing smack). Sunk off Lowestoft by s/m, 9 June, 125.
- Laverock* (t.b.d.). To Avonmouth for escort work, early March, 46; escorting 28th Division from Avonmouth, March, 53; escorts *Orion*: arrives Pembroke from Harwich, 24 April, 76; escorting 10th Division from Dublin to Liverpool, April–May, 76; escorts *Colossus* and *Duke of Edinburgh* in Channel, 8–9 May, 76; s/m hunt in Channel, 10 May, 80; returns to Harwich, 11 May, 76, 80.
- Lawford* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; to Avonmouth for escort work, early March, 46; grounds on Welsh coast and damaged, 4 March, 46; escorting 29th Division from Avonmouth, March, 53; escorting *Cornwall*, bound for Sierra Leone, 23–24 March, 53; s/m hunt in S.W. approach, 12 April, 71; requiring boiler repairs, April, 71; escorting Mediterranean convoy from Devonport, May, 80; escorting Canadian transport to Plymouth, 15 May, 80; division ordered to Harwich: sent back to Devonport, May, 80; s/m hunt in Hoofden, 1 May, 105; action in Hoofden, 1 May: A.2 and A.6 sunk, 105; escort work in S.W. approach, June, 130.
- Lebanon* (Br. drifter). Sunk E.N.E. of Shetlands by U.38, 23 June, 122.
- Lecky, Commander Halton S.* In charge of Yacht Patrol, Dec., 1914, 17.
- Leeuwarden* (Br. s.s.). Sunk off Maas L.V. by U.28, 17 March, 67.
- Legion* (t.b.d.). To Devonport and Bristol Channel for s/m hunt, Feb., 45; escorting transports, 21 Feb., 45; escorts *Megantic* to Liverpool, 5–6 March, 46; escorting 29th Division from Avonmouth, March, 53; escorting Mediterranean convoy from Devonport, May, 80.
- Leith, Commander Lockhart.* Commanding minelayer *Paris*: lays Dover minefield, Feb., 14.
- Le Marchant, Rear-Admiral E. R.* Commanding Area 16 (Kingstown), Feb., 17; instructions to, Feb., 44; takes charge at Kingstown, 24 Feb., 44; additional A.P. sub-base at Holyhead, 47; decoy *Lyons* under orders of, 28 March, 70; re transport of 10th Division from Ireland to England, April–May, 76.
- Le Mesurier, Commodore Charles E., C.B.* Commanding 4th L.C.S., June: pendant in *Calliope*, 110.
- Lennox* (t.b.d.). To Devonport and Bristol Channel for s/m hunt, Feb., 45; escort work, early March, 46; escorting 29th Division from Avonmouth, March, 53; damaged in collision, 6 May, 107.
- Leonidas* (t.b.d.). To Bristol Channel for escort of Mounted Division, 4 April, 71; s/m hunt in S.W. approach, 12 April, 71; s/m hunt in S.W. approach, 30–31 May, 81; patrolling in Hoofden, end of March, 101; s/m hunt in Hoofden, 1 May, 105; action in Hoofden, 1 May: A.2 and A.6 sunk, 105.
- Lepsius, Lieutenant.* Commanding U.6, June, 119.
- Leuctra* (Br. s.s.). Sunk off Shipwash L.V. by U.B.16, 12 June, 126.
- Leven* (t.b.d.). Re sinking of U.8, 4 March, 40.
- Leviathan* (cruiser). Encounter with U.12 off Bell Rock, 9 March, 63; flag of Adl. Patey, 10 March; sails for Bermuda, 11 March, 63.
- Leyman* (Br. tr.). Sunk in N. Sea by U.25, 9 June, 116.
- Liberty* (t.b.d.). Takes *Meteor* in tow after Dogger Bank Action, 1; to Irish Channel for s/m hunt, end of Jan., 6; on escort duty in Irish Channel, Feb., 6; patrolling in Hoofden, end of March, 101; escort work in S.W. approach, June, 130.

- Liffey* (t.b.d.). To Avonmouth for escort work, 27 March, 71; searches scene of loss of *Falaba*, 28 March, 70; joins Portsmouth escort Flot., end of March, 71, 72.
- Light Cruiser Squadrons (British).*
- Anti-Airship Light Cruiser Squadron.* See under 6th L.C.S.
- 1st Light Cruiser Squadron.* Movements in and after Dogger Bank Action, 1; in air raid on Cuxhaven, 29 Jan., 3; composition of, in B.C. Fleet, Feb.: commanded by Comm. Alexander-Sinclair, 20.
- 2nd Light Cruiser Squadron.* Movements in and after Dogger Bank Action, 1; composition of, in B.C. Fleet, Feb.: commanded by Comm. Goodenough, 20; anti-minelaying dispositions, Feb., 26.
- 3rd Light Cruiser Squadron.* Composition of, in B.C. Fleet, Feb.: commanded by R.A. Napier, 20; temporarily under orders of V.A. Patey, 20; anti-minelaying dispositions, Feb., 26.
- 4th Light Cruiser Squadron.* Sweep of Scandinavian routes, 2–4 May, 91; runs over U.36, 3 May, 91; composition of, 110.
- 5th Light Cruiser Squadron.* Formation and composition of, June: to work under Comm. (T), 110.
- 6th Light Cruiser Squadron.* Formation of, end of May: based in Humber, 109; under A.O.P. as anti-Zeppelin force, 109; operations, 4–5 June, 111, 112, 113.
- Lightning* (t.b.d.). Sunk by mines off Kentish Knock, 30 June, 126.
- Lilian Drost* (Dan. s.s.). Sunk in N. Sea by U.36, 9 May, 90.
- Lilydale* (Br. f.v.). Sunk in N. Sea by U.10, 28 April, 89.
- Limewold* (armed tr.). Encounter off Peterhead with U.39, 8 May, 90.
- Linda Blanche* (Br. s.s.). Sunk by U.21, 30 Jan., 6.
- Linnet* (t.b.d.). Encounter with s/m in Hoofden, 20 Feb., 62; escorts *Orion*: arrives Pembroke from Harwich, 24 April, 76; escorting 10th Division from Dublin to Liverpool, April–May, 76; escorts *Colossus* and *Duke of Edinburgh* in Channel, 8–9 May, 76; returns to Harwich, 11 May, 76; escorting Mediterranean convoy from Devonport, May, 80.
- Lion* (battle cruiser). Damaged in Dogger Bank Action, 1; movements after Dogger Bank Action, 1; escorted after Dogger Bank Action, 3; flagship of B.C. Fleet, Feb., 20; leaves Tyne on completion of repairs, 28 March: escort arrangements, 83.
- Liverpool* (l.c.). In 3rd L.C.S., Feb., 20.
- Lizard* (t.b.d.). In 1st T.B.D. Flot.: escort work end of Feb., 36; recalled to Harwich early March, 46.
- Lizzie* (Br. s.s.). Rams U.37 in Channel, 25 March, 68.
- Llewellyn* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; to Bristol Channel to escort Mounted Division, 4 April, 71; protecting paddle-sweepers, 1 June, 110.
- Lockington, Sub-Lieutenant Arthur C., R.N.R.* Commanding armed trawler *Grackle*: encounters and damages U.29, 14 March, 52.
- Lockwood* (Adty. collier). Chased by U.24 and sunk by torpedo off Start, 2 April, 73.
- Lois* (armed tr.). Encounter with U.29 off Scilly Is., 12 March, 51.
- London* (battleship). In 5th B.S., Jan., 4; sails for Mediterranean, 20 March, 69.
- Lookout* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; refits at Chatham, March, 53; arrives at Avonmouth, 17 March, for escort of 29th Division, 53; protecting paddle minesweepers, 1 June, 110.
- Lord Nelson* (battleship). In 5th B.S., Jan., 4; sails for Mediterranean, 14 Feb., 69.
- Louis* (t.b.d.). To Avonmouth for escort work, early March, 46; escorting 29th Division from Avonmouth, March, 53; s/m hunt for U.41 in S.W. approach, 26 May, 81; s/m encounter in operations of 22 April, 88.
- Lowestoft* (l.c.). In 2nd L.C.S., Feb., 20.

- Lowry, Admiral Sir Robert S., K.C.B.* Opinion that buoyed channels might be dangerous, 54; concurs in proposal for observation minefield in Firth of Forth, 54; modifications in Firth of Forth traffic arrangements approved, Feb., 54, 57; report on sinking of *U.12*, March, 63; report on supposed escape of s/ms from Firth of Forth, 15-17 March, 64.
- Loyal* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; to Devonport and Bristol Channel for s/m hunt, Feb., 45; escorting transports, 21 Feb., 45; escorts *Megantic* to Liverpool, 5-6 March, 46; escorting 29th Division from Avonmouth, March, 53; division escorting transport *Mauretania* from Liverpool, 21 May, 80; division proceeds to Pembroke, May, 80; s/m hunt for *U.41* in S.W. approach, 26 May, 81; escort work in S.W. approach, June, 130.
- Lucena* (Br. s.v.). Sunk off S. of Ireland by *U.24*, 27 June, 128.
- Lucerne* (Br. tr.). Sunk in N. Sea by *U.23*, 19 May, 98.
- Lucifer* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; escorts *Orion*: arrives at Pembroke from Harwich, 24 April, 76; escorting 10th Division from Dublin to Liverpool, April-May, 76; escorts *Colossus* and *Duke of Edinburgh* in Channel, 8-9 May, 76; returns to Harwich, 11 May, 76; escorting Mediterranean convoy from Devonport, May, 80; escorts Canadian transport to Plymouth, 15 May, 80; patrolling in Hoofden, end of March, 101; escort work in S.W. approach, June, 130.
- Lurcher* (t.b.d.). In air raid on Cuxhaven, 29 Jan., 3; operations of 17-18 May, 94.
- Lusitania* (Br. s.s.). Sunk off Old Head of Kinsale by *U.20*, 7 May, 80; political results of her destruction, 136.
- Lydiard* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; to Avonmouth for escort work, early March, 46; grounds on Welsh coast and damaged, 4 March, 46; escorting 29th Division from Avonmouth, March, 53; escorting *Cornwall*, bound for Sierra Leone, 23-24 March, 53; division escorts *Orion*: arrives Pembroke from Harwich, 24 April, 76; division escorting 10th Division from Dublin to Liverpool, April-May, 76; division escorts *Colossus* and *Duke of Edinburgh* in Channel, 8-9 May, 76; division returns to Harwich, 11 May, 76; protecting paddle minesweepers, 1 June, 110.
- Lyns* (anti-s/m decoy ship). Ready for service, 19 Feb., commanded by Lieut. C. A. P. Gardiner, R.N.R., 70; operating in S.W. approach, Feb. and March, 58, 70; under R.A., Kingstown, 28 March, 70; operating in S.W. approach, end of May, 81.
- Lysander* (t.b.d.). To Irish Channel for s/m hunt, end of Jan., 6; on escort duty in Irish Channel, Feb., 6; damaged by rough weather, 6; net-laying operation off Ostende, 8-9 April, 102; escort work in S.W. approach, June, 130.
- "*M*" Class Destroyers. Escorting minelayers, Jan.-Feb., 14; in 10th T.B.D. Flot., 16.
- Madeleine* (Fr. armed tr.). Attacks German s/m, 31 March, 73.
- Magnificent* (battleship). To Mediterranean for Dardanelles operations, Feb., 22.
- Maidstone* (depôt ship). Pendant of Capt. (S), Feb., 27.
- Majestic* (battleship). To sail for Mediterranean, 6; sailed from Portland to Mediterranean, 1 Feb., 7, 8.
- Manly* (t.b.d.). Escorting minelayers, Jan.-Feb., 14; patrolling in Hoofden, end of March, 101; escort work in S.W. approach, June, 130.
- Mansfield* (t.b.d.). Escort work in S.W. approach, June, 130; s/m hunt for *U.24* in S.W. approach, 28 June, 130.
- Maori* (t.b.d.). Attacked by seaplanes off Flemish coast, 11 Feb., 24; to Beachy Head, 23 Feb., 35; re sinking of *U.8*, 4 March, 40; sights *U.34* in Channel, 18 March, 68; patrolling off Flemish coast, 6 May, 106; sunk by mine off Wielingen L.V., 7 May, 106.
- Maricopa* (Norw. s.s.). Rescues crew of *Chrysolite*, 19 May, 98; sunk on Dogger Bank minefield, 20 May, 97.

- Marie* (Dan. s.v.). Attacked off Firth of Forth by *U.17*, 10 June, 117.
- Marlborough* (battleship). Sights periscope of *U.29* and torpedo, 18 March, 65.
- Mars* (battleship). Paid off at Belfast, Feb., 22.
- Marseillaise* (Fr. cruiser). Flagship of Adl. Favereau, 4.
- Martaban* (Br. tr.). Sunk in N. Sea by *U.41*, 2 May, 90.
- Martha* (Dan. s.s.). Sunk off Aberdeen by *U.23*, 15 May, 98.
- Martin* (armed tr.). Chased *U.12* from Aberdeen to Stonehaven, 9 March, 63.
- Martin, Captain Thomas*. Master of *Harldale*: sunk in Irish Channel by *U.27*, 13 March, 48; receives letter on vellum, 48.
- Mastiff* (t.b.d.). Patrolling in Hoofden, end of March, 101; s/m hunt in Hoofden, 31 March, 101.
- Matchless* (t.b.d.). Escorting minelayers, Jan.-Feb., 14; escort work in S.W. approach, June, 130.
- Mathy, Commander*. Commanding *L.9*: encounter with *E.5* and *D.4*, 3 May, 107.
- Mauretania* (Br. s.s.). As transport, May: escort arrangements from Liverpool, 80, 81.
- May Island* (Br. tr.). Sights s/m off Firth of Forth, 10 March: *U.12* sunk as result, 63.
- May, Lieutenant*. Commanding *U.C.2*: sunk in Stamford Channel, 2 July, 132.
- Medea* (Dutch s.s.). Sunk in Channel by *U.28*, 25 March, 68.
- Megantic* (Br. s.s.). S O S received from, in S.W. approach, 30 May, 81.
- Menapiër* (Belg. s.s.). Sunk off Elbow Buoy by *U.B.10*, 6 June, 125.
- Mentor* (t.b.d.). Patrolling in Hoofden, end of March, 101.
- Mercury* (Br. tr.). Sunk in N. Sea by *U.41*, 2 May, 90.
- Merrie Islington* (Br. tr.). Sunk in N. Sea by *U.9*, 6 May, 90.
- Meteor* (t.b.d.). Damaged in Dogger Bank Action, 1; S-in-C. of 1st T.B.D. Flot., 16; at Southampton, 18 Feb., 16.
- Meteor* (Ger. minelayer). White Sea minelaying expedition, 30 May-17 June, 99, 115; British s/ms looking for, June, 131.
- Meux, Admiral The Hon. Sir Hedworth, G.C.B., K.C.V.O.* (C-in-C., Portsmouth); re escort and sailing of transports, Feb., 23, 29; detains *Laforey's* Division at Portsmouth, Feb., 23; sends minesweepers to Beachy Head, Feb., 35; opinion re slow transports, Feb., 36; arranges passage of N. Midland Division, Feb., 36; Newhaven torpedo boats under him, 3 March, 36, 43, 56; two A.P. units at Newhaven under him, 68; difficulties re escorting transports, March-April, 72; special dispositions to protect transport route, April, 72, 73; employs *Laforey's* Division, 1-2 April, 71, 72, 73.
- Milne* (t.b.d.). Escorting minelayers, Jan.-Feb., 14; patrolling in Hoofden, end of March, 101; s/m hunt in Hoofden, 31 March, 101; escort work in S.W. approach, June, 130; s/m hunt for *U.24* in S.W. approach, 28 June, 130.
- Milner, Lieutenant, R.N.R.* Commanding minesweeping Flot.: encounters *U.9*, 6 May, 90.
- Minerva* (Norw. s.s.). Sunk in N. Sea by *U.23*, 22 May, 98.
- Minesweeping Divisions (German)*.
1st Minesweeping Division. Screening H.S.F., 18 April, 87.
- Minos* (t.b.d.). Escorting minelayers, Jan.-Feb., 14; s/m hunt in N. Sea, 19 Feb., 62; s/m hunt in Hoofden, 31 March, 101; escort work in S.W. approach, June, 130.
- Minotaur* (cruiser). In 7th C.S.: movements in Dogger Bank Action, 1; flag of 7th C.S., March, 63.
- Mintierne* (Br. collier). Sunk in mouth of Channel by *U.30*, 3 May, 77.
- Miranda* (t.b.d.). Escorting minelayers, Jan.-Feb., 14; S-in-C. of 3rd T.B.D. Flot., 16; s/m hunt in Hoofden, 5 March, 67; escort work in S.W. approach, June, 130.
- Miura* (armed tr.). Patrolling in Hoofden, April, 103; encounter with *A.2* and *A.6* off N. Hinder, 1 May, 105.

Mobile (Adty. collier). Sunk off Butt of Lewis by *U.30*, 28 April, 77.
Mohawk (t.b.d.). Attacked by seaplanes off Flemish coast, 11 Feb., 24; *re* sinking of *U.8*, 4 March, 40.
Moltke (Ger. battle cruiser). In Dogger Bank Action: witnesses from, report *Tiger* sunk, 1; missed by *E.6*, 30 May, 99.
Monarda (Br. drifter). Sunk E.N.E. of Shetlands by *U.38*, 24 June, 122.
Moncreiffe, Lieutenant-Commander John R. G. Commanding *D.4*: bombed by *L.9*, 3 May, 107; torpedoes *Bielefeld*, 22 June, 131; misses destroyer, 23 June, 131; engages seaplane, 28 June, 131.
Moore, Rear-Admiral Sir Archibald H. W., K.C.B., C.V.O. Appointed to command Cruiser Force I after Dogger Bank Action, 2, 20; leaves Portsmouth in *Europa*, 13 Feb., 23.
Moorson (t.b.d.). S/m hunt off Harwich, 14 March, 67; s/m hunt in Hoofden, 31 March, 101; escort work in S.W. approach, June, 130.
Morris (t.b.d.). Escorting minelayers, Jan.-Feb., 14; s/m hunt in N. Sea, 19 Feb., 62; patrolling in Hoofden, end of March, 101; escort work in S.W. approach, June, 130.
Morwenna (Br. collier). Sunk in S.W. approach by *U.41*, 26 May, 81.
Motagua (a.m.c.). Encounter with *U.33* off Hebrides, 14 June, 127.
Moy (t.b.d.). In 9th T.B.D. Flot., March, 66; rams *U.25* off Longstone, 8 June, 116.
Müller, Admiral von. Chief of German Naval Cabinet: *re* naval policy, 134.
München (Ger. l.c.). To Baltic for Libau operations, 93.
Murray (t.b.d.). Escorting minelayers, Jan.-Feb., 14; patrolling in Hoofden, end of March, 101.
Myngs (t.b.d.). Escort work in S.W. approach, June, 130.
Napier, Rear-Admiral Charles L., C.B. S.N.O., Naval Base Gunfleet: report on Thames defences, 21 March, 54.
Napier, Rear-Admiral Trevelyhan D. W., M.V.O. Commanding 3rd L.C.S.: flag in *Falmouth*, Feb., 20.
Naval Transport Officer, Avonmouth. *Re* despatch of R.N. Division, end of Feb., 46.
Naval Transport Officer, Southampton. See under Principal Naval Transport Officer, Southampton.
Nebraskan (U.S.A. s.s.). Torpedoed off S.W. Ireland by *U.41*, 25 May, 81.
Neil Gow (armed tr.). Sights *U.12* off Cruden Bay, 8 March, 63.
Nellie (Br. tr.). Sunk in N. Sea by *U.10*, 1 April, 83.
Nemesis (t.b.d.). Collision with *Nymphe*, March, 65; damaged in collision, 6 May, 92.
Neptune (battleship). Missed by *U.29*, 18 March, 65; s/m alarm off Auskerry, 14 April, 84.
Ness (t.b.d.). In 9th T.B.D. Flot., March, 66.
Net Drifter Flotillas. Formation of, March, 57.
New Zealand (battle cruiser). In 2nd B.C.S., Feb., 20.
Nicholson, Captain Wilmot S. *Re* Hoofden s/m hunt, 31 March, 101; Capt. (D), 10th Flot.: escorting minelayers in the Bight, 8-9 May, 92; at Milford in charge of escort work, June, 130.
Nidaros (Dan. s.s.). Captured in N. Sea by *U.38*, 22 April: brought into List, released and proceeded to Humber, 89.
Nith (t.b.d.). In 9th T.B.D. Flot., March, 66.
Nor (Norw. s.v.). Sunk in N. Sea by *U.10*, 31 March, 83.
Nord (Ger. tr.). Sunk by *E.8*, June, 131.
North Channel Patrol. Under Adl. Larne, end of March, 75; composition of, end of March, 75; two destroyers temporarily detached to Liverpool, 75.
Northlands (Br. s.s.). Sunk S.W. of Beachy Head by *U.32*, 5 April, 73.
Northward Ho! (Br. tr.). Sunk in N. Sea by *U.9*, 3 May, 90.
Nottingham (l.c.). In 2nd L.C.S., 20; sweep in N. Sea, 18-20 June: s/m attack, 20 June, 121.
Nottingham (Br. tr.). Sunk in N. Sea by *U.25*, 7 June, 116.

Nubian (t.b.d.). *Re* sinking of *U.8*, 4 March, 40; encounter with *U.C.11*, 30 May, 126.
Nymphe (t.b.d.). Collision with *Nemesis*, March, 65.
Oakby (Br. s.s.). Sunk off Beachy Head by *U.8*, 23 Feb., 35.
Oceanic (armed tr.). *Re* sinking of *U.14*, 3 June, 114.
Olga (Dan. s.s.). Captured in N. Sea by *U.39*, 10 May: subsequently released, 90.
Oliver, Commander W. O. In charge of A.P. sub-base, Scilly Is., March, 51; sees *U.34* sink *Delta*, 2 June, 127.
Olivine (Br. s.s.). Sunk in Channel by *U.33*, 4 April, 73.
Ontario (armed tr.). Encounter with *U.27* in Fair Is. Channel, 24 May, 79.
Oriana (armed yacht). Tows boats of sunken *Cambank*, 20 Feb., 45.
Oriole (Br. s.s.). Sunk in Channel by *U.20*, 30 Jan., 7.
Orion (battleship). To Devonport for refit: escorted in by *Lydiard's* Division, April, 76.
Oropesa (a.m.c.). Reported attacked by s/m *W.* of Shetlands, 19 April, 75.
Orotava (a.m.c.). Encounter with *U.33* off Hebrides, 15 June, 127.
Orvieto (minelayer). Operations of 17-18 April, 87; sets out on Operation *Q*, 6 May: recalled, 92; lays Amrum Bank minefield, 10 May, 92, 93, 96; transferred from *Scapa* to *Humber*, June, 118.
Oscar (Norw. s.v.). Burned in N. Sea by *U.41*, 3 May, 90; sighted when burning by 4th L.C.S., 91.
Oscar (Norw. s.v.). Sunk in N. Sea by *U.38*, 22 April, 89.
Osceola (Br. s.s.). Rescues crew of *Western Coast*, 24 Feb., 35.
Ost (Ger. tr.). Captured by *S.1*, 24 June: tows her back to England, 131.
Otago (Sw. s.s.). Sunk in N. Sea by *U.19*, 11 June, 115.
Ouse (t.b.d.). In 9th T.B.D. Flot., March, 66.
Owl (t.b.d.). Hunting s/ms in Irish Channel, Feb. 6; grounds at Barrow, 13 Feb.: to Aberdeen for repairs, 16 Feb., 22.
Pakenham, Rear-Admiral William C., C.B., M.V.O. Commanding 3rd C.S.: transferred to 2nd B.C.S., 10 March, 63.
Paramount (armed drifter). Fires at seaplane near Elbow Buoy, 15 March, 33.
Paris (minelayer). Lays Dover minefield, Feb., 14, 118.
Partridge (armed boarding steamer). Attached to Cruiser Force E, 5; encounters *U.29* near Fastnet, 13 March, 52.
Patey, Vice-Admiral Sir George E., K.C.V.O. Commanding 2nd B.C.S.: flag in *Australia*, Feb., 20; temporarily commanding 3rd and 2nd L.C.S., Feb., 20; commanding N. American and W. Indies station: flag in *Leviathan*, 10 March, 63; sails for Bermuda, 11 March, 63.
Patrol (l.c.). In Tyne with Capt. (D), Feb., 16; attached to 9th T.B.D. Flot., March, 66.
Pelham (Br. s.s.). Sunk in S.W. approach by *U.35*, 13 June, 127.
Penelope (l.c.). 16; fails to ram s/m in N. Sea, 19 Feb., 62; *re* attempt at Operation T.W., 20 March, 100; in 5th L.C.S., June, 110; on Zeppelin patrol, 6-7 June, 112.
Penfeld (Fr. s.s.). Sunk by *U.35* in S.W. approach, 3 June, 127.
Penhale (Br. s.s.). Chased by s/m off Anglesea, Feb., 47.
Pentland (Br. tr.). Sunk in N. Sea by *U.25*, 7 June, 116.
Persimmon (Br. f.v.). Sunk in N. Sea by *U.19*, 5 June, 115.
Petrel (Br. f.v.). Sunk in N. Sea by *U.19*, 4 June, 115.
Phaeton (l.c.). Particulars, 20; sweep of Scandinavian routes, 2-4 May, 91; in 4th L.C.S., June, 110.
Phillimore, Captain Valentine E. B. Commanding net base at Falmouth, Jan., 13; to send 25 drifters to Larne, 11 Feb., 17; in charge of A.P. forces, Plymouth area, April, 73; moves headquarters from Plymouth to Falmouth, 73; urges shipping be kept in shore, May, 79; again urges shipping be kept in shore, May, 81; anti-s/m proposals, 7 June, 127; tacit acknowledgement of, in Adty. memo., 26 June, 129.
Phoenix (t.b.d.). Sweep in N. Sea, 18-20 June, 121.

- Pidgeon*, Commander S. A. Commanding net drifters in Milford Area, Feb., 17.
- Piercy*, Lieutenant-Commander Basil H. In *Dreadnought*: sights periscope of U.29, 18 March, 65.
- Pincher* (t.b.d.). In Portsmouth escorting Flot., March, 36.
- Ping Suey* (Br. s.s.). Encounter with U.41 in mouth of Channel, end of May, 81.
- Piscatorial* (Br. drifter). Sunk E.N.E. of Shetlands by U.38, 23 June, 122.
- P.L.25* (Ger. airship). Reconnaissance *re* laying of Dogger Bank minefield, 17 May, 93, 96.
- Plymouth* (Br. tr.). Sunk off Dogger Bank by U.19, 11 June, 115.
- Pohl*, Admiral von. Chief of Admiralstab: appointed C.-in-C., H.S.F., after Dogger Bank Action, 2, 134; Naval policy of, 2; memo. *re* Flanders, 7 Jan., 8; Flanders policy, 8; *re* policy, 9, 134; submits s/m blockade, 9; *re* s/m blockade, 11, 136; reconnaissance of 29 March, 82; *re* operations of 11-14 April, 84; criticism of his operations, April, 86; preparations for minelaying operation, April, 86; laying of Swarte Bank minefield, 18 April, 87; conference of 20 April: policy proposed, 88; operations of 22 April, 88; proposes all new airships be based in Bight, April, 88; *re* operations against Libau, 93; *re* laying of Dogger Bank minefield, 17-18 May, 93; views *re* Flanders base, 103, 135, 110; policy leading to laying of Dogger Bank minefield, 134; obtains freedom of initiative for operations, 30 March, 134.
- Pontypridd* (armed Br. s.s.). Encounter with U.34 in S.W. approach, 3 June, 127.
- Poona* (Br. s.s.). False s/m alarm in Channel: resulting dispositions, 10 May, 80.
- Portsmouth Extended Defence*. On escort work, Feb., 34.
- Premier* (Br. f.v.). Sunk N. of Shetlands by U.22, 20 June, 122, 128.
- President* (Br. s.s.). Sunk S.E. of Lizard by U.24, 10 April, 73.
- Primrose* (Br. drifter). Sunk E.N.E. of Shetlands by U.38, 23 June, 122.
- Prince Edward* (paddle net layer). Fitted as net layer Feb., 54; net laying operation off Ostende, 8 April, 102; proposed operations off Belgian coast, end of April, 104; leaves Devonport for Mediterranean, 8 June, 130.
- Prince George* (battleship). To Mediterranean, Feb., 23.
- Prince of Wales* (battleship). In 5th B.S., Jan., 4; sails for Mediterranean, 20 March, 69.
- Princess Irene* (minelayer). Lays minefield off Ems, 8-9 May, 92; lays deep minefield off Beachy Head, 24 April, 103; blows up at Sheerness, 27 May, 108.
- Princess Margaret* (minelayer). 103; lays minefield off Ems, 8-9 May, 92.
- Princess Royal* (battle cruiser). In support in Cuxhaven air raid, 29 Jan., 3; broad pendant of Comm. Brock in 1st B.C.S., Feb. 20.
- Princess Victoria* (Br. s.s.). Sunk in Liverpool Bay by U.20, 9 March, 47.
- Principal Naval Transport Officer*, Southampton. 23; arrangements for passage of N. Midland Division, Feb., 36.
- Progress* (Br. tr.). Sunk in N. Sea by U.9, 3 May, 90.
- Prondzynski*, Lieutenant von. In seaplane, 203: bombs Dover, 23 Dec., 1914, 67; bombs Sheerness and carries out reconnaissance, 25 Dec., 1914, 67; lost with seaplane 203, 21 Feb., 67.
- Properl*, Captain W. H. Master of s.s. *Laertes*: escapes from U.16 in Hoofden, 10 Feb., 28.
- Ptarmigan* (Br. s.s.). Sunk off N. Hinder, 15 April, 103.
- Queen* (battleship). In 5th B.S., Jan., 4; sails for Mediterranean, 13 March, 69.
- Queen Alexandra* (transport). One of first four packet transports ready, Feb., 23.
- Queen Alexandra* (Br. f.v.). Sunk on Tod Head minefield, 13 June, 117.

- Queen Elizabeth* (battleship). To carry out trials in mouth of Channel, 6.
- Queen Empress* (transport). One of first four packet transports ready, Feb., 23.
- Queen Mary* (battle cruiser). In support in Cuxhaven air raid, 3; in 1st B.C.S., Feb., 20.
- Queen Victoria* (paddle net layer). Fitted as net layer, Feb., 54; net laying operation off Ostende, 8 April, 102; proposed operations off Belgian coast, end of April, 104; leaves Devonport for Mediterranean, 8 June, 130.
- Queen Wilhelmina* (Br. s.s.). Sunk in N. Sea by U.9, 8 May, 90.
- Quentin* (Br. s.s.). Chased by s/m off Maas L.V., 14 March, 67.
- Quiet Waters* (Br. drifter). Sunk E.N.E. of Shetlands by U.38, 23 June, 122.
- Qui Vive* (Br. fishing smack). Sunk off Lowestoft by s/m, 9 June, 125.
- Radcliffe*, Captain Stephen H. Commanding *Australia*, Feb., 20.
- Rattlesnake* (t.b.d.). In Portsmouth escorting Flot., March, 36.
- Rear-Admiral*, Dover Patrol. See under Admiral, Dover Patrol.
- Recruit* (t.b.d.). Sunk near Galloper L.V. by U.B.6, 1 May, 105.
- Reeve* (armed tr.). Encounter with U.17 off Firth of Forth, 10 June, 117.
- Regin* (Norw. collier). Blown up on British minefield near Elbow Buoy, 23 Feb., 30.
- Reliance* (repair ship). Held up in Firth of Forth by s/m report, 15 March, 64.
- Research* (Br. drifter). Sunk E.N.E. of Shetlands by U.38, 23 June, 122.
- Rifleman* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; docked for leaks, Feb., 22; to Scapa, 24 Feb., 22.
- Ringdove* (gunboat). Covering Leith Roads anchorage, 54.
- Rio Parana* (Br. collier). Sunk off Beachy Head by U.8, 24 Feb., 35.
- Rival* (drifter). Attempts to ram supposed s/m in St. George's Channel, 16 March, 53.
- Riviera* (seaplane carrier). Last attempt at Operation T.W., 11 May, 107; stationed at Sheerness, 107.
- Roburn* (Br. drifter). *Re* sinking of U.8, 4 March, 40.
- Rodney* (armed tr.). Encounter with U.24 off S. of Ireland, 27 June, 128.
- Rosenberg-Gruszczynski*, Lieutenant-Commander. Commanding U.30: operations in Irish Channel, Feb., 45; operations in Irish waters and English Channel, April-May, 77.
- Rother* (t.b.d.). In 9th T.B.D. Flot., March, 66; joins Portsmouth Escort Flot., end of March, 72.
- Rowan* (armed boarding steamer). On W. Channel Patrol, Jan., 4; discovers derelict *August Conseil*, 12 March, 49; attached to Cruiser Force G, 73.
- Roxane* (Sw. s.s.). Captured in N. Sea by U.41, 3 May, 90; boarded by *Goshawk*, 3 May: taken into List, 91.
- Roxburgh* (cruiser). In 3rd C.S.: sweep in N. Sea, 18-20 June, 121; s/m attacks on: torpedoed by U.38, 20 June, 121, 122.
- Royalist* (l.c.). Sweep of Scandinavian routes, 2-4 May, 91; in 4th L.C.S., June, 110.
- R.R.S.* (Br. drifter). Reports sighting two s/ms, 28 Jan., 6.
- Rubens* (Ger. s.s.). Breaks blockade and carries ammunition to E. Africa, Feb., 29a.
- Ruby* (t.b.d.). Hunting s/ms in Irish Channel, Feb., 6; docked for leaks, Feb., 22; to Scapa 18 Feb., 22; s/m hunt for U.27 to N.W. of Ireland, May, 79.
- Rücker*, Lieutenant-Commander. Commanding U.34: operations in Channel, March, 68.
- Russell* (battleship). Flag of Adl. Bethell at Sheerness, 19 March, 69; to Rosyth, 8 April, 69.
- Ruth* (Sw. s.s.). Sunk in N. Sea by U.22, April, 75.
- Ryan*, Commander Cyril P. Supervising development of microphone detectors, Feb., 57.
- S.1 (s/m). Operations of 17-20 May, 96; operations in the Bight, end of June, 131; captures German trawler *Ost*, 24 June: towed back, 131.

- S.21 (Ger. t.b.d.). Cut in two by *Hamburg*, 21 April, 88.
Saidieh (Br. s.s.). Sunk off Elbow Buoy by *U.B.6*, 1 June, 125.
St. Andrew (Br. hospital ship). 37.
St. George (cruiser). Flag of A.O.P., Feb., 16.
St. George (Br. tr.). Sunk in N. Sea by *U.41*, 2 May, 90.
St. John, Captain Francis G., M.V.O. Capt. (D), commanding *Undaunted*; in charge of s/m hunt in Irish Channel, end of Jan., 6; re transport of Canadian Division from Avonmouth, Feb., 22; directing s/m hunt in Hoofden, 20 Feb., 62.
St. Lawrence (Br. tr.). Sunk in N. Sea by *U.22*, 75.
St. Louis (Br. tr.). Sunk in N. Sea, 2 May, probably by *U.34*, 90.
Sainte Jehanne (Fr. tr.). Flagship of French trawler patrol, March, 73; engages s/m, 30 March, 73.
Salvador (Dan. s.v.). Sunk in N. Sea by *U.19*, June, 115.
Salvator (armed yacht). Rams *U.6*, 22 June, 119.
Samson, Commander Charles R., D.S.O. Commanding British seaplanes at Dunkirk, 24; raids on Flemish coast, Feb., 24.
Sandfly (t.b.d.). To Portland for escort, end of Jan., 6; movements in Channel, Feb., 23; to Rosyth, 18 Feb., 16.
San Dunstano (Br. s.s.). Chased in Channel by *U.34*, 19 March, 68.
Sarnia (armed boarding steamer). On W. Channel Patrol, Jan., 4; attached to Cruiser Force G: evades torpedo from *U.24*, 11 April, 73.
Saturn (Br. tr.). Sunk in N. Sea by *U.25*, 7 June, 116.
Savage (t.b.d.). In Portsmouth escorting Flot., March, 36.
Savoie (Fr. armed tr.). Attacks German s/m, 28 Feb., 73.
Sceptre (Br. tr.). Sunk in N. Sea by *U.39*, 5 May, 90.
Scheer, Vice-Admiral von. Commanding Ger. Third Battle Squadron, 2.
Schmidt, Lieutenant Walter. Commanding *U.C.11*: lays first s/m minefield off S. Foreland, 30 May, 126.
Schröder, Admiral von. Adl. Commanding Naval Corps in Flanders, 135; views re Flanders base, 103, 135.
Schwarzwald (Ger. fleet auxiliary). Torpedoed by *E.5*, 14 April: reaches Weser, 86.
Schwieger, Lieutenant-Commander. Commanding *U.20*, 7, 47; operations in Irish waters, May: sinks *Lusitania*, 7 May, 78, 136.
Scotia (armed railway steamer). Attached to A.P. Area 15, 5.
Scott (minelaying tr.). Lays Tod Head minefield, 14 June, 118.
Scottish Monarch (Br. s.s.). Sunk off S. of Ireland by *U.24*, 29 June, 128.
Scottish Queen (Br. f.v.). Sunk in N. Sea, 3 May, probably by *U.39*, 90.
Scourge (t.b.d.). In Portsmouth escorting Flot., March, 36.
Scouting Groups (German).
 1st Scouting Group. 82.
 2nd Scouting Group. 82; re laying of Swarte Bank minefield, 18 April, 87.
 4th Scouting Group. Re laying of Swarte Bank minefield, 18 April, 87; to Baltic for operations against Libau, 93.
Seaplane No. 203 (Ger.). Bombs Dover, 23 Dec., 1914, 67; bombs Sheerness: reconnaissance, 25 Dec., 1914, 67; lost, 21 Feb., 67.
Sentinel (l.c.). In 6th L.C.S. in Humber, end of May, 109.
Seven Seas (Br. s.s.). Torpedoed off Beachy Head, 1 April, 73.
Seydlitz (Ger. battle cruiser). Under repair after Dogger Bank Action, 2.
Shackleton (minelaying tr.). Lays Tod Head minefield, 14 June, 118.
Silanian (armed tr.). Patrolling in Hoofden, early April, 101.
Simpson, Rear-Admiral Cortland H. Commanding Peterhead A.P. Area: requests more drifters, 18 Feb., 18, 114.
Skirmisher (l.c.). Standing by in Humber, 16; in 6th L.C.S. in Humber, end of May, 109.
S.L.3 (Ger. airship). Reconnaissance of 13 April, 86; reconnaissance re operations of 22 April, 88; air raid of 4-5 June, 111.
Smyth, Captain Harry H. Commanding *Orvieto*: lays Amrum Bank minefield, 10 May, 92.

- Snaefell* (armed boarding steamer). On W. Channel Patrol, Jan., 4; attached to Cruiser Force G: encounters s/m off Lands End, 3 April, 73; to Mediterranean, June, 130.
Southampton (l.c.). Broad pendant of Comm. Goodenough, in 2nd L.C.S., Feb., 20.
South Point (Br. s.s.). Sunk in S.W. approach by *U.28*, 27 March, 70.
Spennymoor (Br. s.s.). Sunk in mouth of Channel by *U.41*, end of May, 81.
Spickernell, Acting Paymaster Frank T. Proposes scheme for decoy trawler towing submerged s/m, 123.
Spiezel, Lieutenant-Commander von. Commanding *U.32*, June, 120.
Spindler, Commander. Commanding 2nd S/m Half-Flot.: cruise in Channel in *U.34*, March, 68.
Stanley, Lieutenant-Commander Edmond A. B. Commanding *Afridi*: s/m hunt, 2 March, 40.
Stansbury, Captain H. Principal Naval Transport Officer, Southampton, 4.
Star of Bethlehem (Br. drifter). Sunk E.N.E. of Shetlands by *U.38*, 23 June, 122.
Star of the West (Br. f.v.). Sunk in N. Sea by *U.19*, 5 June, 115.
Stettin (Ger. l.c.). To Baltic for Libau operations, 93.
Stileman, Rear-Admiral Harry H. S.N.O., Liverpool: commanding A.P. Area 16, 5, 6; controlling all A.P. vessels in Irish Channel, Dec., 1914, 17; supervising supply for 10th C.S., 17; area of command limited, 18 Feb., 17.
Stoss, Lieutenant-Commander. Commanding *U.8*: sunk in Dover Straits, 4 March, 40.
Stour (t.b.d.). In 9th T.B.D. Flot., March, 66.
Stralsund (Ger. l.c.). Lays Swarte Bank minefield, 18 April, 87.
Strassburg (Ger. l.c.). Lays minefield off Indefatigable Bank, 15 Jan., 86; lays Swarte Bank minefield, 18 April, 87.
Strathbran (Br. f.v.). Sunk in N. Sea by *U.19*, 3 June, 115.
Strathcarron (Br. s.s.). Sunk in S.W. approach by *U.35*, 8 June, 127.
Strathisla (Br. s.s.). Sights *U.12* off Firth of Forth, 10 March, 63.
Strathnairn (Br. collier). Sunk by *U.22*, 15 June, 128.
Straton (Br. trawler). Sunk in N. Sea by *U.9*, 5 May, 90.
Striking Force (Harwich). Drawn on for s/m hunt in Irish Sea and escort, end of Jan., 6; condition of, 18 Feb., 16; departure from War Orders in employment of, 22; anti-minelaying dispositions, Feb., 26; sweeping area between minefields in Hoofden, Feb., 27; division of destroyers to Devonport and Bristol Channel for s/m hunt, Feb., 45; division of destroyers to escort R.N. Division from Avonmouth, end of Feb., 46; escort work in Channel and from Devonport and Liverpool, May, 80; destroyers carry out s/m hunt near Tuskar, May, 80; destroyers recalled to Harwich, 17 May: orders cancelled later, 80; operations of 29 March, 82, 101; s/m hunt off Dutch coast, 30 March, 82, 101; operations of 11-14 April, 84; encounters German airship, 12 April, 84; operations of 17-18 April, 87; operations of 21-23 April, 88; light cruisers of, carrying seaplanes to attack airships, May, 94; operations of 29-30 May, 99; attempt at Operation T.W., 20 March, 100; destroyers from, patrolling off Maas and N. Hinder L.Vs., end of March, 101; ordered to N. Hinder on false alarm, 29 April, 104, 106; destroyers sent out re loss of *Maori*, 7 May, 106; destroyers in s/m hunt in Hoofden, 8 May, 106; attempt at Operation T.W., 3 May, 107; attempt at Operation T.W., 6 May, 107; last attempt at Operation T.W., 11 May, 107; supporting paddle minesweepers, last half of May, 108; formation of 5th L.C.S., June, 110; supporting paddle minesweepers, early June, 110; encounter with aircraft, 2 June, 110; destroyers from, in s/m hunt, 6 June, 125; destroyers from, in s/m hunt, 9 June, 125; escorting transports in S.W. approach, June, 130; Comm. (T)'s memo. of 10 June, re employment of, 130; decision to base part of, on Devonport, 130. See also under Commodore (T).

Sturdee, Vice-Admiral Sir F. C. Doveton, K.C.B., C.V.O., C.M.G. Re sinking of *U.29*, 18 March, 65.

Stuttgart (Ger. l.c.). To Baltic for Libau operations, 93.

Sunray (Br. tr.). Sunk in N. Sea, 2 May, probably by *U.39*, 90.

Susannah (Br. s.v.). Sunk in S.W. approach by *U.35*, 8 June, 127.

Sutlej (cruiser). Flagship of Cruiser Force E, Jan., 5; from Queenstown to Devonport, June, 130; as boys' training ship, June, 130.

Svein Jarl (Norw. s.s.). Sunk in N. Sea by *U.19*, 9 June, 115.

Svorono (Russ. collier). Sunk off S.W. Ireland by *U.30*, 30 April, 77.

Swale (t.b.d.). Joins Portsmouth Escort Flot., end of March, 72.

Syren (t.b.d.). Hunts s/m and rescues crew of *Harpalion*, 24 Feb., 35; re sinking of *U.8*, 4 March, 40.

Talbot (l.c.). In Cruiser Force G on W. Channel Patrol, Jan., 4; escorting transports from Gibraltar, Jan., 4.

Tangistan (Br. s.s.). Loss of, off E. coast, probably by mine, 9 March, 66.

Tara (armed railway steamer). Patrolling N. Channel, 5, 6; four destroyers to assist, Feb., 16; sends 2 destroyers to hunt s/m in Liverpool Bay, 20 Feb., 45; picks up survivors of *Bayano*, 11 March, 48; in N. Channel Patrol, March, 75.

Taranaki (armed tr. anti-s/m decoy). Working as decoy towing submerged s/m, from end of May, 123; re failure with *U.19*, 8 June, 123; re sinking of *U.40*, 23 June, 123.

Tartar (t.b.d.). Forces s/m to dive into mined area, 19 Feb., 30; rescues survivors of s.s. *Emma*, 31 March, 70.

Taylor, Lieutenant-Commander George W. Commanding *Lysander*: net laying operation off Ostende, 8-9 April, 102.

Taylor, Lieutenant Frederick H. Commanding *C.24*: sinks *U.40*, 23 June, 123.

T.B. No. 1. To Newhaven for escort work, Feb., 34; to Beachy Head, for s/m hunt, 23 Feb., 35; reports minefield off Beachy Head, 2 Feb., 35.

T.B. No. 2. To Newhaven for escort work, Feb., 34.

T.B. No. 3. To Newhaven for escort work, Feb., 34.

T.B. No. 5. To Newhaven for escort work, Feb., 34; to Beachy Head for s/m hunt, 23 Feb., 35.

T.B. No. 10. S/m hunt off Thames estuary, 9-10 June, 125; blown up off Sunk L.V., 10 June, 125.

T.B. No. 12. S/m hunt off Thames estuary, 9-10 June, 125; blown up, off Sunk L.V., 10 June, 125.

T.B. No. 14. Arrives Portsmouth, 20 Feb., for escort work, 34; in Portsmouth Escort Flot., March, 36.

T.B. No. 16. Arrives Portsmouth, 20 Feb., for escort work, 34; in Portsmouth Escort Flot., March, 36.

T.B. No. 21. Arrives Portsmouth, 20 Feb., for escort work, 34; in Portsmouth Escort Flot., March, 36.

T.B. No. 22. Arrives Portsmouth, 20 Feb., for escort work, 34; in Portsmouth Escort Flot., March, 36.

Teespool (Br. s.s.). Evades *U.35* in S.W. approach, June, 127.

Temeraire (battleship). Re sinking of *U.29*, 18 March, 65; leaves Devonport after refit, 16 June, 130.

Test (t.b.d.). In 9th T.B.D. Flot., March, 66; picks up German torpedo, 26 March, 66.

Teviot (t.b.d.). Leaves Scapa eastabout, 27 Feb., 16; rescues crew of Dutch s.s. *Medea*, 25 March, 68; joins Portsmouth Escort Flot., end of March, 72.

Thistle Bank (Norw. s.v.). Sunk off S. of Ireland by *U.24*, end of June, 128.

Thomasina (Russ. s.v.). Sunk in S.W. approach by *U.35*, 10 June, 127.

Thordis (Br. s.s.). Rams *U.6*, 28 Feb., 37.

Thorn (t.b.d.). Leaves Scapa for N. Channel Patrol, 16 Feb., 16; in N. Channel Patrol, March, 75; re s/m alarm, 19 April, 75; on escort duty, April, 76.

Tiger (battle cruiser). In Dogger Bank Action: Germans believe to be sunk, 1, 3; in 1st B.C.S., Feb., 20, 26.

Timgad (Fr. t.b.d.). Missed by 2 torpedoes, 30 Jan., 7.

Tirpitz, Admiral of the Fleet von. Re s/m blockade, 11; Secretary of State for German Navy, 134; re naval policy, 134; re Flanders base, 135.

Tokomaru (Br. s.s.). Sunk in Channel by *U.20*, 30 Jan., 7.

Topaze (l.c.). Attached to 5th B.S., Jan., 4; one of remaining ships, Channel Fleet, March, 69; proceeds to Humber, May, 69; in 6th L.C.S. in Humber, end of May, 109; transferred to Mediterranean, 109.

Torwald (Sw. s.s.). Captured in N. Sea by *U.38*, 28 April, 89.

Trafford (Br. s.s.). Sunk in S.W. approach by *U.22*, 16 June, 128.

Transylvania (Br. s.s.). Escorted from Queenstown to Liverpool, Feb., 6.

"Tribal" Class Destroyers. Operations of 17-18 May, 94.

Trogon (armed tr.). Strikes submerged object in Firth of Forth, thought to be s/m, 17 March, 64.

Trudvang (Norw. s.s.). Sunk in S.W. approach by *U.35*, 7 June, 127.

Truma (Norw. s.s.). Sunk in N. Sea by *U.38*, 23 June, 122.

Truro (Br. s.s.). Sunk in N. Sea by *U.39*, 6 May, 90.

Tullochmoor (Br. s.s.). Sunk in mouth of Channel by *U.41*, end of May, 81.

Tunisian (Br. tr.). Sunk in N. Sea by *U.25*, 9 June, 116.

Tunisiana (Br. s.s.). Sunk off Lowestoft by s/m, 23 June, 126.

Tupper, Rear-Admiral Reginald G. O., C.V.O. Appointed S.N.O. Area 1, 7 Jan., 54.

Turnwell (Br. s.s.). Attacked in S.W. approach by *U.22*, 16 June, 128.

Tyrwhitt, Commodore Reginald Y., C.B. See under Commodore (T).

U.1 (Ger. s/m). Not ready for service, Jan., 21.

U.2 (Ger. s/m). Not ready for service, Jan., 21.

U.3 (Ger. s/m). Attached to s/m school, Jan., 21.

U.4 (Ger. s/m). Attached to s/m school, Jan., 21.

U.6 (Ger. s/m). Cruise in Channel, end of Feb.; rammed by *Thordis*, 28 Feb., 37; returns to Bight, early March, 67; operations in N. Sea, 11-18 April, 84; operations in N. Sea, 14-22 June, 117, 119, 121.

U.7 (Ger. s/m). *U.30* mistaken for, 30 April, 77.

U.8 (Ger. s/m). W/T intercept, 12 Feb., re departure following day, 27; at Zeebrugge, 14 Feb., 27; operation orders, 17 and 20 Feb., 62; cruise in Channel, Feb.; sinks five ships off Beachy Head, 23-24 Feb., 35, 62; leaves Ostende, 4 March, 40; sunk in Dover Straits by Dover Patrol, 4 March, 40; treatment of crew of, 40.

U.9 (Ger. s/m). Reconnaissance re break through of *Rubens*, Feb., 29a; operations in N. Sea, early May, 90, 94.

U.10 (Ger. s/m). Operations in N. Sea, 30 March-8 April, 83; intelligence re Lindesnaes-Farn Is. route, April, 89; operations in N. Sea, 24 April-1 May, 89.

U.12 (Ger. s/m). Prolonged chase of: final destruction by *Ariel*, 10 March, 63; prisoners from, report German s/ms being fitted with net cutters, 54.

U.13 (Ger. s/m). Loss of, 21.

U.14 (Ger. s/m). Arrives at Zeebrugge, early Feb., 24; damaged by aircraft, 1 Feb.; returns to Bight, 24, 114; W/T intercept re damage, 3 Feb., 27; operations in N. Sea, 31 May-3 June, 114, 117; sunk by armed trawler *Hawk*, 3 June, 114.

U.15 (Ger. s/m). Loss of, 21.

U.16 (Ger. s/m). W/T report, 9 Feb., re proceeding for N. of France, 27; chases s.s. *Laertes* in Hoofden, 10 Feb., 28; operations in Channel, Feb., 29, 30; sights Ruytingen minefield, 62.

U.17 (Ger. s/m). Reconnaissance to line Tyne-Skagerrack, 24-27 March, 82; operations in N. Sea, 8-22 June, 117, 118, 121.

- U.18 (Ger. s/m). Loss of, 21.
- U.19 (Ger. s/m). Escorts *Meteor* outward bound, end of May, 99; operations in N. Sea, 29 May-13 June, 115, 122; attacked by C.27, 8 June, 123.
- U.20 (Ger. s/m). Operations in English Channel, 7, 10; W/T report *re* cruise, 7 Feb., 27; proceeds southabout from Ems to Irish Sea, 25 Feb., 47, 62; passage through Hoofden to Channel, end of Feb., 62; operations in Irish and Bristol Channels, March, 47, 50; returns to Ostende, 14 March, 67; to operate in Irish Sea, May, 77; operations in Irish waters, May, 78; sinks *Lusitania*, 7 May, 78.
- U.21 (Ger. s/m). Off Ostende, 26 Jan., 4; off Barrow and Liverpool, 29 and 30 Jan., 6; cruise from 23 Jan., 6; W/T report *re* cruise, 8 Feb., 27.
- U.22 (Ger. s/m). Proceeds northabout to western station, April, 75; operations and premature return, April, 75, 77; *re Oropesa*, 19 April, 75; operations in Irish waters and returning, June, 122, 128; s/m hunt for, returning, 20 June; operations in Irish Channel and S.W. approach, June, 128.
- U.23 (Ger. s/m). Attached to s/m school, Jan., 21; leaves Bight, 9 March, 67; operations off E. coast, March, 66; operations in N. Sea, 14-25 May, 98.
- U.24 (Ger. s/m). Proceeds to Flanders end of March: encounters Harwich destroyers off Maas, 30 March, 101; operations in Channel: sinks French vessel off Start Point, 11 April, 71; operations in English and Bristol Channels, April, 73; on way to western approaches, 22 June, 122; operations in S.W. approach, June, 128, 130.
- U.25 (Ger. s/m). Attached to s/m school, Jan., 21; operations in N. Sea, 6-10 June: raid on Dogger Bank Fisheries, 116.
- U.26 (Ger. s/m). Attached to s/m school, Jan., 21.
- U.27 (Ger. s/m). Proceeds from Ems to Irish Sea, 25 Feb., 47, 59, 61; operations in Irish Channel, March, 48; return to Bight northabout, March, 66; to operate in Bristol Channel, May, 77; operations in S.W. approach, May, 79.
- U.28 (Ger. s/m). Thought to be proceeding to Channel, 11 Feb., 27; leaves Bight, 16 March: operations in Hoofden, March, 67; sinks s.s. *Lebuwarden*, 17 March, 67; operations in Channel, March, 68; operations in S.W. approach, end of March, 70; return journey to Bight, March-April, 70; reports minefield off Ostende, 6 April, 74; abortive operations in N. Sea, May, 93, 101.
- U.29 (Ger. s/m). Movements in the Hoofden, 27 Jan.-3 Feb., 7; leaves Bight for Irish waters, 4 March, 67; operations in mouth of English Channel, March, 49; operations off Scilly Is., March, 51; avoids decoy *Antwerp*, 12 March, 51, 70; operations off W. coast of Ireland, March, 52; attacks G.F.: rammed and sunk by *Dreadnought*, 18 March, 65, 82; erroneous German rumours *re* loss of, 65.
- U.30 (Ger. s/m). Ordered to Channel, 11 Feb., 27; consequent anti-s/m dispositions, 27; operations in Irish Channel, Feb., 45; circumnavigates Great Britain, Feb., 45; return journey, end of Feb., 59; operations in Irish waters and English Channel, April-May, 77.
- U.31 (Ger. s/m). Attached to s/m school, Jan., 21.
- U.32 (Ger. s/m). Most recently commissioned s/m, Jan., 21; operations in Channel, April, 73; returns round Ireland and Scotland, April, 73; reports having dragged net in Dover Straits, 74, 101; operations in N. Sea, 11-24 June, 117, 120, 121.
- U.33 (Ger. s/m). Completes trials 12 Jan.: attached to H.S.F., 21; operations in Channel, March-April, 73; fouls *Hyacinth's* net in Dover Straits, 6 April, 74; reports *re* danger of passage of Dover Straits, 74; possibly rammed by *Brussels*, March, 101; operations off Hebrides, June, 127.

- U.34 (Ger. s/m). Completed before end of Jan.: details of, 21; completes trials on 12 Jan.: attached to H.S.F., 21; cruise in N. Sea, Feb.: fouls trawl wire of *Alexander Hastie*, 23 Feb., 60, 61; leaves Bight, 13 March: operations in Channel, March, 67; operations off Beachy Head, 18-25 March, 68; operations in S.W. approach, June, 127.
- U.35 (Ger. s/m). Completes trials 12 Jan.: attached to H.S.F., 21; W/T intercept *re* departure, 1 Feb., 27; operations in Channel, March, 39, 41, 67, 73; abortive cruise and breakdown, 29 April-1 May, 79; operations in S.W. approach, June, 127, 128.
- U.36 (Ger. s/m). 73; standing by for defence of Bight, April, 90; operations in N. Sea, 29 April-10 May, 90; meets British force from Rosyth, 3 May, 91.
- U.37 (Ger. s/m). Leaves Bight for Channel, 20 March, 68; operations in Channel, March: rammed by *Lizzie*, 25 March, 68; loss of, 68; German uneasiness since loss of, 74.
- U.38 (Ger. s/m). Reconnaissance off Swarte Bank, 8 April, 86; operations in N. Sea, 20 April-4 May, 89; operations in N. Sea, 18 June-1 July, 117, 120, 121, 122; misses *Birmingham*, 19 June, 121; torpedoes *Roxburgh*, 20 June, 122; attack on herring drifter fleet, 16-24 June: fifteen sunk, 122.
- U.39 (Ger. s/m). Standing by for defence of Bight, April, 90; operations in N. Sea, 29 April-11 May, 90; special wireless experiments, April-May, 90; strategic importance of these experiments, 90; sights minelayer *Orvietto* returning, 11 May, 90, 92.
- U.40 (Ger. s/m). Operations in N. Sea, 18-23 June, 117, 123; sunk by C.24, 23 June, 123.
- U.41 (Ger. s/m). Standing by for defence of Bight, April, 90; operations in N. Sea, 29 April-3 May, 90, 91; operations in mouth of Channel, end of May, 81.
- U.B.2 (Ger. s/m). Attempts passage of Dover Straits, end of June, 124; operations in Hoofden, June, 125.
- U.B.4 (Ger. s/m). Carries out first cruise of a U.B. boat: sinks *Harpalyce*, 10 April, 103.
- U.B.5 (Ger. s/m). Possibly operating in Hoofden, 14 April, 103.
- U.B.6 (Ger. s/m). Sinks *Recruit* near Galloper L.V., 1 May, 105; attempts passage of Dover Straits, 16 May, 124; passes Dover, 21 June, 124; attempts passage of Dover Straits, end of June, 124; operations in Hoofden, June, 125.
- U.B.10 (Ger. s/m). First U.B. boat completed, 27 March, 103; possibly operating in Hoofden, April, 103; attempts passage of Dover Straits, end of June, 124; operations in Hoofden, June, 125.
- U.B.12 (Ger. s/m). Attempts attack on Dover Straits, 13 May, 124.
- U.B.13 (Ger. s/m). Operations in Hoofden, June, 126.
- U.B.16 (Ger. s/m). Operations in Hoofden, June, 125, 126.
- U.C.1 (Ger. minelaying s/m). Arrives in Flanders, 25 June, 126; lays minefield off Kentish Knock, 30 June, 126.
- U.C.2 (Ger. minelaying s/m). Arrives in Flanders, 25 June, 126; leaves Flanders on her first minelaying expedition, 29 June, 132; rammed by *Cottingham* and subsequently blows up, 2 July, 132; wreck found by divers in Stanford Channel, 132.
- U.C.3 (Ger. minelaying s/m). Arrives in Flanders, 30 June, 126.
- U.C.11 (Ger. minelaying s/m). First U.C. boat to arrive in Flanders, 126; caught in net and encounters *Nubian*: lays first s/m minefield off S. Foreland, 30 May, 126; lays minefield off Sunk L.V., 8-9 June, 126.
- Uffa (Br. drifter). Sunk E.N.E. of Shetlands by U.38, 23 June, 122.
- Ugiebrae (Br. drifter). Sunk E.N.E. of Shetlands by U.38, 23 June, 122.
- Ulysses (armed tr.). Encounter with U.29 off Scilly Is.: picks up boats of *Indian City* and *Headlands*, 12 March, 51.

- Undaunted* (l.c.). Sweep with 3rd T.B.D. Flot. in N. Sea and Hoofden after Dogger Bank action, 3; hunting s/ms in Irish Channel, early Feb., 6; passage down Channel, 7; Capt. (D), 3rd Flot., Feb., 16; re transport of Canadian Division from Avonmouth, Feb., 22; returns to Harwich, 15 Feb., 23; re attempt at Operation T.W., 20 March, 100; re attempt at Operation T.W., 23 March: collision with *Landrail*, 90; protecting paddle sweepers, 23 May, 108; protecting paddle sweepers, early June, 110.
- Ure* (t.b.d.). Left Scapa eastabout, 27 Feb., 16; joined Dover Patrol, 2 March, 39; re sinking of *U.8*, 4 March: attempts to tow sinking s/m 40; encounter with *U.34* off Beachy Head, 21 March, 68.
- V.2* (Ger. t.b.). Drops depth-charges, 15 April, 86.
- V.25* (Ger. t.b.). Lost on or about 12 Feb.: probably mined, 29a.
- V.150* (Ger. t.b.). Sunk in collision with *V.157*, 17 May, 93.
- V.157* (Ger. t.b.). Collision with *V.150*, 17 May.
- Valentiner*, Lieutenant-Commander Max. Commanding *U.38*, June, 120.
- Vanduaara* (armed yacht). Engages *U.21*, 1 Feb., 6.
- Velocity* (Br. tr.). Sunk in N. Sea by *U.25*, 7 June, 116.
- Venerable* (battleship). Off Belgian coast, 10-13 March, 42; at Dunkirk, end of April: proposed operations off Belgian coast, 104; re false alarm, 29 April, 104; firing off Westende, 10 May, 106; sails for Mediterranean, May, 80.
- Vengeance* (battleship). In 5th B.S.: in dockyard hands, end of Jan., 4.
- Venus* (l.c.). In Cruiser Force E, Jan., 5; leaves Queenstown for Mediterranean, 19 June, 130.
- Venus* (Norw. s.s.). Cargo jettisoned off Peterhead by *U.24*, 21 June, 128.
- Viceroy* (Br. drifter). Sunk E.N.E. of Shetlands by *U.38*, 23 June, 122.
- Victoria* (anti-s/m decoy ship). 58.
- Victoria* (Br. f.v.). Sunk in S.W. approach by *U.34*, 1 June, 127.
- Vienna* (anti-s/m decoy ship). Fitted as decoy, 27 Jan., 58; early operations on Harwich-Rotterdam route, 58; name changed to *Antwerp*: sent to Pembroke, 58, 78. See also under *Antwerp*.
- Vigilant* (t.b.d.). Reports supposed periscope in Firth of Forth, 15 March, 64.
- Vignaux*, Captain Merveilleux du. Organises and commands French trawler patrol, Feb., 73.
- Viking* (t.b.d.). Operations against supposed s/m, 20 Feb., 30; re sinking of *U.8*, 4 March, 40; sights indications of supposed s/m, 10 March, 40.
- Ville de Lille* (Fr. collier). Sunk in Channel by bombs by *U.16*, 16 Feb., 29.
- Villiers*, Captain Edward C. Commanding Nore A.P.: scheme for s/m hunting, June, 126.
- Vine* (Br. drifter). Sunk E.N.E. of Shetlands by *U.38*, 24 June, 122.
- Vosges* (Br. s.s.). Chased and sunk in S.W. approach by *U.28*, 27 March, 70.
- Vulcan* (depôt ship). 54.
- Vulcan* (tug). To the Loire for transport of Canadian Division, Feb., 22.
- Vulture* (t.b.d.). Rescues survivors of *Lady Salisbury*: s/m hunt, 9-10 June, 125; re loss of T.B.s Nos. 10 and 12, 10 June, 125.
- Vyvyan*, Captain Arthur V. Commanding *Cordelia*, Feb., 20.
- Waago* (Br. tr.). Sunk off Dogger Bank by *U.19*, 11 June, 115.
- Waistell*, Captain Arthur K. Capt. (S), Feb.: pendant in *Maidstone*, 27; See also under Captain (S).
- Walther*, Lieutenant-Commander Hans. Commanding *U17*, 82, 117.
- Ward*, Commander Bernard J. H. E.D.O., Inchkeith: re supposed escape of s/ms from Firth of Forth, 15-17 March, 64.
- Ward*, Commander George A. C. Commanding net drifters at Larne, Feb., 17.
- Warneford*, Flight Sub-Lieutenant. Destroys airship *L.Z.37*, 6 June, 112.
- Watson*, Commander Cecil F.L. S.N.O., Aultbea, 54.
- Waveney* (t.b.d.). In 9th T.B.D. Flot., March, 66.
- Wayfarer* (transport). Accident to, 11 April: towed into Queenstown, 71.

- Weddigen*, Commander Otto. Commanding *U.29*, 51; reported conversation of, 51.
- Wegener*, Lieutenant-Commander. Commanding *U.27*: operations in S.W. approach, May, 79.
- Welbeck* (minelaying tr.). Lays Tod Head minefield, 14 June, 118.
- Welfare* (Br. fishing smack). Sunk off Lowestoft by s/m, 9 June, 125.
- Wemyss*, Rear-Admiral Rosslyn F., C.M.G., M.V.O. Commanding W. Channel Patrol, Jan., 4; orders to, in view of s/m danger, Feb., 7.
- Western Coast* (Br. s.s.). Sunk off Beachy Head by *U.8*, 24 Feb., 35.
- White*, Flight Commander. Falls in West Deep, 11 Feb., 25.
- Wilson*, Admiral of the Fleet Sir Arthur Knyvet, V.C., G.C.B., O.M., G.C.V.O. Doubts benefit of more defensive minefields, Jan., 14.
- Wintonia* (armed yacht). Picks up survivors of *Vosges*, 27 March, 70.
- Wintour*, Captain Charles J. Commanding *Caroline*, Feb., 20.
- Woodnut* (armed boarding steamer). Attached to Cruiser Force E, 5.
- Woolwich* (depôt ship). From Harwich to Rosyth, 26.
- Wrexham* (Great Eastern Railway packet). Chased by s/m off Maas L.V., 2 March, 67.
- Yarmouth* (l.c.). In 3rd L.C.S., Feb., 20.
- Yokohama* (armed tr.). Encounter with *U.22* off Hebrides, 10 June, 128.
- York* (Ger. cruiser). Capsizes after striking mine in Jade Bay, 2.
- Zenker*, Captain. Chief of Staff to von Pohl; his appreciation of situation, Jan., 9.
- Zulu* (t.b.d.). Bombed by aircraft off mouth of Thames, 21 Feb., 33.

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