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# NAVAL STAFF MONOGRAPHS (HISTORICAL).

VOLUME XVII.

## HOME WATERS—Part VII.

From June 1916 to November 1916.

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October 1927.

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## ABBREVIATIONS.

H.F. = Home Fleet. H.S. = Historical Section. H.S.A. = Historical Section, Series A. I.D. = Intelligence Division. (l) = Deck Log. M. = M. Branch Paper. (s) = Signal Log. (w) = Wireless Log.

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### Introduction.

This volume deals with the last half of the year 1916, when the war at sea was beginning to assume its final aspect. On the British side the main question in Home Waters is the transfer of the Grand Fleet base from Scapa to the Forth, which has first to be made secure against submarine attack.

19 August, 1916, was the last big excursion made by the German battle fleet for many a day. It is a red letter day, marking the beginning of a time when the menace of the mine and submarine imposed definite limitations on the movements of the battle fleet. It is the last expression of the first half of the war.

The German submarine campaign, which had been quiescent in Home Waters since May, 1916, breaks out again in September, restricted by conditions of visit and search.

In Germany the protracted struggle of the Chancellor against unrestricted submarine warfare was defeated in October, when Hindenberg became a convert to its necessity. The Chancellor took refuge in proposals for peace and four fateful months slipped by. These months were all important. The submarine campaign, renewed in its modified form, acted like a vaccine. It was severe enough to awaken great anxiety and to set on foot in December a great effort to counter it. This effort matured just in time to meet the acute attack of unrestricted warfare, which fell with redoubled force in the ensuing year.

### Note on Sources.

The sources are much the same as for the previous volume. The Admiralty Telegrams (Home Waters Series) for this period are in H.S. 239-312. Special Intelligence Telegrams, based on enemy intercepts, are in H.S. 451. The Grand Fleet Narrative (H.S. 431), Commodore (T)'s Diary (H.S. 246), Commodore (S)'s Diary (H.S.A. 272), give the day-to-day movements of their particular forces. Important questions of strategy are to be found in H.S.A. 141 (Conferences) and H.S.A. 100. Another important series is Grand Fleet Orders and Memoranda (H.S.A. 211) and Grand Fleet Battle Orders (H.S. 289) for the formations of the fleet on August 19. The Grand Fleet code in which positions were made on August 19 will be found in H.S. 342. All these have been collected and arranged in an invaluable series by the late Mr. Henry G. A. Leveson. The signals made on August 19, 1916, in Appendix H, are from the signal logs of ships kept at Deptford.

## HOME WATERS, PART VII.

### CHAPTER I.

#### POST JUTLAND.

1. **Technical Committees.**—The bulk of the Grand Fleet had returned to port by June 2, and at 9.45 p.m. on that day Admiral Jellicoe was able to report the fleet ready for sea at four hours' notice. The first announcement written by the First Lord of the Admiralty and issued to the Press on June 2 was brief and coldly accurate. It spoke of "heavy losses" in the Battle Cruiser Fleet and announced them. Its candour gave at first a severe shock to public confidence and aroused in some circles a feeling of surprise and indignation. The German account, appearing in the continental papers 24 hours before the first official telegram from London, produced an unfortunate impression on the neutral mind. It said nothing of the loss of the *Lützow*, *Rostock* and *Elbing*, or of the terrible damage to the *Seydlitz* and *Derfflinger*, and the Admiralty communiqué seemed at first to confirm the wild statements of a stupendous Germany victory. But the mist of uncertainty cleared away, and it was quickly apparent that whatever the Germans might say the battle had not altered the general situation at sea. A whole series of enquiries were at once set on foot in the Grand Fleet to consider the various technical aspects of the battle and to remedy any deficiencies which it had revealed. A number of committees were formed for this work, of which the following were the principal:—

#### Committee on Protection—

(Battleships)	..	Rear Admiral A. C. Leveson.
(Cruisers)	..	Captain John Dumaresq.
Torpedo Committee	..	Rear Admiral E. F. Gaunt.
Wireless Committee	..	Captain G. H. Borrett.
Anti-Flame and Gas	..	Rear Admiral Hugh Evan Thomas.
Gunnery	..	Captain Frederick Dreyer.
Signal	..	Captain Fred. L. Field.
Searchlight	..	Captain Fred L. Field.
Engineering	..	Engr. Capt. A. R. Emdin.

It is not possible to do more than give a brief summary of these enquiries.<sup>1</sup> They are detailed and involved. But, though many of their recommendations have been subsequently embodied in later ships and have passed into the current of everyday thought, they still repay perusal, for they were drafted in the light of battle experience still glowing in the fleet and in reading them one can at least appreciate the enormous ramifications of work involved.

<sup>1</sup> They will be found in H.S.A. 229, 230, 231.

The dark cloud that rose from the *Queen Mary* hung like a shadow over the fleet, and the question of cardinal importance was the protection of the vitals of ships from plunging fire. Two committees sat on this subject, one for cruisers and light cruisers,<sup>1</sup> under Captain Dumaresq, and one for Battleships under Admiral Leveson. They began immediately to investigate—

- A. The Protection necessary to ensure vitals—magazines, engine-rooms and conning tower against shell penetration.
- B. The adequacy of magazine arrangements against flash and flame from bursting shell and internal explosion.
- C. The prevention of ignition of a train of cordite charges between guns and magazines.

A committee was formed, too, at the Admiralty to analyse gunnery records and all ships were ordered to send to it their Dreyer plotting charts and any other range or bearing records. These were analysed and eight months later the Admiralty informed the Commander-in-Chief that the records were not sufficient to enable an opinion of any value to be formed as to the accuracy of the fire.<sup>2</sup>

Other important questions figuring prominently in these reports were the instantaneity of the German recognition signals, the use of searchlights at night, the use of smoke, and the use of star shell.

The Gunnery Committee<sup>3</sup> put forward a number of suggestions, chiefly on the subject of more rapid methods of ranging. The Torpedo Committee recommended better methods of controlling searchlights, and suggested a torpedo with a speed of 25 knots at 15,000 yards range. Important recommendations, too, came from the Anti-Flame and Gas Committee for<sup>4</sup> the provision of gloves and helmets and fearnought overalls for fire parties, and stress was also laid on certain simpler requirements, such as a sufficiency of candle lanterns and wooden plugs for damaged fire mains.

A point on which wide unanimity of opinion prevailed was the necessity of improvement in the searchlight defence. It was decided to fit seven projectors in capital ships, but a host of minor difficulties cropped up in this sphere, chiefly in the way of finding suitable positions in the different types of ships.<sup>5</sup> It was nearly a year before prints of the arrangement of platforms for the 36-in. projectors were approved and the work of the Committee extended over many months.

<sup>1</sup> For names of members see H.S.A. 129.

<sup>2</sup> C.-in-C. 7.9.12, Adty. 1.2.17 in H.S.A. 229.

<sup>3</sup> Battle Fleet (Capt. Frederick Dreyer) and Battle Cruisers (Capt. A. E. Chatfield).

<sup>4</sup> Rear-Admiral Hugh Evan Thomas (President).

<sup>5</sup> For much information on the Searchlight Committee see H.S.A. 231. Capt. Frederick Field (President).

The Signal Committee put forward suggestions for a standard system of internal communication intended to overcome the difficulties arising from the dispersion of signal, wireless, decoding, cipher and intelligence offices in different parts of the ship. They urged the necessity of the coding office being adjacent to the wireless office, and presented a detailed plan for the arrangement of offices, together with a system for the distribution of signals based on the collective experience of the Grand Fleet<sup>1</sup> during the war.

One department which could be viewed with distinct satisfaction was that of engineering. Generally speaking, the propelling machinery had run very well indeed, though the heavy vibration set up by salvo firing and shell hits emphasised the necessity of greater rigidity in the flanges of joints.<sup>2</sup>

These investigations covered many subjects of varying degrees of complexity, and from them sprang the series of improvements and reforms which may be summarised in the single term of "Post Jutland."

**2. Armour Protection.**—The question that weighed most heavily in the Fleet was that of armour protection. The Commander-in-Chief laid special stress on this point in his despatch<sup>3</sup> and expressed a very definite opinion on it. "The facts which contributed to British losses were, first, the indifferent armour protection of our cruisers, particularly as regards turret armour and deck plating, and second, the disadvantages under which our vessels laboured with regard to light; of this there was no question."

At first the destruction of the battle cruisers had been attributed<sup>4</sup> to open magazine doors, and a reversion to the original system of handing room supply scuttles was recommended as a matter of urgent necessity, but in the course of investigation a strong opinion developed that the armour protection to magazines was insufficient. Admiral Leveson's Committee decided that the existing decks in ships of the *Orion* and later classes<sup>5</sup> did not give sufficient protection to the crown of the magazine, and recommended an increase in this respect. It found that danger of flash existed and recommended the provision of airlocks in the magazine doors, metal flash screens in the trunks, and fearnought scuttles at the 6-in. hoist supplies. The Cruiser Committee on Protection offered very similar recommendations. In the case

<sup>1</sup> H.S.A. 230.

<sup>2</sup> Report by Engr. Capt. A. R. Emdin, 5th B.S. in H.S.A. 230. In the case of the *Warspite*, about 6 p.m. the steering engine had "slowed up," due to the thrust shaft warming, which had led to an urgent order for increased helm and undue force on the wheel, resulting in a jamb.

<sup>3</sup> H.S. 301/40, C.-in-C. to Admiralty. June 18 1916, 1396 H.F. 0022, par. 6, in M.05697. This is the first despatch sent in by C.-in-C.

<sup>4</sup> V.A., B.C.F. to C.-in-C., June 3, in H.S.A. 229.

<sup>5</sup> Upper deck 1½ in., main deck ½, middle deck 1-in., First Report, *Orion*, June 6, in H.S.A. 229.

of armoured cruisers they recommended reinforcing the protective deck with 1 in. of steel over the foremost and after magazines (30 tons), and generally the provision of handing room with scuttles to the magazines, of flash doors to the bottom of hoist scuttles and of fearnought screens in the passages.

Unfortunately the original design of ships placed a severe limitation on what could be done. Each class of ship had to receive separate and detailed consideration and recommendations had generally to be confined to the addition of 1-in. plating to the crown of the magazines or round the glacis of the turrets. The principal alterations recommended in the *Iron Duke* included

- (a) An increase in the thickness of the middle deck over the magazines from 1 in. to 2 in. (weight 39 tons).
- (b) Increase in thickness of glacis plates within the citadel from 1½ in. to 3½ in. (estimated weight 15 tons).
- (c) Fitting an airlock arrangement in 13.5 magazine doors.
- (d) Fitting thin metal flash screens in 6-in. supply hoist at bottom, and fearnought scuttles at the supply from 6-in. magazine to shell room.

These recommendations involved additional weight<sup>1</sup> and a Weight Saving Committee took its place beside the others.<sup>2</sup>

**3. Opinion at Admiralty.**—These considerations reacted on the ships building. The *Repulse* and *Renown*, laid down early in 1915,<sup>3</sup> just after the Battle of the Falklands and under the influence of its special requirements, were approaching completion.<sup>4</sup> It was decided to increase the protection on their main decks over the magazines to a total of 2 in., and a few months later the Commander-in-Chief recommended further deck protection amounting to an increase in weight of about 500 tons, the fitting of which was carried out at Rosyth. On this question of protection there was a distinct difference of opinion between the Fleet and the Chief Constructor. The fleet had seen three battle cruisers blown into the air, and attributed the disaster partly to lack of armour protection. The Commander-in-Chief regarded this as a general defect in our ships<sup>5</sup> and Admiral Beatty asked for a searching enquiry into the matter.

<sup>1</sup> To add 1-in. plating to the protective deck over the magazines in the case of the *King George V*, *Orion*, *Colossus* and *St. Vincent* meant a weight of 50 tons.

<sup>2</sup> The *Lion* and *Princess Royal* landed their torpedo nets and fittings, amounting to 80 tons. Principal weight saving recommendations were in the direction of feed water (150 tons), fresh water 30 tons, turbine lighting gear, oil fuel, see Reports H.S.A. 230.

<sup>3</sup> On January 25th, Lord Fisher's birthday.

<sup>4</sup> *Repulse* completed August 1916, *Renown* September 1916, see Records of Warship Construction during the War, 1914-1918, D.N.C. Department, 1919.

<sup>5</sup> "It must always be remembered that our battleships compare very unfavourably with the German ships in regard to protection," C.-in-C. to Admiralty, 26.4.1916.

In July<sup>1</sup> he wrote, "Since the recent Battle of Jutland it has been very strongly brought home to me that I can recall no single instance of a German warship blowing up, as unhappily occurred in the case of *Queen Mary*, *Invincible*, *Indefatigable* and *Defence*." He instanced the *Blücher* on January 24 1915, which was repeatedly hit by heavy shell; the *Wiesbaden* on May 31 1916, which passed the whole length of the battle line under fire; the *Köln*,<sup>2</sup> which had lain under the concentrated fire of five battle cruisers at about 6,000 yards range, and which had sunk without a trace of any explosion. He had seen, both on January 24 1915, and on May 31 1916, high columns of flame rising from German ships which could only have come from magazine fires, but in no case had he seen even the semblance of an explosion. On January 24 a turret in the *Seydlitz* was seen surrounded by sheets of flame as high as her masthead, though the *Queen Mary* and *Indefatigable*, up to the moment of their being struck by the fatal salvos, had shown no signs of distress. These considerations led to the conclusion that "either our methods of ship construction are seriously at fault or that the nature of the ammunition we use is not sufficiently stable to ensure safety." He urged that it should be accepted that a radical fault did exist, and suggested that a Committee of the most competent experts should be appointed to investigate the whole problem. This question raised a number of important issues.

In some departments of the Admiralty there was a distinct tendency to attribute the explosion to exposure of cordite and to a system of supply involving magazine doors open, lids off cases, and cages and waiting positions loaded. They were evidently inclined to think that the weakness lay, not in the ship nor in the ammunition, but in the ordinary precautions for safety having been relaxed in order to attain a rapid rate of fire. It was in this sense at least that the Admiralty in their reply to Admiral Beatty's letter said they were forced to the conclusion that in some of the ships engaged the precautions essential to the safety of cordite cartridges were, to a certain extent, subordinated to the great desire necessarily felt to attain a rapid rate of fire, and that the stringent instructions and measures lately instituted would sensibly diminish the risk of explosion.<sup>3</sup> The Vice-Admiral, B.C.F., however, pointed out in reply that there was no evidence that in any ship lost the precautions essential to safety had been neglected. The Commander-in-Chief took the same view, and expressed the opinion that every possible means should be taken to investigate the causes of these explosions, and the method suggested by the Vice-Admiral, B.C.F., appeared to be the best. He added that during the war 14 German ships had been sunk by gunfire, of which none had blown up,<sup>4</sup> while out of nine British

<sup>1</sup> *Tiger*, July 14, 1916, S.01146/16.

<sup>2</sup> August 28, 1914.

<sup>3</sup> November 4, 1916.

<sup>4</sup> *Ariadne*, *Köln*, *Mainz*, *Emden*, *Königsberg*, *Scharnhorst*, *Gneisenau*, *Leipzig*, *Nürnberg*, *Dresden*, *Blücher*, *Lützow*, *Wiesbaden*. *Frauenlob* was probably included. T.S.D.D.



ships—battleships to light cruisers—sunk by gunfire, six had blown up<sup>1</sup>—figures which showed that the Germans had the advantage over us in either fuzes, explosives or ship construction.<sup>2</sup>

Ships, however, could not be pulled to pieces and rebuilt. In the case of battle cruisers there had been a tendency, which reached its culminating point in the *Courageous* and *Glorious*, to reduce protection to its lowest limit so as to add to speed and gun power. This policy had been in the ascendancy when the *Indefatigable* was built and still found strong support. It was pointed out that “the fundamental maxim of British warship design had been that the best defence was superior power of offence.” The adherents of this policy were so wedded to their technical convictions that they saw the most unfortunate result of the battle not so much in the disasters, as in the possibility of their inducing what they thought to be a false idea of the necessity and value of armour protection; they pointed out “that one would like to have as much armour as possible, but every ton of armour meant the sacrifice of some other feature in design.” They listened regretfully to the demand for more armour and deplored the fact that the *Renown* and *Repulse*, “for which such sacrifices had been made, would be demobilised for many weeks and would never have the speed and draught for which they were designed.”<sup>3</sup>

It was in the fear that a false idea might arise and prevail as to the necessity and value of additional armour protection that a memorandum was drawn up by the Chief Constructor to support the opinion that there was no evidence to show that any enemy shell had penetrated to the magazines of British ships—rather on the contrary, the immunity of engines and boiler rooms pointed generally to an opposite conclusion.<sup>4</sup>

The view taken by him was that the fault lay in the train of cordite supply to the guns, and in a paper written in December<sup>5</sup> it was pointed out that diagrams of the path of shell did not bear out the contention that German shell could penetrate the lower protective decks of modern battle cruisers and battleships before they burst. Diagrams attached to the memorandum showed the path of twenty-nine shell in the case of six ships, and emphasised the fact that only in one case—the *Barham*—had fragments of shell penetrated the crown of a magazine.<sup>6</sup> There was one serious gap in these diagrams. They did not show the track of shell in the battle cruisers which had been blown up. Admiral Jellicoe did not agree with the memorandum. He did not regard it as representing the views of officers at sea, and it was not issued

<sup>1</sup> *Indefatigable, Queen Mary, Defence, Invincible, Good Hope, Black Prince.*

<sup>2</sup> C.-in-C., November 24, 1916, H.S.A. 229.

<sup>3</sup> M. 05781, H.S. 301/144.

<sup>4</sup> M. 05781, H.S. 301.

<sup>5</sup> S. 02136/1916, see Appendix A.

<sup>6</sup> Hit No. 2, 70–72 stations, angle of descent 30° to 35°.

to the fleet. But whatever opinion might be held on the matter it remained irrefutably true that nothing very radical could be attempted in the case of ships already built. All that could be done was to perform some patchy<sup>1</sup> reconstruction in the older ships and to add a certain amount of armour to the new.

Whether the tragic fate which befell the battlecruisers at Jutland was due to lack of protection or to faulty turret design can never be precisely known. The issue was terribly different from all expectations, and must have aroused acute disappointment both in the fleet and at Whitehall. Certain it is that in the fleet the conviction grew that the value of protection had been unduly depreciated, a view since confirmed by the surprising tenacity of the German battle cruisers and the way in which the *Seydlitz* and *Derfflinger* emerged from their fearful ordeal of fire. A strong opinion prevailed, too, that the battle had demonstrated the inferiority of our shell and fuzes. Captain Frederic Dreyer was of opinion that the German delay action fuze was superior to ours, and that the catastrophes were due to their shell bursting after penetration instead of half-way through a plate.<sup>2</sup> Great efforts were set on foot to remedy these defects, efforts which, however, could not materialise till later in the war. The precise train of causation that culminated in these disasters remains wrapped in uncertainty, but certain it is that the months that followed witnessed an immense activity in every sphere of technical work, and men were thinking and working and hammering, day and night, to put things to rights.<sup>3</sup>

**4. Tactical Developments.**—The main tactical developments arising from the Battle of Jutland can be found within the covers of three papers<sup>4</sup> :—

- (a) Orders of July 14 1916 for Fleet Exercises.
- (b) Grand Fleet Battle Orders (issue of September 11 1916).
- (c) Memorandum on Defence of the Battle Fleet against Enemy Torpedo Attack, October 17 1916.

The general conception of one long line of battle with fleets engaged on approximately similar courses,<sup>5</sup> at a range of between 15,000 and 10,000 yards, remained the same, but measures were taken to increase the flexibility of the line and to develop a strong

<sup>1</sup> “The work will be patchy,” Report of Protection Committee, June 6, H.S.A. 229.

<sup>2</sup> H.S.A. 229.

<sup>3</sup> For steps to be taken, viz., fitting of flash locks in magazine doors, closure of magazine doors in action, see Grand Fleet Gunnery and Torpedo Orders (17.7.16). Remarks on the action off Jutland in H.S.A. 230.

<sup>4</sup> (a) will be found in H.S.A. 224, Grand Fleet Memoranda Various.

(b) in Grand Fleet Battle Orders, issue of September 11 1916, in H.S. 289, see Appendix B.

(c) in Grand Fleet Memoranda, General, in H.S.A. 212.

<sup>5</sup> G.F.B.O. Page 13, September 11 1916, Sec. VII, para. 3, see Appendix B.

counter to destroyer attacks. Orders for an important exercise were issued on July 14 1916, which stated that the battle had emphasised the desirability, especially in low visibility, of developing some method of leading the line of battle in and keeping within effective range. It was recommended that the battle line in these conditions should be formed in echelon of squadrons or divisions with the van pressing on the enemy van, while the centre, and especially the rear, should keep at a greater range from the enemy so as to occupy a better defensive position against torpedo attack. The van divisions, which would comprise the 5th Battle Squadron and 1st Battle Squadron,<sup>1</sup> were well suited to these tactics owing to their excess of speed. This disposition of squadrons in echelon or on a line of bearing was to be practised during the exercises, as it gave a more flexible line, conferred greater independence on flag officers, and was better suited than the single line for dealing with the retiring tactics adopted by the enemy on May 31. Certain signals were introduced appropriate to these tactics, chiefly with a view to reforming the single line of battle rapidly from a line of bearing or echelon. Of these the most important was the Yellow Pendant<sup>2</sup> which dates from this time. Another signal<sup>3</sup> was to be tried indicating "that the Commander-in-Chief is manœuvring only with the squadron in which the fleet flagship had taken station, and that flag officers commanding other squadrons are to support him by conforming generally to his movements." These exercises aimed at greater flexibility and were followed two months later by a revised issue of the Battle Orders. Here, again, certain main points stand out. There is a tendency towards decentralisation, and also to emphasise the discretionary power vested in Flag Officers, "owing to the difficulty, confirmed at Jutland, of controlling the movements of the whole Fleet in the heat of action."<sup>4</sup> The Commander-in-Chief may make the signal M.P.<sup>5</sup> to be used when "the Commander-in-Chief desires to emphasise the fact that under the existing conditions he finds it very difficult to control the movements of the whole battle fleet, and is a *reminder* of his desire that the Flag Officers of battle squadrons shall manœuvre their squadrons independently whilst acting in support of the squadron or divisions to which the fleet flagship is attached. It is in no way intended to imply that such decentralisation is not to take place unless the signal M.P. is made. If made it merely points out that decentralisation has become *essential* for the time." Stress is

<sup>1</sup> As reconstituted. See Appendix D.

<sup>2</sup> Hoisted singly directs Commanders of Divisions to form single line ahead on the Admiral or ship denoted in the sequence in which divisions now are. Hoisted superior to alphabetical flags directs Commanders of Divisions to form single line ahead on the Admiral or ship denoted, on the course indicated and in the sequence in which divisions now are. Grand Fleet Additions to Signal Books, H.S.A. 211/3314.

<sup>3</sup> B.E.

<sup>4</sup> Lord Jellicoe's Grand Fleet, 409.

<sup>5</sup> G.F.B.O., page 13, Sec. VII, (a) Para. 2.

laid in new paragraphs<sup>1</sup> on the importance of the van using its speed to the utmost in order to keep within effective gun range from the enemy, provided that it does not become isolated from the battle fleet. Finally, in Notes on the Defence of the Battle Fleet against Enemy Torpedo Attack, issued as a Memorandum, dated October 17, there is an exhaustive analysis<sup>2</sup> of the measures required to counter an enemy's torpedo attack. Briefly, they were to consist of a strong counter attack from the van by light cruisers and flotillas. This was worked out with reference to a danger line, viz., the line at which the torpedo fire of enemy destroyers became dangerous, based on the assumption of a running range of 13,000 yards for German torpedoes. It was possible for British light cruisers and destroyers to reach this line (about 5 miles from the British line of battle) in time to reach and throw back any attack on the van.<sup>3</sup> The van, therefore, was adequately protected by counter attack and need not turn away. Enemy destroyers, however, attacking the centre and rear could reach this line before the British counter attack<sup>4</sup> and the centre and rear must be prepared with a counter move, which would take the form of a turn away or a turn towards as circumstances might dictate. The alternatives were carefully discussed, and it was pointed out that in the case of a "turn towards" the enemy it should consist of a "four point turn" and a turn back after a transfer of 2,000 yards from the original line of advance. This policy of counter attack had been foreshadowed in a Deployment Diagram issued on June 19<sup>5</sup> to supersede one of April 7. In the Post Jutland diagrams the light cruisers and destroyer forces on the engaged bow have been strengthened and thrown with the Battle Cruiser Force further ahead and further out towards the enemy so as to develop a strong counter attack as rapidly as possible.

A number of new submarines were coming forward and instructions for the employment of submarine flotillas,<sup>6</sup> with the fleet were added to the Grand Fleet Battle Orders in August, 1916. Operating from the Tees and Blyth the 10th and 11th Submarine Flotillas were to be employed in detached operations north of Lat. 55° N., and to assist in defensive measures against raids north of Flamborough Head,<sup>7</sup> but might also be ordered to join the Grand Fleet, and on such occasions were to shape course

<sup>1</sup> Cf. G.F.B.O., par. 9, 10, page 14, of 11.9.16 with page 13 in December 1915. H.S. 289.

<sup>2</sup> Enclosure in Memo. H.F. 0034/59 of October 17 1916. The Notes are in typescript, 8½ pp. fcap., with seven photo-stated diagrams. An analysis of the subject was being made in the spring of 1916 and was on the point of being issued when Jutland was fought. See Lord Jellicoe's Grand Fleet, 409.

<sup>3</sup> Notes on Defence, etc., Diagram 3.

<sup>4</sup> About 4 minutes ahead of them.

<sup>5</sup> Grand Fleet Battle Orders, p. 41, H.S. 289.

<sup>6</sup> The 10th to 13th, G.F.B.O. page 46, 22.8.16. Only two, the 10th and 11th, were formed in 1916.

<sup>7</sup> As on August 19, 1916.

so as to be about 10 to 12 miles and four points on the bows of the wing columns of the fleet.

Submarine divisions in a favourable position—for instance, on the flank towards which an enemy deployed—were to attack as soon as possible. Those on the quarter of the British fleet after deployment were to come to the surface and follow the enemy battle fleet if it should turn sixteen points. These orders may be regarded as embodying the principal tactical developments arising out of Jutland.

#### POST JUTLAND STRATEGY.

**5. Conference, June 25.**—The strategical effect of the Battle of Jutland was practically nil. The Germans might boast of what they had done and of their skill in retreat, but the general situation remained the same. But, though the immediate effect was small, the battle gave a renewed impetus on the British side to the arrangements for shifting the bases of the fleet which had arisen out of the Lowestoft Raid (April 24). These measures, however, could not materialise for some time, and meanwhile the scope and employment of the 5th Battle Squadron gave rise to further weighty discussion. The problem can be reduced to a single sentence: Was the 5th Battle Squadron to be considered as a fast wing division of the Battle Fleet or as a support for the Battle Cruiser Fleet?<sup>1</sup> This and other momentous matters—technical, strategical and tactical—were discussed at an important conference held at the Admiralty in June, at which the Commander-in-Chief and Vice-Admiral, Battle Cruiser Fleet were present, and where, in the opinion of the Commander-in-Chief, the following decisions were arrived at:—

**6. Conclusions<sup>2</sup> of Conference at Admiralty, June 24.**—(a) With regard to “the future employment of the Battle Cruiser Fleet and 5th Battle Squadron, the arrangement arrived at was that where the initiative lay with us, the battle cruisers should not be advanced so far from the support of the Battle Fleet as had been customary in the past.

“That in the event of a raid<sup>3</sup> on our eastern or south-eastern coast, when it is considered necessary that the battle cruisers shall be pushed forward without support, Their Lordships will decide the extent to which the battle cruisers are to be pushed forward in view of the circumstances which are at the time within their knowledge, and will indicate in the orders issued to me and to the Vice-Admiral, Battle Cruiser Fleet, whether it is considered necessary that the battle cruisers shall become seriously engaged with the enemy force without the support of the battle fleet.<sup>4</sup>

<sup>1</sup> Appendices C, C.1, and C.2.

<sup>2</sup> H.S.A. 141, C.-in-C. to Adty., June 29.

<sup>3</sup> There were important conferences with the War Office on the question of invasion in January 1916, and August 1916. See Robertson, *Soldiers and Statesmen*, 2/11. T.S.D.D.

<sup>4</sup> See Admiralty's observation, *infra*.

“This decision will be dependent upon the urgency of the situation and the strength of the enemy forces. The Fifth Battle Squadron is to be considered mainly as a fast wing division of the battle fleet and not as a portion of the Battle Cruiser Fleet.

“That occasion may arise when at my discretion I may consider it desirable to reinforce the battle cruisers with the Fifth Battle Squadron, *but that they are to be considered simply as a reinforcement, and in no sense an integral portion of the Battle Cruiser Fleet.*<sup>1</sup> The extent to which they are utilised in support of the battle cruisers, and away from the vicinity of the battle fleet, will depend in some degree on the speed which is attained by the *Barham* on the measured mile at the mouth of the Clyde during her forthcoming steam trials.<sup>2</sup>

(b) “With regard to the ‘basing’ of the main battle fleet, all the arrangements necessary for basing the 1st, 2nd and 5th Battle Squadron at Rosyth instead of Scapa to be pressed forward with the utmost despatch. . . .

(c) “With regard to the 3rd Battle Squadron, it was decided that the 3rd Battle Squadron should, at any rate for the present, remain based on the Medway, and it is recognised that there is very little probability of the 3rd Battle Squadron ever taking part in a fleet action unless the action is fought to the southward of the Dogger Bank.

(d) “With regard to defensive mining of the east coast approaches, the necessity for keeping the battle cruisers, under ordinary conditions, within supporting distance of the battle fleet adds to the difficulty already existing of affording protection to the south-east coast against raids, such as the late Lowestoft raid, and it was agreed that further defensive mining of the south-east coast was desirable, and that the Commander-in-Chief, Grand Fleet, should suggest areas for further mining.<sup>3</sup> . . . ”

**7. Admiralty View.**—The above conclusions received the general approval of the Admiralty with the observation that, with regard to (a), viz., the employment of the battle cruisers, it was thought preferable that orders should be given that until the First, Second and Fifth Battle Squadrons were based on the Forth, the Battle Cruiser Fleet, when ordered south, was not to

<sup>1</sup> See addition by Admiralty, *infra*.

<sup>2</sup> She carried out full speed trials in Bute Sound on July 6, on her way round from Devonport to Scapa. The mean speed obtained was 23.9 knots (*Barham's* log).

<sup>3</sup> Other matters discussed were:—

(e) The future employment of Cruiser Squadrons.

(f) The employment of Harwich Force, minelayers and submarines when a fleet action is probable.

(g) The designs of the new battle cruisers.

(h) Arrangements to prevent flash from reaching magazines; (i) paravanes; (j) searchlights; (k) torpedo control; (l) (m) wireless for submarines; (n) hospital ships; (o) kite balloons; (p) recognition signals. H.S.A. 141/115 *et seq.*

seek engagement with the enemy *main* forces, without definite orders from the Admiralty, until such time as the Battle Fleet was near enough to afford support. Further, the Admiralty thought it desirable to add that the 5th Battle Squadron, though in no sense an integral portion of the Battle Cruiser Fleet, "when acting under the Vice-Admiral Commanding, Battle Cruiser Fleet, are to be fully at his disposal until the Battle Fleet joins."

The question was evidently beset with considerable difficulties, but this was considered "as good an arrangement as could be arrived at," though it saddled the Admiralty with the responsibility, whenever the Battle Cruiser Fleet was ordered south, of deciding at Whitehall whether the Vice-Admiral, British Cruiser Fleet, was to seek a serious engagement without the support of the Battle Fleet.

The question whether the 5th Battle Squadron could act in support of the battle cruisers depended largely on its speed, and on this point the Commander-in-Chief had come to the conclusion that the *Barham* could not get away from the German<sup>1</sup> 3rd Squadron. The definite decision of the conference on the whole knotty question was recorded finally as follows: "The Battle Cruiser Fleet and any vessels attached to it, when ordered south, is to avoid becoming seriously engaged with superior forces until the Battle Fleet is within supporting distance, unless the Admiralty consider the circumstances sufficiently urgent to render a different course necessary, in which case Their Lordships will give instructions direct to the Vice-Admiral Commanding, Battle Cruiser Fleet."<sup>2</sup>

A conclusion which shifted the responsibility of engaging an enemy to Whitehall (so unpleasantly suggestive of the instructions issued by the Kaiser to Admiral Ingenohl after the Battle of the Bight), was almost bound to involve the necessity of further elucidation.

**8. View of Vice-Admiral, Battle Cruiser Fleet.**—This, the Vice-Admiral, Battle Cruiser Fleet, sought in a submission of July 27, in which he pointed out that the main principles enunciated (*viz.*, to avoid becoming seriously engaged with superior forces), had been the guiding principle governing his actions ever since the commencement of hostilities, and he was constrained to ask for guidance on certain points.

What, for instance, was a "superior force?" Was superiority of construction to be counted in arriving at an estimate, for it was an unfortunate fact that British ships blew up after only a short period of punishment, whereas the enemy's did not? Again, in seeking the enemy in misty weather, experience had shown that the development of a serious engagement might be a matter of seconds only, when visibility is low and speed is high. Was the

<sup>1</sup> See C.-in-C., July 16 1916, in M. 06427, also despatch, June 18, Jutland Dispatches, 2.

<sup>2</sup> M. 06427, Adty. July 19 1916, H.S.A. 141/127.

conclusion to be interpreted in the sense that all risk of contact with the enemy was to be avoided, except in rare cases of high visibility, unless powerful support was close at hand? The experience of Dogger Bank and Heligoland Bight had brought forcibly home to him the necessity for closer support, and this was the reason for his repeated applications for the 5th Battle Squadron, which, faster by 2 knots than the fastest enemy Battle Squadron, and with magnificent armament and protection, was eminently suited for the purpose. To avoid any possibility of misconception he desired to know whether he was allowed free exercise of his judgment and discretion. War was a perpetual conflict with the unexpected. Circumstances might arise when it would be of the greatest importance for an inferior force to engage a superior force, although not closely supported. It might be imperative that risks should be run, and a hard-and-fast rule would undoubtedly increase very considerably the difficulties of the Officer-in-Command and might cause the loss of opportunities of the greatest value.

**9. Commander-in-Chief's View.**—The Commander-in-Chief stressed the fact that the 5th Battle Squadron, by reason of its inferior speed, would be a distinct source of embarrassment and risk to the Vice-Admiral, Battle Cruiser Fleet, and concluded by pointing out that the "difficulties of the Vice-Admiral were very much enhanced by the fact that he was based so much further south than his supporting force, the Battle Fleet, and his difficulty could only be overcome by the removal of the Battle Fleet to the Firth of Forth. This move, however, was not possible until that port was rendered fit as a base for the Main Fleet."

The question tended to revolve round the speed of the *Barhams*. The Commander-in-Chief held the view that at Jutland the *Königs* had outpaced the *Barham*, and the latter could not support the battle cruisers without running the risk of being forced into action by a faster and superior force.<sup>1</sup> This was not borne out, however, by the N.I.D. Quarterly Return for June, which gave the *König* a speed of only 20½ knots, but the point was pressed, and the figure was altered to 23 knots in the July issue, though it was maintained at the Admiralty that there was no evidence to show that their maximum speed exceeded 22 knots.<sup>2</sup>

**10. The Origin of the Question.**—The whole question hung balefully over the strategical outlook of the fleet in 1916. It had risen early in the year in a paper of Rear-Admiral Pakenham, forwarded by Vice-Admiral Beatty,<sup>3</sup> which deserves close attention.

<sup>1</sup> According to the German Staff History the speed of the *Königs* between 4.48 and 5.35 p.m. did not exceed 21 knots. Admiral Behncke reduced to 18 knots at 5.49 p.m., *Nordsee*, 5, *Karte* 8, 9.

<sup>2</sup> M. 06427, H.S.A. 127/136.

<sup>3</sup> R.A. Pakenham to V.A., B.C.F., February 19, 1916, M. 01815, also in H.S.A. 100/84.

The argument was briefly this :—

Owing to the distances which now separate British and German naval bases, no preponderance in slow vessels can enable the British to deny the Germans freedom to move at will their whole fleet in any direction within about 200 miles of Heligoland. On January 24 1915,<sup>1</sup> the Germans threw out an inadequate and unsupported force, but will not again repeat the blunder. It should be presumed that in future their fast division will always have the fullest support at hand. It has hitherto been customary to employ the fast division (of the British Fleet) at great distances ahead of the main fleet. Unless control of the southern area is practically to be abandoned to the Germans, either this method must be continued, or the distance between the bases of the two main opposing forces must be reduced.<sup>2</sup> Of these two courses the former is preferred, provided that suitable precautions are feasible. Our fast division must be able to attack, but it must also be able to withdraw. The former necessity requires speed, the latter can be satisfied by vessels which, though not the fastest, are yet faster than the bulk of their opponents. How, then, can the Battle Cruiser Fleet best be reinforced? The answer is ready: A fast and powerful squadron is attached to the main fleet. Its fighting power is all that can be desired. As the prime need of the Battle Cruiser Fleet is an addition of fighting strength, at least three of the *Queen Elizabeths* should be at once transferred from the Main Fleet to the Battle Cruiser Fleet, the others should follow when the *Royal Sovereigns* have come into service.

It may be decided that the fast fleet cannot be reinforced nor can the base of the Grand Fleet be shifted. It will then be necessary to restrict the movements of the fast division to the neighbourhood of the battle fleet.

**11. Commander-in-Chief's Remarks.**—The Commander-in-Chief in his remarks doubted whether the *Barhams* could exceed 23½ knots and whether under these conditions they could ever afford any material support to the battle cruisers in an offensive operation.

At the Admiralty, however, there was a strong opinion in favour of the idea of stationing the 5th Battle Squadron in the Forth, and it was thought that when the Grand Fleet (1st, 2nd and 4th Battle Squadrons) reached a total of 24 battleships, the Commander-in-Chief might have to reconsider the question<sup>3</sup> of letting the 5th Battle Squadron work from Rosyth.

Vice-Admiral Beatty again pressed the question in a letter of March 3, urging the necessity of support for the battle cruisers, while the Commander-in-Chief in his remarks upheld the necessity of keeping the battle fleet concentrated. Admiral of the Fleet, Sir Arthur Wilson, was inclined to support him. He did

<sup>1</sup> Dogger Bank.

<sup>2</sup> That is to say, the British Battle Fleet must come south.

<sup>3</sup> M. 01815.

not think that the present distribution of the battleships and battle cruisers could be improved. "Conclusive reasons had been given by the Commander-in-Chief against shifting the battlefleet base to the Forth.<sup>1</sup> The other proposal to join the 5th Battle Squadron to the Battle Cruiser Fleet and base it at Rosyth had much to recommend it, but, on the other hand, these ships were of very great value to the main fleet and might make all the difference between an ineffective chase and a decisive defeat."

It was thought at the Admiralty that there was much to be said on either side. "If we keep our fleet in its present disposition, we take no chances, but it is extremely improbable that the Germans will ever come out with the deliberate intention of going far enough north to commit suicide. They will rather, when sufficiently desperate, make a raid on the south."<sup>2</sup> The matter rested there till March 22, when the Commander-in-Chief put forward<sup>3</sup> the most important proposition of the year, namely, the possibility of basing the major portion of the Grand Fleet on Rosyth as an alternative to the present disposition and with a view to the Battle fleet being in a more favourable strategical position for dealing with the enemy.

A joint naval and military conference on the subject was held on April 5,<sup>4</sup> and the Admiralty view is to be found in an exhaustive and illuminating paper.

**12. Summary of the Admiralty View.**—The strength of the two fleets was reviewed (40 British battleships and battlecruisers versus the German 23) and the First Sea Lord pointed out that "it is not, therefore, to be wondered that the Germans do not seek a fleet action and that they plan their short cruises in the North Sea so that a meeting between the fleets is impossible; and yet the German Fleet holds ours tied to our coasts and kept ready at short notice, thus involving great mental strain and greater wear and tear than they experience.

"Scapa is the only fleet anchorage in the North Sea capable of holding the whole fleet in moderate safety. Admirable as a war anchorage, it is not a defended port. Well situated to command the entrance to the North Sea, it lies 450 miles from the exits of the Heligoland Bight. Consequently the German Fleet can get a day's start for carrying out operations on the East coast. Even if we know of their time of sailing, they can reach the East coast, spend six hours there and return in safety without any risk of meeting the Grand Fleet. The only remedy in the case of a fleet based on Cromarty and Scapa is to keep it at sea on the first indications of German movements. But if it goes to sea a day

<sup>1</sup> Referring to the C.-in-C.'s letter of February 15, 1915.

<sup>2</sup> Minutes, March 4 and 18.

<sup>3</sup> A letter of March 18 sent by Admiral Sir Robert Lowry on the subject of the Forth defences had reached him. H.S.A. 94/215.

<sup>4</sup> The date is in a brief note in pencil in First Sea Lord's writing, para. 5. C.-in-C.'s letter, M. 02696.

too soon, this is useless for the fleet and the destroyers must return to refuel.

"Consequently, unless the German Fleet seeks action with ours, or attempts to leave the North Sea by the northern exit, the chances of our fleet engaging theirs are at present almost hopeless. The Germans may also inflict great damage on the coast towns and on the French coast by bombardment; and, in fact, the protection of the southern coasts depends almost entirely on submarines at Harwich and Dover.

"Neither Rosyth nor the Humber can base the whole fleet, and they have many local objections compared to Scapa; but in the last year the Humber has been fortified, Rosyth basin and lock are completed, and arrangements are in hand to supply anti-submarine protection to the anchorage below the Forth bridge.

"The question to be settled is: 'Can we risk dividing our fleet?' If we do not divide it we need never expect a decisive victory. If we do divide it, and a portion only meets the High Sea Fleet, it can be depended on to inflict severe losses and we shall have another fleet in reserve ready to take its place.

"Considering the superiority of the armament of British ships over the German, it need not be considered that we are taking too great a risk by matching a slightly greater number of vessels against the German, say—7 battle cruisers against 5, and 21 battleships against 18.

"The main battle fleet would consist of the 2nd Battle Squadron (8), the 4th Battle Squadron of the most powerful vessels (8), and 5th Battle Squadron (5). These, with one ship in the basin and the battle cruisers,<sup>1</sup> mustering 29 dreadnoughts, could lie in the Forth.

"The remaining 9 battleships (shortly to be 11) and 3 battle cruisers would be based on Scapa or Cromarty. The 3rd Battle Squadron would be based on the Humber. What would be the result of this? If the Germans moved north, the gain would not be great; if the Germans moved south, the gain might be very great.

"One point seemed, however, certain. 'The present strategical distribution of the Grand Fleet is not likely to bring off a great and decisive naval action in the North Sea, and some change is necessary, which will probably involve risks not now taken with capital ships.' This strategy would not be suggested if the present strategy would produce the desired result. There might be possibly another plan of bringing the High Sea Fleet to action—that is, by adopting an offensive instead of a purely defensive line of strategy, which might take the form of air raids, bombardments or minelaying by surface vessels. This meant that the fleet action, if it came off, would be nearer the enemy coast and fleet than had hitherto been considered as acceptable." The minute concluded by saying "There are risks in this operation, and it might not succeed in the first attempt, but if nothing is done

<sup>1</sup> 5 in number, T.S.D.D.

and we still maintain our purely defensive attitude with the Grand Fleet, there seems little chance of effecting any serious losses in the High Sea Fleet."<sup>1</sup>

**13. Influence of Lowestoft Raid and Jutland.**—It was decided therefore, to push on with the provision of defences in the Forth.<sup>2</sup> Then came the Lowestoft Raid, the decision to send the 3rd Battle Squadron south, and a letter from the Commander-in-Chief stating the opinion that when the proposals for defending the anchorage had been carried out, it would be possible to base the 1st, 2nd and 5th Battle Squadron, the Battle Cruiser Fleet, 4th Light Cruiser Squadron and one Cruiser Squadron, besides the necessary flotillas, in the Forth. With it came a scheme of reorganisation, which was issued and actually waiting to come into force on the very eve of Jutland.

It will be seen that the trend of opinion at the Admiralty was generally in favour of shifting the base of the fleet, with a view to increasing the chance of bringing the High Sea Fleet to action, and it is necessary to emphasise this point, for the German Staff History has spoken of the British Admiralty's "fundamental attitude which had exalted the holding back of the fleet to a system."<sup>3</sup> Neither the Admiralty nor anyone else laid any special stress on the policy of holding back the fleet, but before it could be thrust forward with any chance of being successful, it had to have a base to start from. But this short word takes a long time to spell in terms of equipment and protection, and this was the strategical issue of the year. There was no "Post Jutland" strategy proper, because the issue in July 1916 was the same as the issue in March. But Jutland had its effect on the issue. It did not in itself alter the strategical disposition of the fleet, but with Lowestoft Raid before it and August 19 after it, it brought considerations to a head which had not been resolved in 1915 and resulted in the base of the fleet being changed. Till this could be done, two points of view existed as to the employment of the 5th Battle Squadron. On the one hand it was regarded as a necessary support for the battle cruisers; on the other it was thought that the four best battleships should be with the battlefleet. The one requirement may be regarded as based on strategical grounds, the other on tactical. So far as the disposition of the squadron was concerned the Admiralty adopted the former view. The 5th Battle Squadron was stationed with the Battle Cruiser Fleet in the Forth, but the tactical disposition remained in the hands of the Commander-in-Chief and he imposed the condition that the Battle Cruiser Fleet and 5th Battle Squadron should in future keep in visual contact with him.<sup>4</sup>

<sup>1</sup> Minute, April 5, 1916, M. 02696.

<sup>2</sup> M. 02696/16, April 1916. Staff Memorandum, Home Waters VI, p. 277, App. O.

<sup>3</sup> Die Grundeinstellung der gesamten britischen Admiralität, welche die Zurückhaltung der Flotte geradezu zum System erhoben hatte. Nordsee 5/448.

<sup>4</sup> For the question of the employment of the 5th B.S., see H.S.A. 100 (C10760)

## CHAPTER II.

REORGANISATION OF FLEET AND DEVELOPMENT OF  
BASE AT THE FORTH.

14. **Reorganisation of Fleet.**—As early as February 1915, Vice-Admiral Sir George Warrender had recommended that the 1st Battle Squadron and 4th Battle Squadron should be reorganised with a view to having four battleships of the latest type in the van and rear.<sup>1</sup> When the Admiralty after Lowestoft Raid (April 24, 1916) considered it necessary to base a larger proportion of naval forces further south to afford less time to the enemy for offensive action against the coast,<sup>2</sup> the Commander-in-Chief, in submitting a scheme for basing three Battle Squadrons (1st, 2nd and 4th) on the Forth, suggested also a reorganisation of the squadrons "with a view to grouping the ships in the various squadrons according to their offensive power."<sup>3</sup> The Admiralty approval came on May, 21.<sup>4</sup> The Commander-in-Chief waited a few days for the *Royal Oak* and *Royal Sovereign* to join the fleet.<sup>5</sup> The *Royal Sovereign* arrived on May 25 and orders<sup>6</sup> for the new organisation, to come into effect on June 12, went out on May 29, only two days before Jutland.

The essence of the reorganisation, which came into force on June 12, consisted in exchanging three ships of the 4th Battle Squadron<sup>7</sup> with four ships of the 1st Battle Squadron, making the latter and the 5th Battle Squadron the two strongest squadrons in the Fleet.<sup>8</sup>

The drastic policy of shifting the battle fleet to the south, left only the cruiser squadrons at Scapa as a stiffening to the 10th Cruiser Squadron, and the Commander-in-Chief, in his letter of April 26, had proposed reducing them to three, doing away with the 7th Cruiser Squadron.<sup>9</sup> This received approval at the same time (May 21) and came into force on May 30, the morning of the day that the fleet sailed for Jutland. Vice-Admiral Hon. Sir Somerset Gough-Calthorpe struck his flag in the *Shannon* and went off to the Admiralty as Second Sea Lord.

On the top of this came Jutland and the losses suffered by the battle cruisers and cruisers necessitated a complete reorganisation of the Battle Cruiser, and Cruiser, Squadrons.<sup>10</sup> This was carried

<sup>1</sup> *King George V*, February 23 1915, H.S.A. 100.

<sup>2</sup> M. 02696/16.

<sup>3</sup> M. 04524, May 21 1916.

<sup>4</sup> H.S.A. 94/445.

<sup>5</sup> *Revenge* joined March 29, *Royal Oak* May 11, *Royal Sovereign* May 25.

<sup>6</sup> H.F. Memo. May 29 1916, H.S.A. 100/40.

<sup>7</sup> *Royal Oak*, *Benbow*, *Canada*.

<sup>8</sup> See Appendix D, Reorganisation of Fleet, June 1916.

<sup>9</sup> *Hampshire* and *Donegal* to 3rd C.S., *Minotaur* to 2nd C.S.

<sup>10</sup> G.F. Memo., June 4 1916. H.S.A. 100/112, see Appendix D.

out on June 5,<sup>1</sup> when the 3rd Battle Cruiser Squadron and 1st Cruiser Squadron ceased to exist as squadrons, or were "abolished," as the Admiralty letter puts it. The *Hampshire*<sup>2</sup> passed into the 3rd Cruiser Squadron and had been attached to it for a brief twelve hours when she sank with Lord Kitchener off Marwick Head. Until the repairs to the *Tiger* and *Princess Royal* were completed, the 1st Battle Cruiser Squadron practically ceased to exist as a fighting force, and the four battle cruisers at Rosyth were the only ships of the Battle Cruiser Fleet<sup>3</sup> left intact.

It was not till the end of July that the Battle Cruiser Squadrons were once more at their full strength. The *Lion* lay at Rosyth for three weeks, then went to the Tyne to have her damaged turret lifted out by one of Armstrong's great cranes and was to return for a new one three months later. The repairs for most of the rest of the fleet were estimated on June 8 to be complete by the middle of July.<sup>4</sup>

15. **Destroyer Flotillas.**—The 4th Destroyer Flotilla had suffered most heavily. It had lost its flotilla leader and four destroyers<sup>5</sup> in the action and no less than five<sup>6</sup> of the nine destroyers under repair belonged to it. Its losses were not replaced.<sup>7</sup> A new flotilla, the 14th, was being formed, which was able in a month or two to take its place. The 13th Flotilla had lost the *Nestor* and *Nomad* and was given the *Gabriel* as a flotilla leader after the battle.<sup>8</sup>

By the end of July the 14th Flotilla was nearly complete and the Grand Fleet could count 92 destroyers in its flotillas, three more than when it set out for Jutland. The strength of the flotillas by the end of July was as follows:—

Strength of Destroyer Flotillas, 1916.						
Flotilla					May 31.	July 31.
1st (Rosyth)	..	..	..	..	14	11
4th (Scapa)	..	..	..	..	21	15
						(to Humber.)
11th	..	..	..	..	17	17
12th	..	..	..	..	18	18
13th	..	..	..	..	17	15
14th	..	..	..	..	2	16
					89	92

<sup>1</sup> G.F. Memo., June 4 1916. H.S.A. 100/112.

<sup>2</sup> Transferred to 2nd C.S. (May 30), then to 3rd C.S. (June 5).

<sup>3</sup> *Australia*, *Indomitable*, *Inflexible*, *New Zealand*.

<sup>4</sup> Appendix D.1.

<sup>5</sup> *Tipperary*, *Ardent*, *Fortune*, *Sparrowhawk*, *Shark*.

<sup>6</sup> *Broke*, *Acasta*, *Spitfire*, *Porpoise*, *Contest*.

<sup>7</sup> The *Botha* was attached as flotilla leader to the 4th Flotilla till about July 10, when she joined the 14th Flotilla. Positions and Movements June, July, 1916.

<sup>8</sup> June 3. These dates are from Positions and Movements, the return or pink list issued daily at the Admiralty, during the war, which is sometimes a day or two out.

Eight had been lost at Jutland, the *Tigress* had gone to Devonport, and 12 new boats had joined the new 14th Flotilla.

The destroyer reorganisation therefore after Jutland consisted briefly in the replacement of the 4th by the 14th Flotilla. The 4th Flotilla, only sixteen strong, passed from Scapa at the end of July and went off to the Humber, though still remaining under the orders of the Commander-in-Chief.

All that summer, men were working night and day in every dockyard to repair the damage of the battle. Most of the repairs were completed by the end of July. The *Marlborough* rejoined the fleet in August. It mustered then in capital ships a strength of 26 dreadnoughts, 5 *Barhams* and 6 battle cruisers. It had 22 light cruisers, 5 armoured cruisers and 92 destroyers. The new battle cruiser, the *Repulse*, was in commission;<sup>1</sup> the *Renown*, *Glorious* and *Courageous* were within sight of completion, and the 14th Flotilla was almost complete. Except in battle cruisers it was stronger than ever, and the Germans at Jutland had felt the menace of its power.

**16. Development of a Fleet Base at the Forth.**—The question of a base overshadowed every other in 1916 and a few words on the requirements of the fleet in this respect will not be out of place. The principal drawback of the Forth was lack of space. In 1915, the Forth could only take 15 capital ships above<sup>2</sup> the Forth Bridge. Eight more could lie below the bridge, but the anchorage there was not regarded as safe from submarines. From a strategical point of view, the actual saving in time and distance was rather less than might be expected at first, for to a point in lat. 55° N., long. 5° E., a fleet sailing from the Forth saved only some 70 miles in distance,<sup>3</sup> a gain of about four hours at 17½ knots, and the greater facilities for leaving Scapa with a large fleet reduced this by an hour.<sup>4</sup>

The whole question had been considered at a conference at Rosyth on May 12 1916. It was decided then to take over Port Edgar and measures were set on foot to make the anchorage between the Forth Bridge and Inchcolm secure.

<sup>1</sup> To commission August 8, to complete August 15. Positions and Movements, August 15.

<sup>2</sup> i.e., to the west of the Bridge. C.-in-C.'s report says "15 dreadnoughts above and 8 below."

<sup>3</sup> C.-in-C. of February 1915, says 60 miles, but the chart used is small scale; the distance saved is more nearly 70 miles, measuring from Pentland Skerries and May Island. After the Germans laid Dogger Bank (17.5.15) and Moray Firth (August 1915) minefields the difference was nearer 80 miles. To a point in L. Channel (Lat. 50° 30' N. 1° E.) the Forth saved over 90 miles. C.-in-C. February 15, in H.S.A. 94/395, and Charts H.S.A. 338/No. 19.

<sup>4</sup> C.-in-C., February 15 1915, says 2 hours, but Notes of Conference at Rosyth, May 12 1916, gives exact time table. To pass May Island required 4 hr. 47 m., to pass Pentland Skerries 3 hr. 50 m. H.S.A. 94/395, 480.

To go into the details of the extension and developments would make a long story. Briefly, the inner (or Dalmeny) line of gun defence was pushed out to Inchcolm and the boom defence of the Inchkeith or outer line was extended. The inner boom defence consisted of submarine nets hanging in the north and south passages under the great cantilever spans of the Forth Bridge. Some three miles to the east, where the estuary is some three miles wide, lie a chain of islands; one of them, Inchcolm, where the remains of an old monastery stand, is of moderate size; two others, Oxcars and Inchmickery, are mere rocks, barren and waterless, swept by the waves in any sea; finally, Cramond Island, a little island scantily maintaining a little farm, lies a mile from the shore, where stood the Roman station for supplying the Forth to Clyde wall, and where a Roman eagle carved on a great rock gazed with a stony eye at the Grand Fleet's ships passing up and down the Forth.

In April 1916, a boom begun in November 1914 ran from the north shore<sup>1</sup> to Cramond Island, 5720 yards or nearly three sea miles in all. A single gate lay between Inchcolm and Oxcars, but in January 1917<sup>2</sup> the boom was carried back about half a mile west of Oxcars and a second gate was fitted in it. The boom of nets hanging from a jackstay was supported by trawlers and floats.<sup>3</sup> The passage along the southern shore was still further barred by a wall of dolphins fitted with torpedo nets, which ran westward from Inchmickery some three miles to Hound Point.

The principal guns of the inner defence were, in 1916, on the Forth Bridge line, viz., Carlingnose 2 6 in., Inchgarvie 4 4 in., Dalmeny 2 4.7 in., while Inchcolm and Inchmickery mustered only 6 12 pdr. and 4 12 pdr. respectively.<sup>4</sup>

These were the principal defences of the anchorages at the beginning of April, but the proposal to shift the base led to the construction of another boom,<sup>5</sup> which crossed the Forth 1½ miles west of Inchkeith. This consisted of a wall of dolphins running out from Granton some 2¾ miles to the northeast, then turning northwest, leaving the north side of the channel to be closed by a floating resilient boom about 1¼ miles long, ending at the Black

<sup>1</sup> Its landing was opposite John Deas Craig (Chart 114b). North Shore to Inchcolm 1,000 yds.; Inchcolm to Oxcars 1,330 (including gate 200) yds.; Oxcars to Inchmickery 1,330 yds.; Inchmickery to Cramond Is. 2,060 yds. The Inchmickery to Cramond Is. portion was removed in August 1917.

<sup>2</sup> Apparently January 30. C.-in-C., Rosyth, H.S.A. 94/56.

<sup>3</sup> At first with Bircham Floats costing £15, but Commander P. Humphrey recommended the Uxbridge Barrel (175 gallon), costing £4, as more efficient. January 1 1918, H.S.A. 94/181.

<sup>4</sup> C.-in-C., Rosyth, March 18 1916, H.S.A. 94.

<sup>5</sup> The piles in June 1917 ran out from the east wall of Granton harbour 3,300 yds. to northeast (28°), to 5¾ fathoms just off the Gunnet Ledge shoal; here lay the south gate 500 ft. wide in 7 fathoms. The piles then ran 700 yards to north-westward (322°). The Boom was 4.56 sea miles in length (piles 6,400 yds., gates 333 yds., boom 2,400 yds.). Chart X. 141 B.B. of June, 1917, H.S.A. 94/101. See Plan O.



Rock, a steep ragged ledge rising abruptly from the sands on the north shore half a mile east of Burntisland. This was the Granton-Black Rock boom, begun in August 1916 and finished by the end of the year. The southern approach between Inchkeith and Leith, about 2 miles wide, was closed by another pile boom 3,800 yards long, in two sections, leaving a passage 600 yards wide for merchant vessels making for Leith, and affording a large space some four miles square with depths varying from 7 to  $3\frac{1}{2}$  fathoms for the anchorage of merchant shipping between Granton and Leith. In shallow water these boom defences consisted of dolphins fitted with 5-in. rendering hawsers carrying heavy submarine nets; in deep water the boom was hung between trawlers and received additional support from cask floats spaced 30 to 40 feet apart.

A fifth boom of a somewhat different pattern was laid 11 miles further east between Fidra<sup>1</sup> and Elie, on the Fife shore, where the Firth is some 7 miles wide. The boom ran out from each shore leaving a gap 2 miles wide in the centre for the passage of shipping. It secured a large sheet of water east of Inchkeith for firing practices, and later on was very useful in protecting the Scandinavian convoys, which in 1917 assembled at Methil, in Largo Bay, on the north shore. The southern portion of this boom, which ran out some 3 miles from the little island of Fidra, was Captain Donald Munro's heavy boom, originally laid off Folkestone as the beginning of a Dover Channel boom. It consisted of heavy baulk floats of Oregon pine, weighing some 7 tons and spaced 64 ft. apart, held together by upper and lower jackstays of 5-in. wire with heavy type submarine nets suspended from the lower jackstay. This was on the same lines as the booms at Inverness and Scapa, but as the war dragged on it was difficult to get the requisite material to keep its sections in constant repair.<sup>2</sup>

The southern arm from Fidra and nearly one-half of the Elie arm was complete in October 1916.<sup>3</sup>

The reinforcement of the gun defences proceeded more slowly.<sup>4</sup> Two 6-in. went from Carlingnose, and two 4.7 in. from Dalmeny to Inchcolm. Four 4 in. at Inchgarvie<sup>5</sup> were exchanged with four 12 pdrs. on Inchholm. These and other changes were not completed till 1917, when the defences mustered the following boom defence guns:—

*Outer.*—Leith Docks, 2 6-in., 1 searchlight; Inchkeith, 4 6-in., 5 searchlights; Kinghorn, 2 6-in., 2 searchlights; Kinghorn (Pettycur)<sup>6</sup> 2 6-in., 1 searchlight.

<sup>1</sup> Small island on coast,  $2\frac{1}{2}$  sea miles west of North Berwick.

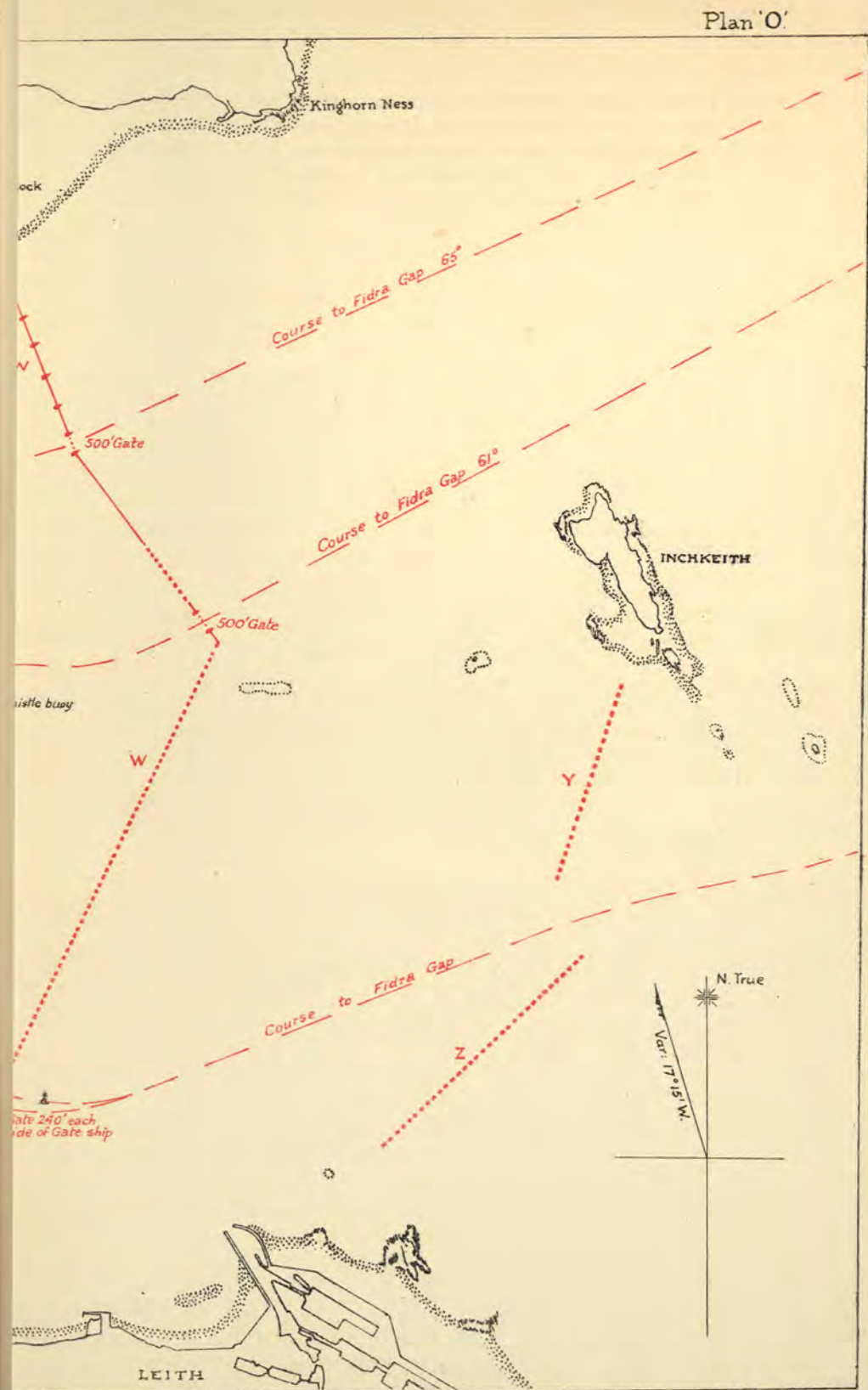
<sup>2</sup> (Weekly Report August 25 1917. H.S.A. 94/148).

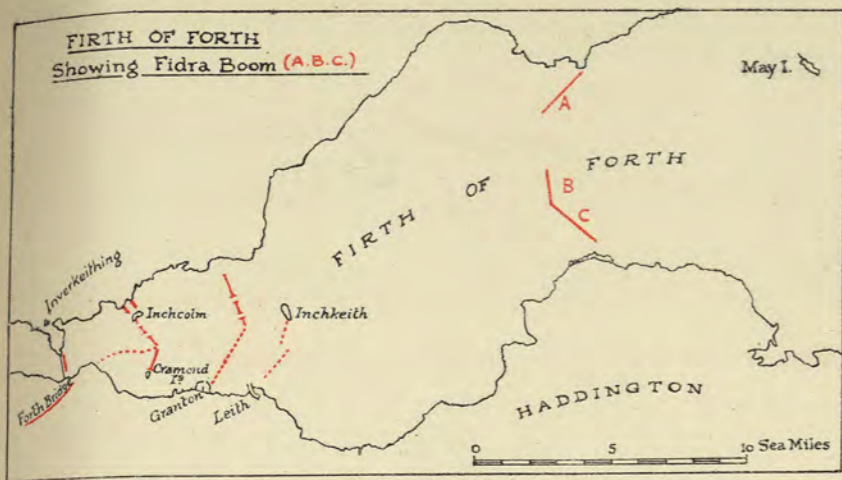
<sup>3</sup> H.S.A. 94/40.

<sup>4</sup> From C.-in-C., Rosyth, 18.3.16 and H.S.A. 94/243.

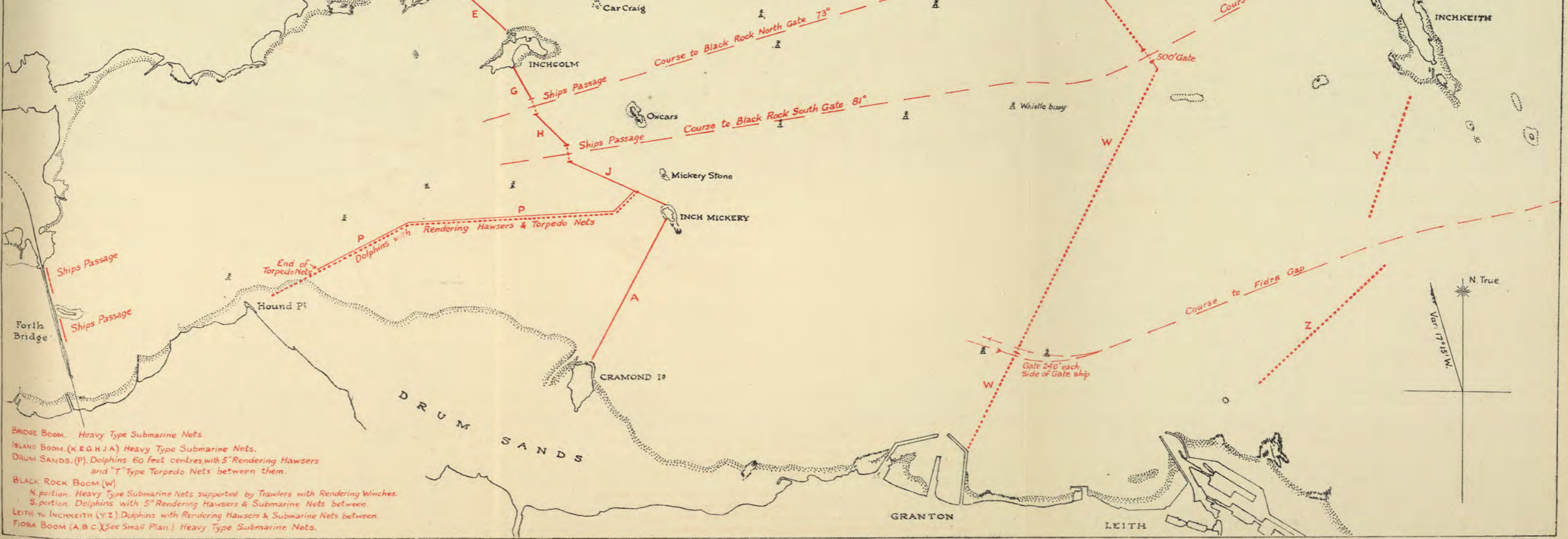
<sup>5</sup> The rock on which one of the cantilevers of the Forth Bridge rests.

<sup>6</sup> About  $\frac{1}{4}$  mile west of Kinghorn Ness.

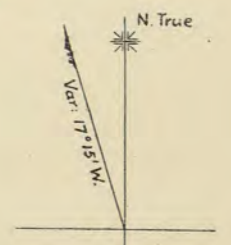




**FIRTH OF FORTH.**  
**BOOM DEFENCES.**



**BRIDGE BOOM.** Heavy Type Submarine Nets.  
**ISLAND BOOM (K.E.G.H.J.A.)** Heavy Type Submarine Nets.  
**DRUM SANDS (P).** Dolphins 60 feet centres, with 5" Rendering Hawasers and "T" Type Torpedo Nets between them.  
**BLACK ROCK BOOM (W)**  
 N. portion. Heavy Type Submarine Nets supported by Trawlers with Rendering Winches.  
 S. portion. Dolphins with 5" Rendering Hawasers & Submarine Nets between.  
**LEITH TO INCHKEITH (Y.Z.)** Dolphins with Rendering Hawasers & Submarine Nets between.  
**FIDRA BOOM (A.B.C.)** See Small Plan. Heavy Type Submarine Nets.



*Middle.*—Cramond 2 12 pdr., 1 searchlight; Inchmickery, 4 4-in., 2 temporary searchlights; Inchcolm East, 2 6-in., 4 4-in., 2 12 pdrs., 3 temporary searchlights; Inchcolm West, 2 4·7 in.

*Inner.*—Hound Point (south side, Dalmeny grounds), 2 12 pdr., 2 searchlights; Downing Point (north side, opposite Hound Point), 2 4·7-in.<sup>1</sup> 2 searchlights.

Inchgarvie, 4 12-pdr., 4 searchlights; coastguard (north side), 2 12-pdr., 2 searchlights; Dalmeny, 1 searchlight.

*Total.*

	6-in.	4·7-in.	4-in.	12-pdr.	Searchlights.
Outer	.. 10	—	—	—	9
Middle	.. 2	2	8	4	3 (Temp.)
Inner ..	.. —	2	—	8	10

On watch in the approaches of the Forth,<sup>2</sup> two destroyers patrolled on the south side between May Island and Dunbar, two torpedo boats on the north side between May Island and the Bell Rock, and two torpedo boats in the channel between May Island and Inchkeith. At night one division of four destroyers patrolled between St. Abbs Head and the Bell Rock with two units<sup>3</sup> of armed trawlers to seaward.

The general defence organisation of the base and its equipment with booms, guns and searchlights was an important work essential to the safety of the fleet, which, prior to the war, had not received exhaustive attention. The Forth was to have been the principal base for the Grand Fleet, but when war broke out its meagre defences were barely able to ensure the safety of the small anchorage above the bridge. It was round the Forth that the principal strategical problem of the year revolved, and this brief account of its defences must stand as a tardy compensation for the stinty sums spent on them before the war.<sup>4</sup>

<sup>1</sup> Waiting to be shifted to Inchcolm.

<sup>2</sup> In August 1915. The patrol flotilla under C.-in-C., Rosyth, consisted of the 3rd Flotilla (7 destroyers), 10 torpedo boats.

<sup>3</sup> Eight in a unit. The Auxiliary Patrol in the Forth Approach (Area VII) consisted of 8 trawler units in August 1916, based on Granton, under Rear-Admiral James Startin. Rosyth Confidential Memo., August 24 1915. H.S.A. 94/266.

<sup>4</sup> The information as to the boom defences is taken from H.S.A. 94. For further and more exact information the records of the Captain Supervising Submarine Defences (Capt. F. C. Learmonth) and the boom defence records of the Vice-Admiral, Orkneys and Shetlands, and of C.-in-C., Rosyth, require to be consulted.

## CHAPTER III.

## THE LOSS OF THE "HAMPSHIRE," JUNE 5 1916.

17. **Russia and Lord Kitchener.**—In May 1916, a mass of shipping in England, France and across the Atlantic was waiting for the great ice gate in the north to open. In Russia in 1915 the situation as regards munitions had been described as "heart-rending and almost irremediable,"<sup>1</sup> but England and France had put their shoulders to the wheel. Vast contracts had been guaranteed and supplies began to flow steadily towards Archangel. This was the only direct entry by sea to the Russian railways and the route in 1915 had become a serious responsibility for the Grand Fleet. The Germans soon heard of the traffic, and the *Meteor* had sowed a crop of some 300 mines in the Gorlo<sup>2</sup> in June 1915.

This was the only door opening directly on to the railway system of Russia, and the conversion of the line to Russian standard gauge had been completed early in the year.<sup>3</sup> It had no small disadvantages. It was a long way off from Kirkwall, 1,649 miles, and was ice-bound for half the year.<sup>4</sup>

It had been hoped to keep it open, to some extent at least, during the winter months, but the Russians had made a dismal mess of the ice-breaking. Admiral Ugrimoff was the Admiral Governor there, serving, as he said, "his apprenticeship in ice." Amiable, hard-working but dangerously optimistic and incorrigibly reticent on the subject of icebreakers; anxious to please and appease, he had no great administrative capacity, and the award of a High Order had done nothing to cure his optimism. There had been 100 steamers in the port when the river froze in 1915. The icebreakers, of which there was only one worthy of the name,<sup>5</sup> manned by Russian crews, could not keep the port open, and were regarded by the British masters as more likely to break up their ships than the ice. Thirty-three British vessels were frozen in, of which two<sup>6</sup> were caught out at sea and had to be abandoned. At Alexandrovsk<sup>7</sup> in open water forty ships gradually assembled with no prospect of discharging their cargoes and spent a cheerless

<sup>1</sup> "Navrante et presque sans remède," Lord Kitchener to the French Minister of War.

<sup>2</sup> June 7-8 1915. The line stretched for some 90 miles. Nordsee, 4/175; also Karte 9. See also German Minefield Chart, X. 135. The Gorlo is the long narrow channel (100 m. by 25 m.) into the White Sea.

<sup>3</sup> January 18 1916. The railway was actually on the south or opposite bank of the Dwina.

<sup>4</sup> The ice melted in the last fortnight of May and froze in the first fortnight of October. Ships frozen in had to be ready to move as soon as the ice began to give and had to get to sea or into shelter at once to avoid the "ice rush," i.e., the mass of ice moving out to sea.

<sup>5</sup> The *Canada* and four small ones.

<sup>6</sup> *Sappho* and *Cedar Branch*.

<sup>7</sup> In Kola Bay, 423 miles from Archangel.

winter lacking in the early part of their stay the necessities of food and clothing. Captain Nugent, in the *Albemarle*, was the British Senior Naval Officer there, and had no easy task. There was no responsible Russian official on the spot; the Russian Senior Naval Officer was old and lethargic,<sup>1</sup> and either referred any request to Archangel or suggested amiably that the British Admiralty could do it.

The railway line to Murmansk, some 30 miles up the river, was creeping slowly forward. Its construction was badly in arrears, and had been taken out of the British contractors'<sup>2</sup> hands when the contract expired. The transport between railheads was by reindeer sledges and horses,<sup>3</sup> and Rear Admiral Phillimore drove on his way from Kola in a sledge drawn by five reindeers abreast with one behind to steady it.

Great hopes were based that summer on the Archangel railways. It was calculated that 3,000,000 tons<sup>4</sup> in 200 ships would pass to Russia that summer, and a good system of control was required to keep the approaches swept, to pilot the ships up, to unload them and turn them round quickly. The new jetties at Bakaritsa<sup>5</sup> were ready, and General Feodoroff and Captain Bevan, who had arrived as Principal Naval Transport Officer, were getting things into shape, but the discharge of coal cargoes was slow. The line (45 hours to St. Petersburg) had been got into order by the Chief Engineer, Captain Arjanoff, who had distinguished himself as a railway engineer in the Russo-Japanese war, and could cope with some 23 trains daily each way. About 300 to 350 trucks left Archangel daily<sup>6</sup> and the Director of Transports early in 1916 reckoned the capacity of Archangel at 34,000 tons weekly, which would clear 1,000,000 tons, leaving 850,000 tons to stack.<sup>7</sup> All this called for a high degree of organisation and unity of control, and the latter certainly did not exist. There were Russian authorities and British authorities, and the Russians were very sensitive to interference. At Archangel there were three independent British authorities—the Acting British Consul (Mr. D. Young), the Senior Naval Officer (Captain T. W. Kemp),

<sup>1</sup> Nugent, 16.2.16. Cap. N. 61, 1916.

<sup>2</sup> Boulton, Parry, and Pauling. It was being built from Soroka, on the White Sea, and Kandalasha, on Kola Peninsula. On March 10 1916 the railhead on the Kola Peninsula was near Olenya, about 63 miles from Kurmansk. On September 30 1916 the Kola section was complete and Soroka railhead was at St. Engozero, 120 miles from Kandalasha. See Rear-Admiral Phillimore's Report and map, October 11 1916.

<sup>3</sup> 6,500 reindeer and 500 horses. March, 1916.

<sup>4</sup> D.O.D. Miscellaneous 74, 1916, but this apparently includes coal. Director of Transport, Memo. 1916, says 1,850,000 tons will go. Rear-Admiral Phillimore says, excluding coal, 1,520,000 tons under the Archangel Agreement. Report 34, August 15 1916, X. 9149, 1916.

<sup>5</sup> South side of river near the main railway station, 8 railway sidings, 1,100 yds. jetty, capable of berthing 27 steamers alongside. February 1916.

<sup>6</sup> Phillimore, *Idem*. August 1916. On February 15 1916, 340 trucks.

<sup>7</sup> Director of Transports, *Idem*.

and Major Hallward, representing the War Office,<sup>1</sup> and though there was no lack of harmony they did not know precisely what each other was doing.<sup>2</sup>

Then there was a Principal Naval Transport Officer, and a question as to his relationship to the Senior Naval Officer.<sup>3</sup>

The situation was not a simple one, but there was a further difficulty—the financial. The Chancellor of the Exchequer was beginning to look askance at the vast credits being swallowed up in Archangel, and it was in these circumstances that the idea arose of Lord Kitchener going to Russia to impress on the Russian Government that British credit was not inexhaustible. M. Sazonoff heard of it with pleasure on May 11. The Emperor sent an invitation, and it was decided on May 26<sup>4</sup> that Lord Kitchener should proceed to Russia with a mission to explore the whole situation and impress on the Russians the necessity of adjusting their plans to the available supplies.

**18. Lord Kitchener at Scapa.**—Strange tales have been told of the great soldier's death, of the ship he sailed in and the route she took. The latter was entirely dictated by the circumstances of the moment and the Commander-in-Chief himself could not have foretold it. It was on May 26 that he heard from London that Lord Kitchener would arrive at Thurso in the forenoon of June 6, and was told to detail a cruiser to take him to Archangel Bar.<sup>5</sup> His choice fell on the *Hampshire*,<sup>6</sup> an armoured cruiser of the improved County class. Stories arose later that she was a "coffin" or unlucky ship, but no one thought so at the time. She was a ship of 10,850 tons and a good sea boat. A torpedo fired at her in 1915<sup>7</sup> had missed her and she had come safely through the Battle of Jutland four days before. On May 28 a collier was despatched by the Admiralty to Yukanski<sup>8</sup> to be ready to coal her. For a day or two on June 2, the whole journey hung in the balance, and then was pushed forward a day, for Lord Kitchener left Broome on Sunday June 4, and the Commander-in-Chief was told to expect him at Thurso in the forenoon of June 5.<sup>9</sup> He came across in the destroyer *Oak*<sup>10</sup> and lunched with Admiral Jellicoe and the flag officers of the fleet. He did not

<sup>1</sup> Not to mention Commander Grenfell, Naval Attaché at Petrograd.

<sup>2</sup> Acting Consul D. Young's report, February 28 1916, M. 02523.

<sup>3</sup> Unnecessary delay arose from the P.N.T.O. having to refer to the S.N.O. The Russian authorities thought that the S.N.O. should confine himself to questions of co-operation in defence.

<sup>4</sup> Hist. Sec. C.I.D. Preliminary Narrative.

<sup>5</sup> H.S. 237/457, sent 8 p.m.

<sup>6</sup> Captain Herbert J. Savill, Commander Manuel Dasent.

<sup>7</sup> July 1 1915, by *U.25* in Moray Firth.

<sup>8</sup> At the entrance to the White Sea in Lat. 68° N., Long. 40° E. After the *Meteor* laid her mines in the Gorlo in June 1915, it was the custom for merchant ships to stop at Swatoi Nos, close to Yukanski, to receive instructions for the swept channel.

<sup>9</sup> H.S. 239/1024.

<sup>10</sup> Arrived Scapa 12.14 p.m., *Iron Duke* (s).

seem very sanguine as to the success of the mission, but welcomed the brief respite from his terrific toil. He listened with interest to the story of Jutland, but gave the Commander-in-Chief the impression of one working to a time table with not a day to lose,<sup>1</sup> for he asked more than once what was the shortest time in which the passage could be made. With him was his secretary, Colonel Fitzgerald, and Brigadier-General Ellershaw, who knew every one of Russia's needs; Sir F. Donaldson, expert in the munitions problem, Mr. O'Beirne, for the Foreign Office, Lieutenant Macpherson (Cameron Highlanders), as interpreter, and six orderlies. He proposed returning about the 21st, and the Commander-in-Chief arranged that very afternoon for the *Hampshire* to remain at Archangel and to coal there to avoid the risk of crossing a possible mine area twice.<sup>2</sup>

**19. The "Hampshire's" Orders.**—The *Hampshire*<sup>3</sup> received her sailing orders on June 4. She was to proceed by the route laid down for British vessels proceeding from the East Coast to Archangel,<sup>4</sup> that is, to pass midway between the Shetlands and Norway and when to northward of lat. 63° N. to proceed to her destination, keeping not less than 200 miles from the Norwegian coast. She was to maintain 18 knots up to lat. 62° N. and afterwards at least 16. Weather permitting, two destroyers were to screen her as far as lat. 62° N.

Under ordinary circumstances this meant that the ship would have proceeded along the swept channel up the east coast of the Orkneys, but during the day, the weather had grown gradually worse, and by the afternoon a gale<sup>5</sup> was blowing from the north-east. This led Admiral Jellicoe to suggest after lunch that the sailing should be postponed, but Lord Kitchener was anxious to keep the appointed day.<sup>6</sup>

A heavy sea was running on the east coast of the Orkneys, rendering sweeping difficult; it seemed certain, too, that the destroyer escorts would find it difficult to keep up and it was decided to send the *Hampshire* by one of the westward routes. There the principal danger was the Whiten Bank Minefield.<sup>7</sup> There were two routes to clear it. One ran due west some 60 miles along the Scottish coast, then turned to the northward round

<sup>1</sup> Grand Fleet 423.

<sup>2</sup> H.S. 240/168. The C.-in-C. was evidently referring to the Artic minefield laid by the *Meteor* in 1915 and not to any field in the North Sea. Eighteen minesweeping trawlers had been sent to the White Sea in March 1916, but sweeping had barely commenced. Mines were found and destroyed on June 20, June 21 and July 2. Most of the remains of the 1915 minefields had been broken away by the ice. White Sea, Cap. K. 51, 1916.

<sup>3</sup> See Appendix E.

<sup>4</sup> Confidential Interim Order 710/1916, May 9 1916, see Appendix.

<sup>5</sup> The anemometer at Deerness (Orkney) recorded it as 33 miles per hour, i.e. a strong breeze, but the weather was squally and the ship was driving into it.

<sup>6</sup> Paymaster-Capt. Victor Weekes, Secretary to C.-in-C., Letter 7.7.26.

<sup>7</sup> Laid by the *Moewe* on January 1 1916. See Preston's Minesweeping, 31.

Sule Skerry, and so to Noup Head.<sup>1</sup> This route was actually being swept by Captain Lionel Preston that forenoon with his eight fleet sweepers,<sup>2</sup> which were off Cape Wrath at noon, when there came a signal from the Commander-in-Chief to say that a submarine had been reported at 9.15 a.m. G.M.T. north-east of Cape Wrath, steering west, which might have laid mines.<sup>3</sup>

Captain Preston continued sweeping till 6.30 p.m., but his sweeps were parting in the heavy sea, and at 7 p.m. he stated the weather was too bad for reliable work.

An alternative route ran up the west coast of the Orkneys, which had been suggested as a route for colliers and storeships by the Commander-in-Chief in January 1916,<sup>4</sup> after the loss of the *King Edward VII*. It does not appear to have been regularly swept, but no mines had been found there and it lay 18 miles from the Whiten Bank minefield.

Admiral Jellicoe discussed the matter with his staff and this was the route decided on.<sup>5</sup> Lord Jellicoe has given the reasons for the choice.<sup>6</sup> They were briefly these:—

- (a) With a north-easterly wind it would give the destroyers a lee and enable them to keep up with the *Hampshire*.
- (b) Owing to the short nights in northern latitudes, it was "practically impossible" for a surface minelayer to have mined this route without being sighted.
- (c) The route was used by Fleet auxiliaries<sup>7</sup> and under frequent observation.

Minelaying by enemy submarines had hitherto been confined to waters south of the Forth and danger from this source was "considered to be very remote." Everything was settled, and at 4.15 p.m. Lord Kitchener and his party went aboard the *Hampshire*, which left harbour about 5.30 p.m. Two destroyers, the *Unity* (Lieut.-Commander Arthur M. Lecky) and the *Victor* (Lieut. Reginald H. Ransome) had been detailed to escort her, and they met her off Tor Ness<sup>8</sup> about 5.45 p.m.

<sup>1</sup> North-west point of Orkneys.

<sup>2</sup> *Hollyhock* (S.N.O.), *Carnation*, *Dahlia*, *Daphne*, *Larkspur*, *Lilac*, *Marigold*, *Pansy*.

<sup>3</sup> See Appendix F.1. There are three reports of a submarine off Cape Wrath in the morning of June 5—(a) by a Grimsby trawler 10 m. N.E. of C. Wrath at 2 a.m., (b) N.E. of C. Wrath at 9.15 a.m., (c) Trawler *Zaree* (Grimsby) on June 8 reported a submarine close to C. Wrath 6 a.m. June 5, probably same as (a). There are no reliable indications of any German submarine being in the vicinity at this time.

<sup>4</sup> Orders for its use were issued by the Admiralty on January 8 1916.

<sup>5</sup> The actual revised orders are not extant. It was decided by 2.55 p.m. See Appendix.

<sup>6</sup> Grand Fleet 423.

<sup>7</sup> Between May 28 to June 5 there passed trawlers 37, cargo boats 6, yachts 4, destroyers 4, minelayers (sic) 2, cruisers 2, and *Hampshire*. Coast Patrol Report, V.A. O. and S. Records.

<sup>8</sup> South-westerly point of Hoy. Appendix F5, F6.

20. **The West Coast of the Orkneys.**—Looking out over the long Atlantic rollers there stands on the west coast of the Orkneys a bold promontory destined to be linked for ever with the great name of Kitchener. This was Marwick Head, rising sheer from the sea some 200 feet. Just north of it the coast runs in to form a small bay, Birsay Bay, less than a mile deep, bristling with rocky ledges, where the ruins of the old Earl's Palace lend an air of grandeur to a small hamlet and a modest church. On the north side of the Bay stands the Brough of Birsay<sup>1</sup> the extreme north-west point of the Orkney mainland, a small rocky islet some 50 feet high linked to the mainland by a long ledge of rock uncovering at low tide. From the Brough of Birsay to Marwick Head is a bare 2 miles by sea and some 3½ miles if one trudges it through the village and up the steep cliff path. From Marwick Head the coast runs south, steep and rocky, a distance of some 4 miles to Skail Bay, a small cove barely half a mile deep, offering no shelter against a westerly wind and whose rocky ledges present a grim front to any boat making it in a gale. There a little hamlet and church supply the needs of the small farms and crofts of Sandwick. From here the coast runs south again, steep and inhospitable for another 5 miles<sup>2</sup> to Brock Ness at the entrance to Hoy Sound, leading to Stromness. It was through Hoy Sound the destroyers came to the assistance of the *Hampshire* as night was falling on June 5. Anyone climbing on the heathery slopes of Vestra Fold, a few miles south of Marwick Head, must have seen the *Hampshire* passing, must have heard the boom and thunder of the Atlantic waves beating on the iron-bound coast and seen the sheets of spray being hurled right over the top of the cliffs near Marwick Head. The expectation that the *Hampshire* and her escort would find a lee on the west side was not fulfilled, for between 6 p.m. and 7 p.m. the wind had backed from north to N.N.W. and the destroyers found themselves in a heavy sea facing the full fury of its blast. Captain Savill's orders were to proceed at 18 knots up to lat. 62° N., and this was the speed signalled to the destroyers, but at 6.5 p.m. the *Victor* reported<sup>3</sup> that she could only go 15 knots without damage. This was passed by the *Unity* to *Hampshire* and the *Victor* was told to return.<sup>4</sup> But the *Unity* was in a still worse plight, and close on the *Victor's* signal at 6.10 p.m. came one from her to say that she could only maintain 12 knots. Captain Savill by this time had eased down to 15 knots and signalled to her "I am only going 15 knots, can you keep up?" The *Unity* replied "No," and at 6.18 p.m. reported that she could only go 10. Captain Savill accordingly

<sup>1</sup> Birsay, old form—Byrgis-ey, that is, the Ey (or island) of the Byrgi (fort.) Byrgi is the old Teutonic word Burg or Burgh, a strong place. Marwick, derivation uncertain, probably mare-vik, the sea bay. (From Dr. Marwick, Kirkwall.)

<sup>2</sup> i.e., Land miles.

<sup>3</sup> *Victor* (s) 26567, *Unity* (s) 24366. Appendix F.7.

<sup>4</sup> 6.15 p.m. repeated 6.18 p.m. There is no mention in the *Victor's* log of any turn except at 6.30 p.m. Appendix F.9.

signalled her at 6.20 p.m.: "Destroyers return to base," but evidently wished to keep at least one with him, for almost simultaneously he told the *Victor* to remain. But by this time the *Victor* had fallen astern.<sup>1</sup> She could not rejoin, and when, at 6.25 p.m., she reported in her turn that she could not maintain more than 12 knots, she too was told at 6.30 p.m. to return home. The heavy sea running made submarine attack improbable, and no special danger was apprehended from mines. The destroyers were off the entrance to Hoy Sound when they turned and the *Hampshire* went on alone.

It was 7.40 p.m. An hour had passed. The *Hampshire* driving into the storm, and taking green seas right over her fore-castle, was making only 13½ knots. She was about 1½ miles from the shore between Marwick Head and the Brough of Birsay; the captain was on the bridge and the order "Stand by hammocks" had been piped when a rumbling explosion shook the whole ship. The helm jambed, the lights went gradually out and power failed. The explosion seemed to tear the centre right out<sup>2</sup> and the ship immediately began to settle. A cloud of brown suffocating smoke pouring up from the stokers' mess deck forward made it difficult to see on the bridge. The men were down below standing by hammocks. Most of the hatches were battened down and shored up and men started to knock out the wedges and to proceed to their stations. The after hatch to the quarterdeck was open, and as the men streamed aft an officer<sup>3</sup> was heard to call out "Make way for Lord Kitchener." He passed up the after hatchway, just in front of one of the survivors. Nothing more is known of him. He was not seen again by living man.

On the bridge the captain was calling for Lord Kitchener. There was no power to work the derricks, and none of the large boom boats were hoisted out.<sup>4</sup> The whaler was turned out and lowered but broke in two.<sup>5</sup> The galley, which was hanging the port side on the 3rd cutter davits, was also lowered, or at least turned out, but nothing more was seen of her.<sup>6</sup> Not a single survivor saw any boat get clear away from the ship. A number of men seem to have taken their places in the large boom boats in the hope that they would float off, but they were probably carried down with the ship.

<sup>1</sup> Letter from Captain A. M. Lecky, May 27, 1926.

<sup>2</sup> P.O. Samuel Sweeney, Quartermaster of the Watch. The explosion seemed to be port side forward (Sims). "Just abaft bridge port side" (BuerdSELL). See also *Loss of Hampshire*, Cd. 2710, 1916, p. 8. For survivors' reports see H.S.A. 122.

<sup>3</sup> Lieut. Matthews according to Shipwright Phillips's account, written, 1916.

<sup>4</sup> P.O. Wesson and P.O. Sweeney.

<sup>5</sup> Sweeney, Rogerson and Bowerman. Stoker Sims says the 2nd whaler left the ship but capsized.

<sup>6</sup> Sweeney, Barnard, Bowerman.

About 7.50 p.m.<sup>1</sup> she went down bows first, heeling to starboard, with her propellers still revolving slowly.

Three Carley rafts got away from the sinking ship. Two were large and one was small. Petty Officer Samuel Sweeney was in the small one with six men on it. Twice the sea took hold of it and flung it completely over throwing them all out. It reached the shore in Skaill Bay and four men got to land, but only two survived. The second raft was a large one, and may be called Wesson's raft, as Petty Officer Wilfred Wesson, captain of the foretop, took charge of it. There were some 40 or 50 men on it, and it reached the shore on the north side of Skaill Bay about 1.15 a.m., but only four men were saved out of the boiling surge. The third raft was another large one, and may be called Mr. Bennett's raft. There were some 40 on it when it left the ship, and it picked up another 20 or 30. It was very cold, and they dropped gradually off from exposure and cold "as if going off in a sound sleep." The seas swept over it. The gulls followed it. About 1 a.m. it was near the shore. It was dark and a thick drizzling rain was falling. Men were dropping off quickly as they fell asleep, foaming slightly at the mouth. There were only a small number living when the raft surged up on the rocks, in a small rocky creek, Nebbi Geo,<sup>2</sup> half a mile north of Skaill. Clinging to the slippery slabs of rock six men, numbed and exhausted, with their finger nails torn away, managed to crawl to safety. (Plan 1.)

**21. The Report from Birsay.**—It was not dark till 11 p.m., and the accident to the *Hampshire* was seen by several people ashore. There was a look-out post at Birsay manned by the Orkney Royal Garrison Artillery, and the explosion<sup>3</sup> was seen by the gunner on duty, who ran to his billet and reported "all details" to the corporal<sup>4</sup> in charge. The corporal hurried to the post office, and on his way could see the ship well down by the bows. He made out a telegram, "Battle cruiser seems in distress between Marwick Head and the Brough of Birsay." He said nothing of an explosion, which, according to his account, Gunner Angus had not reported. The sub-postmistress had seen the accident and hastening to the post office was calling up Kirkwall while the message was being written out. The corporal went out, and as he went down to the beach saw the ship sink. He ran back to say "the ship was down," and asked her to add these words to the message. In a state of considerable agitation she signalled,

<sup>1</sup> Sub-Lieutenant J. Spence, R.N.R., an Orkneyman, at home recovering from an accident, saw the ship sink about 8 p.m. about 2 miles W.N.W. from Birsay. The first of the flood was making north causing a nasty sea.

<sup>2</sup> Skaill, old Norse skali—a dwelling house, common name of farm in Orkney, Nebbi Geo, Neb—a nose, Geo—a cleft, the regular name for a coast indentation in the Orkney.

<sup>3</sup> Gunner Angus. Between him and the ship, i.e. apparently on the starboard side.

<sup>4</sup> Corporal Drever.

"Oh, the ship is down," and, according to her statement, asked Kirkwall to add this to the message. The words were not added,<sup>1</sup> so that the message sent to Vice-Admiral Sir Frederick Brock, at Longhope, contained not a word of the explosion nor of the vessel having sunk.<sup>2</sup>

The Vice-Admiral received the telegram at 8.10 p.m. He had been on board the *Iron Duke* with the Commander-in-Chief and Lord Kitchener, and guessed that the telegram must refer to her. He knew the look-outs at Birsay were not versed in naval matters, and thought it probable that the cruiser getting into the heavy sea clear of the land had eased down to secure something. He therefore told Captain F. M. Walker,<sup>3</sup> at Stromness, who had ordered out the yacht *Jason II* and trawler *Cambodia*, to hold them in instant readiness, but not to send them out till further details arrived, and telephoned at once to Brims Ness<sup>4</sup> to ask when the *Hampshire* had passed.

Half an hour passed and it was not till 8.30 p.m. that Captain Walker at Stromness received a message "Vessel down."<sup>5</sup> This had been sent at 8.20 p.m. from Birsay, where misgivings had evidently arisen as to the text of the first message. The Captains of the *Jason II* and *Cambodia* were standing by ready to slip and left at once. Captain Walker passed the message at once to Vice-Admiral Brock, and at 8.31 p.m. the real nature of the disaster was known at Longhope. The Vice-Admiral ordered him at once to send out everything he had, and to go himself, and Captain Walker left in the *Flying Kestrel*, an ocean-going tug of 1,300 horse-power, about 9 p.m., followed by the trawlers *Northward* and *Renzo*. The Commander-in-Chief had been informed, and off the Kirk Rocks four destroyers passed him on their way out. It was raining and a heavy sea was running.

**22. The Search on Land.**—The whole coast was in motion by this time, for Lieut.-Col. C. L. Brooke, R.M. (Fire Commander, Western Defences at Stromness), had been told of the disaster by Captain Walker at 8.20 p.m., and Admiral Brock had telephoned to Colonel G. N. Harris, R.M.A., the Officer Commanding Troops, at Kirkwall. From Stromness a road runs some two miles from the coast almost due north thirteen miles to Birsay. About four miles out of Stromness another and poorer road branches from it to the left, leading to Skail, and running about a mile from the coast, joins the main road again about a mile from Birsay. From this

<sup>1</sup> Appendix F.16. The operator at Kirkwall stated later that the postmistress had signalled that the ship had sunk but that she did not say this was to be added to the message.

<sup>2</sup> Reports of Gunner Angus, Corporal Drever and Gunner Norn, also of Postmaster, Kirkwall, Miss Jessie Cumloquoy and Mr. J. P. Meeson, in Vice-Admiral, O. and S. Pack.

<sup>3</sup> S.N.O. Western Patrol.

<sup>4</sup> Lookout station on south coast of Hoy.

<sup>5</sup> Appendix F.18. What actually happened at the post office at Birsay is obscure.

branch road, about three miles from Birsay, a still smaller branch goes down to the coast at Marwick, about a mile north of Marwick Head. From Kirkwall to Birsay is an eighteen-mile run. Captain Walker, before he left in the *Flying Kestrel*, had ordered motor cars, and at 9.15 p.m. a party of Royal Marine Artillery, with ropes and blankets, left Stromness for Birsay. A motor cyclist went off up the coast ahead of them to warn people to keep a good look-out. The party reached Marwick Head about 10.15 p.m., and all that night were searching the precipitous cliffs in rain and darkness against a howling gale—in itself no easy task.

Voices were heard answering at Nebbi Geo, and one survivor was found at the top of the cliff; two marines descending the cliff at great risk to themselves, were able to rescue three more men at the bottom.<sup>1</sup> They were able to point out the raft, which was being hurled to and fro in a narrow rocky creek. One man on it was still alive, but by the time he was rescued and hauled up the cliff he had succumbed.

Three hundred yards further south, close to the entrance of Skail Bay, another large raft<sup>2</sup> was found high and dry on ledges of rocks with forty-two bodies in it all dead.

A party of Orkney Territorials under Captain Mackay, R.G.A. (T.) had also left at 10.30 p.m., and searching Skail Bay came on the small raft<sup>3</sup> on the south side, and very early in the morning, on their way back along the coast, found two survivors near it lying unconscious on the grass with two dead bodies close to them.<sup>4</sup>

From Kirkwall Lieutenant-Colonel G. N. Harris, R.M.A., and Commander Bertram Nicholson, of the Northern Patrol, set out somewhat later and reached Birsay about 11.45 p.m. Making their way down the coast road in darkness they reached Skail Bay at 1.45 a.m. Here they met the parties from Hoy and Stromness, and Colonel Harris returned to Kirkwall to organise a strong body of reliefs, reaching it at 4 a.m. At 9 a.m. he left with four motor lorries and forty-five men<sup>5</sup> to relieve the search parties, who were then busy with the sad task of getting up the dead. Thirteen members of the *Hampshire's* crew had reached the shore; one died within a few hours, leaving only twelve survivors. Not a single member of the mission was saved, and the body of Lord Kitchener was never recovered. The body of Colonel Fitzgerald, picked up that night at sea, was sent to England; the remainder<sup>6</sup> lie peacefully in the naval cemetery at Hoy.

<sup>1</sup> Bennett's raft. Two others had already reached a farm.

<sup>2</sup> Wesson's raft. Four survivors had already reached a farm.

<sup>3</sup> Sweeney's raft.

<sup>4</sup> Report, Lieut.-Col. C. L. Brooke, R.M.A., June 9, 1916, in V.A., O. and S. Pack.

<sup>5</sup> Colonel Harris's report, H.S.A. 122/102.

<sup>6</sup> To the number of 163 up to July 23, 1916. List is in H.S.A. 122/21.



**23. The Search at Sea.**—When the tug *Flying Kestrel* left Stromness about 9 p.m. a N.N.W. gale was blowing with a 15-ft. to 20-ft. sea, and the tide making east.<sup>1</sup> She had ten miles to go and was taking solid seas right over her decks and making barely 6 knots. She was off Marwick Head probably about 11 p.m. The shore was barely visible in the rain and surf. As day broke oil and wreckage were seen, and up to 8 a.m. the tug was busy picking up bodies, one of the first being that of Colonel Fitzgerald.<sup>2</sup> Shortly after leaving Stromness Captain Walker in the *Flying Kestrel* was passed by four destroyers on their way to the scene of the disaster. These were the *Unity*, *Victor*, *Owl* and *Midge*, all belonging to the 4th Flotilla. The *Unity* and *Victor* had been back in harbour about an hour when Admiral Brock, at 8.35 p.m., reported the disaster to the Commander-in-Chief, and at 8.40 p.m. orders came from Captain D, 4th Flotilla, to the *Unity* and 1st sub-division, "to raise steam for full speed with all despatch." At 9 p.m. another signal ordered them to proceed with the utmost despatch to the assistance of the *Hampshire* off Birsay. Two minutes later came another ordering further despatch, and at 9.15 another ordering them to proceed independently, if necessary, through the little used entrance to Hoy Sound. At 9.10 p.m. the *Unity* and *Victor* had slipped from their buoys in Gutter Sound and were followed five minutes later by the *Owl* and *Midge*. They passed the entrance at Hoy and overtook the *Flying Kestrel* off Kirk Rocks. In spite of the heavy head sea they were able to go 15 knots, and, arriving at the scene of the disaster by 10.30 p.m., immediately began to search the whole area. They were joined shortly afterwards by the *Flying Kestrel* and her two trawlers, and the *Jason II* and *Cambodia* were already there, making nine in all. Two other vessels, the yacht *Zaza* and trawler *City of Selby*, belonging to the Northern Patrol, left Kirkwall at 9.55 p.m., and were searching the northern stretch of coast. The night was exceptionally dark, and the destroyers had orders to burn search-lights freely. Four more destroyers of the 3rd Division, the *Opal*, *Menace*, *Munster*, and *Napier*, joined them early the next morning. They had been ordered to raise steam for full speed at 2.8 a.m., and as they had already had steam for slow speed on account of the weather, were able to leave harbour at 3 a.m., with orders to search for the *Hampshire's* boats off Marwick Head. The *Oak* had left half an hour before.

During the gray morning of June 6, no fewer than 16 vessels<sup>3</sup> were searching the waters where the *Hampshire* had disappeared. The risk run was not a small one, but fortunately none of them suffered the same fate.

<sup>1</sup> Captain T. E. Davies in 1926. It was low water at Stromness at 6.5 p.m.

<sup>2</sup> Identified on board the hospital ship *Soudan* by Surgeon Lieut. C. F. Bainbridge, through name on underclothing and uniform and personal belongings.

<sup>3</sup> Nine destroyers, four trawlers, two yachts and a tug.

**24. At Scapa.**—To the Commander-in-Chief at Scapa the hours that passed after receiving the report of the disaster were anxious ones. After the *Owl's* four destroyers had sailed at 9.15 p.m. no information came in for some time. Then, just after midnight, came a signal from Commodore F. to say that the *Owl* had reported a quantity of wreckage off Marwick Head. A little later she reported passing a capsized boat and then for some hours there was silence. The Commander-in-Chief retained a hope that Lord Kitchener might be saved, for the weather at Scapa Flow gave little indication of the heavy sea running off Birsay. But these hopes died away when a signal came from the *Owl* at 4.30 a.m. containing the ominous words, "Complete destruction; nothing more to be done."<sup>1</sup>

The *Oak* signalled about the same time that she had closely examined the coast as far as Costa Head<sup>2</sup> without result. By 8 a.m. she had returned and the extent of the disaster was fully known.

At 8.7 a.m. the Commander-in-Chief telegraphed to the Admiralty that the *Hampshire*, with Lord Kitchener and his staff on board, had been sunk the previous evening by mine or torpedo off the Brough of Birsay on the west side of the Orkneys. "I greatly fear," adds Admiral Jellicoe in his telegram, "there is little hope of there being any survivors as whole shore has been searched from seaward. Shore party has not yet reported."<sup>3</sup>

It was not till nearly 9 a.m. that the Admiral received information of survivors, in a signal from the Vice-Admiral, Orkneys and Shetlands, received on board the *Iron Duke* at 8.48 a.m. From Admiral Brock Admiral Jellicoe learnt that there were no officers among the survivors, but that 13<sup>4</sup> of the *Hampshire's* crew had landed at various points and were being cared for at local farms.

**25. Mines discovered off Birsay, June 8.**—The route down the west coast of the Orkneys was closed on the morning of June 6, but the bad weather continued for two days and seriously interfered with minesweeping, and though sweepers were busy to the west of the Orkneys on June 6 and 7, it was not till the afternoon of June 8 that mines were discovered<sup>5</sup> off Birsay and all doubts as to the cause of the disaster were removed. The trawlers continued sweeping for a week, and by June 15 had destroyed 13 mines<sup>6</sup> and located an obstruction, believed to be the wreck. It was not possible to pick up any mines for close examination,

<sup>1</sup> H.S.A. 122/29.

<sup>2</sup> Approximately 4½ miles E. by N. from the Brough of Birsay.

<sup>3</sup> H.S.A. 122/23.

<sup>4</sup> Of whom one had died. There was a warrant officer, Mr. Bennett, among the survivors.

<sup>5</sup> *Caesar II*, Minesweeping trawler, reported three mines in her sweep at 11.15, June 8. For Minesweeping Areas see Grand Fleet Memo. 005 of April 30 and June 7 in H.S.A. 223. Appendix F.33.

<sup>6</sup> Report of Lieut. A. Riddell, H.M.T. *Brutus* (Unit 140), H.S.A. 89/337.

but those seen were of the submarine type with only four horns and lacking the centre one. They had been laid at a depth of 26 to 30 feet in water 35 to 40 fathoms deep.

26. **Cruise of U.75, May 24 to June 3.**—The minefield which had brought Lord Kitchener's mission and his great career to an untimely end was laid by Lieutenant-Commander Curt Beitzen in *U.75* as part of the plan which culminated at Jutland. The High Sea Fleet were to put to sea to lure the Grand Fleet out. Submarines were lying in wait for it and three minelayers, *U.72*, *U.74* and *U.75*, large clumsy boats built for 36 mines, but carrying on this occasion only 22, were despatched to lay mines off the Forth, the Moray Firth and the Orkneys respectively. *U.72* did not reach her objective, *U.74* was met and sunk on May 27 by the *Searanger* in the Peterhead Auxiliary Patrol<sup>1</sup> and *U.75* was the only one that performed her task. She sailed from Germany on May 24, two days before Admiral Jellicoe so much as knew of Lord Kitchener's journey, and hugging the Norwegian coast as far as Udsire passed north of the Shetlands in a wide sweep, and on the night of May 28–29 was nearing the Orkneys. Frequent fog and an overcast sky had made it impossible to get observations, but at 12.10 a.m. Noup Head Lighthouse was seen and told her where she was. The German Staff had been told that a route for war vessels ran along the coast about two miles from the shore, between the Brough of Birsay and Marwick Head, and this information was included in Beitzen's instructions.

He arrived there at 5 a.m. G.M.T. and was busy for more than two and a half hours laying his mines,<sup>2</sup> undisturbed by British patrol vessels. Twenty-two mines were scattered singly in this area at a depth of 23 feet below high water, and at 7.35 a.m. *U.75* turned for home.<sup>3</sup>

On June 1 as she approached the Danish coast she passed the debris of Jutland and at 2 p.m. sighted the wreck of the *Invincible*. An alarming experience awaited her. She was proceeding the next morning on the surface with the engine air shaft closed and the Commanding Officer on deck when the hatch of the conning tower slammed down accidentally. The Diesel engines rapidly exhausted the air in the hull, the frantic efforts of Lieutenant-Commander Beitzen outside and the crew inside failed to open the hatch and the imprisoned crew were on the verge of suffocation, when the engineer managed to force the ventilating shaft open. Had the crew perished, the commander would have found himself in a strange predicament. The engines would have stopped for want of air, and the disabled submarine might have been captured

<sup>1</sup> In 57° 10' N. 1° 20' E.

<sup>2</sup> O.U. 6020 A, "German (Peace) Statement of Mines laid by Surface Vessels and Submarines of the High Sea Fleet 1914–1918," gives the limits of the minefield as 59° 5' N., 3° 24½' W., and 59° 9' N., 3° 28' W.

<sup>3</sup> Nordsee 5/202. *U.75* was sunk in December 1917, and Beitzen was lost in *U.102* in 1918.

by British forces searching the North Sea at the time for damaged ships; the secret of the minefield might have been discovered, and Lord Kitchener and the *Hampshire* saved.

27. **The sinking of the Laurel Crown, June 22.**<sup>1</sup>—The *Hampshire* was not the only victim of *U.75*'s minefield. Orders for the sweeping of a large area<sup>2</sup> further to the west were issued by the Chief of Staff, Grand Fleet, in a Memorandum dated June 7, and on the morning of June 22<sup>3</sup> a flotilla of 7 net drifters in charge of the armed yacht *Evening Star*, left Kirkwall to sweep it. The Flotilla Commander's orders, given to him verbally, did not specify any particular route, and beyond the general order that no ships were to pass along the west coast of the Orkneys<sup>4</sup> the position of the minefield off Birsay had not been announced. It was thought at Kirkwall that the suspension applied only to mercantile traffic and not to light draft service vessels, and that the minefield off Birsay had been cleared. The flotilla passed close to Costa Head and the Brough of Birsay and steered west-south-west, a course which took them close to the spot where the *Hampshire* had sunk. The officer in charge was not aware of the existence of a minefield in the vicinity, and shortly after 8 a.m., in a position<sup>5</sup> about 3½ miles off Marwick Head, the drifter *Laurel Crown* struck a mine and sank so rapidly by the stern, that she disappeared in a few seconds with all hands. The weather was fine but a fairly heavy swell was running and not a single survivor could be found. The boats searching among the wreckage could see plainly, three or four feet below the surface, a red spherical mine with a bolt at the top.<sup>6</sup> The yacht proceeded to sweep among the wreckage, and, having picked up the mine, towed it in shore where it was sunk by gunfire.

Such is the story of the *Hampshire*, a story tragic and simple of a ship sinking in a storm on a rock bound coast. But the news of Kitchener's death fell on the nation like a thunderbolt and was heard with sorrow in every trench in France. It was not enough to say that nothing was known of Lord Kitchener's death. It developed into a mystery which swelled to absurd proportions and hung round his memory like a sulphurous cloud. In 1925 a Mr. Arthur Freeman, writing as Frank Power,<sup>7</sup> wove out of it a fantastic story in which German spies and Boer women flit across the scene and are shot at dawn for trying to blow the *Hampshire*

<sup>1</sup> Papers titled X. 4856/1916, N.L. 6972/1916.

<sup>2</sup> Known as Area 2, about 20 miles west of the Birsay minefield. Contained by the positions 58° 46' N.; 3° 18' W.; 59° 22' N.; 4° 11' W.; 59° 11' N.; 4° 39' W.; 58° 46' N.; 3° 37' W.; H.S.A. 223.

<sup>3</sup> By a misprint the date of the sinking of the *Laurel Crown* is given as June 2 in "Navy Losses," published by H.M.S.O. in August, 1919.

<sup>4</sup> Adty. Tel. Q, of June 6.

<sup>5</sup> 59° 5½' N.; 3° 28' W.

<sup>6</sup> The mark of a German naval mine, type IV, converted from a type II mine, for use in submarines. T.S.D.D.

<sup>7</sup> See *The Referee*, November 29, 1925, to August 22 1926.

up months before Lord Kitchener's mission was even thought of. Nothing is known of Lord Kitchener after he went up on deck, but in these tales he appears on a rock and is pushed into the sea by a German spy.<sup>1</sup>

Great play was made of the fact that the Stromness 40-foot lifeboat was not called out, but this could have added nothing to the measures actually taken. When a powerful ocean tug like the *Flying Kestrel*, whose crew was Orcadian and included three members of the lifeboat's crew, could only make 6 knots, it may be doubted whether the lifeboat would have made 4, and it could not possibly have covered the 12½ miles to Marwick before midnight, by which time nine much more powerful vessels were on the spot. Then there was a story of Colonel Fitzgerald's body having been found in a boat, and a dinghy was exhibited as evidence. But Colonel Fitzgerald's body was found at sea, and though it is possible that the boat may have been the *Hampshire's* nothing is really known of it.<sup>2</sup>

The *Napier* cut a capsized boat in half and reported a dinghy and whaler upside down on the morning of June 6,<sup>3</sup> but only three boats were definitely recovered. The first was a whaler, 27 or 30 foot, that came ashore near Thurso. This was probably the one seen the night before by the *Jason II*, which looked as if it had been smashed while lowering and near which was found a captain's cap marked Savill, which was the first intimation the *Jason's* captain had that the ship lost was the *Hampshire*.<sup>4</sup> A smashed cutter went ashore on the coast, south of Skaill Bay. Finally, the *Flying Kestrel* nearing Stromness at 8 a.m. sighted a derelict boat, which was probably the pinnacle which came to land later in Hoy Sound and fragments of which are to be found in the Imperial War Museum. No other boats are known to have been picked up and nothing certain is known of the dinghy. The public, however, gazed at it as a piece of concrete evidence and eagerly swallowed the tale of mystery. It grew gradually more absurd. It was stated that Lord Kitchener's body had been found in Norway. At Stavanger a mock scene of disinterment was conducted by the man Power garbed as a clergyman; at Bergen a coffin was hired, and draped in a Union Jack, was carried to a ship and back, through spectators grinning at what they thought was a film scene.<sup>5</sup>

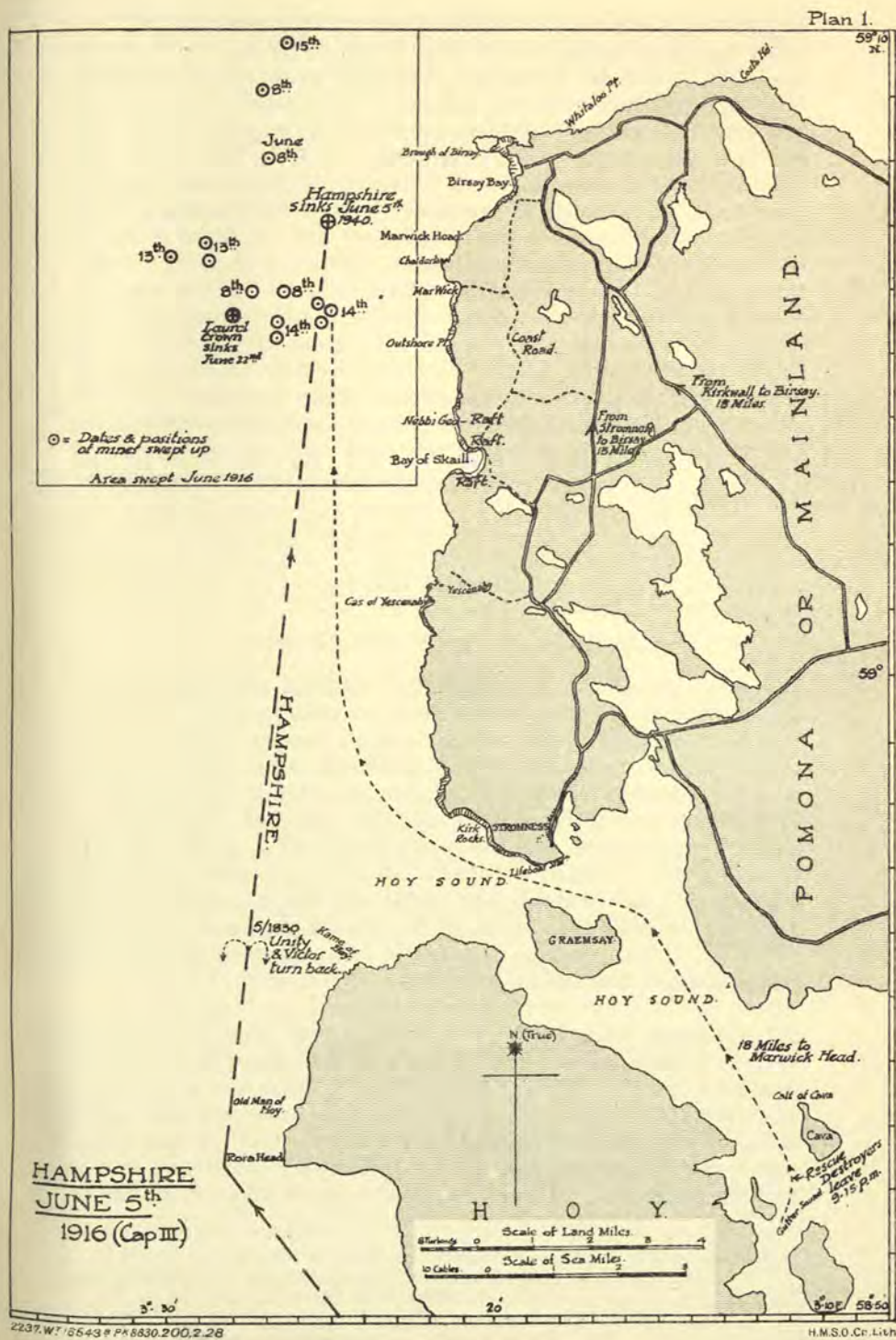
<sup>1</sup> The *Referee*, November 29 1925.

<sup>2</sup> Mr. W. C. Phillips, Chief Shipwright, one of the survivors of the *Hampshire*, who inspected it in Oxford Street in 1926, did not recognise it. He thought the portion missing on the port side appeared to have been sawn or wrenched off; a blue hand inside the gunwale was not familiar to him and the damage generally was not consistent with the circumstances of wreck and storm. (Letter 10.3.1926.)

<sup>3</sup> June 6, signal 6.50 and 6.58 a.m.

<sup>4</sup> Commander Wyndham Forbes' letter, June 1926.

<sup>5</sup> British Consul Bergen 12.8.26. In N.L. 2539/26. Power was in Norway from July 20, returning to Newcastle on August 4 1926. Between June 27 and July 3 1916 some 30 English and a number of German bodies had been washed up on the Norwegian coast from Jutland.



This nauseous trickery was described as a ceremony conducted with "care and reverence"<sup>1</sup> and it was stated that the great soldier's body had been brought to England.<sup>2</sup> On August 13, a case containing a coffin arrived in London, and was transferred, draped in a Union Jack, to a temporary chapel. But by that time the Admiralty narrative<sup>3</sup> had been issued most opportunely and the mystery was fading into thin air. The coffin opened on September 9 by the Home Office in the presence of Sir Bernard Spilsbury was found to be empty and the whole tissue of absurdities was blown away. The tale is a sordid one but is worth repetition if only to remind us that the Admiralty narrative played the principal part in exposing the detestable sham. In the light of history the mystery disappeared. Kitchener's body was never recovered. Nothing is known of his death. Of one thing only we can be certain, that the blue eyes which had gazed so serenely over the desert sand of Egypt and the stretches of the African veldt looked with equal serenity on that fatal night at the wild surge of waters breaking on an iron bound coast.

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#### CHAPTER IV.

#### THE NORTH SEA, JUNE 1916.

**28. Search for Raiders, June 1-12.**—As the Grand Fleet was taking up its formation on the memorable night of May 31 the *Iron Duke* intercepted a signal to the Vice-Admiral, 1st Cruiser Squadron, and to the *Australia* (then on her way from Devonport to Scapa) that the *Moewe* had sailed from Wilhelmshaven on a raiding cruise, and that the light cruiser *Niobe* was expected to sail on June 1. The Commander-in-Chief immediately ordered the 10th Cruiser Squadron to take up a patrol to northward of Muckle Flugga, in the Shetlands, and directed the *Donegal* and the armed boarding steamer *King Orry*, patrolling at the time between the Shetlands and Norway, to support them. With the same object in view the light cruisers *Caroline* and *Royalist* sailed to the westward on June 3 to patrol for 60 miles to the north-westward of Sule Skerry, while the 10th Cruiser Squadron fell back to a 300-mile line between Scotland and Iceland,<sup>4</sup> leaving the *Donegal* and *King Orry* off Muckle Flugga. Some seventeen ships were examined, but nothing in the shape of a raider was seen,<sup>5</sup> and the light cruisers returned to Scapa on June 6. For nearly two weeks (May 31-June 12) wireless silence was maintained in the 10th Cruiser Squadron, and by June 8, as nothing

<sup>1</sup> The *Referee*, 8.8.1926.

<sup>2</sup> Power had bought a coffin in Kirkwall and had it sent south. This was possibly the shell which had been held ready in June, 1916.

<sup>3</sup> Loss of *Hampshire*, Cd 2710, 1926.

<sup>4</sup> Lat. 59° 30' N., Long. 7° 30' W. to coast of Iceland.

<sup>5</sup> M. 05483/16 and Grand Fleet Narrative H.S. 430.

had been seen of a raider, or of anything resembling a raider, it was assumed they had gone to the north, and two ships were detached to the North Cape to watch the northernmost route.<sup>1</sup>

The "dark night patrol," instituted in September 1915, as a precaution against surface minelayers and raiders after the *Meteor's* minelaying cruise in the Moray Firth, and consisting of one light cruiser from the light cruiser squadrons attended by two destroyers, was performed on eleven nights during the month.

**29. Narvik Iron Ore.**<sup>2</sup>—One of the most important branches of German trade was the import of magnetic iron ore from Sweden and Norway, which had become vital to her since her imports from Spain had ceased. The bulk of this was loaded at Lulea (in the Gulf of Bothnia) and Oxelosund, but Lulea was icebound from November to May, and much of its ore was then loaded at Narvik, in Norway.<sup>3</sup> Here it was exposed to British attack when it left neutral waters,<sup>4</sup> and one of the first ships to be sent in by the Grand Fleet was the Swedish S.S. *Vollrath Tham* in 1914, only to be released on the opinion of "experts" that magnetic iron ore could not serve any war purposes. Admiral Beatty pointed out that it seemed unreasonable to assume that these large cargoes of ore would be used by Krupp exclusively "for saucepans, grates and poker," and "expert" opinion evidently veered round to the same view, for in 1915 the cargoes of three other ships<sup>5</sup> sent in were placed in prize and ordered to be sold.

Narvik, far in the north, some 850 miles from the Naze, lies at the head of the West Fiord<sup>6</sup> a large stretch of water, some 35 miles wide at its mouth, with an 80-mile run up to Narvik. This was one of the best positions for intercepting the traffic, and here a bold and vigorous attack had been made in July 1915 by Lieutenant J. T. Randell, R.N.R., in the little armed trawler *Tenby Castle*. Supported by the 10th Cruiser Squadron he had sunk one German ship with 4,000 tons of ore, captured another and handed over a Swedish ship with 7,000 tons to the 10th Cruiser Squadron.<sup>7</sup>

<sup>1</sup> H.S. 298/259, 272.

<sup>2</sup> See H.S.A. 83 (Neutrality Questions). H.S.A. 48 (Trade, the Blockade).

<sup>3</sup> Consett gives Norwegian export of iron ore to Germany as: 1913, 264,457 tons; 1914, 265,623; 1915, 123,134; 1916, 152,453. *Triumph of Unarmed Forces*, 335. Imports from Sweden to Germany amounted to about 5½ million tons a year. *Fayle* 2/159.

<sup>4</sup> For Neutrality Regulations issued by Sweden, Denmark and Norway, December 20, 1912, see H.S.A. 83/81.

<sup>5</sup> The *Sir Ernest Cassel*, *The Sigstad*, intercepted April 18 1915, and *Otto Sverdrup* (April 22, 1915), N.L. 13755/15.

<sup>6</sup> About lat. 67° 30' N., long. 13° E.

<sup>7</sup> M. 05715/1915. German S.S. *Frederich Asp*, sunk 8.7.15 in 67° 47' N., 14° 15' E.; German S.S. *Pallas*, captured 30.6.15; Swedish S.S. *Malmland*, handed over to H.M.S. *India* 7.7.15. Lieut. Randell was awarded a D.S.C.

This had been a severe blow to the trade, and led to a British armed trawler patrol being maintained on the Norwegian coast. It also led to strong protests from Norway, who claimed jurisdiction over the waters of the West Fiord,<sup>1</sup> as well as a four-mile limit to territorial waters. The question had arisen prior to the war, and was closely related to a claim by Norway to a monopoly of fishing in the West Fiord. It was largely in connection with the fishing there that the presence of British armed trawlers aroused popular resentment, and though the claim to a four-mile limit was not conceded, the Commander-in-Chief was instructed to observe it in practice.<sup>2</sup>

In August 1915, the *Tenby Castle* was operating again in the waters where the Norwegian coast begins to run to the south-west.<sup>3</sup> Here in fourteen days she boarded twenty ships and sent two into Kirkwall<sup>4</sup> laden with iron ore, one of them the Swedish S.S. *Vollrath Tham*, which had been released in 1914 and turned up again, carrying 8,500 tons of ore.

Lieutenant Randell pointed out that no ships with iron ore were boarded after the second day on patrol, for the word passed quickly up the coast, and on August 20 two large ships with iron ore made to the southward inside the leads.<sup>5</sup> German submarines then appeared on the scene to protect the route, and the armed merchant cruiser *India* was torpedoed on August 8 1915 off the West Fjord by *U.22*.<sup>6</sup> Further protests arose from Norway in the end of 1915, arising out of the stoppage of the Norwegian S.S. *Sneppe Kerkeness* in the West Fiord<sup>7</sup> by H.M. trawler *Robert Smith*, and the trawler was ordered to leave by the Norwegian patrol vessel, whose captain claimed the whole of the Fiord as territorial waters.<sup>8</sup>

The Admiralty suggested that it should be pointed out to the Norwegian Government "that their claim to the whole of the West Fiord was one of a very abnormal character, and that it would be unreasonable to expect that a claim of this description, warmly disputed before the outbreak of war, should be conceded at a time when to do so would be to limit, on an important trade route, the rights elsewhere enjoyed by a belligerent at sea."<sup>9</sup> The

<sup>1</sup> This is the old claim to estuary waters, or "chambers" (*intra fauces terrae*).

<sup>2</sup> Tel. to C.-in-C. July 30 1915; Norway was not informed. Papers titled Foreign Office 72579, June 18, 1915.

<sup>3</sup> About lat. 64° 10' N., long. 10° E.

<sup>4</sup> Swedish S.S. *Vollrath Tham*, 7.8.15, 64° 21' N., 10° E.; 8.8.15 Danish S.S. *Naesborg*, 64° 16' N., 9° 40' E. Also two other steamers laden with iron ore for Middlesborough. See Staff Monograph 12, Tenth Cruiser Squadron, p. 47.

<sup>5</sup> Through Kaura Leden in lat. 64° 15' N., 10° 11' E. See Chart 2308. Report, *Tenby Castle*, 25.8.1915. H.S.A. 118/349.

<sup>6</sup> See Staff Monograph 19, p. 47.

<sup>7</sup> November 13, 1915 in lat. 67° 47' N., long. 14° 10' E.

<sup>8</sup> Inside the line Skomvoer (lat. 67° 24' N., long. 11° 54' E.) to Gronna, Chart 1479.

<sup>9</sup> N.L. 0444/16 to F.O. 24.1.16.

great "Lofoten" fishing in the West Fiord, which lasted from February to April, was about to begin, and the Norwegian Government was chiefly anxious that their fishermen should meet with no interference from British warships. The British armed trawlers had been withdrawn<sup>1</sup> and an undertaking was given that Norwegian fishing interests should not be prejudiced by British fishing in the West Fiord.<sup>2</sup> There the matter rested for a time, but only for a time, for the action of British submarines gave rise to further protests.<sup>3</sup> The light cruiser sweeps carried out with the same object were usually fruitless,<sup>4</sup> though on May 10 the *Calliope* had intercepted the Norwegian S.S. *Lokken* off the Naze<sup>5</sup> bound to Lubeck with iron ore and sent her in.

**30. Cruiser Sweeps, Norway.**—The most promising areas for interception were naturally the points where shipping tended to leave territorial waters. There were, roughly, four suitable areas. The first was off the West Fiord (Ut. Grund faesa in  $67^{\circ} 41'$ ,  $14^{\circ} 22'$ ); the second in an area lat.  $64^{\circ} N.$  to  $64^{\circ} 41' N.$  and long.  $9^{\circ} 45'$  to  $10^{\circ} 52' E.$ ; the third off Stadlandet<sup>6</sup> ( $62^{\circ} 10' N.$   $5^{\circ} 5' E.$ ); and a fourth off Skudenaes ( $59^{\circ} 9' N., 5^{\circ} 15' E.$ ). But the bulk of the traffic clung to territorial waters and the sweeps yielded so little that late in the year the Commander-in-Chief represented<sup>7</sup> that the situation could only be dealt with by visiting and searching vessels in Norwegian waters. To this drastic step, which might well mean war with Norway, the Cabinet refused its assent. All that could be done was to continue the cruiser sweeps. (Plan 2.)

The usual sweep for light cruisers was from Lister to Utsire, or from Utsire to Utvaer and Stadlandet.<sup>8</sup> These sweeps were part of the normal work of the Grand Fleet, and four of them were carried out in June, 1916. The first was performed by the First Light Cruiser Squadron,<sup>9</sup> which sailed from Rosyth on June 14 with six destroyers of the 13th Flotilla. Arriving off Lister,<sup>10</sup> between Ekersund and the Naze about 1 a.m. on June 15, they ran up the coast outside territorial waters. A heavy, steep sea and strong north wind forced the destroyers to make for home. The light cruisers went up as far as Utsire, which was reached at

<sup>1</sup> Since January 3, 1916, partly perhaps on account of weather conditions.

<sup>2</sup> F.O. February 29, 1916, in H.S.A. 83/122.

<sup>3</sup> Case of Norwegian S.S. *Ranfoss*, stopped by a submarine near Flekkers, 10.2.1916, H.S.A. 83/122, M. 38402/1916.

<sup>4</sup> See "Home Waters," VI., p. 184, 208.

<sup>5</sup> Lat.  $57^{\circ} 57' 30''$ ; long.  $6^{\circ} 53' E.$  H.S.A. 118/372. See opinion by Dr. Pearce Higgins on territorial waters arising out of this claim, 13.10.1916, M. 08002/16, F.O. 72579.

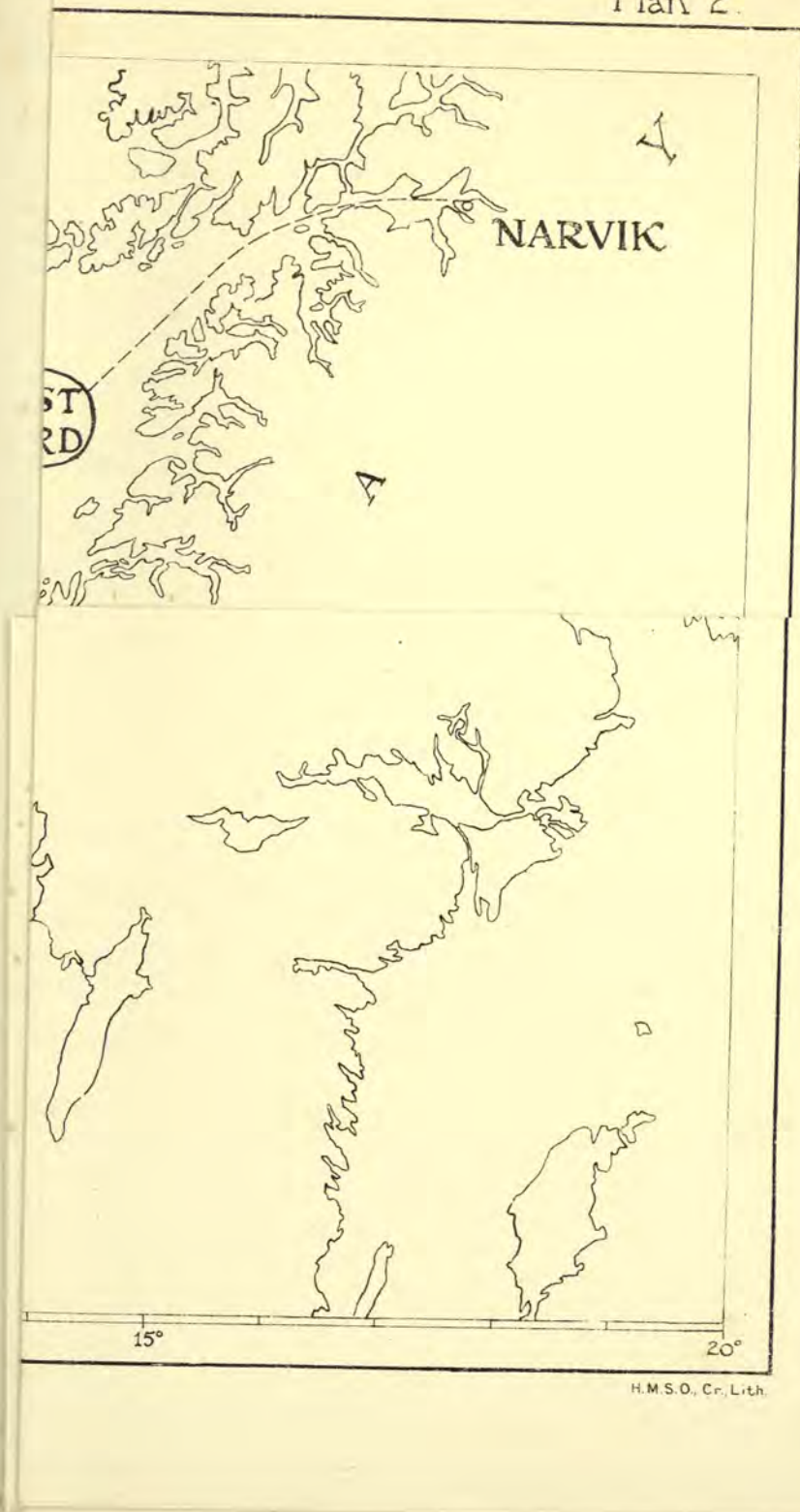
<sup>6</sup> But Lt. Sidney thought that traffic did not leave territorial waters at Stadlandet, and that the West Fiord was the best place. (H.M.T. *Saxon* 23.10.15.) See Chart 1479.

<sup>7</sup> C.-in-C. to Adty., Dec. 15.

<sup>8</sup> Chart 1479.

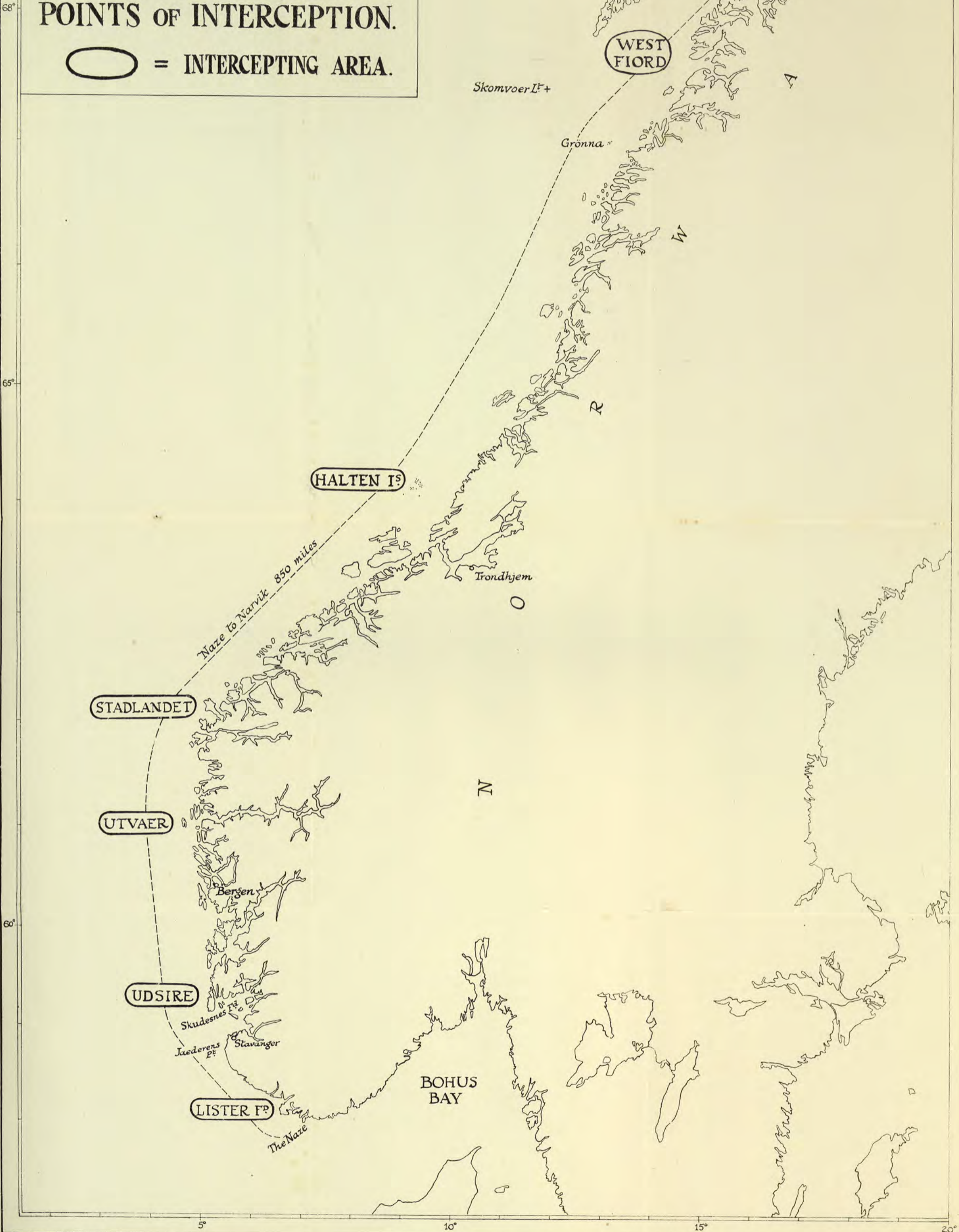
<sup>9</sup> *Galatea*, *Inconstant* and *Cordelia*.

<sup>10</sup> Lat.  $58^{\circ} 6' N.$ , long.  $6^{\circ} 34' E.$



# CHAPTER IV. NARVIK TRADE. POINTS OF INTERCEPTION.

 = INTERCEPTING AREA.



9.10 a.m., and then they, too, returned. Only five steamers of any size were seen, two of which were in territorial waters.

The second sweep was carried out by the cruisers *Devonshire*, *Antrim* and four destroyers. Leaving Scapa on June 21, the *Antrim* proceeded with two destroyers to the north-eastward of the Faroe Islands to patrol the Archangel route.<sup>1</sup> The *Devonshire* had gone off meanwhile to Stadlandet, where she arrived on June 22 in order to intercept any traffic from Narvik. There was nothing there, and she went off to patrol the Archangel route as far as 71° N., getting into wireless communication, on the 24th, with the *Antrim*, then midway between Jan Mayer Island and the North Cape.<sup>2</sup> They sighted one another on the 26th, and after receiving warning of a submarine sighted in 72° 26' N., 22° 50' E. and patrolling for a time between the Faroes and Shetlands, returned to Scapa on the 27th. Meanwhile the *Comus* and *Constance*, of the 4th Light Cruiser Squadron, had been sweeping off the Norwegian coast. They left Scapa on June 24 with four destroyers, and on arrival at Utvaer<sup>3</sup> on the morning of the 26th proceeded southward down the coast to Utsire and then back to Scapa, examining Dutch fishing vessels on the way. From Norwegian iron ore the Grand Fleet had to turn its attention to Dutch fish. The fish sent by Holland to Germany had long been a matter of grave concern, and on their way out on June 25 one Dutch fishing vessel, the *Johan V.L.2*, had been detained and sent in to Lerwick in charge of the destroyer *Michael*.

**31. Dutch Fishing Fleet, June-July.**—Fish was an important article of food to Germany, and out of a total consumption of 577,000 tons before the war she had imported 361,400 tons, or 52 per cent.<sup>4</sup> In 1915 she imported no less than 153,000 tons, and on June 20 the Minister of Blockade asked for the detention of Netherland fishing vessels, which he thought would do much to reduce the enormous quantity of herring going to Germany. There were already in the North Sea certain areas<sup>5</sup> prohibited to fishing vessels, which had been announced as early as October, 1914, when neutral powers had been warned that neutral fishing craft in these areas would come under suspicion of minelaying and would be liable to seizure on the grounds of unneutral action.<sup>6</sup>

As no precedent existed for the prohibition of fishing on the high seas, it was proposed on the one hand that action should be confined to a strict enforcement of the prohibited area of October, 1914. On the other hand, it was argued that a general seizure, with or without precedent, would make the Dutch owners anxious

<sup>1</sup> To a position approximately 65° N., 7° W. For Archangel route see C.I.O. 710/1916.

<sup>2</sup> 71° 45' N., 8° 21' E.

<sup>3</sup> Lat. 61° 2' N., long. 4° 31' E.

<sup>4</sup> W. E. Arnold Forster's *Economic Blockade*, 132.

<sup>5</sup> West of long. 1° E., when north of 54° 30' N. (approximately latitude of Whitby) and west of long. 2° 30' E., when south of 54° 30' N. A.M.O. 157/1914.

<sup>6</sup> See "Home Waters," II, s. 18.



to come to terms with the Minister of Blockade. The two grounds of action were entirely distinct, for one rested on a suspicion of unneutral action and was applicable only in a limited area, while the other was based on the principle of contraband applied to fishing vessels anywhere on the high seas. Approval was given for the first measure, and on June 23 the Commander-in-Chief was told to send into port all Dutch fishing vessels west of the limits laid down in 1914.<sup>1</sup> Nine trawlers fishing north of Aberdeen were sent in in June, and among them a Dutch fishing vessel found inside prohibited waters with hardly any fish on board.<sup>2</sup>

This was of no use to the Minister of Blockade, who was commendably anxious to send into Prize Court a vessel found outside prohibited waters with her catch on board and to test her liability to seizure on the independent grounds of contraband.<sup>3</sup> His view prevailed, and on July 3 the Commander-in-Chief was given orders to seize three Dutch trawlers outside the prohibited areas. More drastic measures were taken on July 7, when the Commander-in-Chief was told to send in all Dutch fishing vessels, outside or inside the prohibited areas, homeward bound with full cargoes of fish.

The fleet set to work.

Cruisers, destroyers and patrol vessels towed them in in a steady stream.<sup>4</sup> A loud outcry arose from the Dutch, though they had long been wondering at our tolerance, but our Minister at the Hague<sup>5</sup> was told that as long as herrings and other fish went to Germany we should be compelled to place Dutch fishing vessels and cargo in prize. Altogether some 150 vessels were seized in the North Sea and this drastic action had the desired effect. The two great fishing associations<sup>6</sup> came to terms, and agreements were concluded in August.<sup>7</sup> The vessels were released and the proceeds of the sale of their cargoes paid to the Dutch. These agreements, not by any means unremunerative to Holland, helped to reduce the Dutch export of fish to Germany from 153,000 tons in 1915 to 23,000 tons in 1917, and the Navy was directly instrumental in producing this result. It was not without its minor ironies. At Kirkwall the fishing craft ran out of provisions; and chocolate, bacon and lard seized from the trunks of

<sup>1</sup> Adty. to C.-in-C. 23.6.16, 1800.

<sup>2</sup> The *Johan V.L.* 2 by *Comus* and *Constance*, Lat. 59° 40' N., long. 0° 6' W., June 25-27.

<sup>3</sup> M.06027/1916.

<sup>4</sup> Between June 24 and July 14, 65 were seized in northern waters and sent—36 to Kirkwall, 9 to Lerwick, 11 to Peterhead and the rest to Wick, Longhope and Stornoway. The largest cargo was 424 barrels of salt fish.

<sup>5</sup> F.O. to Sir A. Johnstone, 7.7.16.

<sup>6</sup> Dutch Herring and Ymuiden Steam Trawler Associations.

<sup>7</sup> Under the Herring Agreement only 20 per cent. of the catch could go to Germany and a bonus was paid on the controlled portion. It cost us £479,000. The trawler agreement cost slightly less. Arnold Forster, 133.

German ladies and Americans on their way to Berlin went to appease the hunger of Dutch fisher folk and of skippers spending their enforced leisure in Kirkwall in the task of making out claims against the British Government for the damage they had sustained.

The fourth and last sweep off the coast of Norway in June was carried out by the 3rd Light Cruiser Squadron,<sup>1</sup> which left Rosyth early on June 29 with 6 destroyers and proceeding to Lister, swept northward along the coast, just outside territorial waters to Utsire. Very little shipping was seen, and no ship was sent in.

**32. The King's Visit to the Fleet, June 14.**—The Commander-in-Chief seized the opportunity of the lull in operations to arrange for the *Iron Duke* to proceed to Invergordon for a refit. There the Prime Minister, Mr. Asquith, was to visit him on June 15. But following close on the Prime Minister's message, came a personal message from the King to say that he "was most anxious to visit the fleet after the battle and that he proposed to arrive at Thurso on the afternoon of June 14."<sup>2</sup> The visit of the Prime Minister was deferred and the *Iron Duke* waited at Scapa. On his way north, the King stopped at Invergordon on the forenoon of June 14 and visited the *King George V* and the *Malaya* repairing her damages in dock. Thence he went on to Thurso, and embarking in the destroyer *Oak* and escorted by the *Castor* and the destroyers of the 11th Flotilla, arrived in the Flow that evening, and passed up the battle lines, welcomed by the cheers of the whole fleet. The King spent the night in the *Iron Duke*, where he received the Flag Officers and Commodores of the Grand Fleet. The next day (June 15) he received a representative gathering of officers and men and thanked them for their splendid work in the battle.

Leaving the fleet flagship, he visited the other flagships, lunching with Admiral Sir Cecil Burney, the Second in Command, and taking tea with Vice-Admiral Sir Doveton Sturdee. His Majesty dispensed with the customary ceremony, and during his visit the Royal Standard was not flown and no royal guards were mounted. The King left Scapa about 4.40 p.m., crossed safely to the mainland, and on his journey south stopped for a few hours at Rosyth, where, in the forenoon of June 16, the ships' companies of the Battle Cruiser Fleet marched past him, and in the afternoon he visited the flagships *Lion* and *Australia*. On June 17, the King addressed the following message to the Commander-in-Chief: "I am thankful to have had this opportunity of personally congratulating you and the Grand Fleet on the result of the recent engagement in the North Sea. Assure all ranks and ratings that the name of the British Navy never stood higher in the eyes of their fellow countrymen, whose pride and confidence in their achievements are unabated. Good luck and God speed. May your future efforts be blessed with complete success."<sup>3</sup>

<sup>1</sup> *Birkenhead* (flag) *Yarmouth*, *Gloucester*.

<sup>2</sup> H.S. 240/989; H.S. 241/218, 285, 345, 643, 672.

<sup>3</sup> H.S.A. 223.

33. **Harwich Force, June 1916.**—In the south, the principal incident of the month was the appearance at Zeebrugge of the German 2nd Flotilla, which Admiral Scheer had decided to send from the Bight.<sup>1</sup> This was the 2nd Flotilla famous in the German fleet,<sup>2</sup> the flotilla which, sighting the *Galatea*, had brought on the Battle of Jutland and in that battle had sunk the *Shark*.

Hitherto the only German torpedo craft on the Flanders coast had been small "A" boats, useful enough for minesweeping and submarine escort but offering no serious menace to the Dover forces. A powerful destroyer flotilla was a very different matter, and the direct result of Admiral Scheer's policy was to keep a strong detachment of the Harwich Force at Dover for nearly two months. The first news of the new German flotilla came from the *Crusader* on June 8, which sighted three enemy destroyers that morning off Ostend.<sup>3</sup> They reappeared, and at 8.25 a.m. Commodore (T) was ordered to take out his whole force against them and the 3rd Battle Squadron was told to proceed to the Swin. The Commodore sailed at 10.30 a.m. in the *Carysfort* with the *Conquest*, *Cleopatra*, *Canterbury*, *Aurora*, *Undaunted*, *Lightfoot*, *Nimrod* and 28 destroyers, but the enemy had disappeared. Nothing was sighted but German aircraft, and at 6.22 p.m. Commodore (T) swept up towards Terschelling and returned to Harwich.

It was actually the Flanders 2nd Half Flotilla which the Dover destroyers sighted off Ostend about 5.40 a.m. The leader then reported himself disabled<sup>4</sup> and the 2nd Flotilla was trying to find him. From Zeebrugge planes there came reports of British destroyers and two monitors off Dover; fire was exchanged with five British destroyers but the British monitors joined in and drove the Germans off, forcing them at 12.20 p.m. to break off the operation. Though the skirmish was of little importance except as a precursor to the more determined raid on Dover later in the year, intercepted signals had made it clear to the Admiralty that the German 2nd Flotilla had come down to Flanders<sup>5</sup> and Commodore (T) was told to reinforce the Dover Patrol temporarily with two light cruisers and eight destroyers and that the support of the Dover Patrol would be for the time being his principal task.<sup>6</sup> The *Aurora*, *Conquest* and eight destroyers went off on this duty the same day (June 8) and two days later eight more destroyers were taken away to escort the 3rd Battle Squadron to Portland. It was not till June 19 that the Harwich Force again put to sea.

<sup>1</sup> Scheer, *High Sea Fleet*, 178.

<sup>2</sup> It was in a boat of this flotilla that the German C.-in-C. embarked in November 1918, and compelled the surrender of the rebellious crew of the *Thuringen*.

<sup>3</sup> H.S. 240/764, "S.E. by E. 6 m. from No. 5 Buoy, 0510." The old No. 5 Buoy was in 51° 3' N., 1° 47' 15" E.

<sup>4</sup> At 6.8 p.m. War Diary I.D. Vol. 3017.

<sup>5</sup> See I.D. War Diary Vol. 3017.

<sup>6</sup> H.A. 240/901.

34. **Proposed Seaplane Attack on Emden.**—On June 15, Commodore Tyrwhitt proposed an air attack on the locks at Emden. No seaplane carrier was to be employed on the occasion, but for the first time a plane was to fly direct from Felixstowe to a position "X", 14 miles north of Vlieland, there to be re-fuelled by a destroyer and to be towed to a position "Y," six miles north of Ameland and 60 miles from Emden.<sup>1</sup> The project was dogged with ill luck. The *Carysfort* left Harwich to carry it out on June 19 with the *Conquest* and 14 destroyers, but the weather outside was so bad that they had to return within an hour. Three days later (June 22) the force sailed again. This time, though the weather conditions at sea<sup>2</sup> seemed ideal, the weather at Felixstowe seemed unfavourable, and the flight was cancelled by the commander there, who had instructions to use his discretion in the matter. A third attempt was made the next day (June 23), and the seaplane got away but broke a wing off Terschelling and had to be towed back. The operation was abandoned and the force returned to Harwich, where a matter of urgent importance was awaiting the Commodore's attention. This was the protection of vessels employed in the Dutch trade.

35. **The Dutch Trade.**—During the spring and summer of 1916, the imports of fish and dairy produce from Holland and Scandinavia helped considerably to alleviate Germany's demand for oil and fat. As it was impossible to check the flow of supplies across neutral frontiers, it was decided to come to some agreement with the exporting interests, and after lengthy negotiations a provisional agreement was concluded on June 30<sup>3</sup> with the Dutch Agricultural Association, which secured for Great Britain a large proportion of the food exports of the Netherlands. Though the full effect was not felt for some months, it produced from the first a marked restriction on supplies for the Central Powers and produced an increased flow of traffic to Great Britain.

36. **Capture of the Brussels, June 23.**—Nearly a month had passed since the arrival of the German 2nd Flotilla at Zeebrugge, and as it seemed probable that one of its objectives would be the Dutch trade Commodore Tyrwhitt visited the Admiralty on June 24 to discuss the situation. That very day came in a report from Holland to say that a "Harwich liner" had been stopped and brought into Zeebrugge. This was the S.S. *Brussels*, Captain Fryatt, a Great Eastern Railway steamer which had left Rotterdam for Tilbury late in the afternoon of June 22. She stopped for mails at the Hook of Holland and was under way again at 11 p.m. Off the Maas Light Vessel a small craft was seen, possibly a sub-

<sup>1</sup> Referred to as Operation 00102 or R. For proposal see Untitled Papers in M. 05534/16.

<sup>2</sup> 52° 45' N., 3° 21' E.

<sup>3</sup> Modified in November, 1916, Arnold Forster's Economic Blockade, 130; F.O. Confidential 10687.

marine on the surface. Shortly afterwards the *Brussels* switched on her navigation lights, as another steamer was close at hand, steering the same course without lights. Suddenly at 12.45 a.m. five German destroyers were sighted coming down at high speed on the starboard bow. She was surrounded and stopped, boarded and taken into Zeebrugge.<sup>1</sup>

The *Cromer*, her sister ship, was due to leave Holland the following night (June 26)<sup>2</sup> and the *Lightfoot* and 11 destroyers were despatched to the Maas Light to bring her in, the first occasion on which so large a detachment had been employed to cover a single ship. They saw nothing and returned to Harwich on the morning of the 27th. The German flotilla was at sea, but did not venture so far north, and after stopping the Dutch S.S. *Prins Hendrik* off Schouwen Bank, had allowed her to proceed.<sup>3</sup>

The next day, Commodore (T) with three light cruisers and 16 destroyers was on the move again and proceeded to the Schouwen Bank and Maas Light for an exercise cruise. A submarine was sighted by the *Canterbury* early in the morning of June 29, and the *Lightfoot*, at 3.20 a.m., opened fire on another<sup>4</sup> on the surface some 2½ miles away, and rushing up dropped a depth charge. The usual bubbles were seen coming to the surface but there is no evidence that the submarine was hit or damaged.<sup>5</sup> The cruise, nominally for exercise, was actually a patrol off the Dutch coast, and is so described in Commodore T's Diary. It was the first of many carried out to protect British shipping to Holland, and developed before long into a definite routine known as the Dutch Patrol.<sup>6</sup> The eastbound traffic waited at Tilbury and the west bound at the Hook of Holland, till the Admiralty issued orders for the Patrol to take up its positions and the ships to start. It remained one of the most important tasks in the Hoofden up to the end of July, when the German 2nd Flotilla was withdrawn, and it must be regarded as a testimony to the efficacy of the Harwich Force that it was not till June 1916 that any special measures were necessary for the purpose. And if the object of the German flotilla was to intercept British traffic with Holland, it did not attain it. It effected little in this direction and captured only a few British ships, one of which, the *Brussels*, became famous through the harsh fate meted out to her commander, Captain Fryatt. During its two summer months in Flanders the famous 2nd Flotilla added very little to its fame.

<sup>1</sup> Untitled Papers in M. 06133/16. For a full account of Captain Fryatt's case see Archibald Hurd, *Merchant Navy*, 2/307.

<sup>2</sup> H.S. 244/98, 105, 146, 260, 283. *Lightfoot's* Sailing Orders in Comm. T's Diary, H.S. 246/55.

<sup>3</sup> M. 06047/16.

<sup>4</sup> Five miles W. by S. (Mag.) from Schouwen L.V.

<sup>5</sup> M. 06020/16. Mittler's "Halbstocks die Flagge" does not give any submarine sunk on this date.

<sup>6</sup> Untitled papers in M. 06030/16.

37. **Submarine Patrol off Terschelling**<sup>1</sup>.—Though it was not till July that the Dutch Patrol developed into a routine the Lowestoft Raid had already given an unpleasant reminder of the unprotected state of the routes in the Hoofden and the experience of the submarines on that occasion had demonstrated the necessity for their being well advanced towards the Bight if they were to do anything towards intercepting German ships. Captain (S)<sup>2</sup> had suggested certain fixed areas to which submarines could be despatched in ample time, but the Admiralty, on the ground that such areas might be rendered dangerous by mines, preferred a code with a number of positions to which the submarines could be instructed to proceed.<sup>3</sup> These patrols were started on May 7, on which date four submarines<sup>4</sup> were despatched to cruise off Terschelling for a week, and continued through the month. The submarines cruised about 20 miles apart, not far from the meridian of 5° E., patrolling the road to the Bight. They had orders to cruise on the surface at night, to keep a specially good look-out for German destroyers during the dark hours and to remain on their stations for a week. *D.1* fired two torpedoes at a large destroyer off Vlieland in May, and was attacked by it with depth charges, but suffered little damage.<sup>5</sup> The patrols continued during the month, but beyond a number of Dutch fishing vessels and Dutch merchantmen nothing was seen.

At the beginning of June 1916, the 8th Submarine Flotilla consisted of 17 boats at Harwich and 6 at Yarmouth,<sup>6</sup> and the first patrol off Terschelling was performed by *D.3* from Harwich and *H.10* and *V.1* from Yarmouth. They left on June 1 at noon, but *D.3* came back on June 3 with defective motors and *D.4*, which left the same day to take her place, had to return four days later with all her officers and crew ill from arsenic-retted hydrogen gas. The patrols went on during the month with little to report beyond a fortunate escape by *D.6* (Lieutenant G. S. White), which on June 14, diving early in the morning at 50 ft. some 50 miles west of Terschelling,<sup>7</sup> fouled a mine mooring and on rising to the surface found a small pearshape horned mine sitting on the port foremost hydroplane with one of its horns broken. *D.6's* report is brief, "Went astern both motors, mine slipped off and sank. . . ." On June 23, *E.23* attacked a German outpost boat, the *Karlsberg*, but the torpedo just missed. *E.23* was seen and

<sup>1</sup> H.S.A. 271.

<sup>2</sup> Captain A. K. Waistell.

<sup>3</sup> Capt. (S) to Chief of War Staff May 15 1916, and reply May 22, H.S.A. 271/491, 494. The Code is in H.S.A. 271/498.

<sup>4</sup> *E.55*, *E.26*, *D.1* and *V.1*. For detailed orders, positions and reports see H.S.A. 271/364.

<sup>5</sup> Lieut. Edw. B. Ryan, H.S.A. 271/361.

<sup>6</sup> Positions and Movements June 1916. Yarmouth also had 5 in the Baltic and one (*E.13*) interned at Copenhagen.

<sup>7</sup> 53° 31' N., 4° E. This must have been one of the mines laid by the *Regensburg* and *Graudenz* in September 11–12 1915; its eastern end is in 53° 27' N., 3° 54' E. German Minefield Chart, Sheet III, X. 178.

reported, and on June 25 was attacked by *L.9*, who dropped nine bombs round her without doing any damage.<sup>1</sup>

**38. British Submarine Minelaying, June 1916.**—The mine-laying begun by *E.24* in March,<sup>2</sup> and cut short by her melancholy loss, was continued in June by *E.41* (Lieutenant H. T. Nearn). On June 10 she laid 17 mines some 8 miles south-east of Amrum Light,<sup>3</sup> which, apparently, were not discovered for nearly three weeks. While she was laying them the German mine-sweepers, 50 miles north-west of her, had just found the mines laid by the *Abdiel* on May 3. Returning safely she started off again on June 21 and laid another cargo of 19 mines, just off Norderney,<sup>4</sup> which were discovered on June 23, and caused the loss of a minesweeping trawler.<sup>5</sup> *E.41* evaded the German patrols successfully, but was not so fortunate on her own side. As she drew near the English coast a motor launch<sup>6</sup> from Lowestoft opened fire and expended 15 rounds on her, when she was on the surface with the bridge and both wireless masts up, with ensign flying and had made the challenge, an incident which drew a sharp letter of protest from Captain (S).<sup>7</sup>

**39. British Submarine Patrols off Kattegat and Skagerrak.**—While the Harwich submarines, which worked under direct orders from the Admiralty, were watching the western exit of the Bight for German war vessels, the Blyth submarines, which were under the orders of the Commander-in-Chief, were cruising off the Norwegian coast and in the Kattegat on the lookout for enemy submarines and enemy trade. From May 26 to June 2, *G.10* was cruising between Lister and Jaederens Point<sup>8</sup> and *E.30* off Stadlandet. *E.30* saw only six merchant ships, three of which were hugging the coast and passed inside Svino Island, close to Stadlandet, inside Bukksty Vene Rocks, and disappeared behind Vaagso Island, a route which had certainly nothing to commend it on the score of simplicity,<sup>9</sup> and must have been a serious handicap to German trade. Returning, she sighted on June 2 at 9.20 p.m., in 58° 32' N., 0° 20' E.<sup>10</sup> two four-funnelled cruisers of the British *Cochrane* class, steaming in line abreast two miles away. The submarine challenged with a cruiser arc lamp, but the cruiser without replying opened fire<sup>11</sup> and *E.30* had to dive. The cruiser was the *Minotaur*, on her way back from Jutland. She had

<sup>1</sup> For Terschelling submarine patrol reports in June, see H.S.A. 271.

<sup>2</sup> See Home Waters VI, para. 111, 116, H.S.A. 271/218.

<sup>3</sup> Field 101 in Lockhart Leith's History. Lat. 54° 29' to 54° 27' N., long. 8° 6' to 8° 11' E.

<sup>4</sup> Field 103, Lockhart Leith.

<sup>5</sup> The *Henry Pickenpack*. War Diary June 25, 1430.

<sup>6</sup> M.L. 125.

<sup>7</sup> H.S.A. 271/476.

<sup>8</sup> About 60 miles to northward of Lister.

<sup>9</sup> See Chart 2305.

<sup>10</sup> *Minotaur's* position.

<sup>11</sup> It was the duty of submarines to keep clear.

not recognised the challenge, and the next morning informed the Commander-in-Chief and Admiralty that she had sunk a submarine,<sup>1</sup> a report, fortunately confuted by the arrival of *E.30* happily safe and sound at Blyth the same evening. The three Harwich submarines, *E.26*, *E.33* and *D.1*, which had been off Vyl Light, near Horn Reefs, during the Battle of Jutland, were also on their way back on June 3. They had been sent to waylay submarines, and knowing nothing of the German Fleet being out, had been on the bottom when it passed in the morning. *E.55* had heard a number of explosions, and on June 2, at 6.13 p.m., was able to get a shot at a German submarine, but, though she thought she heard a loud explosion, the submarine reached home uninjured.

Blyth submarines continued to patrol in the Kattegat, and *G.4*, cruising off Falkenberg on June 19 at 5.5 a.m. sighted a steamer without a neutral flag and, rising to the surface, gave chase with the signal "Stop instantly" flying. The steamer, which was the German S.S. *Ems*, of Hamburg, from Christiania to Lubeck, with train oil, zinc and copper plates, made for Swedish waters off Morup Tange,<sup>2</sup> but was stopped by a few shots and hoisted the German mercantile ensign. As soon as the boats were clear *G.4* fired two torpedoes at her, both of which missed, a recurrence of what had happened in the case of the *E.30* and *Trave* about a month before.<sup>3</sup> She then opened gun fire at her water line and the ship began to settle. Meanwhile another German ship was approaching, but, encouraged by the presence of a Swedish torpedo boat *Mira*, which came hurrying up from the south, it refused to stop and got safely into neutral waters. That day three more German ships passed, all well inshore and each under the escort of a Swedish torpedo boat. As in the case of the *Trave*, the Swedish Government protested, and subsequently claimed compensation on the grounds that the ship had been attacked in neutral waters, a claim which the Admiralty resisted stoutly. A protracted controversy issued, and the file of correspondence grew steadily larger. The discovery of the wreck of the *Ems* well inside the three-mile limit,<sup>4</sup> 1½ miles from shore, did not strengthen the British case; and the contention that it had drifted there, involving a drift of 3½ miles at 2.3 knots, was viewed with considerable scepticism, which was not diminished when the Swedish Admiralty discovered that the British Admiralty was reckoning in ordinary Swedish time (one hour ahead of G.M.T.) instead of in Swedish summer time (two hours ahead). The discussion lingered on till July 1918, when the Procurator-General pointed out that if the Admiralty thought it possible to maintain

<sup>1</sup> H.S. 239/482.

<sup>2</sup> Position in *G.4's* report, Lat. 56° 58' N., long. 12° 13' E.; Morup Tange 123° 5½ miles, H.S. 626/57.

<sup>3</sup> Home Waters, VI, S. 167.

<sup>4</sup> The position given by *G.4* was lat. 56° 58' N., long. 12° 13' E., 4½ miles from shore.

their contention that the ship was fired on outside territorial waters, the proper course was to institute proceedings in the Prize Court and leave the Swedish Government to make a claim for compensation. The question was still under discussion at the Armistice, when it was evaded by the insertion of a clause in the Treaty of Peace, in which enemy governments waived all claims to restitution or compensation arising out of the destruction of enemy vessels seized inside territorial waters.<sup>1</sup>

The last cruise during June was that of *E.30*, the submarine that had sunk the German S.S. *Trave* on May 18. She left Blyth on June 28, and on July 3, at 0.40 p.m., when S.24 W. 3½ miles from the Naze, sighted a Norwegian S.S., *Prunelle*, of Bergen, a ship in the Admiralty Black List, bearing N. 15 W. 1¼ miles, and so outside but close to territorial waters. She fired two shots at her, and was then followed and forced to dive by a Norwegian guard boat, the *Kjell*. Another controversy ensued.

The Norwegian Government contended that the *Prunelle* was only 1½ miles from shore when fired on, and protested first against the firing within territorial waters, and, secondly, against the further violation by diving in territorial waters and failing to observe the regulation which required the submarines of belligerent powers to be on the surface. This was made on July 15, and the Admiralty decided in consequence to cancel the instructions of July 30 1915 with regard to a four mile limit (issued a year before), and revert to the 3-mile limit, though it was not till September that the Commander-in-Chief was given definite instructions in the matter. He was to disregard any but the 3-mile limit in the case of German warships, surface or submarine, and similarly in the case of mercantile ships, if there were reasonable grounds for suspicion, but to avoid as far as possible stopping innocent merchant ships between the 3 and 4-mile limit, unless necessary for purposes of recognition.<sup>2</sup>

**40. German Submarines in June 1916.**—It was on his way back from Lowestoft on April 24 1916, that Admiral Scheer received orders to conduct submarine warfare according to prize law, that is by visit and search—the momentous result of the American note on the torpedoing of the *Sussex*. In bitter disappointment he recalled all the submarines of the High Sea Fleet, and refusing to be a party to measures which in his opinion exposed the boats to excessive risk, informed the Chief of the Admiral Staff and Army Head Quarters that the submarine warfare against commerce had ceased. The result was a great lull during the summer in the warfare against merchantmen. The

<sup>1</sup> Papers titled *Foreign Office*, June 20 1916.

<sup>2</sup> Adty. to C.-in-C., September 18, 1916. M. 08002/1916, all in papers titled *Foreign Office*, June 18 1915.

actual number of submarines with the High Sea Fleet at the beginning of June was 31,<sup>1</sup> organised as follows:—

1st ½ Flot.	2nd ½ Flot.	3rd ½ Flot.	4th ½ Flot.
(Wilhelmshaven)	(Heligoland)	(Emden)	(Emden)
<i>U.B.20</i>	<i>U.51</i>	<i>U.20</i>	<i>U.28</i>
(Baltic)	<i>U.52</i>	<i>U.47</i>	<i>U.64</i>
<i>U.77 (M.L.)</i> <sup>2</sup>	<i>U.53</i>	<i>U.22</i>	<i>U.32</i>
<i>U.B. 28</i> (not in use).		<i>U.19</i>	<i>U.67</i>
<i>U.71 (M.L.)</i>		<i>U.24</i>	<i>U.63</i>
<i>U.72 (M.L.)</i>		<i>U.43</i>	<i>U.66</i>
<i>U.B.21</i>		<i>U.44</i>	<i>U.70</i>
<i>U.B.22</i>		<i>U.45</i>	<i>U.69</i>
<i>U.B.27</i>		<i>U.46</i>	
<i>U.75 (M.L.)</i>		<i>U.48</i>	

The vacillations of policy arising from the tug-of-war between the Chancellor and the Admiral Staff had practically suspended orders for new boats in 1915, but a large order for 58 boats had been placed in May 1916, and there were 141 building, with 10 coming in every month.<sup>3</sup>

The summer of 1916 has been called by Vice-Admiral Michelsen a period of absolute cessation.<sup>4</sup> This it certainly was not, but it was a time of greatly diminished activity against merchant shipping. Not a single ship was sunk in the Channel, South-west Approach and Irish Channel, and apparently only two submarines made any extensive cruises in the North Sea—*U.19* and *U.22*.

*U.19*, the boat that had landed Roger Casement in Ireland earlier in the year, leaving the Ems on June 6, passed through Fair Island Channel, cruised in the Cape Wrath area for a day or two, and was sighted off Loch Ewe, but attacked nothing and was not attacked and was on her way back on June 15. *U.22* left about June 10 for the same locality and cruised for a couple of days (June 16 to 18) in the Cape Wrath area, returning north of the Shetlands, down the coast of Norway. She was sighted and chased on June 16 at 7.35 p.m. by the armed yacht *Iolaire*, and, 80 miles west of the Shetlands on June 21 sank a French sailing vessel, *Francoise d'Amboise*, whose crew was saved and landed at Kirkwall. The orders given to these submarines are not known, but they seem to have been reconnoitring to the west of the Orkneys.

No restriction had been placed on submarine minelaying in the orders arising out of the American note and the German submarine minelayers continued active. *U.72* laid 34 mines off Cape Wrath between June 25 and June 29, and *U.71*, passing some

<sup>1</sup> Nordsee 5/469, May 31, 1916. Michelsen, U-Bootskrieg gives number in June as 27 only and 15 in Flanders.

<sup>2</sup> M.L. = Minelayer.

<sup>3</sup> Michelsen, 129, 59.

<sup>4</sup> "absoluten stellstandes" Michelsen 58.

15 miles west of St. Kilda on June 26, laid 34 mines in the Clyde route some 10 miles south of Skerryvore. In the south, the U.C. boats from Flanders continued their minelaying operations against the south-east coast with undiminished activity and laid 192 mines, in 16 cargoes of a dozen mines each, in the following localities :—

	Cargoes.	Ships mined.
Off Lowestoft .. .. .	1	5
Off Orfordness (Aldborough Napes and Shipwash) .. .. .	7	5
Off Thames (Sunk Lightvessel to N. Fore-land) .. .. .	8	Nil.

Of these some 90 mines were swept up during the month. The losses in the Lowestoft area were specially heavy, numbering no less than 9 ships large and small. They included an armed trawler, the *Kaphreda* (June 8); 2 minesweeping trawlers, the *Tugela* (June 26) and the *Hiros* (June 29); the Spanish schooner *Mendibil Mendi*, 2,522 tons, on her way to Bilbao with 5,600 tons of coal (June 18); the American schooner, *Seaconnet*, 2,294 tons, with 2,000 tons of lumber for London (June 18); the British S.S. *Burma*, 706 tons, with a loss of 7 out of 16 men, and the British S.S. *Astrologer*, 912 tons, on her way to Dunkirk, with a loss of 11 out of 19 men. A dredger, the *Mercurius*, suffered the same fate, and the Corton Light Vessel, too, was sunk on June 21 by a mine<sup>1</sup> entangled in her cable. All these were sunk in the Lowestoft and Aldborough area probably late in May. Further north the Dutch schooner *Otis Tarda*, of 759 tons, was blown up (June 21) some 15 miles from Yarmouth,<sup>2</sup> a victim possibly to one of the *Stralsund's* old mines.

These ships were not, it is true, of the largest size, but they involved a considerable loss of life and made the respectable total of something like 4,000 tons,<sup>3</sup> or 500 tons per field of 12 mines; taking it all in all, a fairly satisfactory result.

*Note.*—For German minefields, see German statement of Mines laid, O.U. 6020 B. I.D. 1919 (no dates given). For Minesweeping, see Minesweeping Statements, Bi-monthly Reports. For British ships mined, see Trade Division Return January 1918, British ships captured and destroyed and January 1919, Foreign vessels sunk or damaged. For Navy losses, Admiralty Return, August, 1919.

**41. The High Sea Fleet in June.**—For the High Sea Fleet the month of June was a month of repair. At Wilhelmshaven, the *Seydlitz*, *Ostfriesland* and *Helgoland* were in dock; the *Grosser*

<sup>1</sup> Probably laid in May.

<sup>2</sup> In 52° 39' N. 2° 10' E (M. 45928/16). The position is on the edge of the *Stralsund* minefield. No submarine minefield was laid in this area. The I.D. Submarine Chart marked this ship as torpedoed, but this now seems unlikely.

<sup>3</sup> The *Parhgate* was mined (June 1) and the *Golconda* sunk (June 3) in same area, but probably on May minefields.

*Kurfürst*, *Markgraf* and *Moltke* were at Hamburg; the *König* and *Derfflinger* were sent round to Kiel. A technical committee was appointed to investigate the result of the battle, and recommended the abolition of torpedo nets. For the rest it reported that German shipbuilding, gunnery and tactics had come through a severe trial 'with splendid results.' The *Lützow*, after a terrible battering, had kept afloat for six hours and was sunk finally by German torpedoes. The *Derfflinger* and *Seydlitz* had survived their heavy punishment and had got home, the former with turrets burnt out, the latter with her fore part under water. Not a single German ship had blown up. Their star shells, smoke apparatus and searchlight control had all proved their value, and when the Kaiser came aboard the flagship on June 5, to thank the men for their gallantry, he claimed the battle as "the first mighty stroke heralding the downfall of England's mastery of the sea." Scheer and Hipper received high orders, the former was promoted to Admiral and a lavish distribution of Iron Crosses was made.

And yet in his heart of hearts, Scheer was under no delusions as to the risk he had run; he knew that he was no nearer the goal, that the blockade was still tightening its grip, that the mastery of the sea still lay with the Grand Fleet; and so when the Imperial Chancellor visited the High Sea Fleet on June 30, he urged on him the necessity of unrestricted submarine warfare. This, he urged, was the only true policy of German naval strategy. He could not approve of his submarines carrying on the war against commerce by the milder method of visit and search, and he set forth the naval reasons against it and the excessive risk involved. The Chancellor, enmeshed in a web of circumstances, drew a gloomy picture of the situation, which would not permit him to risk the resentment of powerful neutrals or embark on a course in which the fate of Germany might lie in the hands of a single submarine commander.

Scheer clung to his point and urged it as the final recommendation of his official report (July 5) on the grounds that no battle could break the blockade in face of England's geographical position and superior naval strength. And so the month came to an end, a month of review, revision and repair and of great searchings of heart on both sides of the North Sea.

## CHAPTER V.

## OPERATIONS IN JULY 1916.

42. **10th Sloop Flotilla Attacked, July 4.**—The sweeping of L. and M. Channels,<sup>1</sup> both intended to give a clear road to the Bight for the British Fleet, was the task of the 10th Sloop Flotilla in 1916, and in spite of the sinking of the *Arabis* by the German 2nd Flotilla on February 11 it had gone on steadily month by month. It was now to receive another blow. In the morning of July 4, the Flotilla of six sloops, under Captain W. R. Napier, was out sweeping early. They had started work just after 3 a.m. from a position near 51° N. 1° 21' E., and were working in a south-easterly direction in two divisions, roughly three miles apart, each division consisting of two vessels sweeping and one screening. On the left wing were the *Rosemary* (Lieutenant-Commander Ronald C. Mayne) and the *Alyssum* with the *Buttercup*, the senior officer's ship, screening and zigzagging ahead, while the *Poppy* was screening the *Gladiolus* and *Mignonette* on the right wing. At 6.25 a.m. the *Rosemary* reported a submarine astern, but Captain Napier did not attach much weight to the report and made a remark to that effect when he passed it by pigeon to the Rear-Admiral, East Coast, and to the Admiral, Minesweeping. Three hours passed, when at 9.25 a.m. the officer of the watch in the *Alyssum* sighted two torpedo tracks.<sup>2</sup> He at once turned away and they passed harmlessly ahead. One was seen by the officer of the watch in the *Rosemary*, who turned promptly towards it, but it was too late; the sweep was dragging against the helm and the torpedo struck the ship aft on the port side, blowing off her stern with the propellers and rudder. The *Alyssum* took her in tow smartly and the other four sloops closed round. As the speed was only four knots, the ship offered a good target for attack, but none was made and she arrived home safely in the Humber. The torpedoes were fired by *U.63*, which had come from Emden and seems to have remained in the vicinity of the Dogger Bank for a week. An inquiry held on July 6, found that only one sloop was screening instead of the two ordered by the A.M.S.,<sup>3</sup> but it questioned the suitability of sloops for screening and foresaw further inevitable losses if flotillas were to be employed far from their own coast with no more screening protection than their own craft. This was not the view taken at the Admiralty, where it was pointed out that sloops were employed for escort duties in other waters, and had not suffered any more losses than destroyers, of which in any case none were available. Sloops had

<sup>1</sup> L. opened in December 1915, and M. approved A.L. 19.2.16. H.S.A. 89/23.

<sup>2</sup> 54° 22' N, 3° 09' E.

<sup>3</sup> Admiral Minesweeping, order No. 9/3533 prescribed two vessels to be used as a screen, "the number of vessels sweeping being regulated accordingly."

to be used for screening, or the sweeping had to stop. "We have to use what we have to the best of our ability or else do nothing" was the final opinion on the matter.<sup>1</sup>

43. **Cruiser Patrols, July 1916.**—Meanwhile, in the course of the summer, a steady stream of munitions was passing to Archangel, where the wharfs were groaning under the goods piled on them. Their protection placed another burden on the Grand Fleet. The route passed westward of St. Kilda, up the meridian of 11° W. to half way between the Faroes and Iceland<sup>2</sup>, and for some 20 days, between July 4 and August 5, was patrolled by Grand Fleet cruisers. The nucleus of the patrol consisted of two armoured cruisers, escorted some 200 miles towards their beat by a couple of destroyers. The beat proved a lonely one, and the *Roxburgh* (July 4-9) saw only the *Arlanza*, of the 10th Cruiser Squadron, two Norwegian whalers and fishing boats plying their craft off the Faroe Islands.<sup>3</sup>

44. **Enemy Raider expected, July 9-15.**—The work of the fleet at this time was confined almost entirely to cruiser sweeps and patrols and some ten were carried out during the month, directed chiefly towards the Norwegian coast and Archangel route.<sup>4</sup> Of these the most extensive was a search for a supposed German raider, which engaged the whole of the light cruiser squadrons for more than four days. It started with a telegram from the Admiralty on July 8 informing the Commander-in-Chief that an agent in Copenhagen, "considered fairly reliable," had reported that a new raider of the *Moeve* type was expected to sail from the High Sea Fleet base on the 9th accompanied by four or five torpedo boats. She was described as painted dark grey with two sloping funnels, of slender build and high speed.<sup>5</sup> Steps were immediately taken to intercept her and three patrol lines were established—one of 8 light cruisers and 8 destroyers, on the Norwegian coast opposite the Moray Firth, a second line of 4 light cruisers and 6 destroyers 180 miles further north, between the Shetlands and Norway, and a third of 2 cruisers and 2 destroyers 180 miles north of the Shetlands, while to the westward 13 ships of the 10th Cruiser Squadron continued to plough their Atlantic beat.

Early on the morning of July 9, Admiral Beatty was told to send out two light cruiser squadrons (8 light cruisers) with a destroyer for each light cruiser, and the 1st and 3rd Light Cruiser Squadrons were detailed for the purpose. They were to arrive

<sup>1</sup> Papers titled Cap. N. 48 in M. 06253/16.

<sup>2</sup> C.M.O. 710/1916, I. (4).

<sup>3</sup> Orders and reports in M. 06497/16, M. 06978/16 and H.S.A. 244. See also Grand Fleet Narrative H.S. 431. The *Roxburgh* seems to have been off the route.

<sup>4</sup> The Archangel route was patrolled by armoured cruisers, and *Devonshire* sailed for it on July 4, *Duke of Edinburgh* and *Achilles* on July 7. Norwegian coast sweeps were performed by the light cruisers. A summary will be found in Grand Fleet Narrative, H.S. 431.

<sup>5</sup> H.S. 249/577.

off Skudenaes by 5 a.m. on July 10, keeping north of a line  $240^\circ$  from that point to avoid submarines reported between it and the Naze. This may be called the first patrol. Sailing at 4.30 p.m. on July 9 they patrolled off the Naze on a front of 100 miles but saw nothing of the supposed raider. On June 11 the Commander-in-Chief asked if there was any further information, as the ships must return to fuel, and was told that there was none. The Rosyth forces turned home on the 12th and the *Galatea* reported sighting a torpedo at 3.25 a.m.,<sup>1</sup> which passed some 300 yards astern. On the same quest, 4 light cruisers and 6 destroyers sailed at 8.30 p.m. on July 12th. They proceeded to a point 50 miles south-west of Lister, then swept up the coast on a broad front to a point some 80 miles W.S.W. of Bergen. They were back at Rosyth on July 15 having seen little but Dutch fishing craft and passed one of the Blyth submarines, *G.6*<sup>2</sup> on the 13th. The second patrol, consisting of the 4th Light Cruiser Squadron, to northward of them was equally uneventful. Its 4 light cruisers sailed with 6 destroyers on July 10 to patrol between Norway and the Shetlands on the parallel of  $61^\circ$  N. between  $1^\circ$  E. and  $4^\circ$  E. covering 90 miles of the 150 miles space, while 2 destroyers extended the patrol to the Shetlands. They saw nothing but a couple of Norwegian steamers and a Dutch sailing drifter, which was sent into Lerwick. The weather had been fine and clear, but the long daylight, involving a high speed to avoid submarines, told heavily on the fuel, and necessitated the destroyers going to Balta Sound<sup>3</sup> on the 12th to fuel from a light cruiser.

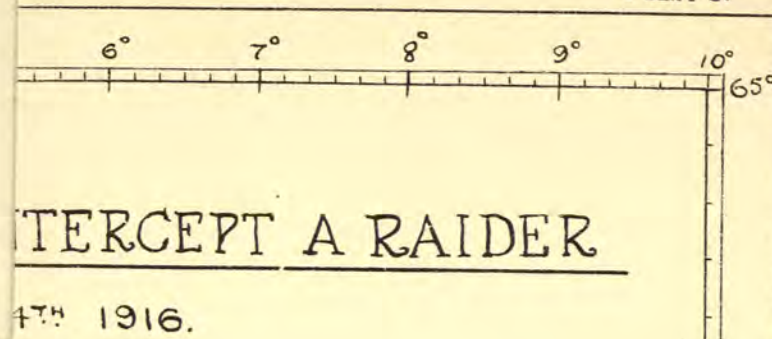
Word came to them from the Commander-in-Chief that evening to leave the patrol the next morning at 3 a.m., and at that hour they came sweeping south at 16 knots, spread at visibility distance with the centre of the sweep in  $2^\circ 30'$  E. and were back in Scapa by 7 p.m.<sup>4</sup> The third patrol right away to the northward consisted of the two armoured cruisers *Donegal* and *Shannon*. They had left Scapa on July 10 at 1 p.m. with 4 destroyers (2 of which returned on reaching  $62^\circ$  N.) with orders to sweep up the meridian of  $1^\circ$  W., the *Donegal* between lat.  $63^\circ$  and  $64^\circ$  N., and the *Shannon* between lat.  $64^\circ$  and  $65^\circ$  N. moving their patrol  $1^\circ$  of longitude to the eastward at 4 a.m. each day. On July 12 the *Shannon* (Captain John Dumaresq) was asked by the Commander-in-Chief if the destroyers had fuel to stay out till the 15th, and it was on the strength of this signal, intercepted in the *Calliope*, that Commodore Le Mesurier sent his destroyers into Balta Sound to fuel. When the 4th Light Cruiser Squadron was recalled on July 12, the two armoured cruisers took up a patrol some 120 miles to the south-east, but saw nothing of any raider and arrived

<sup>1</sup>  $57^\circ 50'$  N,  $1^\circ 15'$  E. *U.64* reported at 9 a.m. four light cruisers and destroyers in  $57^\circ 15'$  N,  $1^\circ 30'$  E. I.D. War Diary, June 12.

<sup>2</sup>  $56^\circ 22'$  N,  $1^\circ 34'$  E. For details of sweep see M. 06735/16.

<sup>3</sup> North-east corner of Shetlands.

<sup>4</sup> *Comus* was in Balta Sound fuelling two destroyers. Papers in H.S.A. 342/374.





# DISPOSITIONS TO INTERCEPT A RAIDER

JULY 10<sup>TH</sup> - 14<sup>TH</sup> 1916.

"Shannon"

July 11<sup>th</sup> - 12<sup>th</sup>.

"Donegal"

July 11<sup>th</sup> - 12<sup>th</sup>.

"Marmion"  
&  
"Manners"  
July 10<sup>th</sup> - 12<sup>th</sup>

4<sup>th</sup> L.C.S.  
July 10<sup>th</sup> - 12<sup>th</sup>

1<sup>st</sup> and 3<sup>rd</sup> L.C.S.  
July 10<sup>th</sup> - 12<sup>th</sup>

2<sup>nd</sup> L.C.S.  
July 12<sup>th</sup> - 14<sup>th</sup>

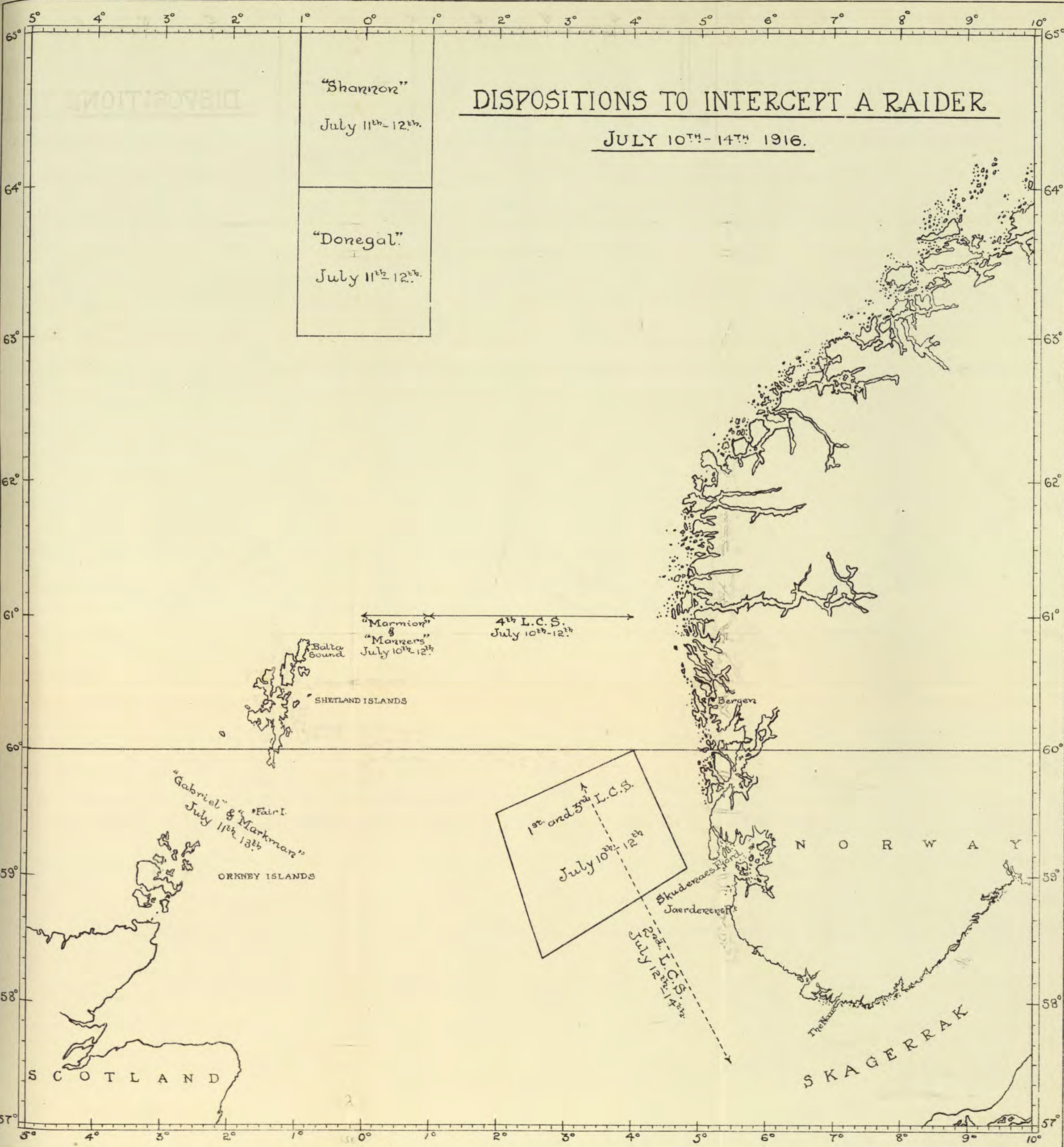
"Gabriel" & "Fair I."  
"Markman"  
July 11<sup>th</sup> - 13<sup>th</sup>

ORKNEY ISLANDS

SCOTLAND

NORWAY

SKAGERRAK



at Scapa on July 14. Fair Island Channel had been patrolled by the destroyers *Gabriel* and *Marksman* since July 11. The 10th Cruiser Squadron may be regarded as a fourth patrol. Warned by the Commander-in-Chief on July 10,<sup>1</sup> it was also on the look out. It had then 13 ships out as follows:—

A Patrol, <sup>2</sup> Iceland to Faroes	..	..	2
C Patrol, South of Faroes..	..	..	6
D Patrol, Rockall to Iceland	..	..	3
E Patrol	..	..	2

Thus the report of a single raider had kept no less than 13 armed merchant ships, 14 cruisers and 18 destroyers on watch for some four days, figures which reveal the extent of the movements required for this single purpose. These were all set in motion on the report of an agent—a doubtful source, at the best of times, and in this case designated as only “fairly reliable.” But though the report might be viewed with doubt, there could be none as to the damage that a raider might do, and so for four days 45 vessels were keeping watch between the Atlantic and North Sea for a ship that was not there. There were grounds, however, for the report. A German armed merchant cruiser was at work in the Kattegat or Bight, and the *Pendennis*, a ship of some 2,000 tons, which had escaped from the Baltic and left Gothenburg on July 5, was captured either by her or by a submarine on the way to Hull<sup>3</sup> and later in the month the S.S. *Eskimo* suffered the same fate.<sup>4</sup>

**45. Submarine Attack on Peterhead Patrol, July 11.**—A formidable attack, made during the month on armed trawlers in the North Sea, threw a vivid light on the defencelessness of these craft against submarines. Three of them, the *Onward* (1 12-pdr.) *Era* (1 3-pdr.) and *Nellie Nutten* (1 3-pdr.), were patrolling some 100 miles East of Aberdeen as an escort to the fishing fleet when about 5.15 p.m., July 11, the *Onward* hoisted the flag for a submarine, which she had sighted to the north-east and the three ships bore down on it and opened fire. None of them had wireless; the *Onward* was the only one with a 12-pdr., the two others were armed only with 3-pdrs. while the submarine mounted 2 22-pdrs. Suddenly three more submarines appeared and opened fire at long range. A running action ensued for an hour, in which the trawlers put up a gallant fight but were outranged and overpowered by the eight German 22-pdrs. They were all sunk. The crew of the *Nellie Nutten* jumped aboard a Dutch trawler. The others were taken prisoners and the submarines went off to the south-east. They were *U.45*, *U.46*, *U.52* and *U.69*.<sup>5</sup>

<sup>1</sup> To look out for raider after daylight on July 12. *Alsation* Cipher log.

<sup>2</sup> These patrols were changed for particular occasions by signal. On July 15 the centre line of A patrol ran 325° from 62° 30' N, 11° 45' W.

<sup>3</sup> M. 61033/16.

<sup>4</sup> See S. 56.

<sup>5</sup> M. 06444/1916, M. 21639/1916.

This was a severe blow to the auxiliary patrols on the East Coast. An enquiry was held at Peterhead (July 17), which reported that the loss was due to the overwhelming gunfire of the enemy. It was realised that the 3-pdr. guns of the trawlers were helpless against the German 22-pdrs., and that the Germans, emboldened by their success, might repeat their attack. The circumstances called for immediate action. Orders were issued to fit wireless in all divisional leaders and 60 Japanese 12-pdrs. were diverted from defensively armed merchantmen to replace the fifty-seven 3-pdr. guns in the auxiliary patrol between the Humber and Peterhead.<sup>1</sup> Nor were these the only German submarines in the North Sea. Two days later (July 13) two torpedoes were fired at the armed boarding steamer *Duke of Cornwall* only nine miles south-east of Pentland Skerries without result. The submarine reported she had sunk her, and the *Musketeer*, hurrying to the spot and dropping depth charges, was equally confident that she had sunk the submarine.

46. **First Movements after Jutland, July 17.**—On July 14, Admiral Jellicoe issued instructions for a series of tactical exercises based on the experience of Jutland and intended to sail on the 16th to carry them out, when, on July 15, at 4 p.m., there came a sudden order to raise steam.<sup>2</sup> At 4.25 p.m. the Commander-in-Chief was told that the High Sea Fleet was probably sailing that night by Horn Reefs and he was to concentrate the fleet as soon as possible.<sup>3</sup> Commodore (T) was ordered to be at one hour's notice and the sloops on the East Coast were recalled. Commodore (S) was ordered to send four submarines to cruise 10 and 30 miles west of Vyl Light, and in less than an hour *E.29*, *E.42*, *V.1* and *V.2* had sailed from Harwich and Yarmouth. The 3rd Battle Squadron was ordered to the Swin and the minelayers to have steam at one hour's notice. Admiral Jellicoe, suspecting a mine trap, sent out the fleet sweepers at once to sweep the approaches and proposed to defer sailing till they were swept. But as further German signals came in, it became clear that Scheer was himself merely apprehensive of an impending enterprise on the British side and was going no further than Horn Reefs. His squadrons anchored in the roads; the order for the Grand Fleet to sail was cancelled and it reverted to short notice at 9.15 p.m., though by that time four submarines, *G.1*, *G.4*, *G.10*, *J.1* had left Blyth to patrol for three days off Horn Reefs. The alarm subsided and the next day Admiral Jellicoe raised steam to carry out his exercises, but was forced by fog to postpone them. The Harwich submarines reached their beat, but saw only a few submarines; they were forced under occasionally as usual by patrolling airships, and returned on July 19, *E.42* fouling the 2½ inch wires of a Dutch trawler on her way home. The Blyth submarines patrolled similarly

<sup>1</sup> M. 06444/16, M. 21639/16.

<sup>2</sup> See I.D. War Diary, Vol. 3018, July 15, 1914. The German command had given orders to place Amrum Light Vessel.

<sup>3</sup> Sent 4.25, H.S. 451.

off Horn Reefs<sup>1</sup> and saw nothing but aircraft and two submarines. On July 17 the Grand Fleet sailed at noon and spent two days in tactical exercises<sup>2</sup> north and east of the Shetlands, the first time it had put to sea since Jutland. The *Campania* was with it and carried out a number of exercises to test the ability of aircraft to signal the course of the enemy. The Commander-in-Chief thought the wireless signalling of the aeroplanes satisfactory and regarded the results as encouraging.<sup>3</sup>

47. **The Dutch Patrol—First Half of July.**—July was an exceptionally busy month for the Harwich Force. The Dover Patrol had to be reinforced with light cruisers and destroyers, and the *Undaunted*, *Conquest*, *Canterbury*, and *Cleopatra* were each performing this duty in turn. But Commodore Tyrwhitt's heaviest task was the maintenance of an almost continuous patrol off the Dutch coast for the protection of the trade, and on no less than ten occasions during the month a large force of Harwich light cruisers and destroyers were cruising for this purpose near Schouwen Bank. The force employed usually consisted of two or three light cruisers and four or five divisions of destroyers. At first one division of destroyers usually met the steamers off the Maas (7 miles from the Hook), while a light cruiser and destroyers took up a covering position by the Schouwen light vessel, some 20 miles down the coast to southward. On July 9, however, a change was made. Two steamers each way were sailing that day, and each was accompanied by a destroyer, one as far as the Maas, the other to the North Hinder, while the light cruisers with two destroyer divisions were to be off the Schouwen Light Vessel. In the case of Dutch steamers the provision of a direct escort would have deprived them of the immunity attaching to their neutral status, and, therefore, in the case of the *Batavier III* (July 6) the Harwich destroyers were ordered merely to keep her in sight.<sup>4</sup>

The patrol continued without incident for a time, but the first encounter between it and the Zeebrugge destroyers was not long delayed.

<sup>1</sup> 270° from 55° 38' N, 7° 10' E.

<sup>2</sup> For the nature of the exercises and their orders see H.S.A. 224.

<sup>3</sup> In M. 07838/16, X. 8564.

<sup>4</sup> Commodore (T)'s Diary says "with orders to the Maas Light Vessel to meet the Dutch steamer *Batavier III*," H.S. 246/61. The status of a neutral steamer is presumably not compromised by belligerent vessels following a coincident route, so long as she is not under their orders or guided by their instructions. This distinction between "escorting" and "coincident passage" would be very material in the presentation of a neutral claim. In anything of the nature of "coincident passage" or shadowing, great care must be exercised in signalling to the neutral so as to avoid any suggestion of control. The Dutch Patrol is a good example of what may be termed "coincident passage" or "a shadowing escort." T.S.D.D.

48. **The Destroyer Action of July 23 1916.**<sup>1</sup>—At 9 p.m. on July 22, Commodore Tyrwhitt left Harwich with a force of two light cruisers and eight destroyers (*Carysfort*, *Broad Pendant*, and *Canterbury*, Captain Percy Royds, with 1st and 2nd Destroyer Divisions).<sup>2</sup> The *Carysfort* and the 1st Division were to go on ahead to the Maas Light Vessel, arriving there at 2 a.m. on the 3rd, while the *Canterbury* and the 2nd Division were to be at the North Hinder Light Vessel at the same time. The night was pitch dark. Shortly after midnight (12.15 a.m.) as the Commodore was approaching the North Hinder, he sighted three destroyers 3 miles ahead of the *Carysfort* steering north. He immediately increased to full speed and ordered his own destroyers (the 1st Division) to chase. The enemy altered course to the eastward and the *Carysfort* opened fire at a range of 4,000 yards with her foremost 4-in. gun. Four minutes later, seeing one of them turning towards her, and under the impression that it was about to make an attack, she turned six points to starboard but no torpedo was seen. The Germans had increased speed and were heading east-north-east, making helter skelter for the Dutch coast. Under cover of a heavy smoke screen and hidden by a heavy rain squall and a pitch black horizon, they were soon lost to sight.

They did not, however, get clear away. At 12.40<sup>3</sup> a.m. the Commodore told Captain Royds in the *Canterbury* that he had sighted them, and ten minutes later (12.43, received 12.50) ordered him to proceed to Schouwen Bank with all despatch to cut them off. Captain Royds told the *Melpomene* (Lieutenant-Commander Hubert de Burgh) the senior officer of the 2nd Division, to keep a good look out, and at 12.12 a.m. went on to 28 knots and turned to S. 37 E. The course was well judged, for at 1.45 a.m. the *Melpomene* sighted six destroyers ahead. Captain Royds at once gave the order to chase, but was evidently doubtful of his quarry, for a few minutes later (1.55 a.m.) he asked Commodore (T) for the position of the *Carysfort*. The *Melpomene*, followed by the *Morris*, *Matchless* and *Milne*, increased to 32 knots, but the *Matchless*, on account of a foul bottom and a new stern—built to replace the one destroyed by a mine in November, 1915,<sup>4</sup>—dropped astern, while the *Milne* kept station in her wake, leaving the *Melpomene* and *Morris* to pursue the enemy alone.

At 2.5 a.m. Lieutenant-Commander de Burgh reported that the enemy seemed to be turning to port, but Captain Royds replied that it must be the *Carysfort* and her destroyers, and at 2.15 recalled the Second Division, ordering it two minutes later to take station astern of him. It was not the *Carysfort*, however,

<sup>1</sup> *Canterbury* (s and 1); *Carysfort* (s and 1); *Morris* (s and 1); *Melpomene* (s and 1). H.S. 246; Papers in M. 06678/16 and M. 06845/16.

<sup>2</sup> 1st Division, *Mentor*, *Mansfield*, *Mastiff*, *Manly*.

2nd Division, *Melpomene*, *Morris*, *Matchless*, *Milne*.

<sup>3</sup> 0034, received 12.40 a.m., *Canterbury* (s) 23459.

<sup>4</sup> Home Waters VI, s. 12.

for five minutes later (2.22 a.m.) there came in a signal from Commodore (T) to say he was one mile north of Maas Light Vessel at 2.5 a.m., and, therefore, 23 miles away. Meanwhile, the *Melpomene*, not seeing the recall, or perhaps turning a blind eye to it, had opened fire at 8,000 yards just as it was made. A running fight ensued in the darkness, and by 2.38 p.m. the range was down to 3,000 yards, with the *Melpomene* steaming south, and the Germans one point on the starboard bow. Two minutes later (2.40 a.m.) came another recall from the *Canterbury*, repeated at 2.50 a.m., and the *Melpomene* turned back. The Germans made no stand, and behind a heavy smoke screen disappeared in the direction of Zeebrugge.

The *Melpomene* received some damage. A shell passing through her wireless room and chart house, without exploding, mortally wounded a boy telegraphist, slightly injured another rating, and shot away half the hand of Midshipman Brunton, R.N.R., who pluckily continued to carry out his duties until the end of the action.<sup>1</sup>

Receiving no further report of the enemy, Commodore Tyrwhitt resumed the patrol, and, after seeing all the British steamers on the route into safe waters, returned to Harwich shortly after noon. The two British destroyers claimed several hits, though an official communiqué, issued in Berlin, stated that the German destroyers had got home undamaged.<sup>2</sup> They belonged to the famous 2nd Flotilla.

49. **The Dutch Patrol and Convoy, July.**—A more significant change was made later in the month. It is usual to date the convoy system from 1917, but it was introduced on the Hook of Holland route in 1916. On July 26 the British steamers on this route for the first time sailed in company. The ships bound westward and eastward sailed simultaneously in convoy,<sup>3</sup> with an escort of one light cruiser and four destroyers, while a covering force of the same strength patrolled off the Schouwen Bank to tackle anything coming from Zeebrugge.

From that date British steamers to and from Holland crossed simultaneously, and only in convoy, sailing at intervals of two or three days, and consisting of four to nine ships. The crossings were made at night only in order to escape detection, and met with no difficulty, though the convoys were apt to straggle, and one particular vessel, the *Orient*, gave so much trouble in this respect that the commanding officer of an escorting destroyer expressed an opinion that she was bound to be torpedoed before

<sup>1</sup> For his conduct on this occasion Midshipman Brunton was transferred from the R.N.R. to the R.N. Lt.-Comdr. Hubert de Burgh was specially promoted.

<sup>2</sup> H.S.A. 288/735.

<sup>3</sup> The escorted vessels were first referred to as convoy in orders dated July 31, H.S. 246/94. See memo. July 25 1916 in Comm. (T) Diary, H.S. 246.

long,<sup>1</sup> a fate, however, that she escaped until near the end of the war, and even then the torpedo failed to explode. The Dutch Patrol fills only a small place in the world-wide measures taken by the Navy to protect British trade. And yet it was very effective. Only two British steamers were captured that summer on the route between England and Holland, though on the last day of July the German 2nd Destroyer Flotilla slipped away from Flanders and returned silently to the Bight. The same month saw the repudiation of the remnants of our adhesion to the Declaration of London. It was formally repudiated by an Order-in-Council on July 7.

50. **The 8th Submarine Flotilla, July 1916.**—No work was more arduous and exacting than that of the submarines, and in the North Sea the bulk of it lay with the 8th Flotilla. Its nominal strength at the beginning of July was 34, of which 18 were based on Harwich directly under Captain A. K. Waistell, in H.M.S. *Maidstone*, and 16 at Yarmouth, under Commander Alex Quicke in the *Alecto*. Three destroyers, the *Firedrake*, *Lurcher* and *Melampus* were attached to the Flotilla. Of the Yarmouth boats five "E" boats were on service abroad, *E.13* was interned at Copenhagen, and the actual strength of the flotilla was 26,<sup>2</sup> an increase of 8 since the beginning of June. Four were usually cruising in the Terschelling area, and on June 29, *E. 55*, *E. 54*, *E.10* and *E.26* sailed for this patrol.

*E.26* (Lieutenant Edward W. B. Ryan) never returned. Little is known of her loss. Her beat<sup>3</sup> included the approach to the Ems, and on July 2 a German outpost boat reported a long trail of oil off the Ems, apparently coming from a submerged submarine, and the area was searched that afternoon with submarine drags without result.<sup>4</sup> The next day (July 3) a British submarine was fired at and bombed off the East Ems. *E.55*, some 20 miles to the north-west, heard the dull reverberation of explosions that afternoon, which possibly sounded the knell of *E.26*.<sup>5</sup> Three officers and 28 men met their death in her.<sup>6</sup>

In consequence of this loss submarines were warned on July 9 to keep clear of the Dutch Islands between 5° E. and 6° E., and the next four, which left on July 10, were given beats which did not go east of Terschelling.<sup>7</sup>

<sup>1</sup> H.S.A. 288/273.

<sup>2</sup> Harwich, 18=1 (*G.12*, repairing)=17; Yarmouth, 16=5 detached—*E.13* interned, *H.8* repairing=9.

<sup>3</sup> Between lat. 53° 45' N, and Dutch coast and east of long. 5° E. H.S.A. 272/28.

<sup>4</sup> I.D. War Diary, Vol. 3018/4.

<sup>5</sup> Report *E. 55*, H.S.A. 272/20. I.D. War Diary, Vol. 3018, July 2 and 3.

<sup>6</sup> For a memorial of their names, H.S.A. 272/32.

<sup>7</sup> *E.53*, *G.11*, *V.4*, *H.5*, H.S.A. 272/51.

51. **H.5. Sinks U.51, July 14.**—The loss of *E.26* was quickly avenged by an attack, which, in good fortune and daring, though based on transgression of orders, has no precise parallel in the history of the war. *H.5* (Lieutenant Cromwell H. Varley), one of the submarines which left on July 10, had been allotted an area north-west of Terschelling, some 15 miles from the Dutch coast.<sup>1</sup> The loss of *E.26* did not dismay him, or perhaps spurred him to redoubled efforts, for he had no sooner got a fix<sup>2</sup> from Terschelling Light at midnight on July 10 than, sighting a German destroyer flotilla, he followed it towards the Ems, as this "afforded a good opportunity of observing swept channels and enemy patrols, and also gave promise of a successful attack."

He was off Borkum on July 12, and during the day his periscope became very stiff and would not lower. In the dark hours an attempt was made to put it right, but the boat had to dive to avoid a destroyer, all the tools and nuts of the centre bush were lost overboard, and the periscope remained defective for the rest of the voyage. He pushed on, however, and very early on July 13 was off the Weser, 100 miles east of his station, and in the very entrance of the enemy's stronghold. There he lay on the look out, and charged his batteries that night on the surface in bright moonlight.

At 9.30 a.m. on July 14 he sighted several destroyers. His attack on them failed, but at 10 a.m. a German submarine came in sight, and he fired two torpedoes at her (10 a.m.). One hit her just before the conning tower, and Lieutenant Varley had the satisfaction of seeing her blow up and disappear. The torpedoed submarine was *U.51*, commanded by Lieutenant-Commander Walter Rumpel. She had been completed only in March, and was the boat that attacked the *Warspite* on her way home after Jutland. She was on her way from Heligoland to the Jade, and sank just off the Weser.<sup>3</sup> Some four or five of her crew were saved. *H.5* rose to look for survivors, but the German 9th Destroyer Flotilla was rushing to the spot and she had to go down at once.

*U.53* had seen the explosion, and reported it, and, though it was not certain for a time whether it was due to a mine or submarine, which says much for Lieutenant Varley's skill in avoiding detection, the attack seems to have stirred up a hornet's nest, and orders for a general submarine hunt went out shortly after 1 p.m. *H.5* proceeded 4 miles north, and lay on the bottom in 18 fathoms. Fortunately, there was a considerable sea running, and the Germans thought that they had found something further north, but all that day Lieutenant Varley and her crew could hear loud explosions and the noise of vessels and drags and sweeps in the vicinity. At 10.10 p.m. that night he rose. Six

<sup>1</sup> Between 53° 40' N, and 54° N. and 4° E. and 5° E.

<sup>2</sup> From Lieut. Varley's original report. H.S.A. 272/39.

<sup>3</sup> Lat. 53° N. long. 7° 55' E. I.D. War Diary, July, p. 47.

German destroyers could be seen steering towards the coast, but Lieutenant Varley, owing to his defective periscope, considered it unwise to attack, and shaped course to the westward for home. The German search went on all the next day, and that afternoon *H.5* was driven down again. On July 17 he had reached his patrol, and, after despatching two pigeons and remaining there a short time, he shaped course for Yarmouth, which he reached safely on July 18, bringing with him a valuable report of the lights and traffic in the Bight. The account of his exploit was received with mixed feelings, and, unfortunately, could not be given unqualified approval in view of the fact that he had left his prescribed beat. It was difficult to pass over the transgression of orders, but still more difficult to pass over the fact that an enemy submarine had been actually destroyed. Two of the crew, therefore, received the D.S.M., and Lieutenant Varley was complimented, but received no reward for the success which had attended his daring but unorthodox exploit, achieved in the enemy's very gate.

**52. Oversea<sup>1</sup> Submarine Flotillas, July 1916.**—During the latter half of July nine submarines of the 8th Flotilla sailed for the Dutch coast and the Bight, but their cruises were uneventful. Captain (S) sent two submarines, *E.31* and *E.37*, to cruise off Schouwen Bank on the lookout for "U" boats, but they saw nothing of importance, and returned about the 19th July. Equally unsuccessful were the four submarines despatched in haste to the Vyl in the evening of July 15 in consequence of the alarm (*see* S.46). *E.23*, which sailed about the same time to cruise to the north-west of Heligoland, heard a succession of explosions shortly before she left for home on July 24, probably arising from the German minesweepers busy that day sweeping the remains of the field laid by the *Abdiel*, south of Horn Reefs, on the night of Jutland. *D.3*, which sailed for the Terschelling area on July 21, had to return the next day with the whole of her crew suffering from the same symptoms as affected her and *D.4* in June, due to arsenuiretted hydrogen.<sup>2</sup> *E.55*, patrolling off Schouwen Bank, sighted a German submarine on July 24 and 25 but met with no chance of attack. On July 29 she got near enough to fire both bow tube torpedoes at one, but, unfortunately, the first missed, the second stuck in the tube, and a final shot from the port beam tube was unsuccessful.

*E.4*, which had been specially fitted with two 3-in. anti-aircraft guns, was cruising off Horn Reef on the look out for Zeppelins, but the weather was foggy, and none were seen. Meanwhile the submarines of the other overseas flotilla—the 11th, based on Blyth—had been working on L and M Channel patrol,<sup>3</sup> and only once during the month had they operated further

<sup>1</sup> The name given to the Harwich and Blyth Flotillas.

<sup>2</sup> H.S.A. 271/468.

<sup>3</sup> At the southern end of L and M Channels in about 54 N. 3° E.

afield, when *D.8* and *G.6* proceeded to Scandinavian waters for a week (July 8–13), the former cruising in Bohus Bay,<sup>1</sup> the latter in the Kattegat. The German merchant steamer the *Aunilicke* was chased by the *D.8* on July 10, but escaped into territorial waters, evoking the usual protest from the Swedish Government. Most of the shipping seen was hugging neutral waters, but *G.6* on her way home passed a large fleet of fishing craft, flying Dutch colours, with a pair of old trousers flapping in the weather rigging, as a homely means of recognition.<sup>2</sup>

**53. Submarine Minelaying, E.41, July 1916.**—Of all the work done by submarines, none called for greater skill than that of minelaying in the Bight, a task which fell to *E.41* (Lieutenant A. M. Winser). Two fields, each of 20 mines, were laid by her in July. The first<sup>3</sup> was laid on July 5, some 10 miles north-east of Heligoland.<sup>4</sup> It was intended to be laid in the channel to Amrum, but was apparently laid rather nearer the coast, and was not discovered till July 24, when a fishing cutter ran into it. Two days later a trawler was blown up there (July 26), and the area was announced that day. The wreck lay in the fairway to Hever River, and had to be removed.

*E.41* left Harwich again on July 21, and the next day laid another 20 mines some 6 miles north of Borkum.<sup>5</sup>

It was laid under difficulties, for, as she reached the spot, she had to dive, and a bad bump caused one of the bow tube torpedoes to over-ride its stop, and it started running. The in-board vent of the tube was open, and the exhaust gases filled the boat, making the men sick. Lieutenant Winser, however, laid his mines, and, coming to the surface off the Ems, aired the boat. There she was sighted by a seaplane, which dropped 10 bombs round her without doing any damage. One of the mines was sighted the next morning, and the area was announced that day, but the minesweepers were busy clearing the fields laid by the *Abdiel* in May,<sup>6</sup> which they did not finish till late on July 25. The work of clearing the field laid on July 22 was begun on July 26, and resulted in the loss of one minesweeper<sup>7</sup> and the disablement of another, and, as the reports of the mines laid off the Hever early in the month of July were coming in

<sup>1</sup> The deep bight running up between Norway and Sweden.

<sup>2</sup> H.S. 626/66.

<sup>3</sup> Leith's History, Field 135.

<sup>4</sup> Lat. 54. 18' N. to 54° 20' N., long 8° 6' to 8° 10' E.

<sup>5</sup> 53° 8' to 53° 44' N., 6° 4' to 6° 51' E. 2.7 p.m. (*E. 41* report, H.S.A. 272/116).

<sup>6</sup> German First Minesweeping Division, sweeping in 55° 9' to 55° 12' to 55° 15' N., and 7° 31' to 7° 32' E. swept up 140 mines. This is approximately the position of *Abdiel's* field of 80 mines laid on 31.5.16 (Leith, Field 64), but a sweep up of 140 mines must have included the field laid on May 3, 1916, which had, of course, been discovered by the mining of the *Ostfriesland* in the morning of June 1.

<sup>7</sup> *M. 12* on 27.7.16, apparently 23 killed 50 injured, I.D. War Diary, July, 105; and *M.1* on 28.7.16 (stokehold flooded, 4 missing, 1 killed).

just as the German minesweepers began this work, it can be said with confidence that they were kept as busy as any on the British side of the North Sea.

**54. Reorganisation of Submarine Flotillas, June-August 1916.**—The increasing number of submarines called for a general reorganisation of the flotillas, and on June 18 a scheme for the purpose was approved by the Admiralty. The reorganisation, which was not actually completed till August 20, when all the existing submarine flotillas, with one exception, received new numbers, resulted in the following distribution of flotillas:<sup>1</sup>

Flotilla.	Base.	Depot Ship.	Number and Class of Submarines.
1st Flotilla ..	Firth of Forth ..	<i>Hebe</i> ..	1 "B"; 3, "C."
2nd ..	Tyne ..	<i>Bonaventure</i> ..	8 "C."
3rd ..	Immingham ..	<i>Vulcan</i> ..	6 "D."
4th ..	Queenborough ..	<i>Thames</i> ..	6 "C."
5th ..	Dover ..	<i>Arrogant</i> ..	10 "C."
6th ..	Portsmouth ..	—	—
7th ..	Ardrossan ..	<i>Pactolus</i> ..	1 "B."
8th ..	Yarmouth ..	<i>Alecto</i> ..	2 "F"; 5, "H"; 4 "V."
9th ..	Harwich ..	<i>Maidstone</i> ..	15 "E."
10th ..	Tees ..	<i>Lucia</i> ..	1 "E"; 4, "G."
11th ..	Blyth ..	<i>Titania</i> ..	6 "G"; 6, "J."

Flotillas 1 to 7 were employed on coastal patrol work, and were largely used for training purposes. Flotillas 8 to 13 were known as Overseas Flotillas. The 12th and 13th Flotillas were to be formed from "K" class submarines when these became available. They were to be stationed at Scapa and Rosyth, as required by the Commander-in-Chief of the Grand Fleet, and, as they were to be considered as essential units of the Grand Fleet, were not to be permanently attached to any one base.

When the above scheme of reorganisation was submitted on May 29, it was suggested that, in order to prevent confusion with destroyer flotillas, a more suitable name than Flotilla might be used in connection with submarine organisation. Some thought must have been given to the matter, for among the ingenious names suggested were: Aquarilla, Squadrilla, Subtilla, Platoon, Maniple, Shoal, Array and Armada.<sup>2</sup> The name Submarilla was put forward, but was regarded as foreign to naval terminology. Cohort, too, was favoured, but Commodore (S) thought that it would be "received with amusement," and the homely but familiar name of Flotilla remained in use.<sup>3</sup>

**55. Cruising Grounds of Overseas Submarine Flotillas.**—To diminish the risk of submarines meeting at sea it was necessary to lay down more precisely the cruising grounds of the different

<sup>1</sup> Positions and Movements, August 21, 1916. For Reorganisation, M.05046/16, M. 67076/16.

<sup>2</sup> Untitled papers in M. 05046/16.

<sup>3</sup> Untitled papers in M. 08682.

flotillas. The Admiralty therefore issued a memorandum, to come into force on August 1, which laid down that the overseas submarine flotillas based at Blyth and on the Tees (*i.e.*, the 11th and 12th) were to cruise or operate off the coasts of Norway, Denmark, Sweden, in the Skagerrak and Kattegat, and in the vicinity of Horn Reefs, as arranged by the Commander-in-Chief, Grand Fleet. Under ordinary circumstances they were not to enter the waters south of the parallel of latitude of 55° N<sup>1</sup> when to the eastward of the meridian, of 4° E. and when crossing the North Sea they were to keep to the northward of Mine Area 1.<sup>2</sup>

The overseas submarines based on Yarmouth and Harwich were to receive their cruising orders from Captain (S) at Harwich, in accordance with directions from the Admiralty, who would keep the Commander-in-Chief of the Grand Fleet and the Vice-Admiral Commanding the Battle Cruiser Fleet informed of the areas in which his submarines were working and of the duration of their cruises.

These arrangements were merely intended to regulate the conditions of ordinary cruising and patrolling and not to restrict the use of any of the overseas flotillas in exceptional circumstances. The submarine officers, however, when operating outside their usual cruising grounds were to be warned to be particularly careful in attacking other submarines.<sup>3</sup>

**56. German Submarines, July 1916.**—July was marked by a regular campaign against fishing vessels on the East Coast as a reprisal perhaps for the seizure of the Dutch fishing craft by the British. *U.B.19* (Lieutenant Erich Noodt) appeared from Flanders off the Tyne coast on July 4 and attacked a Scottish drifter fleet there, sinking some 11 with bombs, before she left about July 6. She was followed by *Steinbrinck* in *U.B.18*, who fired some 30 rounds of shrapnel into the small undefended port of Seaham on the night of July 11. A dozen rounds fell round Seaham colliery and wounded a woman, who died the next day. In the next four days he sank some nine fishing craft in this area and some five more off the Norfolk coast on his way home. On July 27 a *U.B. boat*<sup>4</sup> appeared again off the Tyne and continued the sorry work, disposing of a dozen more fishing craft by the end of the month.

The reports of these attacks are monotonously uniform. The *U.B. boat* fires a shot with its single gun. The fishing vessel stops and is boarded. The crew are taken off and the boat sunk with bombs. On July 14, for instance, the steam trawler *Recorder* was steaming with trawl down 15 miles NE of the Tyne when *U.B.18* appeared quarter of a mile away. Eight miles to the

<sup>1</sup> A line between Sylt Is. and the Tyne.

<sup>2</sup> Dogger Bank area; the northern point was in 35° 59' N., 4° 25' E. T.S.D.D.

<sup>3</sup> H.S.A. 283/246, 247.

<sup>4</sup> Possibly *U.B. 19*.

northward three armed trawlers were patrolling up and down—while a destroyer was just visible 10 miles to the south-east. The crew were given two minutes to clear out and took five. Two bombs were placed on board. The crew were ordered aboard the submarine where an officer, speaking perfect English, gave them cigarettes, asked if they were all safe, and took a photograph of them for the German papers. Steinbrinck, with his head out of the conning tower, was keeping a wary eye on the British destroyer coming up at full speed. The crew were bundled back into their boat and the submarine submerged in one minute without moving its engines.

On July 13 the destroyer *Violet*, patrolling off Whitby, saw the trawler *Florence* blown up some 6 miles to the east and closed the spot at full speed, but *U.B.18* had disappeared. The destroyer *Albatross*, patrolling off Blyth on July 14, saw a fishing trawler stopped 7 miles off and made for it at full speed. She was still 5-miles off when a submarine (*U.B.18*) appeared from behind the trawler and disappeared below the surface, and shortly after the trawler blew up.

The scene of these attacks lay in the Tyne Auxiliary Patrol Area (Area VIII), extending from Berwick to Scarborough, and covering 100 miles of coast. Captain E. C. Lowther-Crofton had 2 yachts, 12 trawlers and 7 old destroyers<sup>1</sup> to defend it and allowing for a reserve available for a sudden search, it was not possible to keep more than 2 destroyers on patrol.<sup>2</sup> Three armed trawlers and 3 or 4 armed drifters were attached to the drifter fleet whenever practicable, but 4 armed trawlers were usually engaged in escort work. Steps were taken to improve matters. Early in August, six destroyers of the 4th Flotilla were patrolling the area continuously. Twelve armed trawlers were despatched from Portland, and 24 drifters with mine nets came round from Falmouth to be used as a disguised fishing fleet, but the trawlers had no depth charges<sup>3</sup> and the drifters no guns. Nor could armed trawlers furnish a sufficient guarantee of protection, as the attack by the four German submarines on the Peterhead Patrol had demonstrated clearly earlier in the month. (See S.45.)

While *U.B.19* was busy scuttling fishing craft, *U.53*, from the High Sea Fleet, had appeared off the Norwegian coast on July 6 and cruised off Ekersund till the 11th without success. On that night she fell in at 3 a.m. with what she called an auxiliary cruiser of 7,000 tons and sank it.<sup>4</sup> As no auxiliary cruiser was in this position and none was lost at this time, it is probable that *U.53* transformed the British steamer *Calyпсо*, of 2,876 tons, into an

<sup>1</sup> The 7th Flotilla (Humber and Tyne) mustered 20 old destroyers. Twelve trawlers are mentioned in Auxiliary Patrol Report July 9. H.S. 437/21.

<sup>2</sup> Tyne Report July 16, H.S. 437/28.

<sup>3</sup> Ten depth charges, Type C, were sent up on August 1. H.S. 437/49, 66.

<sup>4</sup> Position given 58° 9' N., 5° 55' E.

armed merchant cruiser as a pretext or excuse for torpedoing her. She had left London for Christiania on July 7 and was never heard of again, though a lifeboat, battered and broken, was washed ashore at Jaederens during the month. The *Calyпсо* belonged to Thos. Wilson & Co., of Hull, and two more of their ships, the *Eskimo* and *Aaro*, were lost at the end of the month. The *Eskimo* (3,326 tons) was on her way to Hull from Christiania on July 26. It was a clear, calm night and she was still in Christiania Fiord,<sup>1</sup> hugging the Norwegian coast some 3 miles from shore, when, at 10.30 p.m., a steamer flying the Swedish flag, opened fire and sent three shells into her. This was the German armed merchant cruiser *Vineta*, or *Moewe*. The *Eskimo* was boarded and taken to Swinemunde and placed in prize, and the Norwegians decided, in 22 pages of writing, that the capture had taken place over 4 miles from the coast. The *Aaro* (2,603 tons) may have suffered the same fate or been torpedoed by *U.20*, for 27 of her crew turned up in the camp at Brandenburg.<sup>2</sup>

Meanwhile, German submarine minelaying pursued its wonted course. *U.77*, one of the large minelayers, left Wilhelmshaven early on July 5 with orders to lay her mines off Kinnaird Head.<sup>3</sup> She laid them there, for there they were found on July 26, but she herself never returned. Her end remains a mystery.<sup>4</sup> The last seen of her was probably on July 7 at 4 p.m., when a submarine was sighted making its slow way north, some 50 miles east of Kinnaird Head.<sup>5</sup>

Two other submarines were cruising that day some 60 miles to the eastward,<sup>6</sup> for five armed trawlers from Peterhead, mounting between them the respectable armament of two 12-pdr., one 10-pdr. and two 6-pdrs., opened fire on them between 7 and 8 a.m., and that evening near the same spot a submarine was again vigorously engaged<sup>7</sup> by the trawlers *Martin II* (one 12-pdr.) and *Albatross* (one 6-pdr.) and made off to the eastward, apparently hit. This was probably *U.52*. It could not have been *U.77*, for the fight took place some 100 miles E.N.E. of Rattray Head, far out of her course. Later in the month came a passing word from the trawler *Ben Ledi* that, at midnight on July 27, some 12 miles from Peterhead, her trawl had caught in some heavy object and carried away, and a quantity of oil was coming to the surface. Nothing more was found, and all that can be said is that the spot lay on the road to the Bight, and there<sup>8</sup> *U.77* may have found her end. Her sister vessels, clumsy but useful, were more fortunate.

<sup>1</sup> Lat. 58° 49' N., 9° 37' E. M. 43137/16.

<sup>2</sup> Papers titled *Foreign Office*, September 4, 1916.

<sup>3</sup> 57° 45' N., 2° 12' E. See Armistice Statement of Mines.

<sup>4</sup> She is given by Michelsen, 189, as sunk in North Sea, July 7, by British fishing craft.

<sup>5</sup> Rear-Admiral, Peterhead, H.S. 249/455. Lat. 57° 35' N., 0° 53' W.

<sup>6</sup> Lat. 58° 20' N., 0° 48' E.

<sup>7</sup> 7.20 p.m. Lat. 58° 15' N., 0° 52' E. H.S. 567/139.

<sup>8</sup> 57° 35' N., 1° 27' W.



*U.75*, the instrument of Kitchener's fate, sailed on July 11, but returned with her engines broken down. *U.78* left for the north the same day and laid her cargo of 34 mines off the Skerryvore in the approach to the Clyde. She came back by Fair Isle, passing it on the surface very early on a Sunday morning.<sup>1</sup> Dawn was just breaking, and she was sighted by the armed trawler *Chrysea*, which was toiling along to Lerwick escorting a tug and dredger. The *Chrysea* opened fire and got out her modified sweep, but by the time a destroyer arrived on the scene with other trawlers the submarine had disappeared. She reached home safely, bringing with her the Danish ship *Vidar* as prize. Mines laid on these western routes might lie undisturbed for days, but a mine laid by *U.71* in the same locality (Skerryvore) in June was sighted by the steamer *Valkyrie* on July 7, and 20 mines were swept up there by the end of the month.

In the south the "U.C." minelayers from Flanders were carrying their loads with ant-like assiduity to the East coast in the area allotted to them south of Flamborough Head. Some 14 fields of 12 mines each were laid during the month—5 off Yarmouth, 2 off Southwold, 1 off Aldborough, 4 in the Calais and Dover area, and 1 off the Thames.<sup>2</sup> These were responsible for the mining of 5 ships, ranging from 885 to 2,238 tons, making their way up the East coast in the War Channel. One German submarine paid the penalty. This was *U.C.73* (Lieutenant George Haag). She left Zeebrugge with *U.B.19* on July 3 and probably laid her mines off Southwold. On the night of July 6 the motor boat *Salmon* (Lieutenant Temple West, R.N.V.R.) was patrolling off Southwold, when at midnight, listening on the hydrophone, he heard a noise like "a wind whistling through a pipe." An hour or so later it grew gradually louder, till the dull hum of what seemed like a dynamo could be heard. The boat went ahead and a depth charge was dropped, which exploded 100 yards astern, and then immediately there rose a "terrific" explosion, throwing up a column of water 50 ft. high and giving the boat a violent shock. Myriads of great bubbles rose to the surface and nothing more was heard in the hydrophone. A ship passing that forenoon saw a great circle of oil close to the spot.<sup>4</sup> The account is circumstantial, but no wreckage was picked up, then or later, and the evidence was not considered at the time conclusive enough for an award. It remains, however, the only incident which can be associated with the loss, and if it be accepted as the cause, furnishes an unique example of the capacities of the hydrophone.

These minefields laid regularly and persistently off the East coast during the summer proved clearly that the net zareba laid off Zeebrugge in April<sup>5</sup> had not fulfilled its purpose. Similar

<sup>1</sup> July 23 at 1.5 a.m., 3 m., S.E. of Fair Isle, Papers in X. 7875.

<sup>2</sup> See German Statement of Minefields, Flanders O.U. 6020 B.

<sup>3</sup> Michlesen, 192. C.B. 01292 is incorrect in making it *U.C.* 10.

<sup>4</sup> M. 06377/16.

<sup>5</sup> April 24, 1916.

lines of moored indicator nets were in use off the East coast and had been laid off the Sunk Lightship in June without success. They were laid, too, in the Harwich area and were supposed to have had a deterrent effect.<sup>1</sup> A long line was laid on July 6 from a point 5 miles north-east of the Shipwash Light Vessel, running south-west for 7 miles<sup>2</sup> and those who laid them were confident that they kept submarines further from the coast. There is nothing to indicate that they did so, or that they had anything to do with the loss of *U.C.7*, but certain it is that she met her fate about that time. And so the month of July came to an end, a quiet month, but not wanting in its share of the minor events which played so large a part in the history of the war.

## CHAPTER VI.

### AUGUST 1916.

**57. Withdrawal of the 3rd Cruiser Squadron, August.**—As early as the autumn of 1915 Admiral Jellicoe and Vice-Admiral Beatty had pressed for the Australian light cruisers *Melbourne* and *Sydney*,<sup>3</sup> to be added to the Grand Fleet, urging it again in December, only to be met, on both occasions, with refusals. Jutland had thrown a glaring light on the shortcomings of the armoured cruisers, and on June 25 the Commander-in-Chief asked for the light cruisers in place of the 3rd Cruiser Squadron,<sup>4</sup> which had returned on June 8 from patrolling between the Shetlands and North Cape. To the Australian Government it was pointed out that they would be more usefully employed in the North Sea, and that the German losses at Jutland rendered it improbable that fast light cruisers would again be used to raid British commerce abroad. The Commonwealth Government gave a ready consent; on August 1 the Commander-in-Chief was told that the two ships would be transferred to his flag, and the 3rd Cruiser Squadron ceased to exist. The *Antrim* and *Roxburgh* went off to the West Indies to relieve them, the *Donegal* was ordered to join the 9th Cruiser Squadron,<sup>5</sup> and the sole remaining ship, the *Devonshire*,<sup>6</sup> was allotted to the northern patrol work between the Shetlands and Cape North.

The *Melbourne* and *Sydney* joined the Fleet in October and were attached to the 2nd Light Cruiser Squadron.<sup>7</sup>

<sup>1</sup> Mine Sweeping Bi-monthly Statement, June 15–30, 1915.

<sup>2</sup> Bi-monthly Mine Sweeping Statement, July 1–15.

<sup>3</sup> Employed on the West Indies and North America Station. T.S.D.D.

<sup>4</sup> *Antrim*, *Devonshire*, *Roxburgh* and *Donegal*. M. 05889/16.

<sup>5</sup> Cruiser Force I, Scillies to the Azores.

<sup>6</sup> From August 9, placed under orders of R.A., 2nd C.S.

<sup>7</sup> M. 06996; M. 05889/16; M. 06156/16.

**58. Norwegian Coast Patrols in August.**—Light cruisers carried out the usual sweeps for iron ore traffic off the Norwegian coast. The first two cruises (July 31 to August 3, and August 8–10) passed without incident. On the 15th, however, a new enterprise was attempted, and two armed boarding steamers, the *Dundee* and *King Orry*, were sent off disguised as merchant vessels, supported by the *Constance* and two destroyers. It was thought that ships in disguise would have a better chance of closing vessels carrying contraband, and the light cruiser was ordered to keep well to seaward and to rendezvous with them only at the end of each day's operations. The *Dundee* was stationed between Utsire and Lister, and the *King Orry* off Stadlandet. No vessels were to be boarded or molested inside the four miles limit of the Norwegian coast.<sup>1</sup> The stratagem gained a well merited success. On the 17th the Norwegian S.S. *Britannic*, carrying 3,200 tons of magnetic iron ore from Kerkeness to Rotterdam, was intercepted by the *King Orry* 8 miles off Utvaer, and sent into Kirkwall under an armed guard. So far as the *Constance* and *Dundee* could see no German nor neutral steamers ventured outside territorial waters.<sup>2</sup>

**59. Convoy from Norway of British Ships from Baltic, August 13.**—On the outbreak of war no fewer than ninety-two British steamers had been laid up in the Russian and Swedish Baltic ports owing to the German control of the entrance from the Kattegat. During the spring of 1916, however, the high freights obtained by free tonnage led the owners of these vessels to consider the possibility of getting them home, and an Anglo-Swedish Syndicate was formed to attempt the task.<sup>3</sup> The Russians gave no help, and evidently hoped to see the ships remain. But resolute efforts were made. The ships were manned by Swedish crews and with Swedish masters on board and hugging territorial waters were brought inside the German minefields at Falsterbo, and escorted by Swedish torpedo boats through a passage called the Kogrund Channel<sup>4</sup> to the Sound and so to Gothenburg. In this way the *Penmount*, leaving Sundsvall, in the Gulf of Bothnia, on June 1, got safely home. Off Smygge Huk<sup>5</sup> she sighted a German convoy of twelve ships, and when she anchored close inshore German armed trawlers prowled round her till a Swedish torpedo boat steamed up. Three Swedish torpedo boats escorted her through the Kogrund Channel to Malmo, where one of them took her on through the Sound. Off Malmo a German destroyer came "nosing" round, but the Swedish torpedo boat cleared away her guns and the destroyer seeing she meant business prudently retired. In the Sound a German armed trawler tried to force her ashore, but again the torpedo boat intervened, and so she reached Gothenburg at last, where the British master went aboard and,

<sup>1</sup> Orders in H.S. 470.

<sup>3</sup> Fayle, 2/334.

<sup>5</sup> 55° 20' N., 13° 22' E.

<sup>2</sup> Report in M. 07690/16.

<sup>4</sup> In 55° 26' N., 12° 50' E.

creeping up the Norwegian coast, she was escorted by a Norwegian torpedo boat to Lister, and finally struck across to Rattray Head and the Tyne, which she reached safely on July 5.<sup>1</sup> In this way a number of ships slipped through, and by the end of July twenty-nine had escaped. At this point forty of the remaining steamers were requisitioned, until the middle of August, by the Russian Government. The Shipping Control Committee<sup>2</sup> at once urged the Admiralty to procure their release before the freezing of the Baltic, but in the meanwhile the whole scheme had been fatally wrecked.

The friction between Sweden and the United Kingdom arising out of bunker restrictions and the British blockade policy was then at its height, and on July 28 the Swedish Government, yielding to German pressure, laid a minefield in the Kogrund passage<sup>3</sup> and closed the channel through it to all but Swedish ships.<sup>4</sup> This meant that British ships could no longer hug Falsterbo, but had to leave Swedish waters, and make for the Drogden Channel, where they were bound to be captured by German patrols. Even the ships which had reached Gothenburg did not all get home. The *Pendennis* had arrived there and left for Leith on July 5. At 9.0 p.m. the same day she was seen off Mandal,<sup>5</sup> but four days later the Admiralty learnt that she had been captured and taken into Borkum<sup>6</sup> though the information was not passed to the Commander-in-Chief until August 1. On receiving it he suggested that British ships from the Baltic, before steering westward, should go north, inside territorial waters, as far as Utsire,<sup>7</sup> and on August 4 the British Consuls at Christiania and Gothenburg were directed to send all vessels bound for the United Kingdom into Stavanger to wait there for further orders.<sup>8</sup>

By August 11, eleven ships were to be assembled there, and Admiral Burney, then in command, for Admiral Jellicoe was on leave, arranged to send out eight destroyers and four light cruisers to meet them off Udsire<sup>9</sup> at 5 a.m. on the 12th to escort them until dark, while the Peterhead Patrol, strengthened by two destroyers, was to be on the look out for them at daylight the next day.<sup>10</sup> On the 11th, however, a dense fog prevented the escorting force from sailing;<sup>11</sup> the meeting was postponed for twenty-four hours, and it was not till the morning of August 13 that the convoy sailed.

<sup>1</sup> M. 06301.

<sup>2</sup> Appointed by the Prime Minister on January 27 1916, with Lord Curzon as Chairman, Captain Clement Jones as Secretary, to deal with the allocation of shipping. Fayle, 2/229.

<sup>3</sup> Between 55° 26' N., 55° 28' N., 12° 47' 8" E., 12° 50' 5" E.

<sup>4</sup> "Correspondence re mining of Kogrund Passage," Cd. 8478, 1917.

<sup>5</sup> Near Stavanger.

<sup>6</sup> M. 50396/16.

<sup>7</sup> H.S. 253/774, 1147; H.S. 254/156.

<sup>8</sup> H.S. 254/1116; H.S. 255/29, 305.

<sup>9</sup> 2 miles south of Ferkingstad Islands, near Udsire.

<sup>10</sup> H.S. 255/870.

<sup>11</sup> The Sailing Orders are in H.S.A. 224.

Several submarines had been reported off the coast, and it was thought probable that the concentration of British vessels in Stavanger Fjord was known to the enemy,<sup>1</sup> but the convoy was safely marshalled and put to sea at 9 knots. On reaching a position in 56° N., 2° 47' E. at 2 p.m. seven of the steamers with four destroyers went on at 11 knots, and arrived safely off Peterhead about 6 a.m. on the 14th, followed by the slow division some eight hours later.<sup>2</sup>

Commodore Le Mesurier considered that the operation had been greatly helped by thick weather, and was doubtful whether a number of merchant vessels with varying speeds could be extricated in clear weather without loss. This was the first tentative approach to a system which in less than a year grew to unexpected proportions, though, perhaps, never again did eleven small merchant vessels enjoy the escort of twelve men-of-war all to themselves. Of the ninety-two ships, thirty reached home safely, one was captured on the way from Norway, and sixty-one remained in the Baltic.<sup>3</sup> The Kogrund minefield remained a sore point, involving nothing less than the whole question of entry and exit to and from the Baltic. But the Swedes would not budge, and an offer later in the year by Mr. Ivan Lignell to purchase the ships and try and pass them through was not favoured by the Admiralty, on the grounds that the Germans would repudiate the validity of their transfer in time of war.<sup>4</sup>

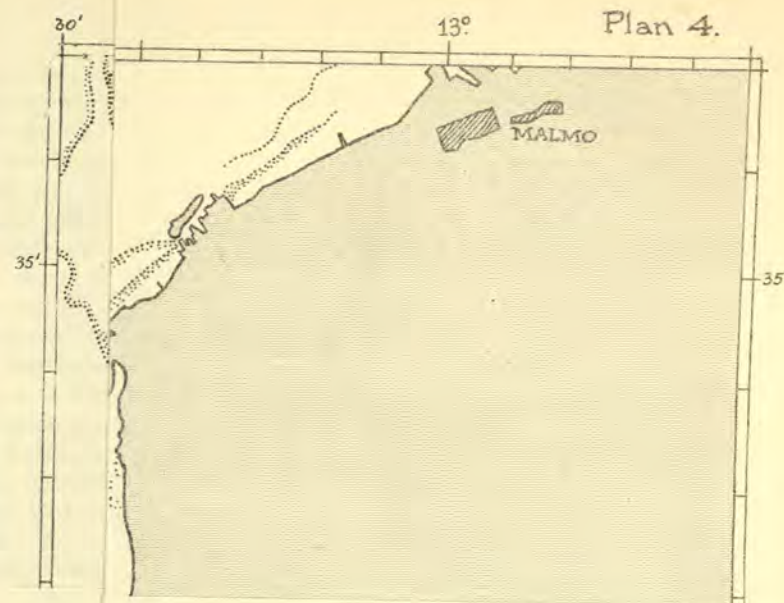
60. **E.4 and E.41 in Collision, August 15.**—The day after the convoy arrived a heavy disaster cast a dark shadow over the 8th Submarine Flotilla. Four submarines were exercising off Harwich at 10.30 a.m. on August 15, and to give the flotilla practice in attack, a submarine was being used for the first time as a target. *E.41* (Lieutenant Alfred M. Winsler) was carrying out a run while *E.4* (Lieutenant-Commander Julian Tenison) and *E.31* were attacking her. *E.41* was off the Cork Sand, steering 100° at 12 knots, when the periscope of *E.4* appeared suddenly on the starboard bow, 50 yards away, steering about 320° and going fast. *E.41*'s helm was put hard-a-starboard and her engines stopped, but a collision was inevitable. *E.4* crashed into the forepart of *E.41*, sank, and was not seen again. In *E.41* an attempt was made to close the foremost bulkhead door, but the water was rising rapidly and everyone was ordered on deck. While the men were still going up, the boat sank by the bows and went down in 7½ fathoms. The rising air pressure blew open the upper conning tower hatch and carried two sub-lieutenants to the surface. The *Firedrake*, hurrying to the spot, was able to pick up only three officers and eleven men. One and a half hours later another survivor—Stoker Petty Officer William Brown—came to the surface. The story of his escape is a tale of indomitable courage in the face of difficulty. As the boat was sinking he

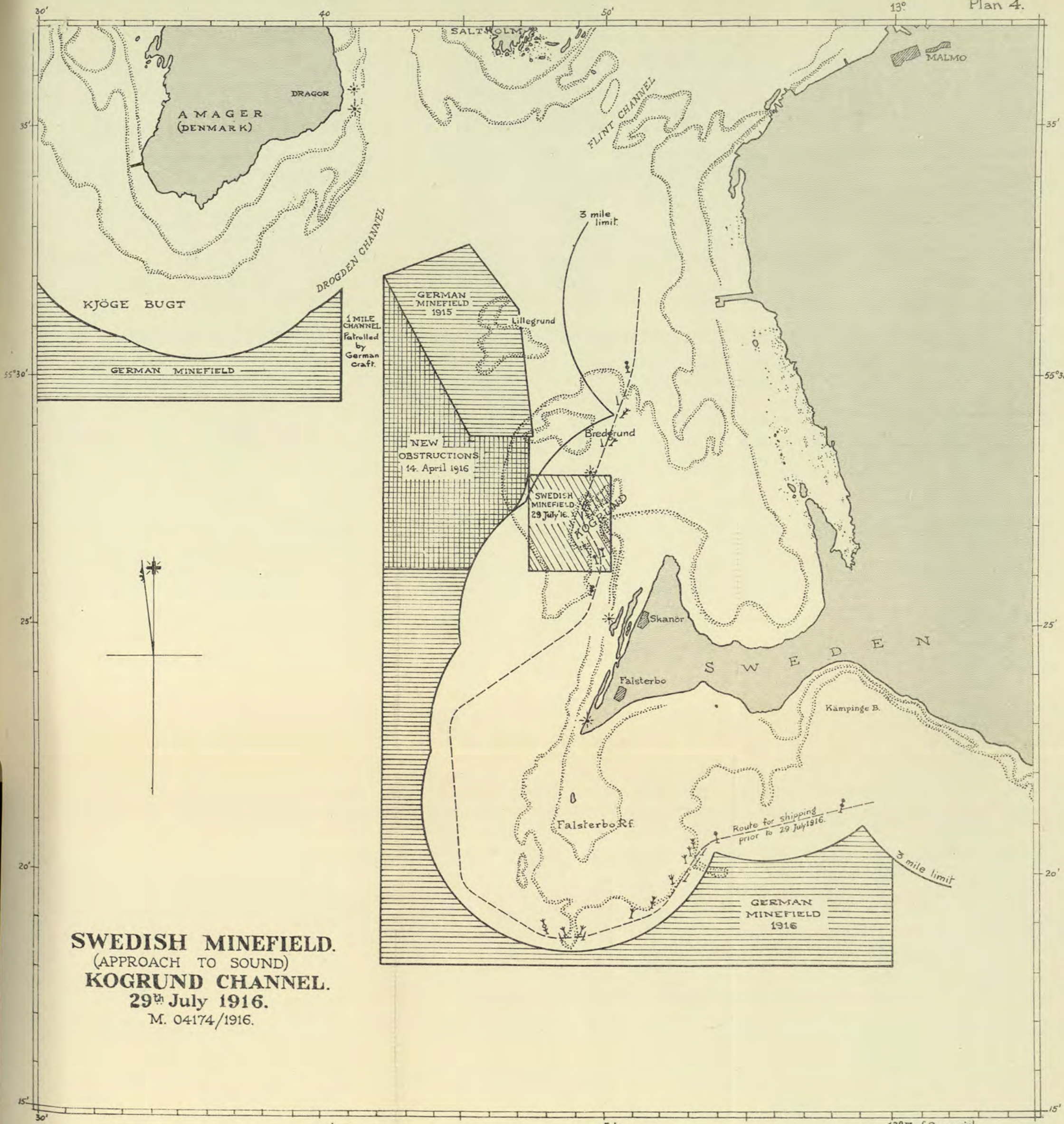
<sup>1</sup> H.S.A. 233 (H.F.S.O. 115).

<sup>2</sup> M. 07988/16.

<sup>3</sup> M. 07498/16.

<sup>4</sup> M. 010754/16, December 6.





**SWEDISH MINEFIELD.**  
 (APPROACH TO SOUND)  
**KOGRUND CHANNEL.**  
 29<sup>th</sup> July 1916.  
 M. 04174/1916.

tried to close the lower conning tower hatch, but water was coming through it and he had to retire aft. He could find no one else alive and found himself alone in the engine room of the sunken submarine, dimly lit by a single pilot lamp. His only hope of escape was by the torpedo hatch, and with water rising round him, he started to disconnect its gearing and unship its strongback. Twice or thrice he had to dive under water to work the wheel of the gearing, and received several severe shocks from the switch board. The water rose steadily, the air pressure increased, but his most strenuous efforts only succeeded in opening the hatch half-way. For close on an hour he wrestled with it, and thrice it flew open, releasing a portion of the precious air, but the pressure was not sufficient, and it closed grimly on him, crushing his hand badly before he could escape. In poisonous fumes, with only one hand, and in the face of failures, he refused to give up hope and, as a last resource decided to flood the boat as quickly as possible. Opening a deadlight in the bulkhead he allowed the engine room to flood completely. With the water right up to the coaming of the hatch he knocked out its pin. "I then raised the hatch and escaped," he wrote. He rose 40 ft. to the surface, and was picked up by the *Firedrake* after a desperate but never despairing struggle of an hour and a half. Both submarines were subsequently salvaged and returned to Harwich in May, 1917. *E.41*'s captain was saved, but many of her gallant crew never went minelaying again.<sup>1</sup>

**61. Submarine Patrols in the Kattegat Abolished, August.—**

After August 1, when the submarine patrols in L and M Channels had been abandoned, the Yarmouth and Harwich submarines became responsible for the whole area south of latitude 55° N., and east of longitude 4° E., an arrangement which left the Blyth submarines free to operate either in the vicinity of Horn Reefs or off the Norwegian coast, or in the Skagerrak and Kattegat.<sup>2</sup> A new patrol was at once established off Horn Reefs, and *E.30* and *G.6* cruised there for five days from August 1, and were followed by *G.6*, *J.1* and *J.6*, who sailed from Blyth on August 23, with orders to report where the Dutch fishing fleet was working. Information had come in of the German merchant submarine *Deutschland* lying at anchor off the Weser on August 23, and *G.2*, *G.3* and *G.10*, when they sailed for Horn Reefs on August 29, were told to look out for her or her sister ship the *Bremen*,<sup>3</sup> but saw nothing of them. Further to the northward, *G.5* patrolled for five days, from July 31, between Udsire and the Naze, with instructions to attack any German submarines operating there.<sup>4</sup> An endeavour, too, was made during the month to attack German trade in the Kattegat with submarines, and on August 8 orders

<sup>1</sup> H.S.A. 272/161, Report in M. 07415/16.

<sup>2</sup> The Blyth submarines could work with the fleet south of 55° N., but were not to patrol there. H.S.A. 128/248. T.S.D.D.

<sup>3</sup> H.S.A. 259/1042, 1099; H.S.A. 258/945.

<sup>4</sup> G.F.N.; H.S.A. 72.

were issued for two of them to cruise in the Kattegat for five days, and operate against enemy ships or neutral vessels carrying goods of enemy origin or destination. Each was to take an armed boarding party, to put on board neutral vessels and they were warned that British light cruisers might sweep into the Kattegat during their patrol.<sup>1</sup> *E.43* and *G.2* sailed for this task early on the 9th, *E.43* to cruise on the western and *G.2* on the eastern side.

*E.43* rounded the Skaw on August 10, but found the traffic confining itself to territorial waters. She stopped three small Danish ships on the 11th, with coal from Blyth and timber to Aalborg. The next day her work met with an unpleasant interruption. She had stopped a couple of Swedes and a Dutch sailing ship in the forenoon, when, rising in the afternoon off Anholt, she sighted a steamer some 6 miles off, steering to the north-west, and proceeded at full speed to intercept her with the signal "Stop engines" flying. The steamer was a large one of about 6,000 tons, with one black funnel and two yellow masts. It was about a mile off when it suddenly hoisted a German ensign, opened fire with 6-in., and made for *E.43*, with the evident intention of ramming. *E.43* was straddled twice, and the spray from one shell splashed into the conning tower. She had just time to dive, bringing up at 120 ft. badly out of trim, and two or three minutes later two heavy explosions shook her from stem to stern, but, fortunately, did no damage. Loud explosions continued, but they drew further off, though it was not till 10 p.m. that *E.43* was able to warn *G.2* of her narrow escape, and to send her a description of the vessel. *G.2*, on the eastern side, had seen still fewer ships, and on August 14 was attacked in the evening off Nidingen by a steamer, and had to dive. In her report she pointed out that no shipping was to be seen outside territorial waters, and, as the presence of a decoy ship made the work very risky, suggested that merchant vessels outside territorial waters with no flag or neutral marking on their side might be sunk at sight. The suggestion found no favour at the Admiralty, who instructed the Commander-in-Chief on August 29 to issue orders that submarines were in no circumstances to sink neutral merchant ships, and enemy merchant vessels only when it could be done without endangering life.<sup>2</sup> But by that time, in view of the scanty results, the Commander-in-Chief had decided to make no further attempt to intercept trade in the Kattegat with submarines, though on August 30 he sent *E.43* there for five days to search for the ship which had attacked her.<sup>3</sup> This was probably the *Moewe*, cruising about in the Kattegat, before she sailed again on her famous cruise. Harwich was still under the shadow which had fallen on it from the loss of *E.4* and *E.41* on August 15, when three days later all available submarines on the East coast

<sup>1</sup> H.S.A. 72.

<sup>2</sup> M. 07633/16 in H.S. 626/137.

<sup>3</sup> H.S.A. 126/140, H.S. 259/1099.

put to sea to oppose the German Fleet (*see* Sortie of German Fleet, August 19), and they had no sooner returned than, on August 20, they assumed the new organisation, which had been pending since July. The famous 8th Flotilla, under the *Maidstone*, at Harwich, became the 9th, the *Alecto*, at Yarmouth, took the number 8; the flotilla in the Tees (*Lucia*) became the 10th, and the Blyth flotilla (*Titania*) the 11th.

**62. Harwich Force, "Cleopatra" and "Lassoo" Mined.**—At the beginning of August the Harwich force consisted nominally of seven light cruisers, the seaplane carrier *Vindex*, the two flotilla leaders and 38 destroyers. But of these, besides the *Vindex*, only five light cruisers, one flotilla leader and 19 destroyers were actually available at Harwich on August 1.<sup>1</sup> The force was further reduced on August 4, when the *Cleopatra* was mined.

The *Cleopatra* was working with the Dover Patrol at the time, and had left Dunkirk to patrol off Thornton Ridge. It was a dull, hazy morning, and she was going 15 knots at 4.8 a.m., when she sighted a floating mine. Suddenly another mine was seen right ahead, and, before she could clear it, it exploded on the port side, dismounting the after 6-in. gun. She was taken in tow by the *Attentive*, and taken to Dunkirk, and thence to Chatham, where she was in dock for two months. It was found that she had struck a mine, with no evidence to show whether drifting or moored. It was almost certainly a British mine, and she was within 4 miles of a British field laid from Dover on May 26 1916.<sup>2</sup>

Meanwhile the strength of Commodore Tyrwhitt's Dutch Patrol had been reduced. On July 31 the German 2nd Destroyer Flotilla had returned to Germany, and the Admiralty decided that the strength of the force hitherto allotted to the protection of the Dutch trade could be reduced. Between August 1 and 13 only one light cruiser and two divisions of destroyers were employed on it, and from that date onwards the work was performed by only two divisions of destroyers, sometimes only one, when the steamers crossing were few. Even this diminished patrol constituted a heavy tax on the force, for it sailed thirteen times during August, practically on every alternate day right through the month, and the short respite it gained between August 17 and 21, when sailings to Holland were stopped, was swallowed up by the fleet operations of August 18–20.

The Harwich force suffered another nasty blow in the loss of the *Lassoo* (Lieutenant-Commander Vernon S. Butler) on August 13 as

<sup>1</sup> Positions and Movements, August, 1916.

<sup>2</sup> She was, according to her report,  $7\frac{1}{2}$  miles N.  $52^\circ$  E. from Thornton Watch (*sic*) Buoy. This buoy was charted in August 1916 in lat.  $51^\circ 34\frac{1}{2}'$  N., long.  $3^\circ 04'$  E., which makes the *Cleopatra's* position lat.  $51^\circ 40\frac{1}{2}'$  N., long.  $3^\circ 8'$  E., 4 miles  $320^\circ$  from the line of mines laid by the *Paris* and *Princess Margaret* on May 26, 1916 (Leith's History, Field 34). Admiral Ommaney's minute in X. 7899 makes it 3 miles from Z.4. These fields apparently received different designations from different departments and commands at different times. The enquiry did not give the position in terms of latitude and longitude.

a result of a German attack on the Dutch Patrol. Four destroyers, the *Lance*, *Lassoo*, *Lennox* and *Laverock*, were taking a convoy of some seven ships across. The convoy was much scattered when it passed the North Hinder, and the *Lassoo* was ahead, steaming at 20 knots, to screen the s.s. *Colchester* and s.s. *Jervaulx Abbey*, steering for the Maas Light Vessel. The sun had not yet risen, the sea was smooth, the visibility 3 to 4 miles, when, at 5.37 a.m. G.M.T., about 10 miles west of the Maas Light Vessel,<sup>1</sup> the *Lassoo* was struck the starboard side aft. The pom-pom was blown into the air, and the after tubes went into the sea. The *Lance* stood by her and attempted to salve the forepart, while the *Lennox* and *Laverock* circled round. But her back was broken. At 6.15 a.m. she broke in half and went down. All hands were saved except two officers and two men, who were killed in the explosion, and E.R.A. G. Thom, who had been keeping watch on the after bulkhead of the boiler room, and who fell into the water and was not picked up. Nothing had been seen of a submarine, nor of any torpedo track, and the explosion was attributed to a mine, but as there is no record of any German mines laid on the spot,<sup>2</sup> it seems probable that she was torpedoed by a Flanders submarine, as stated in the German official report at the time.<sup>3</sup>

In a single month the Harwich force had suffered two blows, which it could ill afford, for its doings supply a vivid illustration of the extent to which it acted as a general reserve of destroyers for all areas. It had sent one division of destroyers to the Vice-Admiral, Dover, another was in the Thames with the 3rd Battle Squadron, and when the heavy toll, paid by fishing craft off the Tyne, led Commodore Tyrwhitt on July 30 to suggest that he should detach a force to watch for submarines off the Dogger Bank, he was told to send a division to Immingham to help the Rear-Admiral, East Coast. It went off on August 2, and, as it was away till the August 18, Commodore (T) may sometimes have wondered why his famous flotillas were called the Harwich Force.

**63. Airship Raids, August 1916.**—Naval interest in Zeppelin raids is concerned chiefly with the menace they offered to ships and dockyards, and with the part played by the Navy in driving them off. The destruction of *L.7* by the *Galatea* and *E.31*,<sup>4</sup> a year before, remains the salient example of the destruction of an airship out at sea, but the Navy also played no inconsiderable part in watching the coast and in making it difficult to approach the coast except in the dark at high altitudes. The long summer nights, which handicapped Zeppelins in their escape, had resulted in a three months' cessation of their activity, but it burst out again

<sup>1</sup> 52° 1' N, 3° 37' E.

<sup>2</sup> German Statement, 1919.

<sup>3</sup> *Kreuzer Zeitung* 15.8.26. For *Lassoo's* report see X. 6498/1916, M. 21747/1916.

<sup>4</sup> August 9 1915. *L. 22* was also destroyed at sea, May 14, 1917.

on July 28, and between that date and the end of August four raids took place, which achieved on the whole comparatively little.<sup>1</sup> On the dark nights of the months a light cruiser and destroyer were ready to go out on Zeppelin patrol from the larger bases and armed trawlers from the smaller ones. The *Vindex*, with its planes, was available for this purpose at Harwich, and the *Brocklesby*,<sup>2</sup> a small paddle seaplane carrier, at Lowestoft.

**64. Airship Raid, July 28-29.**—Ten Zeppelins rose on the night of July 28-29, of which six (*L.11*, *L.13*, *L.16*, *L.17*, *L.24*, *L.31*) crossed the coast and pushed a little way into Yorkshire, Lincolnshire (30 miles inland), Norfolk and Suffolk. Fog at sea and a heavy ground mist inland made it difficult to locate positions and the raid flickered ineffectively out. They dropped 34 high explosive bombs and 29 incendiary, wounding a horse and killing a cow. The *Vindex* was told to go out, but thick fog prevented her sailing. The next day general orders were issued to her by Commodore (T) to meet similar occasions. She was to be at one hour's notice from 8 p.m. to daylight, to proceed with four destroyers to attack Zeppelins on their way home with her Bristol scouts and to work from a position in 52° 16' N., 2° E. (about 15 miles from Southwold.)<sup>3</sup>

**65. Airship Raid, July 31.**—An opportunity soon occurred to test these arrangements on July 31. The weather was fine with sea fog near the Humber. The wind increased during the night over the north part of the North Sea but the southern part was not affected. Ten airships, (*L.11*, *13*, *14*, *16*, *17*, *21*, *22*, *23*, *30* and *31*) left their sheds and flew towards England. Eight crossed the coast, and sprawled over Suffolk, Norfolk, and Lincolnshire, while *L.31*, the newest ship, a super Zeppelin, ran up the coast of Kent, dropped her bombs off Ramsgate and Sandwich and went home with a glowing report of having attacked London. Altogether, 42 high explosives and 30 incendiary bombs were dropped, one horse was injured and 13 telegraph wires were broken.

The *Vindex* went out on Zeppelin patrol escorted by four destroyers, returning the next day with nothing to report. Four airships were sighted by the trawler *Adelaide* 50 miles S.E. by S. off the Humber at 8.30 p.m. and by the trawler *Libau* at 9 p.m.

**66. Airship Raid, August 2-3.**—Another raid followed quickly. Three German airships left their sheds on August 1,<sup>4</sup> and were sighted in the North Sea, and the *Vindex* sailed from Harwich that evening. When she returned early on August 2, Commodore

<sup>1</sup> Details of the destruction and the routes on land are given in Air Raids, 1916 (issued by G.H.Q.) July 28 to August 9 and August 23 to August 25. These give good maps with places where bombs were dropped.

<sup>2</sup> The *Killingholme*, her sister ship, had been torpedoed earlier in the year and was under repair.

<sup>3</sup> Comm. (T) Diary H.S. 246/83.

<sup>4</sup> Apparently, *L.30*, *L.14*, *L.24*, in I.D. War Diary, but War Diary's numbers are sometimes doubtful.

(T) decided to send her further out to sea, which was approved, and she went off again at 3 p.m. with the *Conquest* and four destroyers for a position 52° 53' N. 3° E. some 50 miles east of Lowestoft. She sailed in the nick of time, for six Zeppelins rose that afternoon and made for England, (L.11, L.13, L.16, L.16, L.21, L.31). The wind was light, and the weather was fine with a light mist.<sup>1</sup> The Admiralty warning went out at 6.40 p.m.<sup>2</sup> to Rear-Admiral, East Coast, and Commodores Harwich and Lowestoft, and by 7.30 p.m. every Zeppelin was located. The *Conquest* was some 40 miles east of Lowestoft<sup>3</sup> at 6.30 p.m. on a course N.81 E. going 19 knots when she sighted a Zeppelin, almost ahead and increased to 26 knots. The Zeppelin made to the southward and the *Conquest* opened fire, expending some 20 rounds of 6-inch and 4-inch shrapnel. Captain Roger Backhouse thought they did not get within 8,000 yards of her<sup>4</sup> but noticed a decided irregularity in the top of her envelope. She turned and disappeared to the south-east, heading about E.S.E. at 6.50 p.m.

Meanwhile the *Vindex* (Lieutenant-Commander G. Ducat), which was apparently to the eastward,<sup>5</sup> had sighted a Zeppelin at 6.5 p.m. bearing S.65 E. and dashed after her at full speed, as there was no wind to help the aeroplane to rise, but the Zeppelin disappeared and was not seen again till 7.47 p.m. The *Vindex* was then going 22½ knots and Flight-Lieutenant C. T. Freeman in Bristol Scout 8,953 rose without difficulty at 6.52 p.m. and went off after her, climbing rapidly, while the *Vindex* followed him till 7.40 p.m. The *Conquest* had sighted a second Zeppelin just after 6.50 p.m., and opening fire with 6-inch and 4-inch and 3-inch at ranges of 9,000 to 11,000 yards, drove her off to the south-east. A third Zeppelin came in sight at 7.10 p.m. and was engaged with the port guns, while the starboard guns were still firing at the second, by this time seen very dimly through the haze. The last one went off to the eastward and disappeared from sight.

**67. Flight-Lieutenant Freeman, "Vindex," August 2-3**—Flight-Lieutenant Freeman getting away at 6.52 p.m. climbed to 5,000 feet steering S.E. and then saw two Zeppelins, one at 8,500 feet about 10 miles away, and the second rather higher some 10 miles further off, both steering southwest. Flying some 500 feet above her, he attacked the nearest, which did not sight him till he dropped a container of Ranken darts, which apparently missed. The Zeppelin then opened fire with a machine gun in the cockpit forward. Thrice he attacked and the third time thought he saw a small puff of smoke and the Zeppelin

<sup>1</sup> *Conquest* (s) says no wind, flat, calm, visibility reduced to 6 or 8 miles by a light haze on the water.

<sup>2</sup> I.D. War Diary, August 1, 4.02 G.M.T.

<sup>3</sup> 52° 25½' N, 2° 35' E.

<sup>4</sup> Flight-Lieut. Freeman thought the cruisers were much further away. *Conquest's* report and Flight Lieut. Freeman's are both in Commodore (T)'s papers. H.S.A. 234/256.

<sup>5</sup> 52° 22' N, 2° 34' E, at 6.5 p.m. H.S.A. 284/562.

dropped to about 5,000 feet, and eventually turned due east. His armament was expended and he turned back, but his engine, which he had switched off to nose dive after the Zeppelin, would not start and he came down into the sea. While falling he managed to fire a Very's light, but his pistol was jerked out of his pocket as he crashed. He was in the water, in the dark, alone. He thought he heard the *Vindex's* syren and laboriously cutting the powder out of the lights set fire to it with matches but got no reply. There he remained sitting on the tail of his aeroplane with the forepart slowly sinking. At the end of a long hour of suspense, ruminating disconsolately on the problematical chances of being picked up on a dark night, a steamer hove in sight and as a last resource he fired his revolver and made a small flare of some letters in his pocket. The steamer was the *Anvers* of Antwerp. She saw the signal, and after circling round him, evidently harbouring grave suspicions of his being a submarine in disguise, picked him up and took him to the Hook of Holland, where, after various formalities, he was allowed to go home, and being commended for "gallantry and endurance hard to beat," received a Distinguished Service Cross.<sup>1</sup>

Whether it was due to the *Conquest* or to Lieutenant Freeman, or to gun-fire on land, L.17 reported next day she had two ballonettes shot out and L.30 was forced to turn back with a ballonette leaking, though the latter seems to have been the result of an accident.<sup>2</sup>

Captain Roger Backhouse in his report commented on the extreme difficulty of getting the range and on the fact that the airships looked much closer than they were. Flight-Lieutenant Freeman found it impossible to see the British ships through the surface mist in the direction of the sun and thought that it would have been better for them to hold their fire till the Zeppelins were nearer.<sup>3</sup>

The raid was not very effective. Four airships penetrated about 30 miles into Norfolk and Suffolk, one hovered over the River Stroud in Essex, L.31 again skirted the coast of Kent and pushed quickly out to sea when fired at. They dropped 87 high explosive and 45 incendiary bombs, killed 11 horses, seriously damaged six cottages and injured a boy.

**68. Airship Raid, August 8.**—A few days passed without any further alarm. Then on August 8, wireless directionals came in about 6.30 p.m. and at 7 p.m. Commodore (T) and the East Coast were given the usual warning. The former was to send out Zeppelin patrols at his discretion to intercept them on their return, and Commodore, Lowestoft, was told to send out the paddle seaplane carrier *Brocklesby*. Later in the evening, on the strength of further intelligence, Commodore (T) was warned that

<sup>1</sup> Flight-Lieut. Charles Teverill Freeman.

<sup>2</sup> War Diary, August 1, 6.8 p.m.

<sup>3</sup> H.S.A. 284/572.



there were signs of a plan to attack ships intercepting Zeppelins<sup>1</sup> and the *Brocklesby* was recalled.

Nothing very extensive seems to have been attempted in this direction on the German side, though *U.66* and *U.69* moved westward in support of the airships and the former followed them half way across. The weather was fine with very slight mist and eleven airships went up, of which nine reached the coast, the most northerly, *L.14*, crossing at Berwick, and the most southerly, *L.16*, entering Norfolk close to the Wash. Naval activity was therefore principally confined to the Tyne and Humber areas, where *L.17*, as she approached the coast at 10 p.m., was attacked off Whitby<sup>2</sup> by the armed trawler *Itonian* (one 6 pdr.).

After exhausting all her bombs on her small assailant and on the fishing fleet off the Tyne, without hitting anything, *L.17* turned back. *L.23* was also attacked by the *Itonian* 12 miles N.E. off Scarborough and went slowly off to the northward, apparently with some injury which may have driven her back. The yacht *Miranda II*, with two other trawlers, engaged an airship about midnight,<sup>3</sup> and the *Active* and 4th Flotilla were told to look out for Zeppelins, but do not seem to have been engaged. Except *L.24*, which bombed Hull, none of the airships penetrated far inland or did much injury. Hull, where 10 were killed and 11 injured, was the principal sufferer.

**69. Airship Raid, August 24-25.**—The night of August 23-24 saw a tentative raid carried out on Harwich by an L.Z. military airship from Belgium, which dropped 19 high explosive and 15 incendiary bombs, slightly damaging a barn, and went back with a glowing report that she had dropped them on the headquarters of London aircraft. The *Undaunted* and four destroyers put to sea soon after midnight, but though they heard the airship distinctly they could see nothing and no seaplanes were sent up. The next night (August 24-25) saw a more memorable raid, in which *L.31* reached London. Twelve airships went up, of which six turned back before 10 p.m., two of them (*L.13* and *L.14*) possibly on account of an attack made by the *Conquest*; the other four on account of weather. Four only crossed the coast. It was calm during the day but a south-westerly wind began blowing up at 6 p.m. and spread to the south-east of England. *L.24* was forced back by a head wind and three others<sup>4</sup> turned back on the same account at various times. *L.16* and *L.21* raided the Suffolk coast. *L.16* flew nearly to Ipswich, and dropped her bombs round there without doing any damage. *L.21* was heavily engaged round about Felixstowe and dropped a number of bombs in that area. She was seen flying low and it was thought that she had been

<sup>1</sup> See I.D. War Diary, August 8 and Special Telegram, 1916.

<sup>2</sup> Air Raids, 1916, August 8, p. 24, at 10 p.m. in 54° 30' N, 0° 4' W.

<sup>3</sup> 2 miles north-east of Skinningrove, 11.58 p.m. The original accounts of these attacks have not been seen.

<sup>4</sup> *L.17*, *L.23*, *L.22*.

injured. The two others, *L.31* and *L.32*, travelled in company over Belgium and were hovering off the North Foreland at 11 p.m. *L.32* apparently hesitated for a time and then turned out to sea at the sight of the Ramsgate searchlight. She returned and hovered over Folkestone about 2.10 a.m. and later released most of her bombs without doing any damage in the Downs, where she was heavily fired at by guardships of the Downs Boarding Flotilla, and was joined later by *L.31*. The latter under Lieutenant Mathy, a bold and fearless pilot, had struck boldly up the Thames and reached London, making the first successful raid on it since October 1915. Clouds and mist handicapped the searchlights; they were unable to pick her up and she crossed the ring of anti-aircraft defences without coming under heavy fire.<sup>1</sup> Passing over Millwall, Deptford, Greenwich and Blackheath, she dropped 8 incendiary and 35 high explosives, of which 16 were of a large new type, weighing at least 240 lbs., blowing up a number of houses and killing nine people (3 men, 4 women and 2 children). She went down river, and joining *L.32* about 3 a.m. off the Downs, made for home.

As early as 3 p.m. Commodore (T) and the East Coast had been warned that Zeppelins were coming. Commodore, Lowestoft, was told to send out the *Brocklesby* with her seaplanes, and at 5 p.m. the *Conquest* left Harwich with four destroyers, followed by the *Carysfort*, *Canterbury*, and a division of the 10th Flotilla at 7 p.m., while the *Vindex* remained in harbour. Receiving at 6.43 p.m. the position of two Zeppelins by directionals, they steered towards them, and at 7.24 p.m., some 30 miles east of Orfordness<sup>2</sup>, sighted one low down to the south-eastward and closed her. The light was poor, the sky overcast and unfavourable for firing and only a couple of 6-inch rounds were got off<sup>3</sup> by the *Conquest* before the airship was lost to sight. At 9.45 p.m., some 30 miles to the north-eastward,<sup>4</sup> another was sighted bearing S. by E. and fire was opened with the 3-inch H.A. gun. The airship dropped half a dozen bombs, which fell into the water, then turned to the south-eastward and made off. This was evidently *L.13*, who was apparently hit, for she asked for destroyers and reported that she had been fired at in this spot<sup>5</sup> and had turned back as nine cells were leaking. But meanwhile all German submarines available had been ordered to proceed westward to pick up any airships disabled, and Commodore (T) was warned to beware of them east of 3° between 53° N. and 54° N. at daylight. German destroyers were despatched to assist *L.13*, and finally, as the First Scouting Group showed signs of moving,<sup>6</sup> Commodore (T) was warned to have his ships west of long. 3° E. by daylight, as enemy

<sup>1</sup> For her course see map in Air Raids, 1916.

<sup>2</sup> 52° 7½' N., 2° 17' E.

<sup>3</sup> H.S.A. 284/591.

<sup>4</sup> 52° 24' N., 2° 53' E.

<sup>5</sup> I.D. War Diary, August 24, 2200, 52° 15' N., 2° 45' E.

<sup>6</sup> I.D. War Diary 24.8.16, 9.24 p.m.

battle cruisers were coming out to shepherd the Zeppelins home.<sup>1</sup> The *Conquest* was off Brown Ridge when the message was received and turning westward at 12.45 a.m. (August 25) made for home. This ended the airship raids for the month, for eight Zeppelins which started on August 29 were swept back over Holland by a heavy thunderstorm. Lord Jellicoe in the "Crisis of the Naval War" says that those responsible for the naval policy of the country in 1917 were conducting two wars: one on the surface and one below it. The Harwich Force might reasonably claim that they were conducting three: one against the squadrons of the enemy, one against his submarines, and one against his Zeppelins in the air. The airship raids and the damage done at Hull on August 8 engendered a considerable amount of heat. At an Air Board meeting (August 14 1916), it was hinted broadly that the seaplane carriers could perform more in the way of intercepting Zeppelins and that the plea of risk from submarines would not satisfy public opinion, which would demand a change of Admiralty policy. Some incisive comments were made on this paper in the Admiralty, emphasising the point that the responsibility for defence against an attack rested with the military, that seaplane carriers were intended to act as eyes of the fleet and not as a defence from Zeppelins, which constituted a merely secondary purpose. Fleet requirements could not give way to helping the military to do their work.

The shortcomings of the seaplane of that time and of the weapons that it used are revealed clearly in the reports from sea. The seaplanes could not get off the water and Pomeroy bullets and Ranken darts were of little use. To answer the criticisms of the Air Board, a report was called for of naval vessels with H.A. (high angle) guns actually out on patrol on the East coast during the raids in August. Apart from the Harwich Force, they numbered on August 8,<sup>2</sup> on the East coast from the Forth to Dover, 77 vessels (1 cruiser, 4 light cruisers, 3 destroyers, 4 torpedo boats, 6 patrol boats, 1 gunboat, 1 armed yacht, 57 armed trawlers). The Chief of the Staff was able also to point to a whole bevy of older craft distributed along the coast, including a gunboat (1 6-inch A.A.) and a battleship in the Humber, a gunboat with 6-inch A.A. in the Wash, a monitor at Yarmouth, at Lowestoft and in the Downs and at Dover, and 4 12-pdr. guns of the *Doris* mounted ashore at Harwich. So that altogether on August 8 there were on the East Coast 114 vessels armed with high angle guns, of which 8 sighted Zeppelins. From the ten naval air stations however only one plane went up.<sup>3</sup> The return, prepared merely as a reply to criticism, emphasised the fact that the use

<sup>1</sup> H.S. 451, signal 2315.

<sup>2</sup> Tables are given for July 31, August 2, and August 8 in X, 9304/16.

<sup>3</sup> From Redcar. There were naval stations at (Dover) Manston; (Nore) Westgate, Eastchurch; (Lowestoft) Yarmouth, Bacton, Covehithe; (Humber) Killingholme, Cranwell, Redcar.

of ships at sea to attack Zeppelins must depend on naval considerations, such as mines, submarines and counter movements by the enemy, and ended by pointing out that the labour involved in its compilation had delayed other important work.<sup>1</sup>

70. **German Submarines, North Sea.**—The lull in the German submarine campaign, which began in May, extended into August, and during that month their activity in Home Waters was confined to the Tyne area and the Channel. *U.B.* 18 continued her work off the Tyne where her sinkings were largely confined to trawlers. Between August 1 and August 5, she sank 10 British trawlers, 1 Dutch, 1 Danish and 1 British ship.<sup>2</sup> The attacks on fishing boats display a monotonous sameness. The submarine fires a shot, the crew pull to her, a German crew boards the ship, strip her of any handy metal fittings, copper and brass, and blow her up, while the crew pull for the land or some neutral schooner, or are picked up by some patrol vessel. The s.s. *Destro* (839 tons) afforded a happy exception on August 13. She was off the Farn Islands at 3.5 p.m., about 3 miles from land, going south on her way from Stavanger when a shell passed over her and a submarine appeared about a mile off just before the port beam.<sup>3</sup> The master (Edward B. Johnson) at once brought her astern and rang for full speed. The submarine followed hard and hit her several times, but at 3.50 p.m. abandoned the chase and the ship got away. That same evening some 80 miles further south, the armed trawler *Lordship* and six drifters of the Humber Auxiliary Patrol were towing mine nets off Whitby<sup>4</sup> when an explosion occurred with the usual accompaniment of oil and bubbles, and on the optimistic assumption that a submarine had been destroyed, the *Lordship* (Lieut. D. Jefferson, R.N.R.) and her six drifters received £1,000 award.<sup>5</sup> This force formed part of the reinforcement of 12 trawlers and 24 net drifters, which had been sent round from the Channel in consequence of the attacks on the fishing fleet in July and which arrived early in August. As a further measure of defence Commodore (T) sent up the *Lightfoot* and six destroyers to Immingham and, beginning on August 3, they took turns with the *Active* and 4th Flotilla in patrolling the coast. These measures had a deterrent effect for the U.B. boat that appeared on August 9, confined its attentions chiefly to neutrals, though on August 9, she chased the British s.s. *Burmah* and lost her in a fog. The next day at 11.40 a.m. she boarded and sank the British s.s. *San Bernardo*, of 3,803 tons, in ballast from Norway. This was in a position 17 miles S.E. from the Longstone,<sup>6</sup> some 14 miles from the coast, and outside the route laid down by Admiralty instructions.

<sup>1</sup> M.07756 in Papers titled X. 9304/16.

<sup>2</sup> Dutch s.s. *Zeeland*, 1,293 tons, August 1; Danish s.s. *Jagersborg*, 1,797 tons, August 3; British s.s. *Stamfordham*, 921 tons, August 3.

<sup>3</sup> Lat. 55° 26' N, 1° 30' W. Papers, Board of Trade, August 9, 1916.

<sup>4</sup> 54° 26' N., 0° 20' E., August 3, 4.30 p.m.

<sup>5</sup> M. 07085, M. 07762/16. No submarine was lost on this date.

<sup>6</sup> 55° 33' N., 1° W.

The paddlesweeper *Haldon* was attacked on August 12 near the Dogger Bank, and the same day sailings to all ports in Norway south of Bergen were suspended on account of reports of a submarine off the Norwegian coast. On August 13, the Swedish s.s. *Pepeta* with a cargo of sleepers for Sunderland was captured and set on fire 30 miles from the Longstone by the U.B. boat cruising off the Tyne, which towed her boat and crew of 7 men to the Norwegian s.s. *Mirjam*. This ship was some 28 miles from land and evidently, under the prescribed conditions of visit and search, submarines preferred to confine their attacks to fishing craft and to neutral sailing vessels some 30 or 40 miles from the coast. They were evidently careful to avoid observation, for no destroyers sighted them and 54 vessels were escorted through the area along the coast during the month without being attacked, though a Flander's submarine in the south succeeded in torpedoing the *Lassoo* on August 13 (*vide* para. 62). The middle of the month saw a cessation of submarine activity when for two days (August 18-20) German submarines and British destroyers of the 4th Flotilla were swept back into the stream of fleet operations. The German submarines started back on August 20, and two of them (probably *U.65* and *U.52*) were sighted that afternoon at 3 p.m. in 55° 28' N., 0° 8' W., by the *Gunner*, an armed trawler "Q" ship disguised as a tramp, who fired four 12-pdr. shots at one of them at 6,500 yards and saw an explosion after the second shot, for which she was awarded £200. The other went serenely on and apparently fired two torpedoes at the paddle minesweeper *Haldon*, of the 3rd Fleet Sweeping Flotilla, at 2.30 p.m., both of which missed. *U.52* apparently turned back and, resuming her course to the eastward that evening, passed the minesweeper *Eridge* at 5 a.m. next morning (August 21), and fired two torpedoes at her, which missed.<sup>1</sup> In the south the British submarine *E.54* had better fortune and sank *U.C.10*<sup>2</sup> off the coast of Holland that day (*see* cap. VII).

**71. Duke of Albany sunk, August 24.**—Further north *U.B. 27*, which had missed the opportunity of firing at the *Iron Duke* on the night of August 18, had been lurking off the Orkneys. She was seen some eight miles east of Pentland Skerries<sup>3</sup> by a minesweeper on August 20 at 5.12 a.m., and that afternoon, 18 miles to the eastward, attacked a trawler, the *Pacific*, and after firing 21 shots at her was driven down by the destroyer *Mindful*, which came hurrying up.<sup>4</sup> Finally, on August 24 close to the Orkneys, the armed boarding steamer *Duke of Albany* fell a prey to her. The *Duke of Albany* (1,997 tons), was patrolling that day with the *Duke of Clarence* some 20 miles east of Pentland Skerries<sup>5</sup> at 9 a.m. It was a calm clear day, with the sun shining. She was

<sup>1</sup> 55° 30' N., 1° E. Report in M. 07780/16.

<sup>2</sup> Michelsen, 192.

<sup>4</sup> M. 07743.

<sup>3</sup> 58° 41' N., 2° 55' W.

<sup>5</sup> 58° 44' N., 2° 28' W.

zig-zagging at 14½ knots on an easterly course when a torpedo was seen 300 yards off, which struck her under the port engine room, blowing one of her lifeboats into the air. A second passed some 30 yards astern. The ship began to settle at once and sank in six minutes, a number of depth charges in her exploding as she went down. The Captain, Commander George Ramage, R.N.R., and 26 others were lost. The *Duke of Clarence* closed at once, slipped two boats close to the men in the water and tried to ram the submarine. Several seaplanes and an airship were despatched from Scapa and the duty division of destroyers and the 12th Flotilla followed and searched the area with high speed sweeps. Dusk fell without their having seen anything and *U.B.27* got safely home.<sup>1</sup> Off Flamborough Head the drifters, inspired by the *Lordship's* success on August 3 (*see* S.70), had been towing their E.C. nets, when, on August 26 at 5.40 a.m., an explosion occurred in the *William Tennant's* nets 19 miles E.N.E. off Flamborough Head.<sup>2</sup> It was accompanied by the usual phenomenon of bubbles and an explosion sufficiently violent to be worth an award of £200, but there is nothing to show that a submarine was sunk. On August 28, as an outcome of the operation of August 19, a series of exercises was carried out in Scapa Flow to test the power of submarines against light cruisers going at speed. The *Calliope* going 23 knots and screened by two destroyers, was attacked by *J.5* at 800 yards. One torpedo out of two hit and *J.5* was not seen.<sup>3</sup>

**72. German Submarines, Channel.**—The two months' respite enjoyed in the Channel was broken in August. A Flanders submarine passed Dover on August 1, where she was sighted (1.40 p.m., 51° 9' N., 1° 32' E.) by the *Syren*, which opened fire on her and dropped depth charges without result. She appeared off Havre on August 2 and, cruising in between Portland and Cherbourg, sank nine ships up to August 4. None of them were of any size, the largest being the British s.s. *Sphere*, of 740 tons, and the *Spiral*, of 1,342 tons, on August 3. This led to orders to Commodore (T) on August 4, at 5 p.m., to send a division of destroyers to hunt her, and four left Harwich the next morning at 5 a.m.<sup>4</sup> The measure may have had some effect, for she did not appear again till August 9 and 10, when she sank four more small ships on the French side between Havre and Cape Barfleur. Again the call went out to Commodore (T) (August 10, 7 p.m.), and again four destroyers went off to the Channel. The appearance on August 10 caused considerable commotion and traffic was held up in the Downs (7.14 p.m.) and the French suspended sailings in the Channel between Cherbourg and Dunkirk.<sup>5</sup> Sailings

<sup>1</sup> H.S.A. 122/208. For details of the patrols off Fleet Bases *see* H.S.A. 163/51.

<sup>2</sup> 54° 18' N., 0° 22' E.

<sup>3</sup> C.-in-C., September 18, X. 8860/16.

<sup>4</sup> *Laertes*, *Lydiard*, *Landrail* and *Lochinvar*.

<sup>5</sup> H.S. 256/268. August 11, 1.30 a.m.

were resumed at 2.10 p.m., August 11, and the Commander-in-Chief, Portsmouth, was told that fast transports could proceed with escort, but a hitch seems to have occurred, for on August 12, the Divisional Transport Officer at Havre reported that no more fast transports could be berthed till traffic was resumed. By the evening of August 12 traffic was again in full swing and 28 transports were under orders to cross that night.<sup>1</sup> This completed submarine activity in the Channel for the month. To deal with it, Commodore Tyrwhitt twice had to send a division of destroyers to the Channel, and it may have been partly due to them that the actual tonnage sunk in that area was barely 6,000 tons and traffic had been held up for only 24 hours. But the lull that had lasted all the summer, caused by the American note, was soon to come to an end.

**73. German Submarine Minelaying.**—All this time the big minelayers (*U.71-80*) were as busy as ever. Five cruises were made by them during the month. *U.75* had gone off to the Arctic on July 23 and laid her cargo of 34 mines off Sozonova,<sup>2</sup> the first mines to be laid by a submarine off the Murman coast. They were laid about 10 miles from shore, and on August 11 the armed trawler *John High* struck one and went down with 14 of her crew of 15. The minefield was at once attacked, and by August 27, 27 mines had been swept up. *U.76's* trip was a shorter one. She laid her mines off the Longstone (Tyne area) on August 1, and they were discovered the next day by one catching in the herring nets of the drifter *Harmonious* 7 miles S.S.E. of the Longstone. Five trawler sweepers were immediately despatched to clear the field, which held up the *Marlborough* in the Tyne and, by August 21, 33 had been destroyed. *U.79* started off on August 6 to the South of Ireland and, passing probably round the Shetlands, laid her cargo on the south coast of Ireland about August 16-17 off Galley Head, Seven Heads, and the Old Head of Kinsale, in groups about 2 miles from the shore. On the morning of August 17, H.M.S. *Lavender* sighted a drifting German mine off the Old Head of Kinsale<sup>3</sup> and a warning went out immediately. Sweeping was commenced by two sloops the next day and by August 26, 10 mines had been swept up off Seven Heads. Another group had been laid off Galley Head and the British s.s. *Counsellor* was blown up in it on September 14.<sup>4</sup>

On her way back west of Ireland, *U.79* was sighted by Commander Gordon Campbell in *Q.5* (H.M.S. *Farnborough*) some 40 miles west of Blacksod Bay. It was evening, the submarine was on the surface and made no attempt to attack the *Farnborough*, which had her steaming lights up. Commander Campbell followed her all that night and by a careful estimation of her course and

<sup>1</sup> H.S. 256/268, 351, 369, 647, 658.

<sup>2</sup> 67° 40' N., 41° 20' E. See Chart, German Minefield X. 135.

<sup>3</sup> 10 miles 206°.

<sup>4</sup> 51° 28' N, 9° 3' W.

speed, sighted her again at 6.15 a.m. (August 15) about 4½ miles off on the starboard bow, when she dived and the *Farnborough* let go a depth charge, taking the risk of disclosing herself. Again the *Farnborough* followed, hoping to pick her up at dusk, and did so at 5.50 p.m.<sup>1</sup> Again the submarine dived, and at 6.39 p.m., *U.79*, exasperated at this dogged pursuit, let go a torpedo, which passed under the fore-castle. The *Farnborough* spent the night in repainting ship and altering her appearance so as to pick her up the next day off St. Kilda, but she was not seen again.<sup>2</sup>

She passed round the Shetlands on August 22 and reached home on August 26, having successfully carried out her mission of laying the first minefield on the Irish coast. On August 20, *U.78* started for Wales and laid her cargo about September 1-2 on the north side of the Bristol Channel, some 5 miles south of St. Govans Head in a long scattered line extending some 15 miles across Carmarthen Bay.<sup>3</sup> The minefield was evidently directed against the Barry coal trade and the s.s. *Kelvinia* (5,039 tons, Newport News to Avonmouth) struck a mine on it on September 2 at 2.30 a.m. and sank that afternoon, while three trawlers were attempting to tow her ashore.<sup>4</sup> *U.72* had left the Bight the same day as *U.78* and went off to join *U.73* in the Mediterranean.

**74. Flanders Submarines.**—The Flanders submarine minelayers had been working steadily on, confining themselves during the month to their usual haunts on the East coast—the Shipwash, and the Lowestoft area. Some 15 cargoes and about 120 mines were laid between the Kentish Knock and Yarmouth area, but only one was laid north of the Wash, off the Outer Dowsing in the approach to the Humber, the first minefield to be laid north of the Wash since January 1916. The latter field does not appear to have been well laid, for drifting mines were sighted on August 6, 10 and 11, though it was not discovered till August 12, when the trawler *Lord Chancellor* exploded a mine in her trawl.<sup>5</sup> The Nore sweepers accounted for 23, chiefly round the Elbow and the Sunk—two favourite spots for German minelayers—and the Harwich craft swept up 21.

A minefield laid near the North Hinder and evidently aimed at the Dutch traffic does not appear in the German statement of minefields.<sup>6</sup> Two Dutch ships had been mined on it in July,<sup>7</sup> but the Grimsby paddle sweepers got to work on it on August 2,

<sup>1</sup> 56° 26' N., 9° 25' W.

<sup>2</sup> Queenstown Papers, Commander Campbell, August 21, H.S. 646/177; also H.S. 454/277.

<sup>3</sup> Chart X. 151.

<sup>4</sup> Papers in X. 8597/16. Report from Milford Haven, Vice-Admiral Charles Dare.

<sup>5</sup> 53° 17' N., 1° 02' E.

<sup>6</sup> O.U. 6020 B. The North Hinder Light Vessel had been moved to lat. 52° 5' N., long. 2° 40' E., on June 22, 1916.

<sup>7</sup> S.S. *Maas*, 1,234 tons, July 24, 52° 4' N., 2° 40' E., and *Königen Wilhelmina*, 1,964 tons, (July 31), 52° 4' N., 2° 41' E.

and in spite of thick weather, destroyed 11 mines. The area was considered clear on August 13. Far away on the west coast of Scotland the Norwegian s.s. *Aranda* had struck a mine on August 5 (56° 13 N., 7° 26' W.), but managed to reach Stornoway in tow. This was in the Skerryvore minefield, laid by *U.78* about July 20 (see page 72.) August may be regarded as a month of distant mine-laying in Irish, Welsh and Arctic seas.

The principal work of the German submarines during the month was performed in the Mediterranean, where 76 per cent. of the losses of British merchant tonnage occurred. In the Channel and North Sea only 6,458 tons were lost by submarines and 801 tons by mines. In the Mediterranean, 12 British ships, totalling 32,554 tons, were lost. The Italians were the worst sufferers, losing 55,700 tons. These losses, once more on the upward curve, corroborated a telegram which had come from Sir Edward Howard in Stockholm early in the month (August 5), quoting a letter written by the German Emperor, stating that if things went badly the Germans would begin a submarine war *à outrance*. The War Staff remarked that this was to be anticipated and all possible precautions were being taken so far as warning the Mercantile Marine was concerned, adding that more guns for defensively armed merchantmen were urgently wanted. Up to August 14, 824<sup>1</sup> merchant ships had been armed, guns were being delivered at the rate of about 40 to 50 a month, and 185 were then on their way from Japan. A week later (August 12), however, came a letter from Lord Curzon, as Chairman of the Shipping Control Committee, appointed by the Prime Minister on January 27 1916 to control the allocation of shipping. It mentioned the serious losses of British ships from submarine attack, particularly in the Mediterranean, and asked for figures of ships lost in the Mediterranean and outside it, and particulars of their armament. The Admiralty sent the figures, but was clearly not too enamoured of the Committee or its functions.<sup>2</sup> So far as arming merchant ships was concerned, it was felt that the Admiralty had done this "voluntarily on their own initiative," that "it was no part of their duty to do so," and "the Board of Trade would apparently be the proper department to do it."<sup>3</sup> The Shipping Control Committee, having received the figures and "carefully studied" them, proceeded to state (August 23) that they were strongly of opinion that all British merchant vessels should as far as possible be armed and that this task would be "materially assisted" if "a sustained effort" were made to arm all British steamers, as the losses were very appreciably affecting the amount of British shipping available for the service

<sup>1</sup> D.T.D. August 8 1916 in M. 48120/16. This figure evidently did not include fleet auxiliaries, for including fleet auxiliaries and ships on naval and military service the number armed on June 22 1916, was 1,273. See list in C.M.O. 1025/16.

<sup>2</sup> August 15 1916, in M. 49120/16.

<sup>3</sup> M. 49120 (August 15 1916).

of the Allies. To the Admiralty, who had supplied the figures, it appeared "rather refreshing" to be told to make "a sustained effort" in a task which they were doing their utmost to perform, and no reply was sent. And yet the Shipping Control Committee was on the right track. They were thinking in terms of world tonnage and the correspondence, unimportant in itself, is important as heralding the near approach of a time when the war at sea was to be waged in terms of mercantile tonnage rather than of the enemy's fleet. There was much to be said for the Admiralty view. So far as British ships were concerned the actual losses were not excessive, and in the Channel were exceptionally small, as the following figures show:—

*Losses of Merchant Ships by Submarines in Tons, August 1916.*

	Tons.	British Losses.	Tons.
British Tonnage ..	42,253	In North Sea ..	4,724
British fishing vessels	1,474	In Channel ..	2,734
Allied Tonnage ..	77,931	In Mediterranean ..	32,554
Neutrals ..	30,020	Elsewhere ..	2,241
Total Losses ..	151,978	British Losses ..	42,253

The British loss of 42,253 tons was 30 per cent. less than the average monthly loss since January 1915,<sup>1</sup> and so far as the Allies' loss was concerned, the principal sufferer was Italy (55,700 tons), whose waters were not under our control. In the North Sea, except for minelaying, German submarines did very little, and the principal part played by them was in the operations on August 19, which calls for a chapter to itself.

## CHAPTER VII.

### AUGUST 19,<sup>2</sup> 1916.

**75. Scheer's Plan.**—The operations of Saturday, August 19 1916, stand out in dim perspective as one of the great beacons of the war at sea. It was the last time that the German Fleet pushed right out against the English coast. It was the first and last day on which German submarines worked in close conjunction with the Fleet controlled by their leader's signal from the bridge of a battleship. On the British side, too, it was a red letter day of reconnaissance, for it was *E.23* which sighted the German Fleet as it left the Bight, and announced its position to the Commander-in-Chief, hastening down from the north. Strategically its outcome was of the first importance, for it was decided that it should be the last time that the Fleet should

<sup>1</sup> Average monthly British loss in merchant ships by submarines from January 1915, to August 1916, was 59,815 tons.

<sup>2</sup> See Plans 5 to 11a.

push so far down the North Sea, and on the German side it was practically the last effort of its kind.

Scheer's plan was based on the principles laid down by him in February. The Fleet was to sail by night, advance towards the English coast, and, unless the enemy was encountered or the German line of retreat threatened, was to push across and bombard Sunderland.

On May 31 his reconnaissance system had proved terribly deficient, and he had found himself suddenly faced with and almost enveloped by the British Battle Fleet. Only by great skill and fortunate hazard had he been able to extricate himself from a perilous plight. His methods were now thoroughly revised. Submarines and airships were to work in joint reconnaissance far ahead of him. The airships were placed at his service from August 9 to August 24, and the submarines, still debarred by his order from the war against shipping, were entirely at his disposal. The disposition in radiating sectors outside the British Fleet bases on May 31 had met with small success. On that occasion they found that if they hugged the entrances they got in one another's way; if they stood out to sea they lost touch and left avenues of exit unwatched. The new plan was to thrust them well forward in groups disposed on certain lines of position (standlinie) in the path of the enemy's probable advance. Sunderland was to be the objective or bait. A thrust in that direction must mean an advance of the English Fleet down the English coast. Two lines of submarines were, therefore, stationed, one off the Farn Islands and the other off Flamborough Head, while the Flanders boats in two groups<sup>1</sup> lay, one off Terschelling and the other level with the Humber, presumably to cover the advance and intercept forces in pursuit. Other positions were provided which boats might take up on a pre-arranged signal, and—the most distinctive feature of the whole operation—the Officer Commanding Submarines (Commander Bauer) took up his post in a battleship, the *Prinzregent Luitpold*, so that the Fleet and its submarines should work in closest co-ordination. Eight Zeppelins were to be in attendance—*L.22*, *L.24*, *L.30* and *L.32* patrolling between the Scottish coast and Norway; *L.31* off the Firth of Forth; *L.11* watching the English coast by Sunderland; *L.21* towards the Humber; and *L.13* covering the southern flank of the Fleet towards the Hoofden. In this way the line of advance was covered by a far-stretching encirclement of airships. The Fleet consisted of the 1st and 3rd Squadrons of the Battle Fleet in full strength, numbering 17 battleships, of which three were lent to the 1st Scouting Group. The five old ships of the 2nd Squadron were given the task of watching the Bight. The 1st Scouting Group, short of the *Derfflinger* and *Seydlitz*, which were still under repair, and able to muster only the *Moltke* and

<sup>1</sup> Scheer's Hochseeflotte, 259, speaks of one group of Flanders boats, but Karte 10 in the same book shows two lines.

*Von Der Tann*, was reinforced for the occasion with the new battleship *Bayern*, and two battleships of the 3rd Squadron, the *Grosser Kurfürst* and *Markgraf*.

**76. British Preparations.**—On August 18 a German signal, intercepted at 9.19 a.m.,<sup>1</sup> made it clear that the whole German High Sea Fleet, with the exception of the 2nd Battle Squadron, was putting to sea that night at 9 p.m. G.M.T. There was nothing to indicate their objective, but the Commander-in-Chief was ordered at 10.56 a.m. to put to sea, and concentrate in the Long Forties, east of Aberdeen. Half an hour later<sup>2</sup> Commodore (T) was ordered to sail in time to be off Brown Ridge<sup>3</sup> at dawn on the 19th, on the look out for the German Fleet. Further orders followed rapidly. The 3rd Battle Squadron was to assemble in the Swin by 8 p.m. with steam at one hour's notice. The Rear-Admiral at Immingham was told to recall the 10th Sloop Flotilla. Orders were sent to Captain (S) at Harwich for the disposition of his submarines. Three submarines, *E.23*, *H.5* and *H.9*, were already watching the approach to the Bight in the Terschelling area. Two more were to proceed to the north of Heligoland, to return after 48 hours; six were to be stationed at "gun range" off Yarmouth, Lowestoft and Harwich, two at each place, by 3 a.m., for defence of the coast; the remainder, divided into two groups, each with a directing destroyer, were to await orders. The *Active* and the destroyers of the 4th Flotilla at Immingham were warned to be ready to proceed in accordance with the Commander-in-Chief's orders. All these orders had gone out by noon on August 18.

Later in the afternoon, the minelayers at the Nore were ordered to join the 3rd Battle Squadron, and the Vice-Admiral, Dover, was ordered to recall all patrol vessels from the Belgian coast by daylight, and to concentrate the Dover Force. The aeroplanes on the coast were to be ready to go up at dawn, working well to seaward, ready to bomb all surface craft; but in order to avoid repeating the experience of the Lowestoft raid on April 24, submarines were not to be attacked. At 1 p.m. the Admiralty were able to give the positions of some four German submarines in the North Sea,<sup>4</sup> but they threw little light on the situation.

By the evening further intercepts had been received dealing with the movements of German submarines, including a signal sent at 5.18 p.m. G.M.T., ordering *U.48*, *U.69*, *U.B.35* and *U.55* to occupy certain numbered positions on the German squared

<sup>1</sup> I.D. Vol. 919/24933.

<sup>2</sup> At 11.37 a.m.

<sup>3</sup> About 50 miles east of Yarmouth.

<sup>4</sup> Sent 1300. There were six positions, 6.20 a.m., 53° 45' N., 3° 25' E.; 6.45 a.m., 54° 3' N., 5° 15' E.; 9.45 a.m., 54° 3' N., 5° 25' E.; 10.30 a.m., 56° 6' N., 5° E.; 1 p.m., 55° 10' N., 2° 35' E.; 1.40 p.m., 53° 57' N., 5° 5' E.

chart.<sup>1</sup> But the areas to which the numbers referred were not received. The positions remained doubtful, and no definite information could be supplied to the Commander-in-Chief on this important point.

**77. The Grand Fleet, August 18.**—The Commander-in-Chief was on leave in Forfarshire at this time, and Admiral Sir Cecil Burney, in the *Marlborough*, was exercising the command. As soon as he received the Admiralty message he issued orders at 11.30 a.m. for full speed with all despatch. During the absence of the Commander-in-Chief, the Chief of the Staff, Admiral Sir Charles Madden, had remained in the *Iron Duke*, but when the order to sail was received, the Chief of Staff made ready to join the Admiral Commanding. At 2.30 p.m. he was transferred to the *Marlborough*, and the *Iron Duke* struck the Commander-in-Chief's flag.<sup>2</sup>

The Commander-in-Chief had been kept in touch with the situation from Rosyth, and before Admiral Madden had left the *Iron Duke* he was at Dundee.<sup>3</sup> The *Royalist* was waiting for him with steam up, and by 2 p.m. had cast off, and was driving north at full speed. The two smaller forces at Blyth and Immingham, attached to the Grand Fleet, received their orders before the Fleet sailed. At 2.45 p.m. the destroyer *Trident*, with six submarines of the 11th Submarine Flotilla at Blyth, and the *Active*, with nine destroyers of the 4th Destroyer Flotilla at Immingham, were ordered to rendezvous at 5 a.m. in lat. 54° 40' N., long. 0° 20' E.,<sup>4</sup> a position that enabled them to cover the Tyne coast and to be ready to join the Battle Fleet.

Pending further information as to the German movements, Admiral Burney ordered a rendezvous in lat. 56° 30' N., long. 0° 20' E., 100 miles east of the River Tay. The Battle Fleet was to be in that position at 5 a.m., steering 175°, and the Battle Cruiser Fleet was to be in a position 30 miles south of it.

**78. Harwich Forces, August 18.**—At Harwich on August 18 Commodore (T) had five light cruisers, with the *Lightfoot* and 19 destroyers. Four<sup>5</sup> destroyers were with the Vice-Admiral,

<sup>1</sup> These submarines formed a line in the western approach to the Bight, in approximately lat. 55° N., long. 5° E.

<sup>2</sup> On a previous occasion, in September, 1915, during the temporary absence of the C.-in-C. the arrangements had been somewhat different. The instructions on that occasion were that the Vice-Admiral Commanding was to shift to the *Iron Duke* and exercise the command in the name of the C.-in-C., leaving his own flag flying in the *Marlborough*. In the event of the fleet going to sea, the C.-in-C. would leave Rosyth with his flag in the *Warspite*, the Vice-Admiral Commanding was to proceed to sea in the *Marlborough*, and Vice-Admiral Madden was to hoist his flag in the *Iron Duke* and take command of the First Battle Squadron, the *Marlborough* and *Iron Duke* exchanging stations in the fleet. Memorandum of September 16 1915, H.S.A. 162/9.

<sup>3</sup> Left Dundee 1.53 p.m.

<sup>4</sup> About 50 miles east of Hartlepool.

<sup>5</sup> *Moorsom*, *Termagant*, *Murray* and *Milne*.

Dover Patrol, and were ordered to join the 3rd Battle Squadron in the Swin, bringing its destroyer force up to seven.<sup>1</sup> The Harwich Force was ordered to raise steam by 8 p.m., and at that hour the whole force was leaving harbour on its way to Brown Ridge.

The next day was to present a marked contrast between the disposition of the German and British submarines, and the movements of the latter, which were governed largely by considerations of coast defence, deserve special attention. Captain (S) had eight submarines with the *Firedrake* at Harwich; at Yarmouth there were five, which, in accordance with the Admiralty orders, he retained for the defence of Yarmouth and Lowestoft. Only the previous day the Admiralty had sent him instructions that four or five submarines were always to be patrolling in the area east of 4° E., between 53° N. and 53° 45' N.,<sup>2</sup> that is, in the vicinity of Texel and Terschelling. Three submarines—*E.23*, *H.5* and *H.9*—had already gone there. *E.23* had sailed on August 16 to patrol an area north of Terschelling<sup>3</sup> in the hope of waylaying a German submarine; *H.5* had left Yarmouth the same day to patrol some 30 miles north-west of Terschelling,<sup>4</sup> and *H.9* had left on the 17th for another beat to the north and east of her.<sup>5</sup> Finally, in accordance with the orders issued by the Admiralty on August 18, two more submarines, *E.38* and *E.16*, were despatched at 12.30 p.m. to cruise to the north of Heligoland for two days. There were, therefore, on August 18 three British submarines patrolling in the western approach to the Bight, and two more on their way to Heligoland. Sailing independently of these dispositions, *E.54* had left Harwich on August 15 to patrol on the Dutch coast off Schouwen Lightvessel in the hope of catching one of the Flanders submarines, which were in the habit of passing it on their way back to Zeebrugge.

There remained the submarines at Harwich and Yarmouth. It was 9.45 p.m. when Captain (S) received orders to send one group to 52° 15' N., 3° 5' E., much the same position as had been chosen on April 24,<sup>6</sup> and the other to Corton Lightvessel, off Yarmouth. An hour later the *Firedrake* was off to the first rendezvous with five<sup>7</sup> submarines, and Captain (S), in the *Hind*, was on his way to Corton Lightvessel with the remainder. The *Titania* was equally active, and six submarines had left Blyth with the *Trident* by 11 p.m.

<sup>1</sup> *Morris* on way to Dover (recalled); *Forester* and *Fevret* also retained by 3rd B.S. The *Hind* was detailed to work with Captain (S).

<sup>2</sup> H.S.A. 272/200.

<sup>3</sup> *E.23* between lat. 54° and 54° 45' N., and long. 4° 30' and 5° 30' E.

<sup>4</sup> *H.5* between lat. 53° 30' and 53° 45' N., and long. 4° and 5° E.

<sup>5</sup> *H.9* between lat. 53° 45' and 54° N., and long. 5° and 5° 45' E.

<sup>6</sup> See Monograph, Lowestoft Raid, Plan II.

<sup>7</sup> There is no report in H.S.A. 272 of their movements.

In the North Sea, then, there were at midnight on August 18, 26 British submarines on the move, as follows:—

In the Bight or on the way: <i>E.23, H.5, H.9,</i>	
<i>E.38, E.16</i> .. .. .	5
With <i>Firedrake</i> in Hoofden <sup>1</sup> : <i>G.12, E.29, E.44,</i>	
<i>E.53, E.55</i> .. .. .	5
With Captain (S) and <i>Hind</i> off Corton Light	
Vessel (Yarmouth): <i>H.7, H.10, V.1, V.2,</i>	
<i>V.3, V.4, E.42, E.29, E.37</i> .. .. .	9
Off the Tyne with <i>Trident</i> : <i>J.1, J.3, J.5, J.6,</i>	
<i>G.10, E.30</i> .. .. .	6
<i>E.54</i> off the Dutch coast .. .. .	1
	—
Total .. .. .	26

Of these 26, only one, *E.23*, got within range of the German Fleet.

**79. The Grand Fleet Sails. August 18, 6.30 p.m.**—In Scapa on August 18 the squadrons were getting under weigh by 3 p.m. and the *Marlborough* passed Pentland Skerries at 6.30 p.m. A signal had been received from the Commander-in-Chief in the *Royalist* saying that he would join before dark and ordering the *Iron Duke* to be sent on ahead for him. She parted company at 5.54 p.m. and pressed on to the southward, escorted by two destroyers, the *Marvel* and *Onslaught*. By 7.55 p.m. she was some 12 miles ahead of the fleet<sup>2</sup> with the *Onslaught* on her starboard bow. The *Royalist* had just been sighted and the challenge was being made by searchlight when the track of a torpedo was seen making for the *Onslaught*. It missed, but the long line of bubbles revealed the immediate danger. It was clearly no place to transfer the Commander-in-Chief, and the *Iron Duke* held on at 21 knots, with the *Royalist* following in her wake. The submarine was not seen.<sup>3</sup> She had probably intended to attack the *Iron Duke*, but, misjudging her attack and finding herself on the wrong bow of the *Iron Duke* had fired at the destroyer.

Admiral Burney was some 12 miles astern of the *Iron Duke* at the time, and on receiving the report<sup>4</sup> altered course four points to port, and turning to east a little later, made a wide detour which carried his squadron well to eastward of the spot.<sup>5</sup> It was

<sup>1</sup> S.N.O. Harwich, S.N.O. Yarmouth, H.S. 257/937, 952.

<sup>2</sup> Lat. 58° 31' N., 1° 20' W., in about the latitude of Wick, according to Capt. Dreyer's report August 21, in M. 07632/16. Signals give 58° 30' 1° 16' W.

<sup>3</sup> App. No. 14. Probably *U.B. 27*, which left Heligoland on August 15, cruised off the Orkneys, August 19 to 24, and arrived home on the 27th.

<sup>4</sup> At 8.6 *Marlborough* (s).

<sup>5</sup> The movements of the 2nd Battle Squadron are not clear. It was told at 8.52 p.m. to pass well to westward of the submarine's position. The *King George V's* course was S. 38 E. She turned to S. 8 W. at 9.6 p.m. and back to S. 38 E. at 9.19, apparently passing about 3 miles to westward of the submarine's reported position.

not till 9 p.m. that the *Iron Duke* stopped and the Commander-in-Chief was able to go on board. At 10 p.m. the Fleet altered course to south. Its course led through the area which the northern patrol of Zeppelins was appointed to watch, but it passed through it in the darkness of the night.

Meanwhile the Battle Cruiser Fleet had left Rosyth at 6.20 p.m., and by 11.45 p.m. was 60 miles east of the Forth. It was to rendezvous 30 miles ahead of the Battle Fleet, that is, in 55° 45' N. 0° 26' E., at 5 a.m., and while waiting for the latter to arrive, Admiral Beatty ran out to long. 1° 30' E., turning back again at 2.20 a.m.

At dawn the Battle Fleet, still under Admiral Burney's command, was proceeding S. by W. at 17 knots in divisions in line ahead, and at 5 a.m. it seems to have been a few miles to northward of the rendezvous.<sup>1</sup> The *Benbow*, *Monarch* and *Minotaur* from Invergordon were taking up their position. The *Iron Duke* was in sight ahead, and by 5.25 a.m. had taken up a position ahead of the *Colossus* division. The cruisers were ordered to spread 12 miles ahead<sup>2</sup> and by 5.40 a.m. the whole mass of the Battle Fleet was moving south on a course S.10 W. at 18 knots.

The Battle Cruiser Fleet at 5 a.m. was, approximately, 35 miles ahead of the Battle Fleet, and after turning north for ten minutes,<sup>3</sup> in order to close it, had turned south at 17 knots. The *Engadine* was with it, stationed within easy signal distance of the *Chatham*.<sup>4</sup> A north-easterly breeze was blowing in a cloudy sky, and, though the morning was clear, the battle cruisers were evidently not in sight, for at 6.4 a.m. a signal came<sup>5</sup> from the Commander-in-Chief to close to visual distance, and at 6.17 a.m. Admiral Beatty altered course to the north to do so. He had scarcely turned when a signal came in to say that the *Nottingham* had struck a mine or torpedo.

**80. The Nottingham Torpedoed, August 19, 5.57 a.m.**—The light cruisers at the time were spread to southward of the *Lion*.<sup>6</sup> They were on a southerly course and had been zig-zagging since 5 a.m.<sup>7</sup> It was a fine morning, overcast, with good visibility.<sup>8</sup> The sea was 3, with the tops of waves breaking slightly and a light wind was blowing from north-north-east. The *Nottingham* was on the *Lion's* starboard bow,<sup>9</sup> going 18½ knots on a course 181° with the *Dublin*

<sup>1</sup> Position of *Iron Duke* at 8 a.m. was 56° 8' N., 0° 20' E., C.-in-C. says "On arrival in the position . . . about 5 a.m." (C.-in-C. report in M. 07632).

<sup>2</sup> From east to west the *Shannon*, *Duke of Edinburgh*, and *Minotaur*.

<sup>3</sup> Vice-Admiral, B.C.F.'s report in M. 07632/16.

<sup>4</sup> 6 miles SSE of *Chatham*, i.e. roughly 14 miles ahead of the *Lion*.

<sup>5</sup> Sent 5.55 a.m.

<sup>6</sup> Formation L.S. 6, i.e. the 12 light cruisers 8 miles ahead of the *Lion* in pairs 5 miles apart. *Chatham* (s) August 18, 1950.

<sup>7</sup> *Dublin* (s) 0419.

<sup>8</sup> From eight to nine miles, Captain Charles Blois Miller's evidence, N.L. 4322/16.

<sup>9</sup> Her position (F) in L.S. 6 would be 15 miles 60° on the starboard bow.

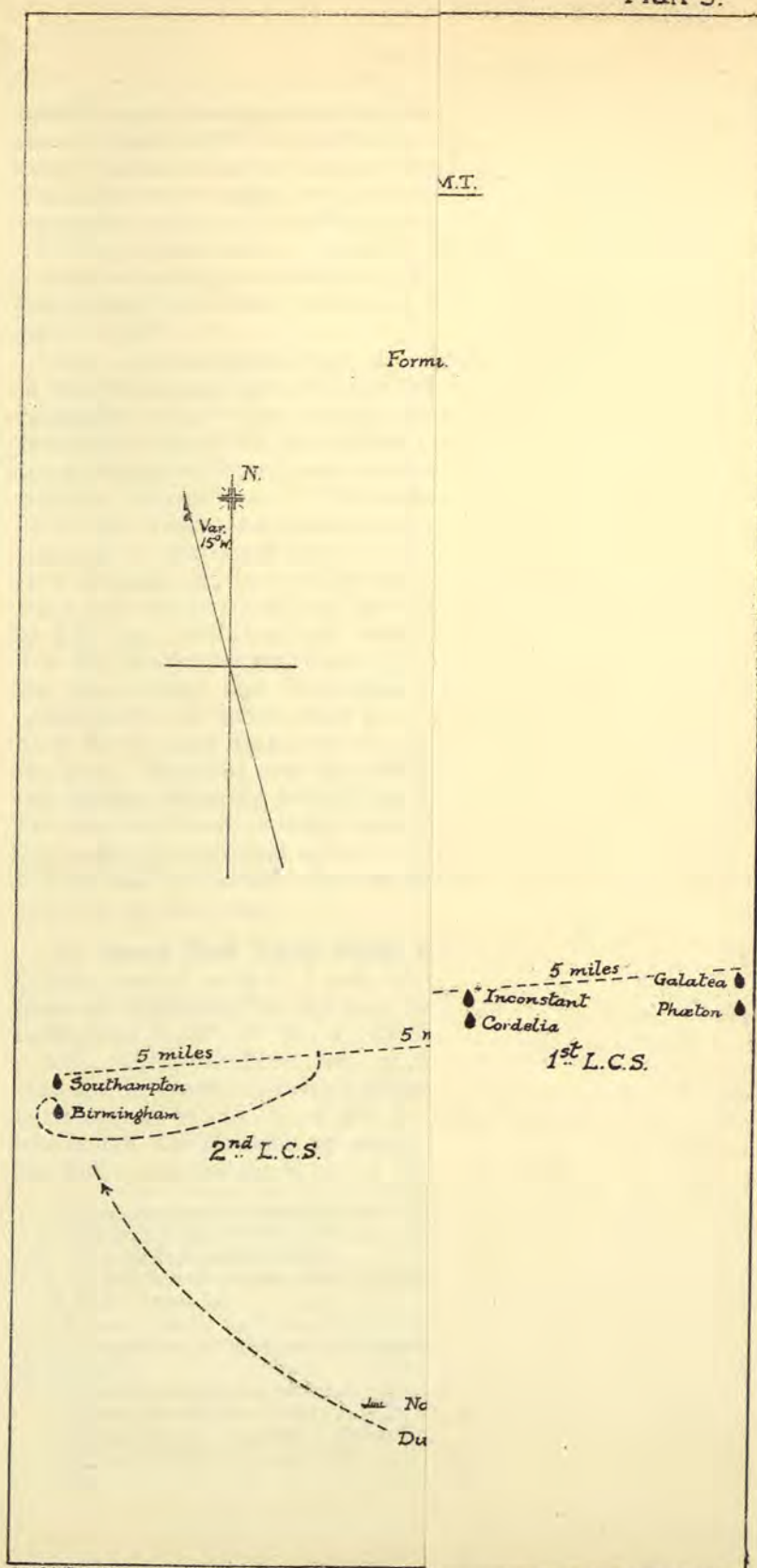


4 cables behind her. The control officer was just taking the range of the *Falmouth*, in sight to port, when at 5.57 a.m. the ship was struck by a torpedo, the port side forward. Almost immediately afterwards a second struck her amidships the port side, probably blowing the bottom out of B. boiler room. Not one of the nine look outs on watch had seen any sign of a submarine; no track of a torpedo had been reported, and at first it was doubtful whether the explosion was caused by a torpedo or mine. In the engine room the gauge dropped to zero and the lights died gradually out. A signalman was just taking in the *Lion's* reference position when the searchlight went out. The aerial had carried away, but a distress signal was made on the emergency aerial<sup>1</sup> and repeated by semaphore to the *Dublin*. About 6.25 a.m., when the ship's head was pointing N.E., a periscope was sighted on the port side about a mile off, and shortly afterwards a third torpedo hit the ship abreast of the foremost funnel and she began to settle by the head. By about 6.45 the forecastle was under water; all the boats had been manned, except the second cutter, which had been blown from its davits; the five Carley rafts had been launched, and mess stools and extempore floats followed them over the side. The cyphers and codes coming up in sacks from the wireless office were deluged with a "huge quantity of paraffin" and burnt merrily in an extempore fireplace between two doors till they were consumed. Having performed this task, armed with the "duplicate ledger in its watertight case," and "feeling satisfied that there was a duplicate cash account ashore," the Paymaster proceeded to the bridge to ask the captain's permission to go overboard, and having obtained it walked into the water. The Fleet Surgeon was searching the ship for wounded. At 7 a.m. all officers and men had left the ship, and Captain Miller left her as the water rose round him. She heeled heavily to port and sank by the head about 7.10 a.m. The boats and Carley rafts could not hold every one, and many had to trust to their Kapok waistcoats and extempore floats. The destroyers *Oracle* and *Penn* had been despatched by the *Lion* at 6.30 a.m., but some time elapsed before they reached the spot. When they arrived they were forced to "dodge about" by the submarine;<sup>2</sup> the water was cold and a number of men died from exposure. The remainder arrived safely in the Tyne. The torpedoes had been fired by *U.52*.

81. **The Grand Fleet Turns North, 7 a.m.—9 a.m.**—*U.52's* attack on the *Nottingham* had no small result, for it postponed for four hours the advance of the Fleet to the southward. The *Lion* was actually proceeding S. 10 W. when it happened, but, having received a signal from the Commander-in-Chief to close to visual distance, had turned round to close at 6.17 a.m. A few

<sup>1</sup> Made 0620.

<sup>2</sup> Commander J. C. H. Lindsay's evidence. Commander Lindsay was in the water about three quarters of an hour; he was then picked up by the cutter; the destroyer was twice driven off when she was on the point of picking them up. N.L. 4322/16.



AUGUST 19, 1916.

ADMIRAL BEATTY'S FORCE. 6.30 a.m., G.M.T.

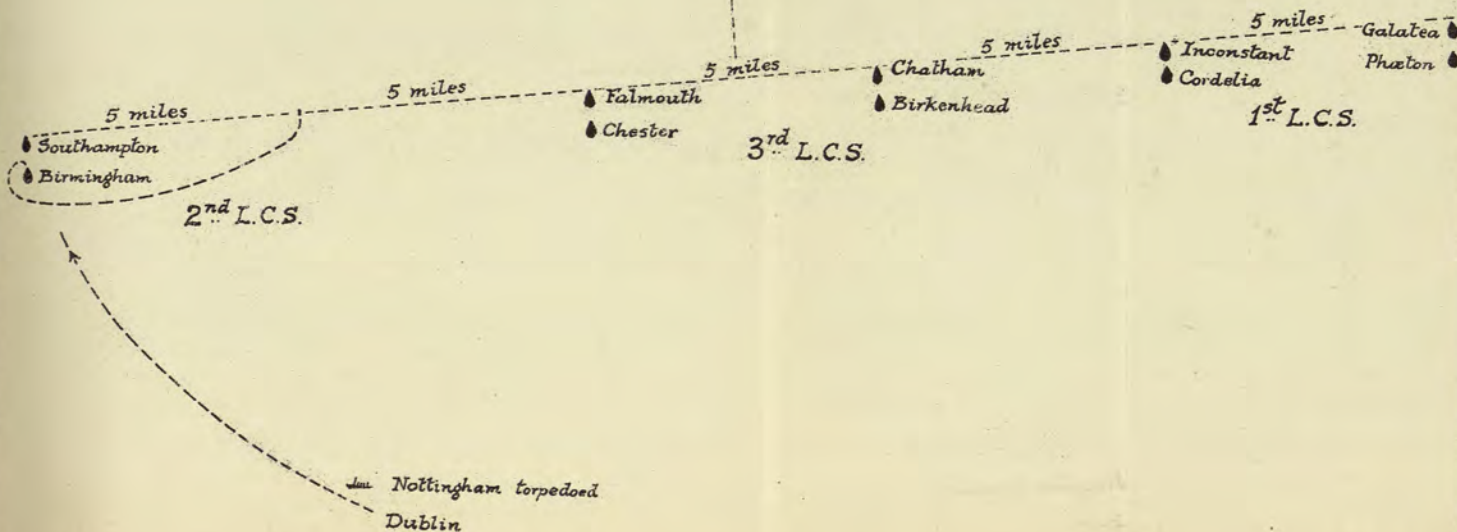
COURSE.  $N. 10^{\circ} E.$ Speed.  $18\frac{1}{2}$  knots.

Formation :- Light Cruisers spread 5 miles apart, 8 miles astern.  
 'Nottingham' had been torpedoed at 5.57 a.m.



1 mile {  
 • Lion, 3<sup>rd</sup> WbyS, Australia  
 • Princess Royal, Inflexible  
 • Tiger  
 • New Zealand

8 miles



minutes later there came a signal from the *Nottingham* to say that she had been struck by a mine or torpedo, and about 6.30 a.m. came another from the *Southampton* to say that the *Nottingham* had been struck again by a torpedo.<sup>1</sup> It asked for destroyer assistance, and Admiral Beatty sent off the *Oracle* and *Penn.* The *Nottingham* was not in sight<sup>2</sup> and they took nearly three-quarters of an hour to reach her. By that time the battle cruisers had sighted the Battle Fleet, and Admiral Beatty turned south again at 6.40 a.m.

The Commander-in-Chief did not receive the first report of the *Nottingham* till just before 6.50 a.m. He at once resumed command of the Fleet, and as the first report had not stated definitely whether the *Nottingham* had been mined or torpedoed, turned round at 7 a.m. and steamed to the northward "till the situation became clear."<sup>3</sup> From the *Minotaur*, before she turned north, the *Nottingham* could be seen foundering some eight miles sharp on the starboard bow.<sup>4</sup> It was not, however, till 7.15 a.m. that Admiral Beatty received the signal to say that the Battle Fleet had turned round, and he followed round to the northward at 7.30 a.m., with his light cruiser screen spread behind him. The fleet was in Cruising Order No. 7,<sup>5</sup> and as it proceeded north the *Marlborough* and *Iron Duke* hauled out of line, and the opportunity was taken (7.30 a.m.) to transfer the Chief of the Staff to the *Iron Duke*, which was leading the 3rd Division at the time. Zeppelins were then drawing in sight, and at 8.23 a.m. the *Galatea*, following behind the battle cruisers, sighted one to the east, low down, steering north-east, and engaged it at 12,000 yards till it disappeared in the clouds. And so for two hours the British fleet proceeded some 30 miles to the northward till the situation became clear.

**82. Grand Fleet Turns South, 9 a.m.**—Just before Admiral Jellicoe turned north at 7 a.m. an important message had come from the Admiralty<sup>6</sup> to say that directionals placed the German battleships in 54° 19' N., 4° 48' E. at 5.25 a.m., and again at 9 a.m., when the Fleet was on its way north, came another message<sup>7</sup> to say that a British submarine had torpedoed a German battleship in 54° 15' N., 4° 45' E. This was the work of *E.23*, which had left Harwich to patrol in the western approach to the Bight, and the signal meant that the German fleet, if still on

<sup>1</sup> It was received in the battle fleet, *Agincourt* 6.47 a.m., *Royal Sovereign* 6.44, *Barham* 6.35, *Benbow* 6.45 a.m., but the signal is not in *Iron Duke's* log. Sent by *Southampton* 0625.

<sup>2</sup> 1st B.C.S. was in sight from *Dublin* at 3.55 a.m., bearing N.E. Note in *Dublin's* signal log.

<sup>3</sup> Signal C-in-C. to V.-A., B.C.F., 7.5 a.m. App. H.37. "To await further reports as to whether *Nottingham* had been mined or torpedoed," M. 07632/16.

<sup>4</sup> *Minotaur* log, which says 7.11, Fleet a/c to N. 10 W.

<sup>5</sup> Grand Fleet Battle Orders L.S. 7. Retiring by day, H.S. 289/86.

<sup>6</sup> Sent 6.15 a.m., received *Colossus* 6.48 a.m. App. H.25.

<sup>7</sup> Sent at 7.30 a.m. App. H.39.

its way west, was about 170 miles to the south-eastward.<sup>1</sup> This made the situation clearer, and at 9.0 a.m. the Commander-in-Chief turned again to the southward, shaping a course S. 8 E. well to the eastward of the spot where the *Nottingham* had been torpedoed. The *Lion*, which was receiving the battlefleet's courses through the 2nd Cruiser Squadron,<sup>2</sup> turned at 9.30 a.m., and by that time the whole fleet was again pursuing its way south. From the battlefleet the battle cruisers were just visible ahead, and the 5th Battle Squadron could be seen on the starboard bow.<sup>3</sup>

**83. Movements of Commodore (T) to August 19, 12.50 p.m.**—In the south Commodore (T) had reached the rendezvous off Brown Ridge by 4.2 a.m. and, turning to N. 20 W., continued to cruise in the vicinity till 10 a.m. As early as 6.30 a.m. his movements had been seen and reported to the German Commander-in-Chief by *L.13*, which was visible for a time to the E.S.E. and came under fire from the light cruisers at 6.30 a.m. She appeared in sight again to the East at 8.20 a.m. and again sent a report of the Harwich Force, but was driven off by the *Conquest*, which opened fire on her at 18,000 yards at 10 a.m., and though *L.13* sighted them again at 11.30 a.m. she lost touch completely about 1.30 p.m. and did not pick them up again till the evening. *E.23*'s signal had an important influence on the Harwich Force, but suffered severely in transmission and has a story of its own. The signal was made at 9.16 a.m. to all ships,<sup>4</sup> and reported the German Fleet in 54° 20' N., 5° E., steering west at 4 a.m. Though it was not received in the battlefleet or by the battle cruisers<sup>5</sup> the *Canterbury* took it in at 9.19 a.m., but unfortunately the last and most important words of the signal, namely, "4 a.m.," were jambed.<sup>6</sup> The *Canterbury* passed it at 9.45 a.m. by semaphore to Commodore (T), who sent it on in cipher at 10.10 a.m., and it was received by the battlefleet about 10.18 a.m.<sup>7</sup> It read as if the enemy had been sighted at 9.19 a.m., which would place the German Fleet some 4 hours to the eastward of its actual position, but fortunately the Admiralty directionals, received earlier by the Commander-in-Chief and evidently referring to the same incident, supplied a valuable check. On the strength of this signal, Commodore Tyrwhitt, who had hitherto been steaming round waiting

<sup>1</sup> More correctly S.E. by S.

<sup>2</sup> There was evidently some delay in getting the C.-in-C.'s signal of 0830 through (see *Shannon's* signal log) and the *Shannon* did not know that the battle fleet had turned till she sighted the 5th B.S. See App. H.51.

<sup>3</sup> The cruisers of the battlefleet spread in L.S. 7 at 9.30 a.m. *Minotaur* in "L," *Duke of Edinburgh* in "K," *Shannon* in "I," *Cochrane* in "H," *Achilles* linking ship with 5th B.S. H.S. 289/86.

<sup>4</sup> App. H.53.

<sup>5</sup> *E.23* was then about 110 miles from Comm. (T) and about 200 miles from the Grand Fleet. She was probably fitted with a type ten wireless set with kite to fly the aerial. H.S. 258/849.

<sup>6</sup> App. H.53.

<sup>7</sup> C.-in-C. at 10.36 a.m. asked *Barham* to repeat and *Galatea* asked *Phaeton* for a repeat at 10.45.

for information, turned north at 10 a.m. to get in touch with the enemy and proceeded northward till 12.50 p.m. This was the first occasion on which the German Fleet at sea was reported by a submarine.

**84. Grand Fleet, 10 a.m.-2.30 p.m.**—Information that the Fleet had turned south did not reach the *Shannon* nor Admiral Beatty,<sup>1</sup> and at 10 a.m. and again at 10.40 a.m., Admiral Beatty had to alter course to the eastward in order to regain his position ahead of the battlefleet, which at noon passed some 15 miles to the eastward of its original track, where *U.52* and *U.53* were probably lying in wait for it. The battlefleet was then going 15 knots S. 8 E. and the Commander-in-Chief ordered the cruisers to form L.S.5.<sup>2</sup> By 11.30 a.m. the battle cruisers had regained their position ahead of the battlefleet and Beatty turned to the same course, S. 8 E., though he was still uncertain whether the Commander-in-Chief intended to proceed down L. or M. swept channel, in which latter case the screen was to be closed in to a front of 10 miles. Commodore Tyrwhitt's report of *E.23*'s signal had come in, but in the *Iron Duke*, amidst the pressure of signalling, the longitude had been received as 7° 24' E. The Commander-in-Chief was evidently comparing it with those of the Admiralty earlier in the morning, for between 11.2 and 11.47 a.m. he asked various ships for no less than three repeats of it.<sup>3</sup> It was clear that the High Sea Fleet was thrusting out into the North Sea, and at 11.30 a.m. the signal was made for hands to remain at action stations constantly throughout the day. Admiral Beatty was told at the same time (11.30 a.m.) to pass through 55° 32' N., 1° 4' E., then steer S.W. by S., the cruisers on the eastern flank closing in to clear the unswept position of mine area IV.<sup>4</sup> This signal, however, was only received at 12.40 p.m., when the *Lion* was already some 12 miles past the point referred to, but Admiral Beatty, inferring that the Commander-in-Chief intended to go down M. Channel, altered course to W.S.W. at 12.55 p.m.<sup>5</sup> It had been the original intention of the Commander-in-Chief to proceed down L. Channel, but in view of the possible presence of submarines there he decided to use M. Channel, lying to the westward of it,<sup>6</sup> instead, and the Battle Fleet altered course to S. 31 W. at 12.34 p.m. The *Active* and 4th Destroyer Flotilla from the Humber with the *Trident* and her submarines from Blyth had been waiting off the

<sup>1</sup> See App. H.50, 51.

<sup>2</sup> 10.20 a.m.

<sup>3</sup> *Hercules* 11.2; *Barham* 11.36; *Royal Sovereign* 11.47. C.-in-C.'s Narrative of Events, August 24, M. 07632/16, does not mention the Admiralty's signal of 7.30 a.m. App. H.39.

<sup>4</sup> The situation was evidently being considered at the Admiralty as well, in the light of *E.23*'s signal, for at 11.35 a.m. orders were sent to the *Hind* off Corton Light, to send three of her submarines into the area ahead of the German Fleet about 120 miles from Yarmouth. H.S. 257/1041, 1067.

<sup>5</sup> App. H.61, 69.

<sup>6</sup> "The presence of submarines in that channel decided me to take the Fleet through M. Channel instead." M. 07632/16.

East coast since 5 a.m. Orders were sent to the *Active* at 1 p.m. to meet the Battle Fleet at 3 p.m. in a position in M. Channel (Plan 11, Position E), and the submarines were to be spread by then in a position<sup>1</sup> 50 miles east of the Tyne.

The Battle Fleet was proceeding at 17 knots<sup>2</sup> when, at 1.25 p.m., the *Minotaur* ahead of it sighted a submarine some 6 miles on the starboard bow. The Commander-in-Chief turned at once 4 points to port and increased to 19 knots, and the submarine, which was probably *U.53*, dived when the *Minotaur* opened fire on her. Just at this time<sup>3</sup> an important signal came in which reached the Commander-in-Chief about 2 p.m. The Admiralty had located the German flagship in 54° 32' N., 1° 42' E. at 12.33 G.M.T. This placed the German Fleet only some 60 miles south of Admiral Beatty at the time of observation. An hour and a half had elapsed and it seemed as if a bare 40 miles lay between the battle cruisers and the enemy. An encounter seemed imminent, and at 2.15 p.m. the Commander-in-Chief gave orders to prepare for immediate action. Instructions were sent to Invergordon to submerge the floating dock. Commodore (T) was ordered<sup>4</sup> to proceed to a position off Terschelling to be ready to launch a night attack on the German line of retreat. A seaplane had gone up from the *Engadine*. Everything was ready and in the *Lion* the battle flags were unfurled and ready to hoist. The Commander-in-Chief was ready to deploy,<sup>5</sup> and at 2.15 p.m. made a last signal, "The High Sea Fleet may be met at any moment. I look with entire confidence to the result." Half-an-hour passed, and about 2.30 p.m. the Commander-in-Chief received a message from the Admiralty to say that the German fleet had turned to starboard<sup>6</sup> at 12.30. It looked as if Scheer was coming north. Smoke could be seen to the westward,<sup>7</sup> which turned out to be the *Active* and her flotilla, who were told to take station ahead 3 miles. (Plan 11a.)

85. **Commodore (T) to 3 p.m.**—Meanwhile Commodore (T) on the strength of *E.23*'s report had been pushing to the northward. There was no sign of the German fleet, no further word had come of its being sighted,<sup>8</sup> and he came to the conclusion that it could not have proceeded west and had probably gone to the southward.

<sup>1</sup> Lat. 55° N, 0° E. App. H.74.

<sup>2</sup> Speed of advance.

<sup>3</sup> Cleithorpes 659, sent 1315. Recd. *Iron Duke* 1.27. App. H.76.

<sup>4</sup> 2.35 p.m.

<sup>5</sup> The battlefleet was in Organisation No. 5 (H.S. 289/82) divisions in line ahead, columns disposed abeam to starboard.

<sup>6</sup> App. H.32. Sent 1336, received *Iron Duke* via *Colossus* 2 p.m.; recd. Chatham 1.54 p.m. Cleithorpes was apparently being taken in by the *Colossus* in the battlefleet and by *Princess Royal* in the battle cruiser fleet.

<sup>7</sup> K.G.V. to Flag 1425.

<sup>8</sup> There is no record to show that Comm. (T) knew of the Grand Fleet's turn to the north at 7 a.m. The German Fleet at 12.50 p.m. was some 80 miles N. 27 W. from Comm. (T).

A<sup>oyal Oak.</sup>  
oyal Sov.  
range  
lbo.ro.

"Iron Duke" Course 5.30.W.  
"Lion" Course 5.15.W.  
Battlefleet in organisation  
No 5, Columns 11 cables apart, to Starbd.  
5<sup>th</sup> B.S. in sub-divisions line ahead.

Shannon  
(I)

Cochrane

flexible  
ustralia

AUGUST 19. 2 P.M. (APPROXIMATE)  
BRITISH FLEET

5<sup>TH</sup> B.S.

- Malaya
- Warspite
- Barham
- Valiant
- Q. E.

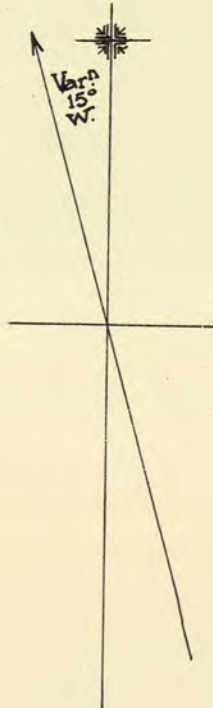
Minotaur (L)

Achilles  
 (Linking ship with 5<sup>th</sup> B.S.)

D. of Edinburgh (K)

Shannon (I)

Cochrane



BATTLEFLEET

- Erin
- Ajax
- K.G.V.
- Thundr
- Congr
- Orion
- Vangua
- Neptun
- Collin
- Hercu
- Temeraire
- Beller
- Colossus
- I. D.
- Aginc
- Canada
- E. of Ind.
- Royal Oak
- Royal Sov.
- Revenge
- Marlboro

22 M.

Calliope

Caroline

Constance

4<sup>TH</sup> L.C.S.

Royalist

ABOUT 5 M.

2<sup>ND</sup> C.S.

- N Zealand.
- Tiger
- P. Royal.
- Lion.

- Inflexible
- Australia

BATTLE CRUISERS

ABOUT 5 M.

- Dublin
- Hampton
- Birmingham

- Chester
- Falmouth
- Birkenhead
- Chatham

- Cordelia
- Inconstant
- Phaeton
- Galatea

LIGHT CRUISER SCREEN  
 Closed in to 15m.

"Iron Duke" Course S. 30. W.  
 "Lion" Course S. 15. W.  
 Battlefleet in organisation  
 No 5, Columns 11 cables apart, to Starbd.  
 5<sup>th</sup> B.S. in sub-divisions line ahead.

His orders were to look out for it to the southward<sup>1</sup> and, accordingly at 12.50 p.m., he turned south again with all his force<sup>2</sup> and ran to the southward for about an hour and a half.

It was about 12.58<sup>3</sup> when his flagship intercepted the signal from the Commander-in-Chief ordering the 4th Destroyer Flotilla<sup>4</sup> to meet the battlefleet at 3 p.m.<sup>5</sup> This was evidently regarded by Commodore (T) as an indication that the German Fleet was heading for that area, and about 1.50 his view was confirmed by definite information from the Admiralty,<sup>6</sup> giving the position of the German flagship at 12.33. In the light of these signals he turned northward<sup>7</sup> again at 2.12 p.m. to look for the German Fleet and had been going north for three quarters of an hour when, at 2.53 p.m., he received a signal from the Commander-in-Chief directing him to proceed to a position in latitude 54° N., longitude 5° E. on the German line of retreat,<sup>8</sup> and at 3.4 p.m. turned to N. 71 E. to carry it out. And now, leaving the British movements, the reader must turn for a time to the doings of the High Sea Fleet.

#### 86. Movements of the High Sea Fleet to Noon, August 19.—

All this time the High Sea Fleet had been proceeding steadily to the west. It had left the Bight at 9 p.m. on August 18. The lesson of Jutland had not been lost. The desirability of keeping the battle cruisers in closer touch with the main body had been recognised and Hipper's force was stationed only 20 miles ahead with orders to maintain this distance throughout the advance. Eight airships had gone up that morning and at least 14 submarines were stationed in the North Sea,<sup>9</sup> in addition to nine of the Flanders flotilla working in the south. The fleet had barely left the Bight when it received a nasty blow. At 5.5 a.m. G.M.T., about 60 miles north of Terschelling,<sup>10</sup> the *Westfalen*, the near ship of the 2nd Division, was hit by a torpedo on the starboard side. Scheer, still close to his own coast, held on, whilst the *Westfalen*, after struggling to the westward for a time, was forced to turn back at 6.30 a.m. *E.23* had followed and, as she came back escorted by five destroyers, fired a last shot at 7.22 a.m., which missed.<sup>11</sup>

<sup>1</sup> Comm. (T)'s report.

<sup>2</sup> Comm. (T) General Signal 1248. *Carysfort* (s).

<sup>3</sup> *Carysfort* (w); *Aurora* was asked to repeat 1336.

<sup>4</sup> The *Active* from the Tyne.

<sup>5</sup> In 54° 48' N., 0° 50' E.

<sup>6</sup> Cleithorpes 659, 1315 passed by *Undaunted* to Comm. (T) 1.5 (*sic.*, evidently for 1.50) but not mentioned in Comm. (T)'s report.

<sup>7</sup> Course N. 5 W.

<sup>8</sup> C.-in-C. to Comm. (T) 1435, M. 07632. The position is about 40 miles north of Terschelling.

<sup>9</sup> See S. 93—German Submarines.

<sup>10</sup> In 54° 15' N., 4° 45' E. (*see* S.75).

<sup>11</sup> In 54° 15' N., 4° 35' E. Scheer must have passed close to some old mines found by German minesweepers on September 11, in lat. 54° 15' N., long. 6° 3' E., the remains of the minefield laid by *Princess Margaret* on May 3, 1916.

Scheer was heading straight for Hartlepool at the time and up to 12.23 p.m. made only one serious alteration of course, at 8 a.m.,<sup>1</sup> when the fleet turned to the south-west for about an hour, possibly on account of a submarine reported by the *Frankfurt*,<sup>2</sup> which was stationed with the 2nd Scouting Group some 30 miles ahead of the battlefleet.

**87. German Fleet Reconnaissance.**—Scheer's hopes of intelligence were not disappointed. The first intelligence of British Forces was sent at 6.30 a.m. by *L.13* in the south, which reported two destroyer flotillas and a cruiser squadron some 120 miles to the southward<sup>3</sup> (186°), steering S.W. at high speed. Between that time and 12.23 p.m., when the German Fleet turned back, Scheer received at least three useful reports. The first report, of forces to the north came from *U.53*, which sighted Admiral Beatty going north at 7 a.m., and again at 8.10 a.m. sighted three battleships steering north in a position then some 120 miles north-west of the German Fleet; then at 9.50 a.m.<sup>4</sup> *L.31* reported the British main body steering N.E.

Admiral Scheer states that these reports did not supply a "coherent picture" of the British movements, and as the forces in the north seemed to be all steaming away from him, he concluded that a concentration of some sort was taking place some 110 miles to the north-west, while the forces in the south appeared to be merely patrolling. The German Fleet stood on, and at noon was 82 miles east true from Whitby, when, twenty minutes later, a report came in which had a profound influence on the issue of the day. At 12.23 p.m. *L.13* reported strong enemy forces on their way north at 11.30 a.m. in a position about 65 miles to the southward. Scheer states that he determined to proceed against them, and abandoning the attack on Sunderland recalled his cruisers and prepared to push to the south-east. He turned sixteen points and cruised up and down till 1 p.m., apparently waiting for the battle cruisers and 2nd Scouting Group to come up. At 12.30 p.m.<sup>5</sup> came another signal from *L.13* reporting the southern forces to consist of sixteen destroyers, cruisers, large and small, and battleships, in a position some 65 miles to the southward on a north by east course.<sup>6</sup> A thundercloud then barred her path and she lost touch with them. What she had seen was Tyrwhitt's force, with not a battleship anywhere near it. But the word "battleship" fired Scheer with the idea of the situation he was seeking—a British battle squadron detached from

<sup>1</sup> Scheer, Hochseeflotte, Karte 10.

<sup>2</sup> At 7.55 a.m. G.M.T. in 54° 27' N., 2° 56' E., Kommando, Kurze Besprechung, August 30 1916.

<sup>3</sup> In 52° 33' N., 3° 45' E. I.D. 920/25004; Kommando Besprechung, August 30 1916.

<sup>4</sup> Probably a mistake for 8.50 a.m., for the British battlefleet was steering south at 9.50 a.m.

<sup>5</sup> Scheer says received at 12.30, Hochseeflotte, 262.

<sup>6</sup> North-east, according to I.D. 920/25007.

the main body and vulnerable to attack. If it maintained its course he might expect to meet it about 2.30 p.m. The German battle cruisers were coming up from the westward, and at 1 p.m. he turned and made to the eastward. But he had not gone far when *U.53* sent a signal of still greater import. She had sighted the British main body at 1.15 p.m. steering south in a position some 65 miles to the northward<sup>1</sup> of Scheer. This was the first precise report of the British battlefleet, and must have altered abruptly his whole conception of the situation. At 1.50 p.m. there came a report from *L.13* to say she had lost touch with the southern force. Thunderclouds had come in her way, Tyrwhitt's turn to south at 12.50 p.m. had not been seen by her, and he was not sighted again till the evening. By this time Admiral Hipper and the battle cruisers had come up and Scheer made a brief push after the phantom battleships in the south. For some forty-five minutes he apparently shaped course to the south-eastward, and then, at 2.35 p.m., turned to E.S.E., ordering the cruisers to scout to the eastward. He states that he was impelled to do so by the proximity of German minefields, and when he turned his battle cruisers were certainly within 15 miles of the Humber field,<sup>2</sup> but *U.53*'s report was probably the dominating influence in his mind. About 4 p.m. came a report from an airship (*L.11* or *L.31*) of a British squadron in 54° 15' N., 0° 25' E., steering S.W. This position lay some 80 miles to the westward far behind him. The day was over and Scheer evidently decided to make for home, for shortly after 4 p.m. he issued orders to proceed in by the middle gap.<sup>3</sup> Soon after came a Zeppelin report to say that the enemy forces were steering north, and with the light cruisers on each flank and the destroyers ahead the German Fleet took its way home.

The information sent by *U.53* served a double purpose, for it was as useful to the German submarines, trying to find the British Fleet, as to Scheer trying to evade it.

At 2.10 p.m. the British Battle Fleet was reported by a submarine in 54° 50' N., 0° 45' E.<sup>4</sup> to consist of ten battleships, and Bauer, the Officer Commanding Submarines, waiting eagerly for the opportunity in the battleship *Prinz Regent Luitpold*, passed it at 3.10 p.m. to his submarines, ordering them to attack.<sup>5</sup>

Some of the German submarines were evidently waiting in this area, or were able to reach it, for in the afternoon and evening the Grand Fleet found itself constantly shadowed by them and suffered further loss.

<sup>1</sup> In 56° 20' N., 0° 20' E.; probably a mistake for 55° 10' N., 0° 55' E., which would be about 12 miles south of its actual position.

<sup>2</sup> Laid by the Germans, 17.1.15.

<sup>3</sup> I.D. 920/25049.

<sup>4</sup> I.D. 920/25023. This is about eight miles to south-westward of the British position.

<sup>5</sup> I.D. 920/25035.



88. **Grand Fleet from 3 p.m.**—An hour had elapsed and there was still no sign of the German fleet. At 3 p.m. it was evident to the Commander-in-Chief that the enemy had turned for his base, as otherwise the Battle Cruiser Force must have gained touch with him. It appeared certain that he would either have laid mines after turning or have left submarines in the area which the British ships would pass. As it was evidently impossible to bring him to action during daylight or indeed at all, the Commander-in-Chief decided that it was undesirable to pass over the waters he had occupied.<sup>1</sup> At 3.5, therefore, Vice-Admiral Beatty was directed to turn round at 4 p.m. if nothing had been sighted. By 3.22 p.m. the battlefleet had reached M Channel and turned down it on a south-easterly course. The Commander-in-Chief's signal to turn at 4 p.m. was received in the *Lion* at 3.22 p.m., and almost at the same time there came in signals from the *Phaeton* and *Chatham* reporting submarines ahead. The *Chatham's* normal position in the screen was some 10 miles on the *Lion's* starboard bow, but when the screen<sup>2</sup> swung round into M Channel at 2.20 p.m. it had closed to a front of some 12 to 15 miles, and the cruisers at the east end had altered course to engage a Zeppelin. It was now running into the edge of the submarines off Flamborough Head. The *Phaeton*, at 3.5 p.m., on the east wing of the screen, sighted a submarine on the surface  $7\frac{1}{2}$  miles to the southward, and five minutes later the *Chatham*, in the centre of the screen, sighted the conning tower of one bearing south 6 miles off.<sup>3</sup> The *Lion* increased to 22 knots, and was zigzagging with her destroyers screening half a mile apart, when at 3.35 p.m., the *Birkenhead* and *Falmouth* reported smoke in sight to the south. The Commander-in-Chief, who by this time had received the *Phaeton* and *Chatham's* report of submarines, signalled to Admiral Beatty at 3.32 p.m. to turn.<sup>4</sup> This was received at 3.40 p.m., and a signal was made to the light cruisers to turn.<sup>5</sup> Just at that moment (3.40 p.m.) the *Dublin*, at the east end of the screen, sighted a submarine W. by S., 6 miles off, steering north-east at high speed, which dived at 3.47 p.m. The smoke reported by the *Falmouth* turned out to be nothing but a trawler, and at 4.3 p.m. Admiral Beatty turned to follow the battlefleet.

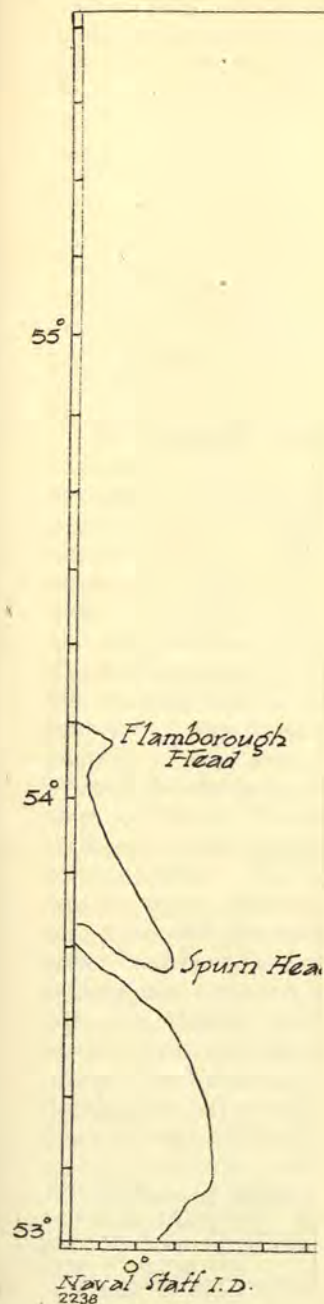
<sup>1</sup> C.-in-C., M. 07632/16.

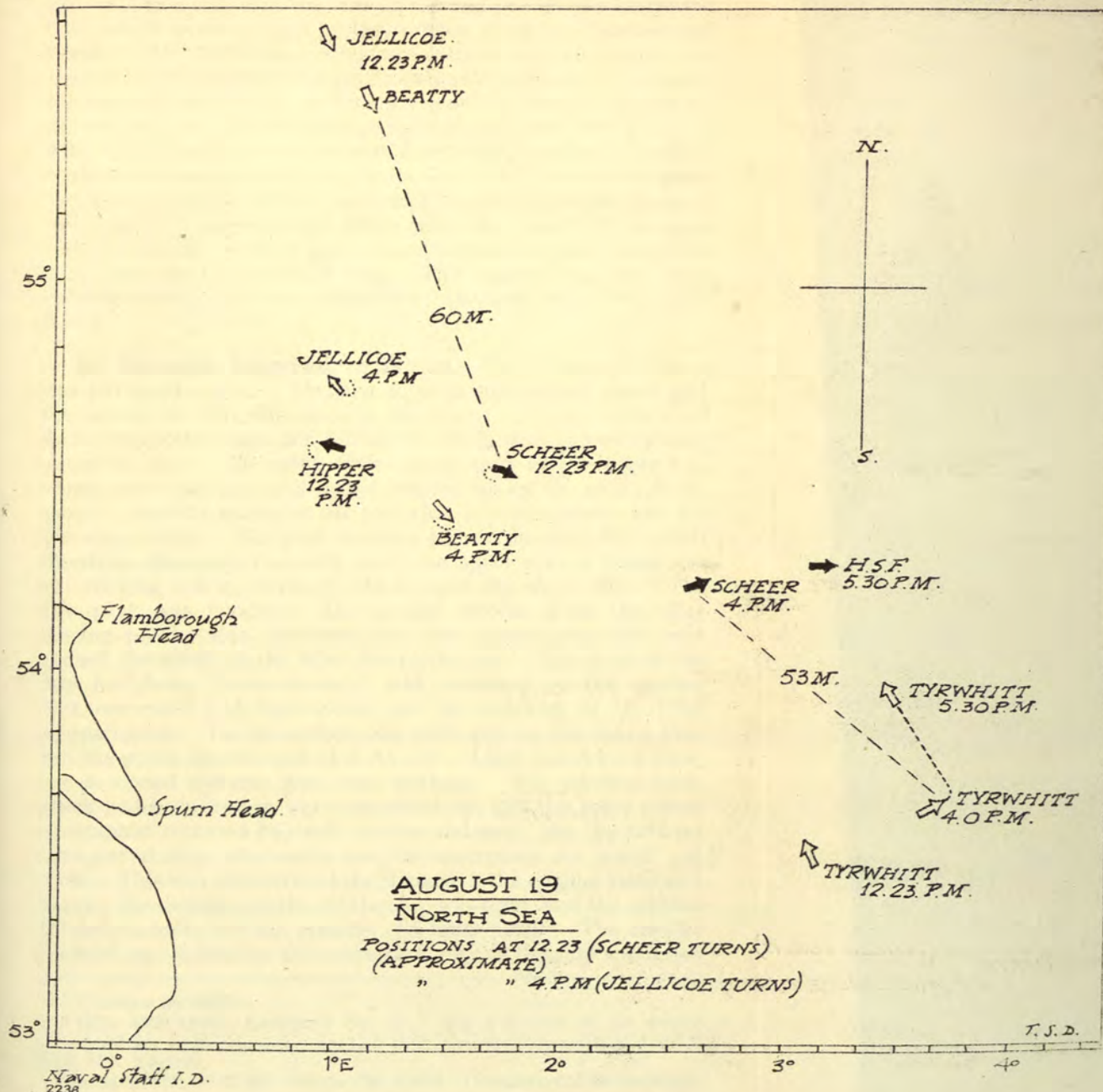
<sup>2</sup> When the *Nottingham* was torpedoed in the morning the *Birmingham* took her place and was 5 miles from the *Falmouth* at 3.30 p.m. The *Dublin* took station astern of the *Southampton* at 10.50 a.m. The *Chester* at 3.15 p.m. was keeping touch between *Falmouth* and *Chatham*.

<sup>3</sup> *Chatham* 1510, recd. 3.18 p.m. *Phaeton* 1520, recd. 3.19 p.m. They were regarded as two different submarines. The positions reported are only 3 miles apart and are 9 miles from the position of *U.66* at 3 p.m. *U.66* appears to have been the only submarine close to the British Fleet, but *U.45* and *U.64* were probably in the vicinity. (See Plan 11a.)

<sup>4</sup> App. H.106.

<sup>5</sup> Recd. *Chatham* 3.44. *Chatham* (s)





Zeppelins were hovering on the battle cruisers' track. One had been sighted by the *Phaeton* on the port beam at 2.45 p.m., and at 3.45 p.m. there was one ahead and one on the starboard bow, which were engaged by the *Galatea*, *Cordelia*, *Chatham* and *Chester*. At 4.15 p.m., after the screen turned north, the *Dublin* on its western flank again sighted a submarine (probably the one sighted by her at 3.40 p.m.) on the surface 5 miles to the north-west. It was apparently steering north and dived at 4.23. The *Chatham* a few minutes later (4.27) reported a Zeppelin to the *Lion*, and was told to try and drive it off,<sup>1</sup> but the *Falmouth* had already turned to do so and went back for a couple of miles<sup>2</sup> to engage it. After firing a single salvo she turned north again and was coming up at 24 knots when the tracks of two torpedoes were seen on the starboard bow. The weather was fine, with good visibility, and a very slight sea; the wind was north, force 2 to 3.

89. **Falmouth Torpedoed,**<sup>3</sup> 4.52 p.m.—The *Falmouth's* helm was put hard a port. The first torpedo just missed ahead and the second hit the ship close to the stem. A huge column of water rose 100 ft. high and fell on the deck, sweeping everything out of its way. The petty officer at the port foremost gun was blown out of his seat and picked himself up by the galley 50 ft. away. Another explosion aft told that a third torpedo had hit the ship astern. The first torpedo struck the ship 6 ft. abaft the stem, shattering the stem piece, the upper part of which was left sticking out to starboard, 12 ft. from the ship's side. The fore peak was flooded. The second torpedo blew the tiller gearing to one side, shattered the low power propellers and opened the whole of the tiller flat to the sea. The stern of the ship had been "concertinaed" and, standing on the quarter deck one could look right down into the wreckage of the tiller compartment. The main deck was split open up the centre line, and the upper deck bulged 1½ ft. to 2 ft. Light failed for a time, but a second dynamo was soon working. The wireless leads which had been broken were connected up, and the petty officer telegraphist reported he could receive and send, but the rotaries gave out shortly afterwards and the emergency set would not work. This was the worst of the damage; the engines were still intact; the midship portion of the ship was tight, and the captain decided to make for the Humber, 65 miles away. The trawler *Cooksin*<sup>4</sup> was sighted to the southward and, as the ship could not

<sup>1</sup> *Chatham* (s) 24259.

<sup>2</sup> N.L. 4320/1916. Enclosure No. 12. This was part of the duties prescribed for light cruisers. See G.F.B.O., Cruiser Instructions, April 2 1916, H.S. 289/140.

<sup>3</sup> In 54°27' N., 1° 17' E. *Chester's* M. 07632. Court Martial Proceedings, August 31, 1916, in N.L. 4320/1916. *Falmouth* gave position as lat. 54° 18' N., long. 1° 29' E., in chart in N.L. 4320/1916.

<sup>4</sup> One of the trawlers captured from the Germans; working at the time as a mark boat for minesweepers and on her way back to Grimsby.

manceuvre, the captain summoned her alongside, and keeping only enough men on board to work the engines, started transferring the wounded and the rest of the crew.<sup>1</sup> It was *U.66* (Lieutenant-Commander von Bothmer) that fired the shot. She belonged to the group off Flamborough Head, and had sighted the light cruisers and battle cruisers at 4 p.m. making south-east. He clung to them for an hour and found an opportunity for attack when they turned back. All this time the *Chester* remained close at hand, circling round the *Falmouth* at high speed, when at 5.10 p.m. a fourth torpedo was fired from the starboard quarter which passed under the latter ship. Ten minutes passed before the destroyer *Pasley* was seen coming up at full speed, followed by the *Niger* and *Pelican*, and the *Chester* parted company and went off after the Fleet. An attempt was made by the *Pasley* to get the ship in tow, and at 6.30 p.m., while this was in progress and the *Cooksin* was still alongside, a fifth torpedo was seen to pass under the ship. The *Pelican* made for the periscope at full speed and dropped a depth charge, which shook *U.66* very badly. Her lights were blown out; the clips of two ports blown off, and a large amount of water got into her before they could be closed. She made no further attack, and the *Falmouth* crawled slowly off at about 2 knots. The wind was N.N.W. Steering was very difficult, and the course shaped for Flamborough Head was distinctly roundabout. Her story may be finished here. She toiled along all that night with six fire and bilge pumps going steadily. She was joined by four more destroyers<sup>2</sup> about 11 p.m., and so had no less than seven screening her. A second attempt to tow with destroyers proved fruitless, for she invariably pulled the stern of the destroyers round, sheering heavily from side to side. The Rear-Admiral, Immingham, had been asked for tugs, but it was not till 5 a.m. that the first one arrived and took her in tow. A second appeared about 9 a.m., accompanied by two more destroyers, the *Doon* and *Thrasher*. The tugs were unfortunately small, and their combined efforts were only able to attain a speed of 2 to 3 knots. The weather remained fine, but at noon<sup>3</sup> she was still 45 miles from the Humber, when, in spite of the nine destroyers escorting her and circling round her at 15 knots, she was attacked by *U.63* and hit again on the starboard side by two more torpedoes, one astern and one amidships, which probably flooded two of the boiler rooms. *U.63* had a narrow escape. The *Porpoise*, about 1,000 yards from the *Falmouth*, three points before her beam, saw the periscope close on the starboard bow and made for it.<sup>4</sup> She hit the submarine, but apparently just grazed it with her bottom without doing material damage. The *Falmouth* took a sudden list to starboard and the Captain<sup>5</sup> decided

<sup>1</sup> Five officers and 340 men, all of whom reached the Humber safely.

<sup>2</sup> *Porpoise*, *Victor*, *Unity* and *Ambuscade*.

<sup>3</sup> *U.63* gives time as 11.55 a.m. *Falmouth* gave her position as 54° 22' N., 0° 30' E.

<sup>4</sup> M. 07744/16.

<sup>5</sup> Captain John D. Edwards.

to abandon her. She was then 23 miles E.N.E. of Flamborough Head. A third tug appeared on the scene, increasing the speed to about 5 knots, which was further increased on the arrival of a fourth tug at 5 p.m. The ship was still afloat, and a volunteer party returned under Commander Mitford<sup>1</sup> to make a thorough search for any wounded men and tighten the clips of the doors. But she was settling slowly, and just before 8 a.m. on August 21, in a position 7½ miles south of Flamborough Head, with the river still 25 miles away, she took a heavy list to starboard and sank at 8.10 a.m. Her casualties were three men killed, eight missing and thirteen wounded. It was thought that with more powerful tugs she might have reached the Humber.<sup>2</sup> Seven torpedoes had been fired at her, of which four hit.

90. **The Grand Fleet, 5 p.m.—8 p.m.**—When the Battlefleet turned north at 3.57 p.m. the 2nd Cruiser Squadron was ordered to take station 6 miles<sup>3</sup> and the 5th Battle Squadron 2 miles astern. At 4.52 p.m., just as the *Falmouth* was torpedoed by *U.66*, the Battlefleet could be seen from the *Lion* on the starboard bow.<sup>4</sup>

Three destroyers, the *Pasley*, *Niger* and *Pelican*, were despatched to assist the *Falmouth* while the battle cruisers held on their course at 20 knots. Some ten miles astern<sup>5</sup> a Zeppelin was following the Fleet out of range. The return journey was an anxious one, and as evening fell, the Commander-in-Chief was harassed by a succession of reports of submarines. The Battle Cruiser Fleet was not clear of the Flamborough Head group till 5.30 p.m. At 5.17 p.m. the *Phaeton* sighted one which broke surface on the starboard side about half a mile off. At 5.30 p.m. the *Galatea* reported that she had passed one close alongside<sup>6</sup> and at 6 p.m. Admiral Beatty reported the Flamborough group as a German submarine screen extending north-east for 25 miles from lat. 54° 19', long. 1° E.<sup>7</sup> No sooner were the battle cruisers clear of it than the Battlefleet found itself skirting the edge of the Blyth group, and between 6 p.m. and 7.30 p.m., no less than nine reports of submarines were received, culminating in a signal<sup>8</sup> to say that one was in the middle of the Battlefleet. These reports can be traced to *U.44*, *U.65* and *U.53*, all of which sighted the British Fleet and were dogging its track, but some of them probably originated from the boats of the 11th Submarine Flotilla, whose patrol line was close to the Fleet's homeward track, and two or three of whom sighted it coming back. At 5.45 p.m.

<sup>1</sup> Commander Hon. Bertram Mitford.

<sup>2</sup> Four of the best tugs had gone to the White Sea with submarines in tow. M. 07656/16.

<sup>3</sup> 4.20 p.m.

<sup>4</sup> *Lion* (s) 24798. The *Lion* was zigzagging.

<sup>5</sup> 4.40 p.m. *Falmouth* to *Chatham* (24259).

<sup>6</sup> This could not be *U.66*, which was following the *Falmouth*.

<sup>7</sup> It had probably moved eastward on the order of the German O.C. Submarines.

<sup>8</sup> *Shannon* to V.A.B.C.F., 7.21 p.m.

the *Royalist* ahead of the Battlefleet, which was then in visual touch with the *Australia* through the *Shannon*, reported a submarine in sight on the port side and closed it at full speed. It proved to be nothing more than a pole of some sort, but before this was discovered, the Battlefleet had turned eight points to starboard, which fortunately carried it away from the German line of submarines. It proceeded on this course for about five miles when the *Bellona* and *Revenge* reported a submarine to the north-east.<sup>1</sup> It submerged almost immediately and the Battlefleet, to avoid it, turned back eight points to port at 6.9 p.m.

At this moment an important signal (6 p.m.) came in from Commodore (I) reporting that he had sighted the German Battlefleet steering east. But it was late in the day, 100 miles separated them, and the Commander-in-Chief replied that he was too far off to lend him any support. Admiral Beatty, when he received the *Royalist's* report of the submarine seen at 5.45 p.m. and heard that the Battlefleet had turned north-east, turned to the same course,<sup>2</sup> and the battlecruisers continued on this course undisturbed till 6.22 p.m., when the *Inflexible* passed a report to the *Lion* of a submarine sighted N. 60 W., five miles from the *Iron Duke*. The *Lion* turned to north-west at 6.35 to avoid it, but soon resumed her original course of N. 27 W. By 7 p.m., the Battlefleet was clear of M Channel and twenty minutes later the Commander-in-Chief gave the order for squadrons to return to bases. The battle cruisers were approximately in the latitude of Blyth, but they were not yet clear of danger. At 7.45 the *Lapwing* (1st Flotilla) sighted a periscope and two torpedoes passed astern of the *Inflexible*. This was the last effort of the German submarines. The torpedoes were fired by *U.44* or *U.65*, the only vessels which report having actually attacked a heavy ship at this time. The battle cruisers were sighted by the 11th Submarine Flotilla, who were patrolling in the same area and watched the British Fleet coming up, uncertain for a time as to its identity.

91. The "Trident" and 11th S/M Flotilla.—The *Trident* had collided with the *Ambuscade* that morning; damaging her stem, but not affecting her speed. She had received from the *Active* the order to spread and when the *Active* and 4th Flotilla disappeared to the eastward to join the Battlefleet early in the afternoon, she spread her submarines some 65 miles east of the Tyne on a line 180°, three miles apart, from lat. 55° long. 0°. By 5.15 p.m. all her boats were spread in the following order from the southward: *J.5*, *J.6*, *J.1*, *E.30*, *G.10*—and she was patrolling five miles to eastward of them. A Zeppelin was sighted about 6 p.m. to the south-eastward and *J.6* dived to avoid it.<sup>3</sup> Their patrol line was overlapping the end of the German line of submarines off Blyth and shortly after 5 p.m. *E.30* (Lieutenant G. V. Biggs)

<sup>1</sup> At 6.4 p.m. N.30 E., 4 m, i.e., almost right ahead.

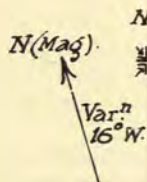
<sup>2</sup> According to *Lion* (s) 24798, but not in her deck log.

<sup>3</sup> At 6.20 p.m.

AI

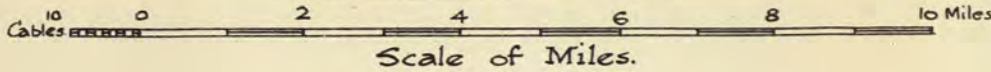
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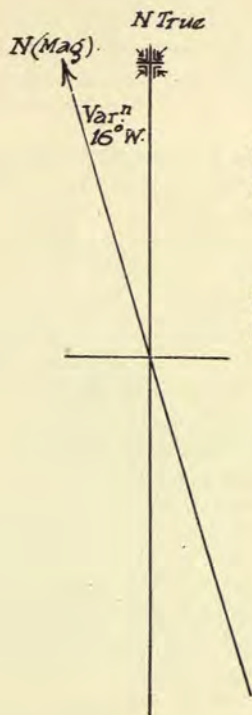


AUGUST 19. 1916. 8.20 P.M

BRITISH FLEET.



● Calliope      ● Caroline      ● Constance      ● Royalist.  
4<sup>TH</sup> L.C.S.



↑ Course of Battlefleet N. 16 E (Mag).

**BATTLE FLEET**

● King George V.  
● Ajax.  
● Erin.

● Iron Duke.  
● Hercules.  
● Collingwood.  
● Neptune.  
● Vanguard.

● Marlborough.  
● Revenge.  
● Royal Sovereign.  
● Royal Oak.

● Orion.  
● Monarch.  
● Thunderer.

● Colossus  
● Superb  
● Bellerophon  
● Temeraire

● Emperor of India  
● Canada.  
● Agincourt.

● Lion.  
● Princess Royal.  
● Tiger.  
● New Zealand.  
1<sup>ST</sup> B.C.S.

5<sup>TH</sup> B.S.  
● Barham.  
● Warspite.  
● Malaya  
● Queen Elizabeth  
● Valiant.  
8.20  
● Australia  
● Inflexible  
2<sup>ND</sup> B.C.S.

8.30  
● Shannon.  
● Minotaur.  
● Cochrane.  
● Achilles.  
● Duke of Edinburgh.  
2<sup>ND</sup> C.S.

↑ Course of B.C.F. N. 27 W (Mag)

● Cordelia.  
● Inconstant.  
● Phaeton.  
● Galatea.  
1<sup>ST</sup> L.C.S.

● Chester.  
● Birkenhead.  
● Chatham.  
3<sup>RD</sup> L.C.S.

● Dublin.  
● Birmingham.  
● Southampton.  
2<sup>ND</sup> L.C.S.

N.B. The light cruisers were told to close their leaders,  
the squadrons being three miles apart (2010 in Log 24265)  
2<sup>nd</sup> C.S. was ordered to be 5 miles astern of 2<sup>nd</sup> Sub-division (Emperor of India)  
4<sup>th</sup> L.C.S " " " " 4 " ahead of Iron Duke.  
5<sup>th</sup> B.S. " " " " 4 " astern of Hercules division.

sighted a German submarine<sup>1</sup> and dived. The German came to the surface about 6 p.m. and *E.30*, increasing speed, got a torpedo ready, but her opponent escaped to the north-east, diving apparently to attack the *Trident*. By the time *E.30* could get to the surface and send a warning signal to the *Trident*, it was 6.35 p.m. and battle cruisers could be seen coming up from the eastward. Apparently no information had reached the British submarines that the British fleet was close at hand. *G.10* (Commander B. Acworth), patrolling to the northward of *E.30*, saw the battle cruisers coming up about 7 p.m. and got ready to attack. They were heading about N.  $\frac{1}{2}$  W., only three miles off. He was in a good position to attack the leading ship. The tubes were brought to the ready, and the commander's hand was on the trigger when he saw just in time that she was the *Lion*. At 7.30 p.m. a periscope, which he took at first to be a British one, suddenly scraped past his bows heading in the direction of the Fleet. *U.53* states that she regained touch with the British Fleet just about this time, and as *U.65* and *U.44* also got near enough for attack, in spite of the *Trident's* gentle scepticism on the subject,<sup>2</sup> one of them was probably the submarine which was seen by *E.30* and which scraped past *G.10's* bows. The *Trident* saw the Grand Fleet pass at 7 p.m., and as the battle cruisers approached half an hour later she was challenged by the *Southampton*. Her submarines remained patrolling till 1.42 a.m., when they received orders to return.

92. **Harwich Force, 3 p.m. to 7 p.m.**—The Harwich Force, too, had abandoned the pursuit. Since 3.4 p.m. Commodore (T) had steered steadily N. 71 E. for the Terschelling position in 54° N. 5° E., ordered by the Commander-in-Chief. But when the Grand Fleet turned back at 3.35 p.m. it was no longer in a position to support the Harwich Force. Admiral Jellicoe, therefore, countermanded his order, and Commodore Tyrwhitt, at 3.43 p.m., received the signal cancelling it. Just before 4 p.m. the *Undaunted* passed an Admiralty signal<sup>3</sup> reporting the High Sea Fleet in lat. 54° 14' N., long. 2° 2' E., at 2.45 p.m. and almost at the same time<sup>4</sup> came another from the Commander-in-Chief, intimating that the Germans might have gone to Terschelling. The Admiralty signal made Scheer only some 50 miles off to the north westward and Commodore (T) at 4.6 p.m. turned to N. 20 W. in a last endeavour to strike the German track. The report proved correct. At 5.35 p.m. a mass of smoke was sighted bearing N. by W. and quarter of an hour later the *Lightfoot* reported six or seven large vessels steering east. By 6 p.m. they were visible from the

<sup>1</sup> Possibly *U.35*.

<sup>2</sup> *Trident* to *G.10*. (August 20, 2.20 p.m.) "Do you think the Fritz you saw was *E.30* and *E.30* you, as he reported having seen one?" *Trident* (s) 27947.

<sup>3</sup> Cleethorpes 1522, passed by semaphore, *Undaunted* 3.58 p.m.

<sup>4</sup> C.-in-C. 1547, recd. *Carysfort* 4.3 p.m.

*Carysfort* and Commodore (T) was able to tell the Commander-in-Chief that the German Battlefleet was in sight bearing north on a course east with two Zeppelins in company.<sup>1</sup> He made to the southward till 6.6 p.m. to make certain of not being cut off, then turned and followed the enemy. But it was late. Dusk was falling. Half an hour passed and there came a signal from the Commander-in-Chief to say that he could not support him. Commodore Tyrwhitt held on till 7 p.m. then turned to S. 20 W. and proceeded disconsolately home, receiving later (7.15 p.m.) a signal from the Admiralty to do so.<sup>2</sup> And so the day came to an end.

93. **German Reconnaissance.**<sup>3</sup>—In the events of the day, the German submarines played a leading part and on the German side their work still remains the high water mark of co-operation with the battlefleet. No fewer than 24 boats took part in the operations. They were disposed in four lines, two consisting of High Sea Fleet boats close to the English coast and two of Flander's boats in the Hoofden covering the southern flank of the advance. These were to be in position by 8 a.m. on August 19. A fifth line of High Sea Fleet boats was to be in position in the Bight by the morning of August 20, evidently to cover the retirement and guard the approach to the Bight. It was anticipated that the British Fleet on hearing of the projected bombardment would push down the coast and the lines were disposed to meet it as follows:—

*High Sea Fleet Flotillas.*

Line I.—Off Blyth (20 miles), *U.44, U.67, U.65, U.52, U.53*. West end of line in 55° 15', N. 1° W, running 65°, 35 miles.

Line III.—Off Flamborough Head *U.63, U.49, U.45, U.66, U.64*. West end, 12 miles from Flamborough Head, running east and west true, 27 miles.

Line II.<sup>4</sup>—In the Bight, *U.48, U.69, U.B.35, U.55, U.56*. West end, 54° 55' N., 4° 35', E. running 35 miles, 45°.

*Flanders Flotilla.*

Line I.—*U.B.39, U.B.23, U.B.18, U.B.29*. Centre of line 53° 41' N., 3° E., running 345°.

Line II.—Hoofden 12 miles from Texel, *U.B.37, U.B.19, U.B.16, U.B.6, U.B.12*. Centre of Line 53° 26' N., 4° 18', E. running 320°.

All was planned and the boats left on August 18 to be in their stations by 8 a.m. the next morning. They had barely reached their posts when *U.52*, lying to the eastward of Line I, sighted Admiral Beatty's light cruisers coming south. She succeeded in

<sup>1</sup> Comm. (T) 1800, recd. *Iron Duke* 6.7 p.m.

<sup>2</sup> Sent 1915, recd. from *Undaunted* 7.40.

<sup>3</sup> Sources are Scheer's Hochseeflotte, I.D. Reports, Kurze Besprechung (Short Account by Scheer's Staff) and information exchanged with the German Marine Archiv.

<sup>4</sup> Rear (rückwärtige) line, to be in position by morning August 20.

torpedoing the *Nottingham* and at 7 a.m. sent a report of light cruisers going north, which apparently did not reach Scheer till 11.40 a.m.<sup>1</sup>

The first report received by the German Commander-in-Chief was from *L.13* in the south who at 6.30 a.m. reported light cruisers and destroyer flotillas steering southward. She came under heavy fire from Commodore Tyrwhitt's force, but kept them in sight. *U.53* was apparently lying to the eastward of *U.52*, and as Admiral Beatty passed north again (after turning at 7.30 a.m.), she saw some of his ships and reported them at 8.10 a.m. as three capital ships and four light cruisers going north. Half an hour later (8.40 a.m.) *L.13* was able to send another report of Tyrwhitt's force steering north-east, and *L.31* (patrolling off the Forth) was sighted by the *Galatea* about 9 a.m. flying low at about 3,000 feet and was engaged at 12,000 yards. She turned quickly and climbed out of sight in the clouds, but at 9.50 a.m. caught a fleeting glimpse through rain of capital ships (grosskampfschiffe) and reported them as steering north-east when they were actually moving south. These vague reports of forces evidently far apart, created no "coherent picture" in Scheer's mind and he held on for the English coast. When the British Fleet came south again, it was well to the eastward and *U.53* caught sight of only three of Beatty's light cruisers steering south-east at 11.07 a.m. It was nearly half past twelve (12.22 p.m.) when *L.13*, far to the southward, sent a report of forces on a northerly course, giving their compositions a little later as 16 destroyers, light cruisers, cruisers, and battleships. These were Tyrwhitt's ships. The report was a mistaken one, for there were no battleships with him, but it was a mistake unto salvation for it had the effect of reining in Scheer's headlong advance to the English coast and gave him a breathing space of an hour before another and still more important signal came in from *U.53*. In the north, *U.53* had been toiling after the light cruisers she had seen, and at 12.53 p.m. sighted ten smoke clouds of the Battlefleet. Commander Bauer apparently received this by 1 p.m., for at that moment he sent an urgent and peremptory order to the submarines of Line III to push east at high speed. Then at 1.15 p.m.<sup>2</sup> there came from *U.53* the decisive signal of the day. "British main body in 55° 5', N., 0° 20', E., steering south." Scheer had misconceived the situation, but he had misconceived it to his own advantage. As he waited for his battle cruisers, *U.53*'s signal must have thrown a vivid ray of light on the situation and awakened him to a sense of his peril.

*L.13*, in the south, was given no chance of rectifying her happy error. Enveloped in a propitious thundercloud, she lost

<sup>1</sup> Kurze Besprechung.

<sup>2</sup> This is the position in Scheer's Hochseeflotte, Karte 10, and is about 11 miles south of British position at the time. I.D. 920/25015 gives 56° 20' N., 0° 20' E., and is evidently incorrect. Kurze Besprechung says *U.53* kept touch with the main body up to 2.30 p.m. In I.D., Vol. 920, *L.26* should be *L.31*.



sight of Tyrwhitt's ships at 1.30 p.m. *U.53* was sighted to the westward at 1.25 p.m. by the *Minotaur*,<sup>1</sup> who opened fire on her and drove her down, but she was up again by 2.10 p.m., when she reported the main body as consisting of 10 battleships in 54° 50' N., 0° 45' E. This was repeated by Bauer to the Flamborough Head line of submarines, with orders to attack. Gradually the British ships drew away to the south, and at 3.30 p.m. *U.53* lost sight of them and did not pick them up again till 7 p.m., on their journey north. As the British Fleet proceeded down M. Channel, the submarines in Line III (off Flamborough Head) found their opportunity for attack. *U.49* was too far off to reach them, but *U.66*, at 3 p.m., sighted the light cruisers and battle cruisers on a south-east course, the latter with strong destroyer screens. She fired a torpedo at a destroyer of the *Mohawk* class,<sup>2</sup> and imagined she saw the stern rise from the water and the bows sink underneath.

Meanwhile the airships had picked up the thread that *U.53* had dropped. At 3 p.m. and 3.45, *L.31* sighted the British Battlefleet, and reported it steering S.W. by S., giving, however, a position nearly 50 miles too far to the south-west.<sup>3</sup> She kept it in sight, however, and at 4.10 p.m. was able to send the important information that the British had turned north. *U.66* had also seen the battle cruisers turn north, and at 4.52 p.m. was able to fire two torpedoes at the *Falmouth* as she came back, and clung to her till she was driven off by the *Pelican* at 6.30 p.m., severely shaken and leaking badly from a depth charge dropped disagreeably close. *U.63*, however, took up the chase, and was able to give the *Falmouth* her *coup de grace* the next day, as she was crawling along with nine destroyers round her. In the south, meanwhile, *L.13*, after losing Tyrwhitt's ships, had gone wandering off to the northward in search for them, and was sighted by Beatty's light cruisers, and she was probably the airship that the *Falmouth* turned back to attack. *L.13*'s search was fruitless, but *L.11* had come down to the same area, and at 5.40 p.m. picked up Tyrwhitt just as he turned momentarily to the southward after sighting the German Fleet. As the Battlefleet came north again by M Channel it was picked up by *U.53*, *U.44* and *U.65*, belonging to the Blyth line. *U.53* came to the front again, reporting the main body at 6.59 p.m., and was possibly the submarine seen by the *Royal Sovereign*, *Royal Oak* and *Queen Elizabeth* about that time, but she did not attack. *U.44* may have been the German submarine that *E.30*<sup>4</sup> saw and turned to attack, and which scraped past the bows of *G.10* at 7.30 p.m., attacked Beatty's battle cruisers at 7.45 p.m., and fired two torpedoes at the *Inflexible*, which passed under her stern. Dusk had fallen by the time that *U.65* came

<sup>1</sup> *Minotaur* (s) (24651).

<sup>2</sup> Not confirmed by any British report.

<sup>3</sup> I.D. 920/25044 position 54° 15' N., 0° 25' E.

<sup>4</sup> Log of *E.30* at 6 p.m.

up, and she was able to give a vivid story of her attack. She sighted, about 7.15 p.m., three squadrons, two composed of seven to eight large ships and one of five ships, in addition to three armoured cruisers, one *Indefatigable* and one *Tiger*.<sup>1</sup>

Proceeding at full speed, she dived at 7.51 p.m. till the nearest ship was some 9,000 yards off; then, as nothing could be seen in the periscope, rose and attacked over water with one tank blown. The British Fleet could be seen changing their formation.<sup>2</sup> At 8.40 p.m. she was some 3,270 yards from the five battleships,<sup>3</sup> and at 8.48 fired a salvo of four torpedoes at the foremost armoured cruiser, which was some 520 yards nearer. The position was 54° 26' N., 0° 25' W. There followed one of those illusory explosions, pleasing to the sanguine eye. A lofty pillar of fire seemed to rise from the rear battleship, and soon nothing could be seen but her hull. The British Fleet, meanwhile, passed on unharmed, and did not even see the track of the torpedoes fired at it.

The work of the submarines and airships may be briefly summarised. Of the eight airships, three (*L.31*, *L.11*, *L.13*) sighted the British Fleet. Of the 24 submarines, five sighted the British Fleet. Sixteen torpedoes were fired, and seven hits were obtained, on two light cruisers both of which were sunk. The honours of the day rested with *U.53*. Of the eleven reports sent in by submarines, seven came from her; she was highly commended in the Fleet report, and her inability to keep touch with the enemy through the day became in Germany the standard argument in favour of increased speed for submarines. The *Westfalen*, on the other hand, was taken severely to task for using the wrong wave and the wrong cipher in reporting that she had been torpedoed. The Fleet Command thought that this had probably revealed to the British the fact that the fleet was at sea,<sup>4</sup> which is precisely what it did.

The air reconnaissance was not considered so satisfactory, and did not escape criticism in the report issued by Scheer's staff. The number of airships and the large area they had to cover militated against their reliability. The reconnaissance was too negative in character. The Fleet was not told where the enemy actually was, but merely that he was not within the field of vision. For fleet operations it was of the greatest importance to receive early information of the enemy's main body. To inform the Commander-in-Chief that the enemy Fleet

<sup>1</sup> Possibly the port wing squadrons of the British Battlefleet in organisation No. 5; the 5th B.S., part of the 2nd C.S. and 2 battle cruisers. The six battle cruisers were however in line ahead till 7.36 p.m. T.S.D.D.

<sup>2</sup> Formed at 8 p.m., night cruising order L.T.2, three divisions in line ahead disposed abeam, columns 4 miles apart. T.S.D.D.

<sup>3</sup> Evidently the 5th B.S. *U.65*'s attack from Kurze Besprechung, August 20, 1916, and Marine Archiv. letter 22.3.27.

<sup>4</sup> Kurze Besprechung.

was not within a certain safety area<sup>1</sup> might indeed provide a certain measure of security, but was wholly negative in its results. The point of real importance was to learn in ample time where the enemy Fleet was. To this end, if numbers permitted, one or two of the largest airships should be given the task of reconnoitring the enemy's probable bases in order to locate him from the very first. If airships were not sure of their position they should have it fixed by directionals; *L.31*'s position during the afternoon had shown a difference of 50 miles from that of the *Moltke*. If the main body of the enemy was reported, the nearest airships should close and keep touch with it.<sup>2</sup> In spite of Scheer's remarks, the air reconnaissance cannot be regarded as wholly unsatisfactory. It was of great importance to him to know that the British Fleet had turned north, and this he learnt from *L.31* at 4.10 p.m. From *L.13* he knew that there was a considerable force to the south of him, and so the broad lines of the situation were known to him as he retired. Of the other airships there is little to relate. *L.21*, lying some 20 miles off the Humber, attacked the *Doon* and *Thrasher* at noon, and three seaplanes went up from the *Killingholme* to meet her. Seaplane 8131 engaged her with bombs, and drove her off to the eastward at 2.20 p.m.<sup>3</sup>

**94. Intelligence in Grand Fleet.**—The information received by Admiral Jellicoe was less extensive, but, in the case of the German Battlefleet, more precise. At 5.25 a.m. he was told by the Admiralty the position of the German Battlefleet, and at 7.30 a.m. that a battleship had been torpedoed at 5.5 a.m. *E.23*, which had sighted the enemy at 4 a.m., sent the information at 9.16 a.m., but a very important part of the signal, namely, the time at which the enemy was sighted, was missed in passage,<sup>4</sup> and the time of receipt (more than five hours later) was tacked on instead.

The position of the German Fleet flagship at 12.33 p.m., sent by the Admiralty at 1.15 p.m., threw further light on the situation; its position at 2.45 p.m. and at 4.52 p.m. followed during the afternoon, and made it clear that Scheer was on his way home.

The *Hercules* had a kite balloon up, but the German fleet never came within its range of vision.

The work of signalling later in the day was not rendered easier by an Admiralty message at 5.5 p.m.<sup>5</sup> to say that cipher "W" was compromised, and cipher "S" was to be used instead. Very early in the morning Neumünster had sent out a signal to say that a submarine leader was going to 52° 15' N., 3° 5' E.<sup>6</sup>

<sup>1</sup> "innerhalb der Sicherungslinie."

<sup>2</sup> Kurze Besprechung.

<sup>3</sup> H.S. 257/1064, 1127.

<sup>4</sup> Appendix H. 53.

<sup>5</sup> Recd. 5.30 p.m.

<sup>6</sup> Made by Neumünster at 12.17 a.m.

This clearly referred to the rendezvous given to Captain (S) for the *Firedrake* and her submarines, which, in accordance with Admiralty instructions, he had passed to Commodore (T) through Ipswich at 0.15 a.m.<sup>1</sup> During the afternoon two other signals were sent out by Neumünster, giving the position of the *Aurora*, and evidently referring to positions made by Commodore (T).<sup>2</sup> It was on these grounds that at 5.5 p.m. the cipher used by him was declared unsafe.

**95. British Submarines, August 19.**—With the exception of *E.23*, information as to the doings of British submarines on August 19 is scanty, and must be sought for in the original logs. On August 17 Captain (S) informed Commodore (T) that, in accordance with orders from the Admiralty, four or five submarines from Yarmouth and Harwich would always be patrolling in the area east of long. 4° E., between lat. 53° N. and 54° 45' N., that is, in the western approach to the Bight.<sup>3</sup> Actually, on August 19, there were three submarines in this area, *E.23*, *H.5*, *H.9*.

On August 16, *E.23* and *H.5* had left Harwich with orders to cruise, the former between lat. 54° N. and 54° 45' N. and long 4° 30' E. and 5° 30' E., the latter between lat. 53° 45' N. and 54° N. and long. 4° and 5° E.<sup>4</sup> (Plan 9.)

*H.9* had followed on August 17 to cruise between lat. 53° 30' N. and 53° 45' N. and long. 4° and 5° E. They were primarily intended to act against German submarines,<sup>5</sup> and knew nothing of the movements of the German Fleet, and the fact that *E.23* picked it up demonstrates the soundness of the disposition. On August 18, when the first signs of movement came in, *E.38* and *E.16* were sent from Harwich at 12.30 p.m. to cruise to the north of Heligoland for two days, *E.38* in the vicinity of lat. 54° 24' N., long. 7° 42' E., and *E.16*, whose last journey it was to be, 7 miles south of her.<sup>6</sup>

Finally, at 11.35 a.m. on August 19, when the German Fleet was known to be out and on its way, the Admiralty sent orders to Lowestoft, to be transmitted to Captain Waistell in the *Hind* off Yarmouth, to send three more submarines to the area between lat. 53° 45' N. and 54° 30' N. and long. 5° E. and 4° E.<sup>7</sup> *E.42* (from the *Firedrake*'s group) and *E.29*<sup>8</sup> went off on this mission, so that there were on August 19 seven submarines actually in the Bight or making for it—*E.23*, *H.5*, *H.9*, *E.38*, *E.16*, and last of all,

<sup>1</sup> Maidstone to Adty. August 19, 12.15. There is a message from Ipswich to Comm. (T) at 2245, but none at 0.15 a.m. As the Cypher Logs are not available, it is not possible to check the time.

<sup>2</sup> Comm. (T) made his position at 10 a.m. to C.-in-C. at 10.15 a.m., and his position at 0.45 p.m. at 1340.

<sup>3</sup> H.S.A. 272/200.

<sup>4</sup> H.S.A. 272/229. See Plan 9.

<sup>5</sup> Orders for *E.23*, August 16. H.S.A. 272/199.

<sup>6</sup> H.S.A. 272/230.

<sup>7</sup> H.S. 257/1041, 1067.

<sup>8</sup> *E.29* apparently started but evidently did not get far (log of *E.29*).

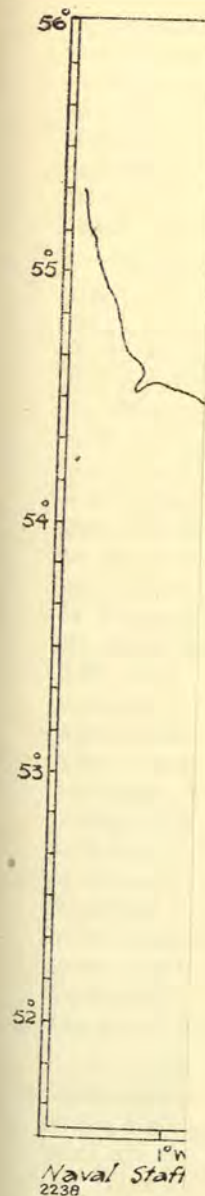
*E.42* and *E.29*. The fortune and honours of the day came to *E.23* and her commander, Lieutenant-Commander R. R. Turner. She was cruising on the surface some 60 miles north of Terschelling on the morning of August 19.<sup>1</sup> The weather was clear with a moon and cloudy sky and she lay not far from the track of the advancing German Fleet. She was steering to the southward at 3 a.m., when some ships, apparently light cruisers (probably vessels of the 2nd Scouting Group), were seen crossing her bow steering west. A few minutes later the smoke of five ships was sighted on the port bow; course was shaped east true and all tubes were brought to the ready. The ships were then seen to be battle cruisers steering west true, and the starboard beam tube was fired at 800 yards at the leading ship, which opened fire almost simultaneously. *E.23* dived quickly and struck bottom at 140 feet. The tubes and stand-by valves could not be closed in time, and as the torpedoes had been subjected to a pressure of 60 lbs. per square inch, the port bow tube was drained and the torpedo launched back, but was found undamaged and all correct. At 3.30 a.m. she rose off the bottom and steered north. Smoke could be seen to the south-east and course was altered to the south-west at full speed. A little later a squadron of eight battleships could be seen steering almost due west. (Plan 10.)

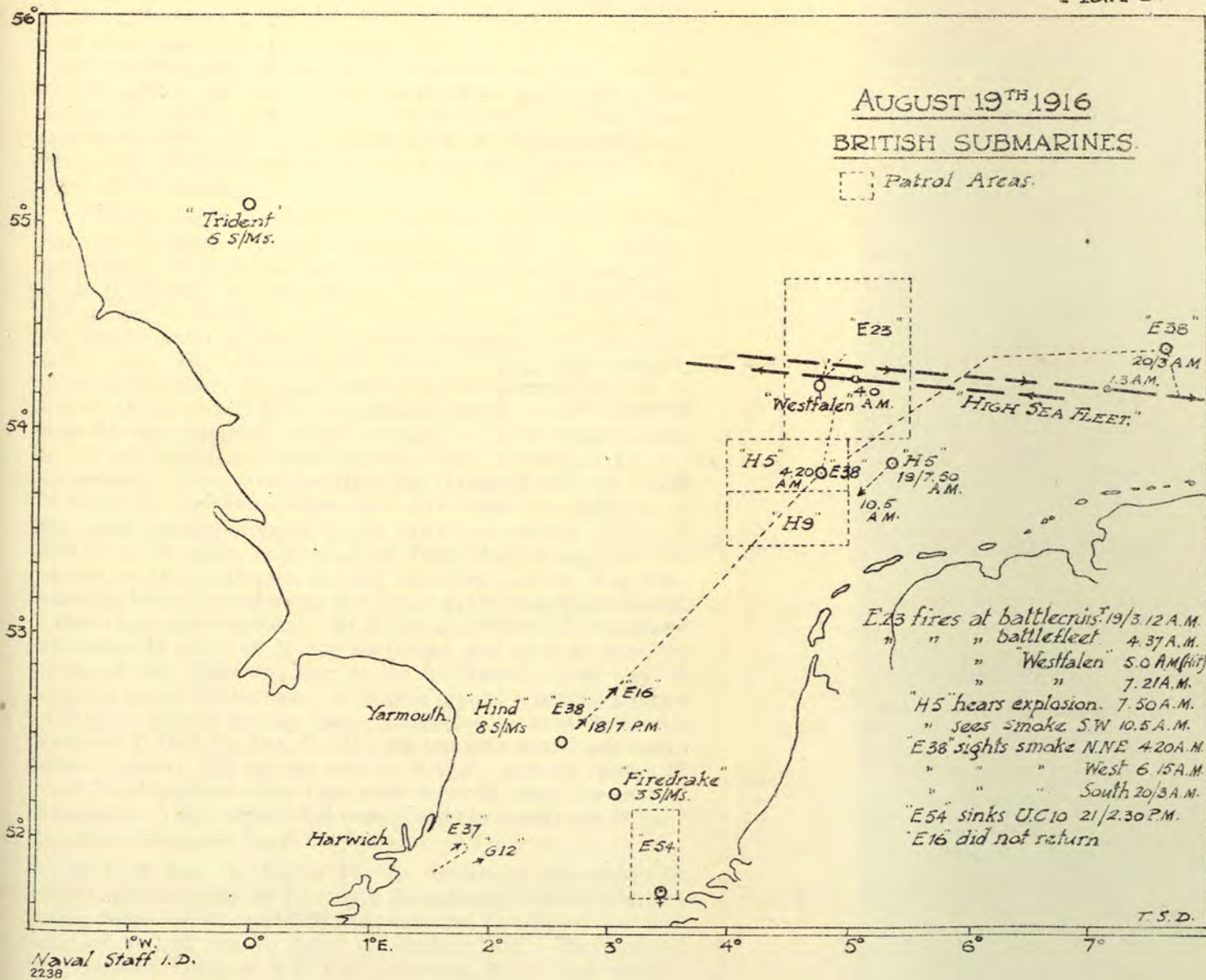
It was not possible to get within torpedo range of the Mark VIII torpedo, so course was altered to north, and at 4.37 a.m. the stern torpedo was fired at a range of 4,000 to 5,000 yards. It missed and course was at once altered to south-westward at full speed in order to attack a second squadron which was seen coming up. Eight battleships could be seen and at 5 a.m., on a course due south, both bow torpedoes were fired at the rear ship of the line at a range of 1,200 yards. One torpedo hit the *Westfalen* and the dull roar of an explosion was heard distinctly in the submarine. The position was lat.  $54^{\circ} 15' N.$ , long.  $5^{\circ} E.$ <sup>2</sup> *E.23* dived and destroyers could be heard searching round about. Coming up a few minutes later, the battleship could be seen listing while the fleet was proceeding without her. A solitary destroyer was searching for the submarine. At 5.20 a.m., *E.23* altered course west to follow the battleship, which was still going west, and reloaded bow and stern tubes. At 6.30 the *Westfalen* was seen to turn round and *E.23* shaped course to the south-east to intercept her. The *Westfalen* drew nearer zig-zagging and escorted by five destroyers. At 7.21, *E.23* on a course  $200^{\circ}$ , going 12 knots, fired shots from both bow tubes at a range of 1,500 yards which missed, then dived 90 feet and went off to the westward, followed by a destroyer dropping depth charges. At 8.45 a.m. she rose, sent up her kite aerial, and at 9.16 a.m. sent the report which was taken in by the Harwich force. She saw nothing more, though Scheer probably passed some 12 miles to the northward of her on his way back that night.<sup>3</sup>

<sup>1</sup> In lat.  $54^{\circ} 17' N.$ , long.  $5^{\circ} 4' E.$

<sup>2</sup> German report gives position  $54^{\circ} 15' N.$ ,  $4^{\circ} 45' E.$

<sup>3</sup> Report August 23, H.S.A. 272/207.





There remain *H.6* and *H.9*, whose patrol lay some 40 miles to the south-west of *E.23*. *H.5* (Lieutenant H. Varley) at 7.50 a.m., was 25 miles to southward of *E.23*.<sup>1</sup> and heard a loud underwater explosion at 7.50 a.m. (possibly the depth charges of the destroyer searching for *E.23*). At 10.5, observing smoke to the S.W., she proceeded at full speed S.S.E. till 10.47 a.m., when coming to the surface she sighted the funnels and masts of a battleship and the smoke of four other vessels bearing south by west. They were some 12 miles off, too far off to attack, and were probably the *Westfalen* and her destroyers on their way back. Two submarines were sighted in the afternoon but no attack was possible in either case. *H.9* (Lieutenant F. P. Williams Freeman), further to the southward saw nothing but two Zeppelins in the dusk of the evening.

Turning now to the two submarines *E.38* and *E.16*, which were sent off on August 18 in the immediate prospect of a German movement. At dawn on August 19, *E.38* (Lieutenant-Commander J. de B. Jessop) was some 40 miles north of Terschelling, when she sighted to the N.N.E. five columns of smoke with the tops of the funnels and two masts of a cruiser steaming very fast to the S.W. This was evidently one of the German light cruisers screening the fleet. At 7 a.m. the smoke of five warships could be seen to the westward and two splashes could be seen close to one ship. As they appeared to be moving north *E.38* shaped course to the northward, and losing sight of them, resumed course for her station. These were probably the *Westfalen* with her escort of destroyers and the splashes may have been the explosion of the depth charges dropped by the destroyers chasing *E.23*. At 3.56 some 30 miles north-west of Heligoland a seaplane was sighted to the north-east, driving her down, and at 6.44 p.m., when she broke surface owing to a defect in the hydroplane motor, a bomb exploded overhead. At 2 a.m. on August 20, Heligoland was some 14 miles off to the south-east and an hour later the smoke of four ships was seen to the southward a long way off and just above the horizon. *E.38* thus caught a passing glimpse of Scheer's fleet on its way back. *E.16* (Lieutenant-Commander Kenneth J. Duff-Dunbar, D.S.O.) did not return and was never heard of again. She was last seen by *E.38* at 7 p.m. on August 18 some 7 miles ahead when they were some 35 miles due east of Yarmouth. Three officers and twenty-eight men were lost in her.<sup>2</sup> The place where she lies is not known.

At 11.35 a.m. on August 19, the Admiralty sent orders to Captain (S) patrolling off Yarmouth to send three more submarines to the Bight. *E.42* and *E.29* were detached on this service<sup>3</sup> and went off at 1.12 p.m. to patrol off Borkum Riff. They sighted the Harwich Force at 8.15 p.m. returning home, and reached

<sup>1</sup> Approximately lat. 53° 53' N., long. 5° 27' E.

<sup>2</sup> The memorial of their names will be found in H.S.A. 272.

<sup>3</sup> Possibly *E.44* as well, but she apparently broke down.

their patrol at 3.20 a.m. the next morning, but saw nothing<sup>1</sup> Of the submarines patrolling off Yarmouth and in the Hoofden there is little to tell. *V.2*, *V.1*, *V.3*, *H.10*, *H.7* and *V.4*, all left Yarmouth about 2 a.m., and were patrolling off the coast<sup>2</sup> till they returned to harbour in the evening. They saw nothing. The *Firedrake's* group was more scattered. She left Harwich at 12.15 a.m. and arrived at her rendezvous<sup>3</sup> near the North Hinder about 7.30 a.m., and spread her submarines S.E. and N.W., three miles apart. With her were *E.55*, *E.53* and *E.29*. *G.12* was patrolling off the Sunk outside Harwich. *E.42* and *E.37* were off Yarmouth; the latter returned to harbour<sup>4</sup> at 10 a.m., and the former went off to the Bight shortly after 1 p.m. *E.44* was one of the *Firedrake's* group and left Harwich at 3 a.m., but came to an anchor for some reason or other at 2.35 p.m. and returned to Harwich that evening. The aircraft carrier *Vindex* put to sea too, escorted by the *Melpomene*, at 2 a.m., to cruise between the Sunk and Gabbard and intending to hoist out four machines if weather permitted. The machines, which had only 5½ hours' petrol, had orders either to return or make for Felixstowe. The intention was not fulfilled. The sea was too rough for the planes to get up and the *Vindex* returned to harbour at 5 a.m.<sup>5</sup>

The movements of the six submarines from Blyth under the orders of the *Trident* have already been told (*see s. 91*). They were spread in lat. 55° N., long. 0°, and the track of the British Fleet touch the edge of their patrol line between 7 and 8 p.m.

96. **E.54 destroys U.C.10.**—Two days later (August 21) a Flanders submarine fell a victim to the 8th Flotilla on her way back from minelaying. Captain Waistell had suggested on July 12 a submarine patrol to the east of Schouwen Bank on the Dutch coast, and it commenced on July 14 in conjunction with a patrol off North Hinder Light, both favourite rendezvous for Flanders craft. In accordance with these instructions, *E.54* (Lieutenant-Commander Robert Raikes) left Harwich on August 15 to cruise E. and S.E. of Schouwen Bank Light. On August 20 she sighted a submarine going south at 10.25 a.m. and fired both bow tubes at her at 500 yards, but both shots missed ahead and the enemy dived. She was seen again shortly after noon, but *E.54* grounded on Steen Bank in a second attempt to attack her. Another submarine was sighted at 1.5 p.m., steering W.S.W. down Steen Deep and an attempt was made to cut her off, but *E.54* grounded again and had to come to the surface when the enemy was still 2,000 yards away. An hour or so later a third submarine was sighted steering S.E., but again no attack was possible. The next day August 21 was to be more fortunate. Shortly after 2 p.m.,

<sup>1</sup> *E.42's* log does not give the exact position. 3.20 a.m. "Arrived at position west of Borkum Riff."

<sup>2</sup> They reached their stations between 3.30 a.m. and 5.30 a.m.

<sup>3</sup> Lat. 52° 15' N., long. 3° 5' E.

<sup>4</sup> Apparently with some defect.

<sup>5</sup> *Melpomene* (s).

Augu:  
H.M.S.  
Attack on  
German Battleship  
Lt.-Cdr. R. Turner's report

Surface 8.45

B. 3.11

C. 4.3

D. 4

5.

5.

E. 7.1

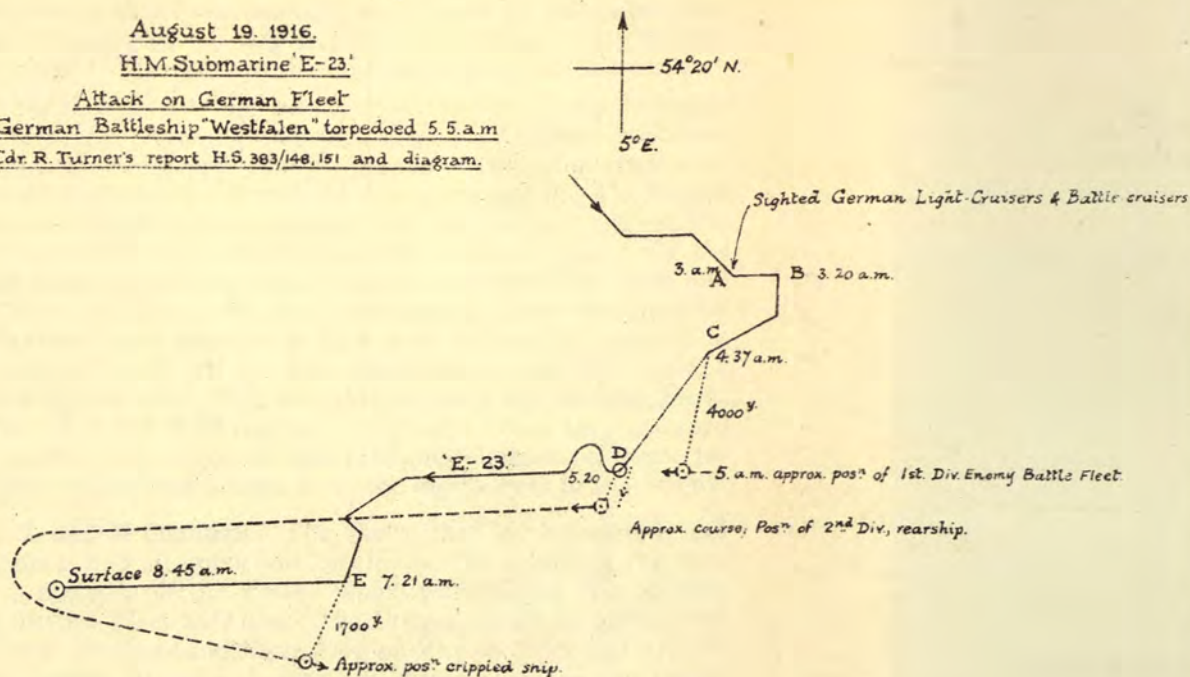
August 19, 1916.

H.M. Submarine 'E-23'

Attack on German Fleet

German Battleship "Westfalen" torpedoed 5.5 a.m.

Lt. Cdr. R. Turner's report H.S. 363/148, 151 and diagram.



- B. 3.12 a.m. Fired starbd. beam tube on surface at leading battle-cruisers, steering 270° range 800 yds, dived, struck bottom 140 feet.
- C. 4.37 a.m. Fired stern torpedo, range 4000 to 5000 yds, missed, turned to 202° to attack Second Squadron (8 battleships) then approaching & proceeded full speed.
- D. 4.57 a.m. a/c to 180°
- 5.0 a.m. Fired both bow torpedoes at rear ship of line. Enemy's course 260°, range 1200 yds. Explosion heard. Lat. 54°15' N., Long 5° E. 5.2 a.m. a/c. North, dived to 100 feet.
- 5.8 a.m. Destroyers heard close in hydrophones.
- E. 7.21 a.m. Fired two bow tubes, course 200° range 1200 yds. Dived 90 feet, a/c. West.

patrolling E.S.E. of the lightship, *E.54* sighted a submarine near it steering south and proceeding at full speed she reached a position on the enemy's bow at 2.35 p.m., and fired both torpedoes at a range of 400 yards. One of them hit, and when the smoke had cleared away there was nothing to be seen of the submarine. It had disappeared entirely leaving no survivors. Its number was *U.C.10*.<sup>1</sup> She was not directly engaged in the operations.

In the task given to his submarines, the German Commander-in-Chief had the advantage of being engaged in a definite operation, for which he had ample time to prepare. His submarines were stationed ready for the British Fleet coming south. The British submarines played a less imposing part, for their disposition was largely governed by considerations of coastal defence. Of the British submarines, nine were stationed to defend the coast and three were patrolling with the *Firedrake*, to cover the Hoofden in much the same position as they were ordered to take up in the Lowestoft raid. Of the five submarines in the Bight or well on the way to it, one, *E.23*, was able to attack the German Fleet, and two, *H.5* and *E.38*, sighted it far off. What they attained they attained by reason of the positions allotted to them, for they received no information as to the movements of the enemy.

**97. L and M Channels.**—The choice that lay between L and M Channels had an important bearing on the events of the day. From a position off the Forth—which was roughly the position of the British Fleet at 7 a.m.—the Dogger minefield, laid by the *Strassburg*, *Stralsund* and *Regensburg* on May 18, 1915, and stretching for nearly 60 miles, barred the direct route to the Bight. Between this minefield, which was called in the Grand Fleet Orders Mine Area I, and the Humber field, there lay a stretch of water some 70 miles wide. Down this stretch there ran two swept channels,<sup>2</sup> each 20 miles wide, some 240 miles towards the Bight. Now the German mined areas announced in the Grand Fleet Mining Memoranda<sup>3</sup> were not always coincident with those given in the charts issued by the Admiralty,<sup>4</sup> and these differences gave rise to discussions between the Grand Fleet and the Admiral, Mine Sweeping, who attached less importance to the reports of Dutch fishing boats, which he regarded as “notoriously incorrect.”<sup>5</sup> A discrepancy of this kind is found amongst the doings of the day. The Grand Fleet Mining Memoranda included an area designated as Mine Area IV,<sup>6</sup> which did not appear in the

<sup>1</sup> H.S.A. 272/185, 193. Lt.-Commander Robert Raikes was awarded a D.S.O.

<sup>2</sup> Proposed by V.-A., B.C.F., February 12 1916. H.S.A. 89.

<sup>3</sup> These will be found in H.S. 292.

<sup>4</sup> X. 74 series, issued fortnightly.

<sup>5</sup> H.S.A. 89/296, M. 08637.

<sup>6</sup> Lying between 54° 30' and 55° 30' N. and 1° 10' E. to 2° E. G.F. Mining Memo., April 4 1916, H.S. 292/87. For Areas No. 1, No. 2, No. 3, see H.S. 292/64.



Admiralty Mine Chart<sup>1</sup> and represented a considerable extension of the Dogger Bank area. Lying right across L Channel, it was based only on Dutch reports of four mines, which the Grand Fleet Memorandum itself had stated were not reliable. That it was taken seriously may be doubted, but the memorandum was in force on August 19 and Mine Area IV was mentioned by the Commander-in-Chief.<sup>2</sup> It may not have materially affected the main issue, but it may be regarded as emphasising the desirability of co-ordination between the Admiralty and the work of the fleet and of not making a suspected area unduly large.

The original intention had been to proceed down L Channel, and in the light of German reports now available it is possible to say that this would have carried the fleet away from the sphere of the German submarines, but this, of course, could not be known at the time. Course was altered definitely for M Channel on receiving the *Minotaur's* report of U.53,<sup>3</sup> but as early as 11.30 a.m. orders were sent to the *Lion* to shape a course which led to it.<sup>4</sup> Previous to the *Minotaur's* report, a submarine had been reported at 7.25 a.m. and another at 10.50 a.m.,<sup>5</sup> not far from the spot where the *Nottingham* had been sunk which lay in the wide approach leading to L and M Channels.<sup>6</sup> In using M Channel the fleet scraped the eastward end of the two lines of German submarines lying near it. As a result of August 19, the Commander-in-Chief asked for another channel to be swept. This was called Queen's Channel and the Granton minesweepers began work on it before the end of the month.<sup>7</sup>

**98. Results of August 19.**—The events of the day had far-reaching results and it is typical of the vagaries of naval war that while the Battle of Jutland, whose name is a household word, had no immediate effect on fleet strategy, August 19, a day when not a shot was fired on either side marks a definite turning point in the war at sea. On the German side, Scheer thought he saw a door of high promise opening before him. But for the elaborate machinery of reconnaissance, essential to his plans, every available submarine and airship had to accompany the battlefleet whenever it put to sea. All these auxiliaries had to be at the admiral's disposal, and it followed that if the submarines were required for the war against commerce, the operations of the High Sea Fleet

<sup>1</sup> X. 74, August 7 1916.

<sup>2</sup> App. H. 61 and App. H. 84.

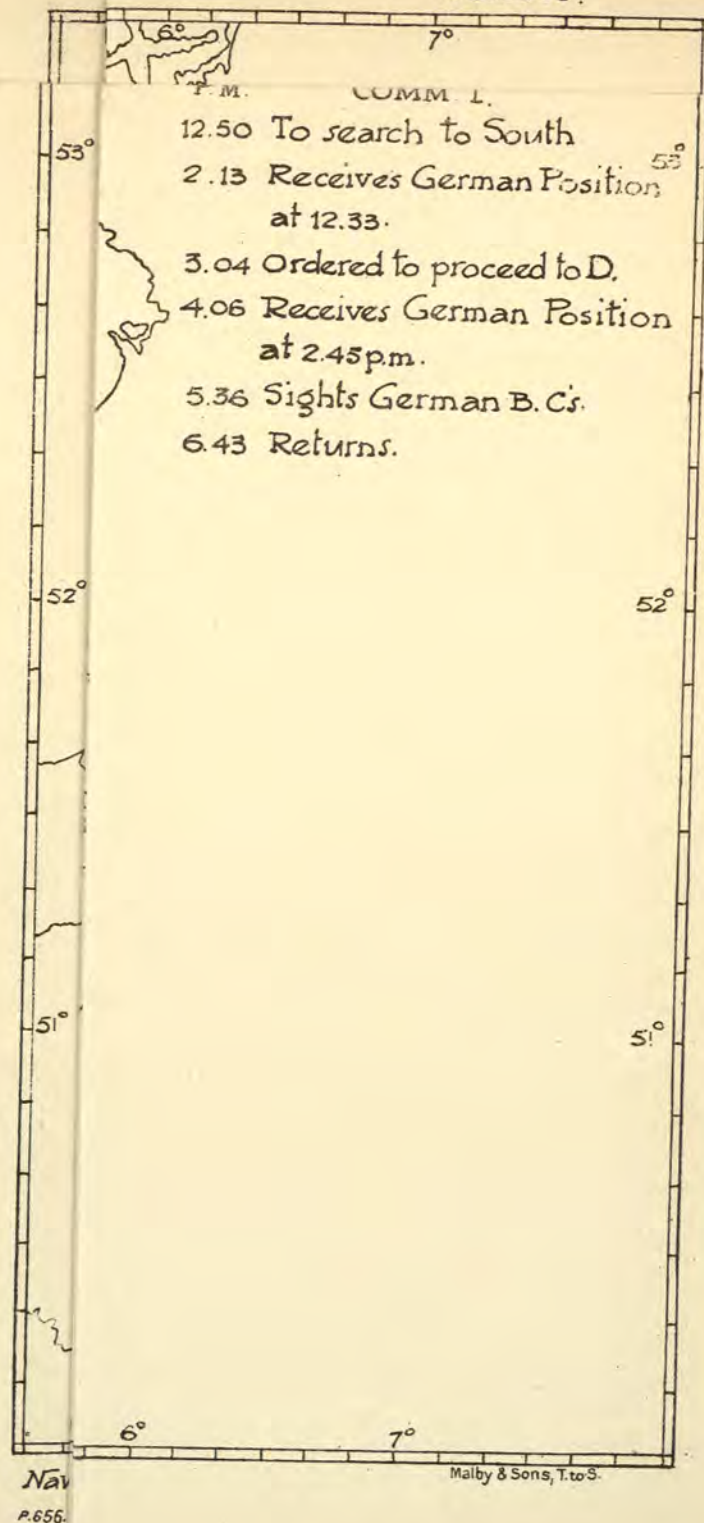
<sup>3</sup> "On receipt of a report of a submarine, sighted by *Minotaur*, course was altered to pass close to the western edge of Mine Area IV and then into M. Channel." C-in-C.'s report, August 24. M. 07632/16.

<sup>4</sup> Appendix H. 61, H. 69.

<sup>5</sup> 7.25 a.m. 55° 41' N., 0° 05' E., 10.50 a.m. (received *Iron Duke* 11.12 a.m.) 55° 35' N., 0° 24' E.

<sup>6</sup> Sighted by *Lion* at 10 a.m. and reported to C-in-C. Received *Iron Duke* 10.40 a.m.

<sup>7</sup> H.S. 258/400, 847, 1,015; H.S. 259/357.

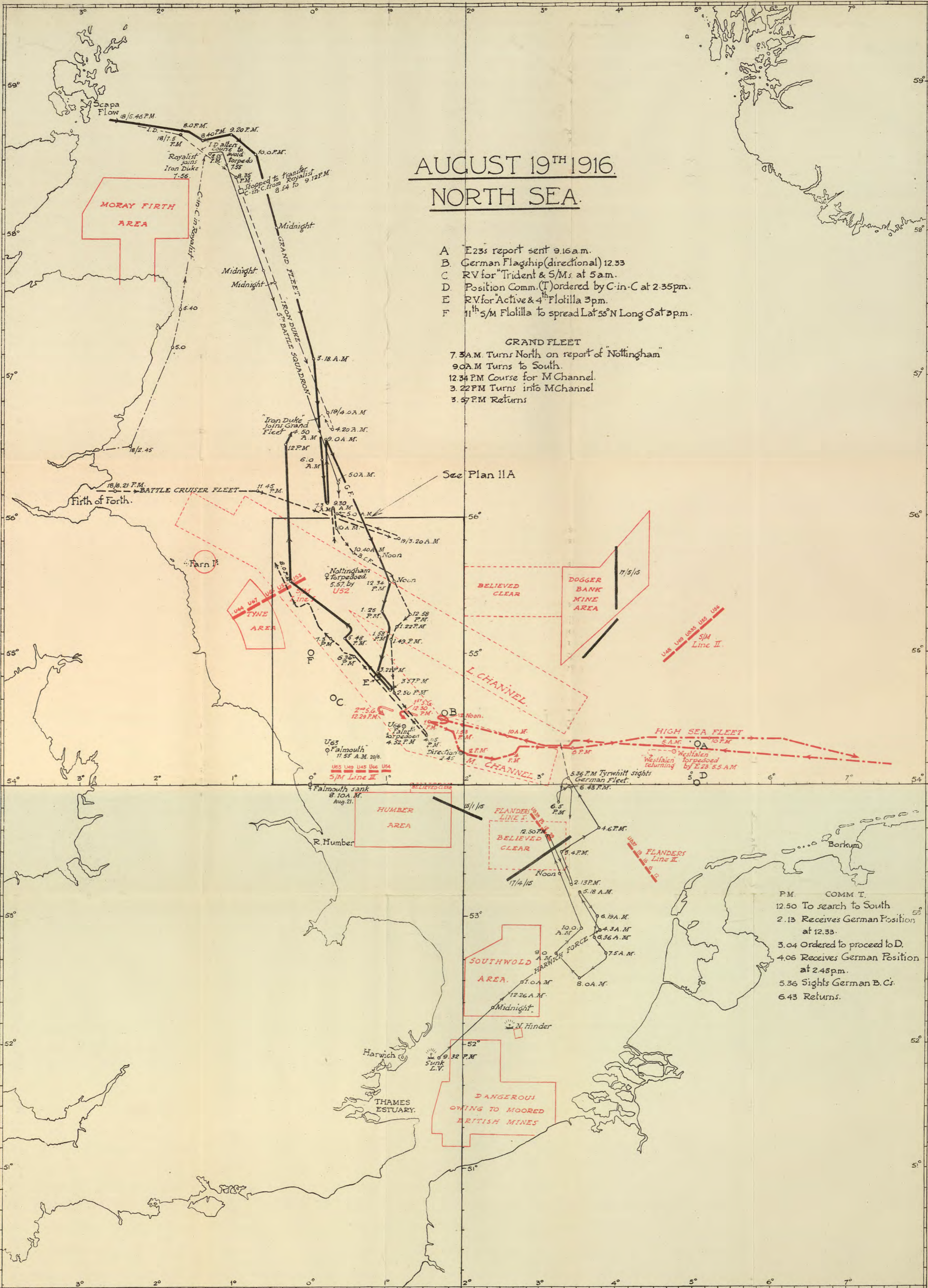


# AUGUST 19<sup>TH</sup> 1916. NORTH SEA.

- A E23s report sent 9.16 a.m.
- B German Flagship (directional) 12.33
- C RV for "Trident" & S/Ms at 5 a.m.
- D Position Comm. (T) ordered by C-in-C at 2.35 p.m.
- E RV for "Active" & 4<sup>th</sup> Flotilla 3 p.m.
- F 11<sup>th</sup> S/M Flotilla to spread Lat 55° N Long 0 at 3 p.m.

### GRAND FLEET

- 7.3 A.M. Turns North on report of "Nottingham"
- 9.0 A.M. Turns to South.
- 12.34 P.M. Course for M Channel.
- 3.22 P.M. Turns into M Channel
- 3.57 P.M. Returns



See Plan 11A

- P.M. COMM T.
- 12.50 To search to South
- 2.13 Receives German Position at 12.33.
- 3.04 Ordered to proceed to D.
- 4.06 Receives German Position at 2.45 p.m.
- 5.36 Sights German B. Cr.
- 6.43 Returns.

must cease. This is precisely what happened. The Admiral Staff had been pressing for the resumption of the restricted war against commerce which Scheer had thrust disdainfully aside, and the German Fleet had barely returned to harbour when the Flanders submarines were told that it was left to their discretion to resume the submarine war on the lines of prize regulations.<sup>1</sup> The Flanders submarines were no longer available for fleet work and the prospect of the same instructions loomed ahead of the High Sea Fleet boats. Admiral Scheer did not at once abandon the idea of similar sorties, and actually planned one for September, which was cancelled only on account of unfavourable weather, but he found himself handicapped in their execution, and on October 7, when a peremptory order came to resume submarine operations on restricted lines, the idea of similar operations had to be abandoned. No sooner, then, had the German Commander-in-Chief discovered a road of possible success than the door of promise began to close and his glowing hopes faded away. On the British side the influence of the day was equally far reaching. The Zeppelins hovering round the fleet and the reports of submarines lurking around it—no unsubstantial reports, for on August 19 most of them can be tied down to actual submarines—created a strong impression that the two were working in close co-operation. The loss of two light cruisers clearly proved that the menace was no light one, and the Commander-in-Chief, believing that the routes of L and M Channels were known to the enemy, asked for another channel to be swept with the smallest possible delay and urged that the question of more adequate screening should be considered. On a scale of 12 destroyers to a battle squadron of 8 ships, two to each cruiser and one to each light cruiser, the lowest possible minimum was 87. Nominally, there were at Scapa 55, at Rosyth 31—a total of 86—but deducting those refitting and away there were actually available only 70, a deficiency of 16.<sup>2</sup> The Commander-in-Chief pointed out the extreme probability of further serious losses should the fleet move south again in similar operations and urged that the most strenuous efforts might be made to press forward the completion of destroyers.<sup>3</sup> The Admiralty arranged for another channel (Queen's Channel) to be swept, but with regard to more destroyers could only say that they were not to be had. New destroyers were being allocated to the Grand Fleet, till its numbers reached 100, but the rate of output could not be increased, nor could they disregard their responsibilities in other parts of the world. The Adriatic and Otranto needed destroyers badly and the supplies to our armies in Egypt, Salonica and Mesopotamia, numbering in August 1916 over 350,000 men, had to be escorted. So, too, had the troopships from Canada, bringing over some 30,000 men

<sup>1</sup> Apparently it was left to the discretion of the individual boats.

<sup>2</sup> Rosyth needed 26, but had 25, which was regarded as practically sufficient. M. 07599.

<sup>3</sup> C.-in-C. to Admiralty, August 24 1916. M. 07599.

a month, and requiring escort over the last lap of 150 miles. Fleet auxiliaries, oilers and colliers, had to be shepherded up and down the coast. Minesweepers, too, required protection and, as the First Sea Lord pointed out, "It is almost impossible to provide sufficient destroyers for these duties."<sup>1</sup> But unless destroyers could be provided the Commander-in-Chief, as a result of August 19, disapproved of the fleet moving south on similar operations.<sup>2</sup> There were no destroyers to send; and thus a deadlock arose in the North Sea. It may be said that Admiral Scheer could not sally out without submarines and Admiral Jellicoe could not drive him back without destroyers. On the one side the apparatus of reconnaissance, on the other side the apparatus of screening, broke down. August 19 was thus at once a finale and a prologue. The first part of the great drama was over. The curtain rang down on the excursions of the German Fleet, just as they began to offer a promise of success. It was to rise again, not on serried fleets seeking one another in the North Sea, but on submarines toiling night and day in tireless search for prey, while behind them a host of relentless pursuers followed hard. It is in the light of these far-reaching decisions that August 19 ranks with Heligoland Bight, Dogger Bank and Jutland as one of the red letter days in the calendar of the North Sea.

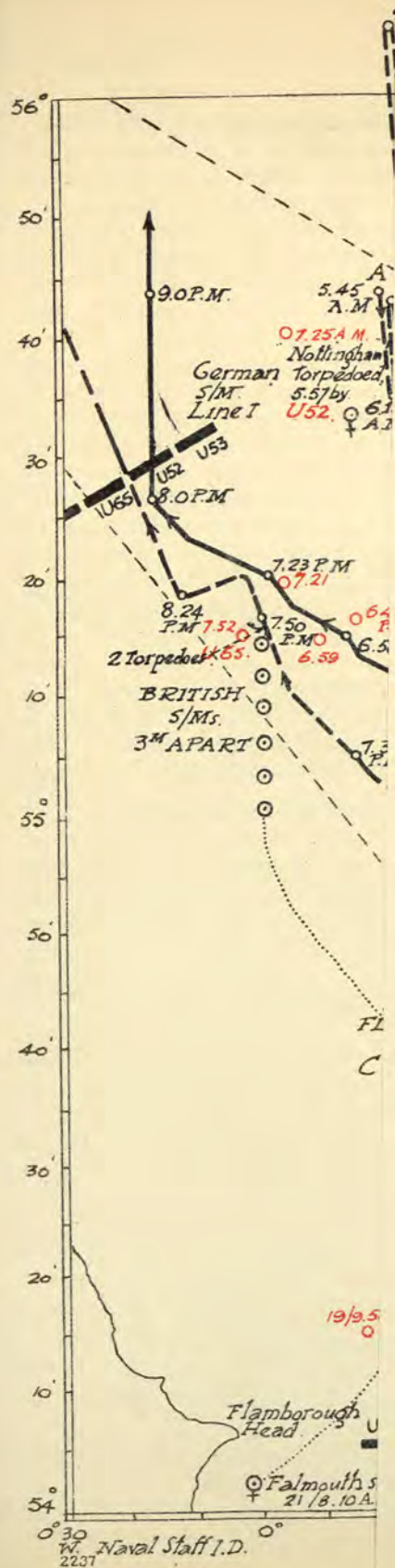
## CHAPTER VIII.

### SEPTEMBER 1916.

99. **Strategy of Grand Fleet.**—The events of August 19 had far-reaching results on British policy in the North Sea. Ever since the Dogger Bank it had been the practice for the Grand Fleet to put to sea whenever the High Sea Fleet was on the move, with the definite intention of bringing it to action if it approached the English coast. This view the Commander-in-Chief was no longer able to accept. On August 24, in a letter to the Admiralty, he emphasised the necessity, in view of the increased activity of submarines, of more destroyers for screening purposes, and urged that "the most strenuous efforts" might be made to press forward the completion of those under construction. If the fleet were to move south in similar operations under present conditions, it must face the "extreme probability" of further serious losses, for the number of enemy submarines must increase and the danger would increase with them. The Admiralty was not able to view the problem in the same light. However anxious they might be to make more adequate provision, the destroyers were not there.

<sup>1</sup> Minute of 29.8.16 in M. 07599/16. Comm. (T) on August 31 had only twelve out of a nominal strength of thirty-seven destroyers. M. 08831/16.

<sup>2</sup> See Conference of September 26, 1916, *infra*.



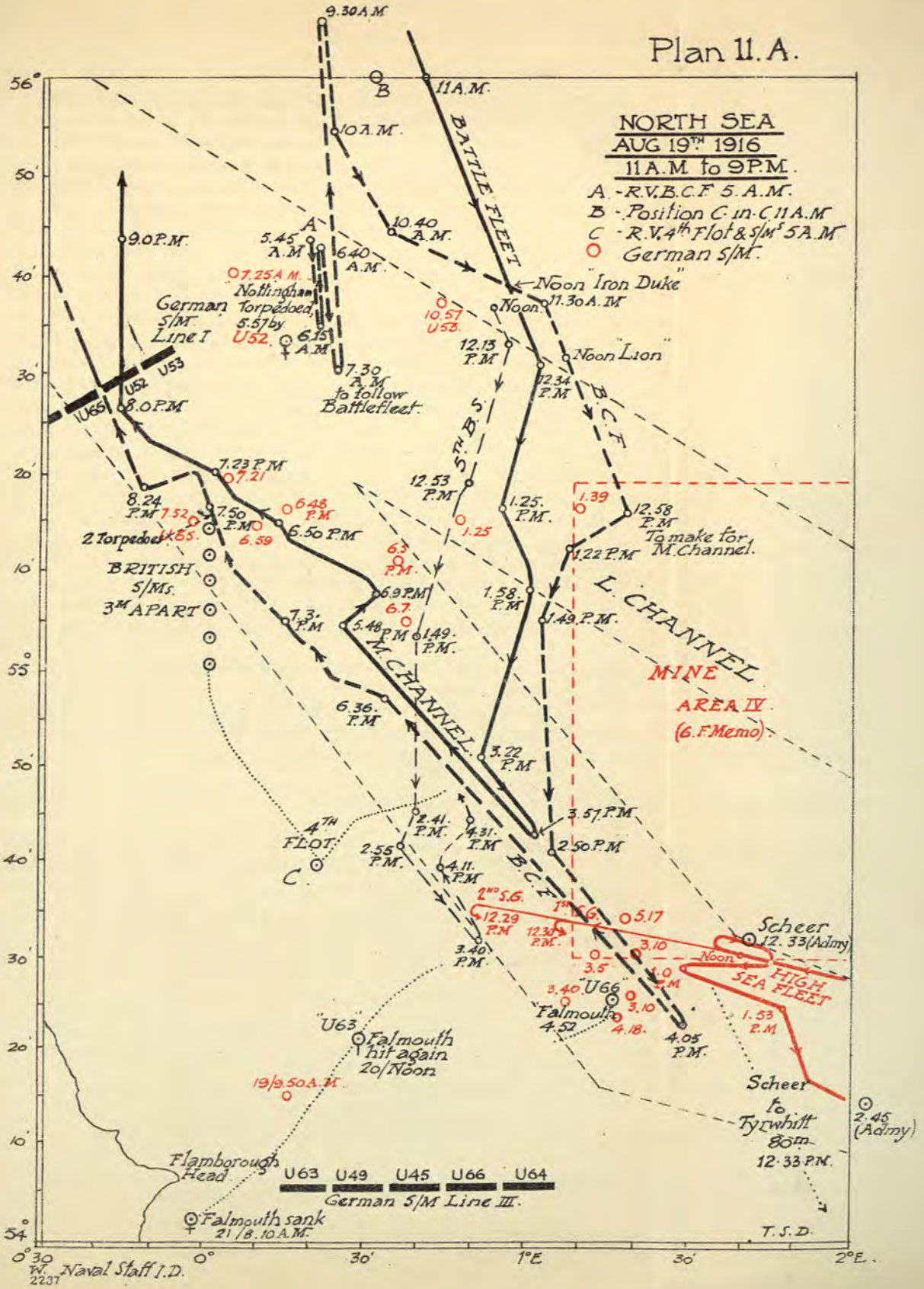
# Plan II. A.

## NORTH SEA

AUG 19<sup>TH</sup> 1916

11 A.M. to 9 P.M.

- A - R.V.B.C.F 5 A.M.
- B - Position C in C 11 A.M.
- C - R.V. 4<sup>th</sup> Flot & S/M<sup>s</sup> 5 A.M.
- German S/M.



100. **Function of the Harwich Force.**—There was another question on which the decision of the Admiralty had been issued on the very day that the Germans sallied out (August 19). This was the question of the co-operation of the Harwich Force with the Grand Fleet. It had been raised after the Lowestoft raid by Admiral Beatty, who had discussed the matter with Commodore (T) on May 18,<sup>1</sup> on the grounds that the system of working from different bases "in watertight compartments" prevented the best use being made of possible opportunities. The Commander-in-Chief, however, thought it best for the Harwich Force to be given its directions by the Admiralty, as any endeavour to do it on his part must mean delay,<sup>2</sup> but was prepared to ask for a conference if the points at issue could be definitely stated. The points on which the Vice-Admiral, Battle Cruiser Force, asked to be informed were, briefly, the intentions of the Admiralty with regard to the Harwich Force and its submarines and the substance of the Admiralty plans dealing with all enemy offensive operations that might conceivably arise.<sup>3</sup> The events of Jutland brought the matter again to the front, and Commodore (T) on June 26 proposed three positions<sup>4</sup> to which the Harwich Force might proceed. The Commander-in-Chief wrote later (July 11) in the same strain suggesting that the Harwich Force and minelayers might be placed under his orders as soon as the Admiralty was satisfied that the High Sea Fleet was at sea, and that appropriate rendezvous might be arranged for them.<sup>5</sup>

101. **Decision re Harwich Force, August 19.**—To this the Admiralty answered on July 17 in an important memorandum embodying the views of the War Staff on the employment of the Harwich Force.<sup>6</sup> It stated that the Admiralty had always recognised that Commodore (T) should co-operate with the Grand Fleet, but, in practice, this had been prevented by imperfect or insufficient knowledge of the intentions of the enemy. The Admiralty could not send Commodore (T) to join the Grand Fleet merely on the possibility of an engagement. They had to be reasonably certain first on the following points:—

- (a) Whether the German forces were concentrated on one objective, or whether they had two objectives in view, e.g. one force attracting attention, while a second carried out an operation in a different locality.

<sup>1</sup> V.A., B.C.F., to C.-in-C., *Lion*, May 20 1916, in H.S.A. 139/152, 154.

<sup>2</sup> H.S.A. 139/153.

<sup>3</sup> May 26. H.S.A. 139/154.

<sup>4</sup> Viz. (1) The Eastern end of K Channel.

(2) Lat. 52° 43' N., long. 3° 30' E.

(3) The North Hinder Lightvessel. H.S.A. 139/156.

<sup>5</sup> Viz. (1) 15 m. 270° from North Hinder Lightvessel.

(2) 15 m. 235° from lat. 52° 43' N., long. 3° 20' E.

(3) 15 m. 215° from lat. 53° 20' N., 4° E.

(4) 10 m. 280° from lat. 54° N., long. 2° 15' E.

<sup>6</sup> Memorandum dated July 11 1916, M. 06364/16, July 17 1916, in H.S.A. 139/160, also H.S.A. 211/3514.

- (b) That Commodore (T) had a reasonable chance of joining the Grand Fleet without being intercepted *en route* by superior forces.
- (c) That the German forces on the Belgian coast were effectually guarded against.

Various instances were quoted in support. There was May 31 1916; it was not at all certain until some time after the action had begun that the whole German Fleet had gone north by Horns Reef. Again, in the case of Lowestoft raid, everything pointed to an objective in the north-west until the various German squadrons turned to the southward<sup>1</sup> when well to the north-west of Terschelling. A detached squadron of light cruisers and destroyers appeared on that occasion off the Belgian coast to round up our large weak force of auxiliary vessels.<sup>2</sup> In January 1915,<sup>3</sup> the Admiralty certainly had divined that enemy battle cruisers were coming out by the Bight to the north-west, but the data were very vague. The Battle Cruiser Fleet and Commodore (T) were ordered to meet at a rendezvous, but the result was such a near thing that the enemy was sighted within half an hour of the junction being effected.

The German force on the Belgian coast consisted<sup>4</sup> of at least 22 destroyers, 11 of which were large new vessels, and the presence of two of the Harwich light cruisers and eight destroyers was required at Dover to oppose them. The selection of definite points for a rendezvous was not advisable, as they might be foul in a fortnight, but the following general rendezvous were selected:—

- (I) To the westward of the North Hinder.
- (II) To the eastward of the North Hinder.
- (III) The Brown Ridge.<sup>5</sup>
- (IV) From 20 to 40 miles north-west from Texel.
- (V) The Outer Silver Pit.<sup>6</sup>

Yarmouth Roads would be the rendezvous for minelayers. The Commander-in-Chief replied on August 2. The rendezvous selected were practically those he had proposed. It was respectfully submitted that had Commodore (T) on May 31 been off the rendezvous IV proposed by Their Lordships, i.e. off the Texel, he would have been in a position to join him by 4 a.m., June 1, and with the Harwich Force as a screen, the Fleet could have stood in to Horn Reefs, and there would have been a better chance of cutting off some of the damaged German ships.<sup>7</sup>

<sup>1</sup> This was known about 9 p.m., April 24. See C.B. 989, Monograph 32, Lowestoft Raid, p. 14.

<sup>2</sup> This was not the case. The forces that attacked the Dover forces were older destroyers from Zeebrugge. T.S.D.D.

<sup>3</sup> Dogger Bank, January 24 1915.

<sup>4</sup> In July 1916. T.S.D.D.

<sup>5</sup> Lat. 52° 30' W., 3° 30' E. (approx.).

<sup>6</sup> Lat. 54 N., 2° 15' E.

<sup>7</sup> H.S.A. 139/165.

The only point on which the Admiralty was not in general agreement with the Commander-in-Chief was the question of the Sheerness minelayers. Their orders were still to come from Whitehall. The final Admiralty decision was dated August 19<sup>1</sup> and laid down the measures that would be taken. Commodore (T)'s force would be ordered to proceed to one of the five areas previously given, which gave him sufficient freedom to move without fear of mines. If the situation developed sufficiently to render it improbable that enemy forces were going to operate south of Lat. 53° N.<sup>2</sup> the Admiralty would order Commodore (T) to co-operate with the Grand Fleet. These instructions were incorporated in Grand Fleet Battle Orders<sup>3</sup> and remained in force till April 1918.

The question of the Harwich Force had been settled barely a month, when the whole strategical policy of the Grand Fleet came under review, and it was decided on September 23 that it should not move south of the Farn Islands.

**102. Conference, 13 September 1916.**<sup>4</sup>—The Commander-in-Chief's insistence on better measures for screening if the fleet was to continue the policy in force led to an important conference in the *Iron Duke* on 13 September 1916, to discuss the whole question of strategical policy in the North Sea. This conference may be regarded as one of the most important in the war, for it marked a stage where the limits imposed by the mine and submarine had to be laid down in precise terms. The points which required elucidation were these: Was the Government prepared to face the fact that the fleet could not prevent bombardments of the east coast or interfere with the early stages of a landing? Was the fleet to disregard risks of submarines and mines and seek the enemy where he was known to be at sea? Or should the fleet avoid localities where the enemy could easily lay traps with submarine or mine and confine its operations to northern waters, say, north of Lat. 55° 30' N.<sup>5</sup>

The Commander-in-Chief's view was that the main fleet should not go south of lat. 55° 30' N. in waters east of long. 4° E., except "under exceptional conditions," as waters so far to the eastward could not be watched by our cruisers or submarines.

In waters to the west of long. 4° E. we could afford to take the risks of mines if "a really good opportunity" offered of bringing the High Sea Fleet to action in daylight. But in any case the fleet should not go south of the Dogger Bank unless it were equipped with enough destroyers to provide an efficient screen for all ships. The Commander-in-Chief laid stress, too,

<sup>1</sup> A.L. of August 19 1916, M. 07005, H.S.A. 139/168.

<sup>2</sup> Approximately the latitude of Yarmouth. T.S.D.D.

<sup>3</sup> Memorandum, *Iron Duke*, August 24 1916, H.S.A. 139/169; H.S.A. 211/3514.

<sup>4</sup> M. 08218/16 and H.S.A. 141/143. See Appendix K.

<sup>5</sup> Approximately latitude of Farn Islands.

on the desirability of constant patrols and sweeps of the North Sea by cruisers, and as these must be well screened, the fact must be recognised that if the fleet had to put to sea when a sweep was in progress, some ships might have to be left behind for want of screening destroyers. As the use of Rosyth as a base for the main portion of the battlefleet would deter the Germans from raiding attempts, it was most desirable to push on the defences there, but wherever the base might be, it was not possible to ensure the prevention of raiding bombardments on east coast towns or patrols, and the defence of these areas must be ensured by minefields and submarines. It was not proposed to fight a fleet action at night, therefore, in making dispositions, it was of no use placing the fleet so as to intercept the High Sea Fleet at or shortly before night. The Commander-in-Chief also emphasised the desirability of being given time to get the channels swept, and for destroyers to complete with fuel; he pointed out, too, the difficulties which faced a fleet commander in moving south (as at Lowestoft on April 25) in weather which prevented the destroyers keeping up. Fleet exercises, too, were another source of anxiety if they had to be suddenly interrupted to move to the southward with destroyers and light cruisers, whose fuel had been expended in their execution. There were other questions discussed, such as the question of further minelaying in the Bight, but the points raised at the Conference can be summed up in a sentence. The idea that a large fleet could be ready at any hour to rush down the North Sea on the strength of enemy intercepts had broken down. It was clear to the Chief of the War Staff that a very definite view prevailed that the fleet should not be required to come south whenever the German Fleet was approaching the coast, but only when there was "a really good chance" of engaging it in daylight.<sup>1</sup>

**103. Decision on Strategical Policy, 23 September 1916.**—The Admiralty issued their decision within ten days. Briefly, it adopted clearly and definitely the view that minefields and submarines involved so great a risk to the Grand Fleet that its capital ships, except in exceptional circumstances, were to keep to northward of the parallel of Horn Reefs.<sup>2</sup> The view was accepted that the fleet in northern bases could not be relied on to protect ports on the east coast from sudden attacks, and that if the Grand Fleet found itself south of the Forth in such circumstances it would incur great risk of losses from submarine attack and from mines, and would have only a small chance of bringing the enemy to action. The memorandum stated that the British Fleet was vital to the success of the Allied cause, while the loss of the German Fleet would not vitally affect the cause of the Central Powers, and laid down as a principle that taking large risks with the capital ships of the Grand Fleet from mines and

<sup>1</sup> M. 00145/16.

<sup>2</sup> Approximately 55° 30' N., the latitude of the Farn Islands.

submarines in dangerous areas when there was only a slender chance of bringing the German Fleet to action was not sound strategy. There followed details of the system to be adopted. The Admiralty in ordering the Commander-in-Chief to raise steam would state the degree of urgency. Orders would then be given to proceed to sea and concentrate east of the Long Forties and the Commander-in-Chief would arrange the rendezvous. In rough weather the fleet would not be ordered south of that rendezvous. Barring exceptional circumstances (viz. an attempt at invasion or a really good opportunity of bringing the German Fleet to action in daylight, in an appropriate area), capital ships were to keep to the north of the parallel of Horn Reefs,<sup>1</sup> and were to avoid the vicinity of mined areas and not to pass between Mine Area 1 on the Dogger Bank and the Humber minefield without a sufficiency of screening destroyers. These decisions governed the subsequent conduct of the Grand Fleet and rank as one of the most important enunciations of naval policy issued during the war. They were the direct outcome of August 19.

**104. Conference at Pless, September 3.**—Meanwhile in Germany the controversy over the question of unrestricted warfare had burst out afresh. Proposals of the German Admiral Staff to enforce unrestricted warfare in the Channel against troop transports had been discussed in June and August,<sup>2</sup> only to be wrecked by the Chancellor, supported by the Chief of the General Staff. The Admiral Staff, anxious to do something, wished to go on with the restricted campaign according to prize regulations, but their efforts were thwarted by the Commander-in-Chief, who held doggedly to the idea of unrestricted warfare. There followed the thrust back from Verdun and the advent to power on August 29 of Hindenburg and Ludendorff, who favoured the views of Admiral Scheer. A momentous conference was held at Pless on August 31<sup>3</sup> to consider its expediency, and at this great session there were gathered the Chancellor, Von Jagow, Secretary for Foreign Affairs, Helfferich, Minister of the Interior, Hindenburg, Ludendorff, Wild von Hohenborn, the War Minister, Admiral Holtzendorff, Chief of the Admiral Staff, and Admiral Capelle, who had taken Tirpitz's place as Minister of Marine. The Chancellor, who recognised the inevitable coming of unrestricted warfare, made great play with the danger of a war with Holland and Denmark, and emphasised the necessity of consulting the allies and the Reichstag. The Minister of War was on the side of postponement till the Roumanian situation was clear. Hindenburg, though supported by the Chief of the Admiral Staff, had to bow to the Chancellor, and the result was another fateful

<sup>1</sup> Lat. 55° 33' N., approximately latitude of Farn Islands.

<sup>2</sup> In "immediate" Conference, June 30 and August 6. Michelsen 29. See also Memoirs of Helfferich, Bethmann-Hollweg and Ludendorff.

<sup>3</sup> Helfferich, *Der Weltkrieg* 2/381, and Bethmann-Hollweg, *Betrachtungen* 2/127; Scheer, *High Sea Fleet*, 247, says September 3.



postponement, the Chancellor delegating to the Army Command the decision of choosing the time for unrestricted warfare to commence.<sup>1</sup> A little later Scheer's Chief of Staff, Captain von Trotha, had a conference with Ludendorff, where it was decided that unrestricted submarine warfare was the only means of bringing the war to a favourable conclusion.<sup>2</sup>

**105. Airship Raid, September 2-3.**—In actual naval operations, September was a month of comparative inactivity on both sides of the North Sea. Air raids, however, continued, and thrice during the month German airships raided the Eastern counties. The first raid took place on the night of September 2-3, and was planned on a large scale. Fourteen airships took part, and great hopes followed them, the intention apparently being to strike a simultaneous blow at London from the south-west.<sup>3</sup>

Their departure was known at the Admiralty about 5 p.m. on September 2, and the usual warning went out to the East coast. At Harwich three light cruisers and a destroyer division had steam at one hour's notice, and about 1.30 a.m. sighted an airship (*L.11*), and opened fire on her. Though there is no reason to believe she was hit, she turned north up the coast, and made for home. There was a good deal of cloud and some mist, but the weather was generally fair, with a light westerly wind over the North Sea. But in spite of these favourable conditions, only four airships got within 25 miles of London. *S.L.11* was one of them, and was sighted and lost by Lieutenant W. Leefe Robinson, R.F.C., who had gone up from Sutton's Farm. He picked her up again at 2.5 p.m. in a searchlight ray, flying at some 11,500 ft., and swooped down on her. Passing 800 ft. beneath her, he emptied three drums of ammunition along her length. She burst into flames, and came crashing down at Cuffley, where she was burnt to ashes with all her crew.<sup>4</sup> She was the first airship to be brought down on British soil, and her fall was seen for miles around. *L.21* and *L.13* saw the terrible glare, and fled to the north, while *L.32* made eastward for the sea. The raid extended all over the Eastern coast. Altogether 260 explosive and 280 incendiary bombs were dropped, killing one man, one woman and a child, and wrecking some 50 houses, large and small.

**106. German Submarines, Channel. September 1-14.**—September saw the submarine campaign renewed in good earnest by the Flanders boats, under the restricted conditions of visit and search. They no longer confined their attentions to smaller craft, but struck boldly at the larger ships again.

On September 3, the very day that the conference was sitting at Pless, a submarine passed Dover Straits, and at least three boats were working in the Channel for the first fortnight of the

<sup>1</sup> Michelsen, 30.

<sup>2</sup> Scheer, Hochseeflotte, 350; Michelsen, 30.

<sup>3</sup> Air raids, 1916.

<sup>4</sup> Lieutenant Robinson was awarded a V.C.

month; between Havre and Portsmouth from September 3 to 5; between Brest and the Scillies from September 6 to 12; and between Cape de la Hague and the Start from September 5 to 14. The first report came from the Newhaven area on September 3, when the Danish s.s. *Johan Siem* (1,660 tons) was stopped.<sup>1</sup> The crew had already abandoned her when *T.B.5*, belonging to the Newhaven base, came up with two armed trawlers in the nick of time and drove the submarine off. The organisation for protection against submarines had undergone no change. The Channel was divided into four Auxiliary Patrol Areas—Area XI, Dover; Area XII, Portsmouth (sub-bases Newhaven, Poole); Area XIII, Portland; and Area XIV, Falmouth (sub-bases, Scilly Islands, Penzance, Devonport)<sup>2</sup>—and mustered at the beginning of September, for its 300 mile stretch, a total<sup>3</sup> of 13 yachts, 200 trawlers (of which 107, or 53 per cent., were fitted as minesweepers) and 247 net drifters. These were Auxiliary Patrol craft, and did not include the Patrol Flotillas under the various commands, which mustered, in addition, a total of 60 destroyers, 41 torpedo boats and 8 "P" boats.<sup>4</sup>

The system of patrol varied in each area. At Dover, Newhaven and Portsmouth the conditions were governed largely by the transport work. At Dover (Vice-Admiral Sir Reginald Bacon) 17 armed trawlers, carried out a continuous day and night patrol on beats some 3 miles apart between the South Goodwins and Beachy Head. The immediate area of the Straits was avoided by submarines, and the losses there were few. Some 32 ships were escorted through the area in September, usually by a destroyer or by a couple of armed trawlers, and no losses were incurred.<sup>5</sup>

Portsmouth included the sub-bases at Newhaven and Poole. Sixteen trawlers patrolled continuously along the coast, and nine torpedoboats helped to escort the shipping across to France. Newhaven, under a Commander as Naval Transport Officer, mustered five torpedoboats and twelve trawlers. This base was chiefly busy with the escort of ships and transports along the coast and to France, and it was a Newhaven torpedoboat that drove the submarine off the s.s. *Johan Siem* on September 3 and took the

<sup>1</sup> 12.20 p.m. 50° 26' N., 0° 1' W.

<sup>2</sup> For limits and organisation see Positions and Movements, Auxiliary Patrol (printed weekly). The numbers given are for August 30 1916.

<sup>3</sup> At Dover, 2 yachts, 78 trawlers, 10 paddle mine-sweepers, 130 net drifters, 24 motor launches; at Portsmouth, 6 yachts, 48 trawlers, 79 net drifters, 6 motor launches; at Portland, 3 yachts, 18 trawlers, 8 net drifters, 6 M.Ls.; at Falmouth, 4 yachts, 56 trawlers, 30 net drifters, 6 M.Ls. Positions and Movements, August 31 1916.

<sup>4</sup> Dover (6th Flotilla), 25 destroyers, 8 "P." boats, 3 T.Bs.; Portsmouth, 18 destroyers, 20 T.Bs. and 5 T.Bs. at Newhaven; Portland, 5 T.Bs.; Devonport, 17 destroyers and 8 T.Bs.

<sup>5</sup> It would be interesting to know the precise percentage of losses incurred by ships under escort in the dangerous areas (i.e. Channel and East coast) during the months of submarine activity, but the information is not obtainable from the various Auxiliary Patrol Reports.

ship into Newhaven. The ships escorted along the coast from this base seems to have numbered about two a day, and about one every two days to France.<sup>1</sup> Poole was a base for net drifters, and kept lines of net drifters in position between Anvil Point and the Isle of Wight, apparently intended to provide an inshore route for Channel traffic. The Portland trawlers were strung across Channel, patrolling from Prawle Point, Portland Bill and Anvil Point out to lat. 50° N. (mid channel), escorting vessels as required.<sup>2</sup>

On September 5, in the Portland area, a seaplane reported a submarine, and the trawlers *Vera Grace* and *Lord Cecil*, pushing for its track, sighted the Danish s.s. *Jeanne* (1,198 tons, from Algiers to Leith with esparto grass) blowing off steam. They closed at full speed, and 10 minutes later made out the assailant.<sup>3</sup> The *Vera Grace* hoisted the green flag and opened fire, but the submarine torpedoed the ship at 12.20 p.m., and disappeared.<sup>4</sup>

The Harwich Flotillas were a constant help, and on September 5 the *Lark* and *Laurel* came round to escort the *Princess Victoria* from Cherbourg with part of 40 millions in gold on its way to the Bank of England, and brought her safely to Portsmouth that night.<sup>5</sup>

Down from Harwich, too, there came the *Lightfoot* (flotilla leader, Captain Colin Maclean) and three destroyers the next day (September 6), and remained in the Channel till September 20. Further west, the Devonport area felt the pressure on September 6. The British s.s. *Torridge* (4,574 tons), on its way from Genoa to the Tyne, was making 8 knots up mid Channel at 5.50 a.m. (September 6) when a submarine appeared and opened fire. Not a ship was in sight, and the ship was sunk by gunfire after being abandoned. At 3 p.m. the same day, 60 miles to the southward, the British s.s. *Strathtay* (4,428 tons), with a cargo of munitions from New York to Havre, was coming up within 10 miles of the French coast, when she was attacked and sunk at 3 p.m. (September 6).<sup>6</sup> Three other ships had better fortune the same day in the same area. The *Bengali*, a Brocklebank ship of 5,684 tons, from Calcutta to London, was off Devonport in mid Channel<sup>7</sup> at 11.57 a.m. (September 6). It was hazy, with a calm sea, when she caught sight of a submarine appearing from

<sup>1</sup> Auxiliary Patrol reports do not always give a clear idea of the escort work, and it is not easy to make out the number of ships escorted along the coast and to France, or the number of attacks and losses incurred. Some of the reports are interlarded with administrative detail making it difficult to arrive at a precise idea of the work. Poole report (H.S. 275/126) consists chiefly of a list of repairs and boiler cleaning.

<sup>2</sup> On September 9, 18 trawlers were patrolling from Portland Bill to the Casquets.

<sup>3</sup> Lat. 49° 58' N., 2° 7' W. at noon.

<sup>4</sup> Report of Auxiliary Patrol, Portland, H.S. 223/200.

<sup>5</sup> M. 00143/16.

<sup>6</sup> Lat. 48° 45' N., 4° 25' W.

<sup>7</sup> 49° 34' N., 4° 14' W.

behind a barquentine 6 miles on her port beam. She immediately turned and brought it astern. The submarine opened fire, and fired four rounds, none of which hit. The ship replied with her single 4.7 gun, and the submarine abandoned the chase. Further south the British s.s. *Ancona* (1,168 tons) was on her way from Lisbon to London, and was off the coast of Brittany at 2 p.m.,<sup>1</sup> close to where the *Strathtay* had been sunk that morning, when she sighted a submarine and brought it astern. The submarine opened fire, and wounded four men; the ship stopped and was abandoned, but two French destroyers came rushing up at full speed, drove the submarine down, and saved the ship. The British s.s. *San Dunstano* (3,962 tons) was equally fortunate. She was bound from Mexico to Southampton, and was coming up Channel, zig-zagging, at 10½ knots on the French side at 6.35 p.m. (September 6). She was only 10 miles away<sup>2</sup> from where the *Strathtay* had been sunk when a submarine appeared on the port bow, and opened fire at 4,000 yards. It was hazy, and no ships were in sight. The *Dunstano* brought the submarine astern, and, going full speed, got safely away.<sup>3</sup>

Three trawlers and 3 armed drifters went out on September 7 from Falmouth to search for the submarine, but found nothing. The next day, September 7, the British ship *Heathdene* (3,541 tons), carrying iron ore from Algeria to the Tyne, was stopped in mid Channel at 2.30 p.m.<sup>4</sup> It was a clear, calm day, and there were no ships in sight. Her speed of 7 knots gave her no chance of getting away, and she was sunk by bombs. Four hours before, some 30 miles to the south-east, the Italian s.s. *Messicano* (4,065 tons) had suffered the same fate. There must have been at least two or three submarines working in the Channel entrance that day (September 7), for at 1.35 p.m., half an hour before the *Heathdene* was stopped, the "Q" ship *Heligoland*, a little topsail schooner, drawing only 8 ft., which Admiral Charles Dare had sent out from Milford Haven, was lying becalmed some 20 miles to the north-eastward, 10 miles from the Lizard, when she was attacked by a submarine, which opened fire at 2,000 yards, and hit the foretopsail yard. As the *Heligoland* could not manœuvre she dropped her screens, and replied with nine rounds at 2,000 yards, and thought she made a hit abaft the conning tower. The submarine dived hastily, keeping a wary watch through her periscope through the afternoon, and that night at 9.55 p.m. two torpedoes were fired at the *Heligoland*, which passed harmlessly under her keel.<sup>5</sup>

The next day (September 8) in the Channel entrance only one ship was lost. This was the Swedish s.s. *Gamen* (2,595 tons) taking coal from Wales to Algiers, and going 8 knots, when she

<sup>1</sup> 48° 47' N., 4° 25' W., September 6.

<sup>2</sup> Lat. 48° 50' N., 4° 30' W.

<sup>3</sup> M. 08074/16.

<sup>4</sup> Lat. 49° 22' N., 5° 22' E.

<sup>5</sup> M. 08193/16, M. 08007/16.

was stopped at 1.20 p.m.<sup>1</sup> It was calm and clear. She had no wireless and no ships were in sight. The crew of 24 took to the boats and the ship was sunk by bombs. Q.5, which had come from Queenstown, was somewhere over the horizon, and picked the crew up at 4 p.m.

Another submarine was working some 25 miles north-west of Ushant, and during the afternoon sank five ships (two French, two Spanish and one Norwegian) within a circle of 10 miles radius.

The next morning (September 9, 5.20 a.m.) in the same area, the Norwegian S.S. *Pronto* (1,411 tons) was sunk<sup>2</sup> bringing a cargo of lead from Spain to Liverpool. The destroyer *Larne* from Devonport, which was escorting the British S.S. *Elby*, hove in sight, opened fire at 6,000 yards and picked up the crew. On September 9, four ships (two French, one Italian, one Norwegian) were sunk during the day by another submarine right in the Channel entrance within a circle of ten miles radius. The *Lightfoot* and her destroyers were searching off the Isle of Wight that morning when they got news from the *Hornet* of a submarine to the westward. Making west at full speed they were off Start Point about 2 p.m. and commenced to search but saw only a crest of dipping foam, on which they dropped a depth charge.<sup>3</sup> Another of Admiral Bayly's decoy ships, Q.4 (Lieutenant-Commander Godfrey Herbert) was cruising to the westward and had seen a Norwegian ship, the *Lodsen*, outward bound, abandon ship. At 6.25 p.m. (September 9) she sighted a submarine 2,000 yards off on the starboard bow, which opened fire. Q.4 pretended to make off and was struck by two shots which wounded two men. The usual feint of surrender followed; the submarine stopped 1,500 yards off. The ship opened fire and charged it at full speed; down went the submarine with a swirl followed by two depth charges,<sup>4</sup> which possibly gave it an unpleasant shake. It is noticeable that though the submarines continued operating till September 12, the losses were practically confined to neutrals (including the large Dutch oiler, *Antwerpen*, 7,005 tons) and included only one British ship. This was the *Lexie* (3,775 tons) with a cargo of 5,667 tons of wheat, on her way from Karachi to Barry Dock. On September 10, at 6 a.m., she was some 40 miles south-west of Ushant,<sup>5</sup> going 7½ knots, when she sighted a submarine to the north-west some three miles on the port beam. The *Lexie* had no armament, and bringing the submarine astern, increased to full speed. The submarine opened fire; a shot disabled the steering gear and brought her to. She was boarded and torpedoed. While still afloat at 6.45 a.m. (September 10), two destroyers, apparently escorting troopships, passed only half a mile to the eastward.<sup>6</sup>

<sup>1</sup> Lat. 49° 26' N., 6° 52' W.

<sup>2</sup> 13 miles N.W. of Ushant.

<sup>3</sup> Papers A. 1985/16. Lat. 50° N., 3° 20' W., 3.40 p.m., September 9.

<sup>4</sup> One "C" and one "D" type. M. 08067/16.

<sup>5</sup> Lat. 47° 5' N., 5° 40' W.

<sup>6</sup> *Lexie*, Board of Trade, September 13, 1916.

On September 10, activity ceased off Ushant, but in the Channel entrance, three good sized ships (the Norwegian s.s. *Polynesia*, 4,064 tons; the Norwegian s.s. *Furu*, 2,029 tons, and the French s.v. *Marechal de Villars*, 2,198 tons) were sunk, all within a circle of five miles radius. The *Furu* was taking coal from Newport to Algeria and was going 8½ knots. It was 7 a.m. on a dull morning with a heavy swell on the sea, when she was stopped, boarded by Steinbrinck in *U.B.18*, and sunk by bombs 55 miles from the Scillies. The *Marechal de Villars* was a three-masted barque, bringing a cargo of 3,200 tons of grain from Seattle to Ipswich. That morning at 7 a.m. one of the Mullion airships had tried to warn her by semaphore, but was not understood. The afternoon was fine but hazy and she was making about four knots to the westward. It was 4 p.m. and there were no ships in sight, when a submarine appeared on the starboard bow and the ship was sunk by bombs in 25 minutes. One of her boats was picked up the next morning (September 11) at 9 a.m., 27 miles N.E. by N. from Ushant by the British steamer *Atlanta* on her way from Bordeaux to Liverpool, and the *Atlanta* was attacked shortly afterwards by a submarine which opened fire. But the *Atlanta* had a 6-pdr. gun and answered shot for shot and the submarine made off.<sup>1</sup>

Some 20 miles to the westward, a small Norwegian steamship *Fredavore* (159) tons had been sunk at 10.15 a.m., when Q.11 (*Tamarisk*) which had been sent out to cruise off Ushant, came up, and opening fire at 6,000 yards, drove the submarine down. On September 13 there ensued a sudden lull with a complete cessation of activity in the Channel till September 23, when a submarine began working again between La Hague and Portland, but did little, rendered cautious, perhaps, by two divisions of destroyers despatched from Harwich on September 24.<sup>2</sup>

In the Ushant area, this lull may have been due to a moonlight encounter with destroyers of the 4th Flotilla. The *Porpoise* (Commander George Leith) *Spitfire*, *Unity* and *Midge* had come round post haste from Immingham to help, and on September 12, Admiral Colville, the Commander-in-Chief at Portsmouth, hurried them off to Plymouth to deal with the activity off Ushant.<sup>3</sup> They brought the *Spitfire's* good fortune with them. That very night at 9.50 p.m. they were some 35 miles to the north of Ushant,<sup>4</sup> steaming north-west at 12 knots, when the *Spitfire* sighted in the moonlight the glint of a submerged submarine with its two periscopes passing on the starboard side between her and the *Unity*. She turned at once to ram, but found it inside her circle. Dropping a depth charge as she passed, she turned on it again and in the light of the moon saw two periscopes, of which one was seen to be bent, pass close to her port-side, about 6 feet clear. As

<sup>1</sup> Papers *Marechal de Villars*, Board of Trade, September 14 1916.

<sup>2</sup> H.S. 246/196.

<sup>3</sup> Tel. H.S. 278/531.

<sup>4</sup> 49° 4' N., 5° 34' W.

the boat passed over the submarine, a second depth charge was dropped within 50 feet of the periscope. The *Porpoise* too, a mile away had struck a submerged body and turning hard round to port, struck it again and dropped a depth charge.<sup>1</sup> Though there is no evidence on the German side<sup>2</sup> that a submarine was sunk, she may well have been damaged, for there were no more attacks or sinkings in the Ushant area for the rest of the month.

Commodore John Denison (Falmouth) had asked some two months before (July 20) for two more yachts and four more destroyers, and in view of the renewed activity repeated his request on September 13, adding that he thought the losses would have been greater if it had not been for the destroyer *Foyle* from Devonport which, working in conjunction with the Mullion airships *C.9* and *C.10*, was the only vessel able to get quickly to the positions given and to harass a submarine. The Admiralty could only reply that neither yachts nor destroyers were available.<sup>3</sup>

Eight of the Portland net drifters were towing nets during the month in mid Channel without any result. On September 14, at 5 p.m., the armed trawler *Pelican II*, working with an armed yacht and another armed trawler some 20 miles N.W. of the Casquets, sighted a submarine emerging near a large tramp steamer. She hoisted the signal, blew her whistle and altered course to chase, and the submarine abandoning the attack, proceeded west and was lost to sight. No submarine was seen in the Channel for the next nine days, and one can turn for a time to the North Sea.

**107. German Submarine Minelaying.**—Beyond the ordinary minelaying by the Flanders boats, there was no special activity in the North Sea in the first part of the month. The month opened with the loss of five small ships totalling 4,978 tons, in the first four days by mines on the East Coast, but these remained the sole losses from mines during the month. Altogether some fourteen trips<sup>4</sup> were made by the Flanders U.C. boats. To the East Anglia coast, four visits were made and some 54 mines were laid, of which 22 were swept up. Five cargoes of 56 mines were laid off the Thames, of which 20 were swept up and one boat made a trip to the vicinity of Flamborough Head towards the end of the month, and laid 18 mines.

The French ports in the Channel received a share, two cargoes of 12 each being laid off Calais and another divided between Boulogne, Havre and Cherbourg. And for the first time since March 1916, a cargo was laid about the middle of the month on

<sup>1</sup> C.-in-C., Plymouth, September 14 1916, in B. 1087/16. It was considered that the *Spitfire* had sunk a submarine, and Lieut. Humphrey M. Robson was awarded a D.S.O. and Mr. R. J. McVittie, Gunner (T), a D.S.C.

<sup>2</sup> Michelsen; Halb Stocks die Flagge.

<sup>3</sup> Papers in X. 3556/16 and H.S. 727/168.

<sup>4</sup> The exact numbers are not certain, as dates are not given in German Statement of Mines, 1919.

the English side of the Channel off Folkestone, Newhaven, the Royal Sovereign Lightvessel and Beachy Head,<sup>1</sup> which were found a month later by the s.s. *Alaunia* striking one of them on October 1.

The losses from mines were comparatively small. Four small ships<sup>2</sup> were lost on minefields round about 52° 17' N., 1° 46' E. off Southwold and Covehithe, apparently the remains of mines laid in August. The s.s. *Rivaulx* was lost off the Humber (53° 30' N., 0° 17' E.) apparently in a scattered field, portions of which had been located in August.

A mine from this field was picked up in a trawl on August 31<sup>3</sup> and 14 mines, apparently laid some time before, were swept up by September 15.

*U.80*, one of the big minelayers of the High Sea Fleet, laid a field of 29 mines off the Longstone about September 13, which was found by a mine exploding in a fishing drifter's nets on that day. Four trawler sweepers were despatched to it at once and 20 mines were destroyed there by September 24, some seven of which were old and probably belonged to the field laid in August by *U.76*, some five miles to the north-westward of it. This was a troublesome minefield, and when it was reported clear in October 27, a shallow rocky patch on it still remained dangerous.<sup>4</sup>

*U.76* at the end of the month went further afield and laid a cargo off the Clyde, by Ailsa Craig, about October 3-4, which was discovered on October 31 by the drifter *Golden Chance* sighting one showing on the surface,<sup>5</sup> while *U.79* went off to the Arctic on September 27 to lay her mines on the Murman coast off Gorodetzki Point, to be found on October 17, when a Norwegian steamer, *Botnia*, with a cargo of wood from Archangel struck one of them<sup>6</sup> and went ashore.

**108. German Submarines, North Sea, South.**—One or two of the Flanders U.B. boats were working in the Hoofden during the month. *U.B.6* was off the Hook of Holland, and on September 6 sank a small Norwegian s.s. *Rilda*, and a U.B. boat was lurking off the North Hinder the same day on the look-out for the Dutch traffic. It consisted that night of five ships, escorted from Harwich by the *Nimrod* and four destroyers and on their way back the next morning (September 7) with two ships, 10 miles east of the North Hinder, a torpedo was fired at the *Lance*, who made for the spot and dropped three depth charges, one of which failed to explode.<sup>7</sup>

<sup>1</sup> 2 m. S.  $\frac{1}{2}$  W. from Royal Sovereign L.V.

<sup>2</sup> Norwegian s.s. *Dronning Maud*, 1,102 tons, 1.9.16; Danish s.s. *Farmatyr*, 1,426 tons, 2.9.16; British s.s. *Mascotte*, 1,097 tons, 3.9.16; British s.s. *Rivaulx*, 1,166 tons, 3.9.16, off Humber; A.T. *Jessie Nutten*, 187 tons, 4.9.16.

<sup>3</sup> 3 miles SSE of Rosse Spit, entrance to Humber.

<sup>4</sup> Bi-monthly Minesweeping, October 15-31 1916.

<sup>5</sup> Lat. 55° 16' N., 5° 24' W.

<sup>6</sup> Lat. 67° 48', long. 41° 5' E.

<sup>7</sup> Telegram, H.S. 277/273.

Two days later (September 9, 9.30 p.m.) when engaged on the same task, the *Nimrod* sighted and tried to ram a submarine two miles east of the Maas. She dropped two depth charges (which did not explode) and the submarine escaped.

**109. Dutch Traffic, September.**—The work of escorting the Dutch traffic, monopolised the services of a flotilla leader and four destroyers from Harwich on almost every alternate day<sup>1</sup> of the month. On September 21 it suffered its first and only loss. Four steamers were passing in each direction that night and eight destroyers left Harwich to escort them. The Great Eastern Railway s.s. *Colchester* was in the eastbound group, which had orders to pass 7 miles north of the North Hinder at 10 p.m. There the destroyers were to pick them up and escort them to Dutch territorial waters. The night was dark but exceptionally clear. The destroyers were waiting at the appointed time, but only two steamers appeared. To avoid attracting attention they made no signal, but as the *Colchester* was well known to them, and was not there, two destroyers remained to pick her up with the other absentee. Neither appeared. News arrived that one had not sailed, but nothing was known of the *Colchester* till Sept. 23, when Wolfe's Bureau reported that she had been taken into Zeebrugge. Her loss led to an entire change in the convoy routine and the old method of escort was abandoned on October 5. After that date, convoys crossed only in daylight, the eastbound vessels passing the North Hinder at 10 a.m. and the westbound leaving the Hook of Holland at 7 a.m. The route was divided into eight sections of about 12 miles, each of which was patrolled by a destroyer zigzagging at 15 knots during the passage. This system (known as "G Patrol") lasted only a month, and on November 6 the old method of escort was resumed, though the convoys still continued to cross in daylight only. The security attending this routine (known as "N Patrol") led to a gradual increase in the number escorted and its efficiency may be measured from the fact that from the inauguration of convoys to Holland in July 1916, to the outbreak of unrestricted warfare in February 1917, the *Colchester* was its one and only loss.<sup>2</sup>

**110. German Submarines, North Sea, North.**—Further north, *U.B.22* was prowling off the Forth on September 11, and let go a torpedo the next day (September 12, 3 p.m.), at the armed yacht *Goissa*, off St. Abb's Head, which missed her bows by a bare ten yards. No periscope had been seen and this was the only sign of her presence. The usual hunt for an unseen quarry ensued but met with no success. This area (Patrol Area VII) had its headquarters at Granton (Admiral James Startin), and mustered 8 yachts, 72 trawlers, 18 paddle minesweepers, 7 net

<sup>1</sup> 11 times in September, October 8 times, November 5 times, December 6 times.

<sup>2</sup> H.S.A. 288/199, 211.

drifters and 24 motor launches. It escorted 24 ships up the coast (chiefly oilers, colliers and ammunition ships) during the month without a loss. *U.B.34* had relieved *U.B.22* off the Forth and the only sign of her was a torpedo fired at the *Nerissa* (9 a.m. September 17, 56° 8' N., 2° 8' W.), which exploded on the bottom and another fired an hour later at the destroyer *Onslow*, which missed. This was the day, September 17, on which Rose, in *U.53*, left on his cruise to America. A bulky target was available for submarines in the shape of a dock which left the Tyne for Invergordon on September 21, lumbering along at 5 knots. But escorted by 6 destroyers (3 from the Grand Fleet, 3 from the East Coast) and 8 armed trawlers, with its passage through Admiral Startin's area, patrolled by 5 yachts and 17 trawlers, it was not an easy prey and arrived safely at Invergordon on September 23. Still further north, *U.B.21* had appeared off the Orkneys, and on September 12 fired a torpedo at the *Plover*, of the 14th Flotilla, 15 miles east of the Orkneys,<sup>1</sup> which missed. She was evidently driven away by the hunt which followed, for she went off down the east coast of Scotland, leaving the Orkney area clear for over a week.

**111. German Submarines on Archangel Route.**—The conditions of visit and search led naturally to German submarines seeking areas where they were less likely to be attacked, and on September 19, three of them, *U.43*, *U.46* and *U.48*, went off to the Arctic to attack the Archangel trade. Arriving off the North Cape on September 26, they sank, there and on the Murmansk coast, ten Norwegian ships by the end of the month. These were of no great size, the largest being the s.s. *Sinsen*, of 1,925 tons, but the blow falling in a new area had a profound effect on neutral opinion. Norwegian underwriters stopped insuring for Archangel, the crews of several Norwegian ships refused to sail<sup>2</sup> and the elaborate system of Bunker Control, inaugurated earlier in the year,<sup>3</sup> trembled under the shock. British shipping, which as apparently keeping some 60 miles from the coast,<sup>4</sup> was not attacked and suffered no losses in this area. Four British class "C" submarines (*C.26*, *C.27*, *C.32*, *C.35*), which had started off for Archangel the month before for transport to the Baltic to work under the orders of Commander Cromie, had reached their destination. They were fortunate to get there, for they had been ordered to call at Lerwick to complete with oil, and the Vice-Admiral, Orkneys and Shetlands, on a visit to the port found them there, a centre of attraction for twenty-two neutrals in the harbour. As the submarines were not manned, it might be deduced they were in

<sup>1</sup> 58° 48' N., 2° 27' W.

<sup>2</sup> Nordenjeldske Co., October 5.

<sup>3</sup> Fayle, *Seaborne Trade*, 2/233.

<sup>4</sup> See orders for British munition ships to White Sea, June 19 1916, H.S. 323/288; Orders for Neutrals to White Sea, see C.M.O. 939/1916, June 10 and C.M.O. /462 of August 22, *Navigation in the North Sea*.

tow of the tugs, which were carrying large cases marked "Archangel" in big letters. Admiral Brock accordingly sent them off at dawn with the crews on deck, independently of the tugs and held up all neutral shipping for twenty-four hours. He suggested that Swarbacks Minn or Scapa would have been a more suitable port of call, in which the Commander-in-Chief fully concurred, adding that the marking of cases of stores with the name of their destination must defeat all efforts to maintain secrecy.<sup>1</sup> *U.53*, under Lieutenant-Commander Rose, the submarine which had performed yeoman service on August 19, was striking still further afield on a more adventurous voyage. She left Heligoland on September 17, meeting at first with heavy seas and bad weather, which almost forced her to turn back. She passed the Shetlands on September 20, and making straight for the Newfoundland Banks, entered Newport Sound on October 7, at 3 p.m. Her stay was very brief. She left at 6.30 p.m. the same evening, and cruising the next day off Nantucket sank one Norwegian (4,224 tons), 1 Dutch (4,850 tons) and 3 British ships (11,617 tons). She began her voyage home at 10.30 p.m., reaching Heligoland safely on October 28, with only a scanty amount of fuel. She had held up the sailing of slow ships on the Atlantic trade for three days.<sup>2</sup> The merchant submarine *Bremen* was to have met her on the American coast in September but never arrived. A submarine was seen by the transport *Huntsbill* some 300 miles south of Iceland<sup>3</sup> on September 3, steering south-west, in a position which would bring her to Baltimore about September 20. This was apparently the last seen of her and her fate remains a secret of the sea.<sup>4</sup>

**112. Grand Fleet, September 21.**—Meanwhile the new battle cruiser *Repulse* had attained 31½ knots on the measured mile at the Clyde, and three Grand Fleet destroyers brought her on to Scapa, where she arrived on September 21. The Commander-in-Chief did not see her come in, for the *Iron Duke* had sailed with all the battle squadrons the day before to carry out exercises between the Shetlands and Norway. There they spent the day in deployments and exercises on the additions lately made to the Battle Orders with a view to meeting torpedo attacks. The

<sup>1</sup> H.S. 279/1059. Their batteries arrived in the *Slavonic* broken and useless; Orders for the tugs in M. 06736; V.-A., O. and S., August 15, in M. 07508/16.

<sup>2</sup> Bayley, New York, October 9, and Admiralty, October 12. H.S. 324/553, 664.

<sup>3</sup> Lat. 59° N., long. 16° 10' W.

<sup>4</sup> The *Mantua*, of the 10th C.S., was cruising in the above area between 58° N. and 59° N., and 16° W., to 18° W., between September 1 and September 7. On her return to the Clyde there were unmistakable signs on her bottom of contact with a heavy yielding object. (Surface rubbed smooth, long striations and scores, and the bilge keel bent for some 5½ ft.) but no one on board had felt anything in the nature of a bump or shock. (M. 08812/16, Record Office, X. 8040/16.) The *Moldavia* reported a submarine on the surface on September 18, in Lat. 58° 48' N., 12° 25' W. (I.D. section log.)

Fleet also practised sixteen point turns together, the laying of smoke screens and independent movements by leaders of divisions to meet particular contingencies.<sup>1</sup> Early the same morning, September 21, an armed yacht had sighted a submarine on the surface some 30 miles east Pentland Skerries,<sup>2</sup> steering south-west, almost dead in the homeward track of the Fleet. This was probably *U.49*. Every available local vessel in Scapa Flow was sent out to hunt her, and she disappeared, not to be seen again till September 24. The Fleet on its return made a cast to the southward to avoid her<sup>3</sup> and got safely back in the morning of September 22. This was the third time that a submarine had appeared off the Orkneys during the month.

**113. Airship Raid, September 23-24.**—The Fleet had been in harbour barely twenty-four hours when there appeared indications of renewed activity in the Bight.<sup>4</sup> On September 23, the Chief of the Torpedo Flotillas (in the *Frankfurt*) received orders to advance with the 2nd and 6th Flotillas some 90 miles west of Heligoland,<sup>5</sup> evidently to support the airship raid which took place that night. There was no sign of the High Sea Fleet moving and the Grand Fleet did not move. The revised orders from the Admiralty embodying its new strategy are dated that very day.

The airship raid was made by nine airships and the three newest, *L.31*, *L.32*, and *L.33*, which was on her maiden voyage, aimed their blows at London. The others flew over Lincolnshire. The weather was fair with a light breeze, south to south-east in the Hoofden. *L.33* came up the Thames and was fired at by a Nore torpedo boat, No. 8. She was probably hit by Wanstead battery and began to lose gas, but dropped her bombs in London with no small results. But as she came east she was sinking, and after jettisoning guns and cargo in a vain attempt to rise, came down finally at 1.20 a.m., near Mersea Island, at the mouth of the Blackwater. *L.32* suffered a harder fate. Attacked at 1.10 a.m. by Lieutenant F. Sowrey, R.F.C., she was set on fire and came down in flames at Billericay, in Essex, some 20 miles from London. The total results of the raid, for 208 high explosives and 163 incendiary bombs dropped, were 36 killed (20 men, 12 women and 4 children) and a large number of houses damaged; London contributing 25 killed, 11 houses wrecked and some 125 buildings damaged.<sup>6</sup> The *Laforey*, on her way to the Hook of Holland to escort Dutch traffic, sighted *L.21* and opened fire on her with 4-inch guns without success.

<sup>1</sup> Orders, Operation Q, September 16 1916. H.S.A. 160/240.

<sup>2</sup> Lat. 58° 57' N., long. 1° 51' W., 3.40 a.m.

<sup>3</sup> Returned to Scapa by Area V. For Minesweeping Areas in Orkneys, see G. F. Memo., June 7, 1916, in H.S.A. 223.

<sup>4</sup> An operation of some sort had been intended about the middle of the month, but was given up on account of weather and the orders were recalled on September 19 1916. Kommando, Hochseestreitkräfte, 19.9.16.

<sup>5</sup> To 54° 28' N., 5° 15' E., September 23 1916, 1532, I.D. Vol. 3020.

<sup>6</sup> *Air Raids*, 1916, G.H.Q.

114. **German Submarines, Channel, September 23.**—The day of the airship raid saw another burst of submarine activity in the North Sea and the Channel. Three submarines entered the Channel on September 23 and sank two small British ships, the s.s. *Dresden* (807 tons) and the s.s. *Pearl* (613 tons), between Havre and Portsmouth. The army communications with France suffered very little. Nineteen transports<sup>1</sup> were crossing the Channel that night and none of them were attacked. The crew of the *Pearl*, sunk at 6.30 p.m.,<sup>2</sup> was picked up by an armed trawler, and the Commander-in-Chief, Portsmouth, received the news about 7.40 a.m. He at once stopped all sailings from Portsmouth and Havre, and the Admiralty ordered Commodore (T) to send two divisions of destroyers, which left Harwich under the *Lance* at 2.5 p.m.

*Q.5*, a Queenstown decoy ship, pushed out from Devonport on the same quest. After sinking the *Pearl*, the submarines separated and two of them went on to the westward. The very day they appeared (September 23), but before their presence was known, the Trade Division had issued instructions for vessels bound to French Channel ports to keep close to the English coast until opposite their port of destination. Vessels bound from English Channel ports to the Mediterranean and Atlantic were to pass close to Ushant, showing no lights till well to the south of it. Vessels from the Clyde and Irish Sea bound to Atlantic ports were to pass close along the south coast of Ireland. This went out at 4.30 a.m. (September 23) and applied to British and Allied merchant vessels, transports and fleet auxiliaries.<sup>3</sup> Whether due to this or some other cause, this submarine cruise was miserably ineffective compared with those earlier in the month. The two submarines which moved west, appeared at 8 a.m. the next morning (September 24) between Cape de la Hague and Portland, and stopped the Norwegian s.s. *Tergi*. At 9 a.m. one of them opened fire on the British s.s. *Pembroke*, 22 miles north of the Caskets, but she pushed on and escaped. At 10.30 a.m. one stopped the Norwegian s.s. *Borgundi*, 17 miles N.N.W. of Cape de la Hague. A seaplane (No. 8554) from Calshot, patrolling between Portland and the Caskets sighted it and, after dropping two small 16½ lb. bombs, gave the alarm to three British trawlers 10 miles further north, who made for the spot,<sup>4</sup> an incident which induced the Commander-in-Chief, Portsmouth, to ask for four machines at Portland, as the Calshot machines were not suitable for attack.<sup>5</sup>

Eighteen transports were due to cross that night, but it is not clear how many actually went across.<sup>6</sup> Further instructions went

<sup>1</sup> H.S. 280/631.

<sup>2</sup> Lat. 50° 2' N., long. 0° 33' W.

<sup>3</sup> Tel. Adty. to various, September 23, 0430, H.S. 280/493, 667.

<sup>4</sup> H.S. 249/16.

<sup>5</sup> H.S. 280/1002.

<sup>6</sup> Including from Southampton (troops and ammunition), 4; Folkestone (troops) 1; Newhaven (food, ordnance, ammunition) 6. H.S. 280/825. Four certainly sailed from Newhaven, each escorted by an A.T. or T.B.

out that afternoon to meet the situation. Vessels from the Clyde, Irish Sea and Bristol Channel were to hug the south coast of Ireland instead of passing close to Ushant. The traffic from English Channel to Atlantic and Mediterranean ports was held up. Coastal traffic was told it could continue and was to hug the coast.<sup>1</sup> Before this order went out the Vice-Admiral, Dover, had asked for the traffic instructions of the day before, directing ships to cross the Channel, opposite their ports of destination, to be rescinded, as he could not protect any routes except those authorised and laid down, and he considered that the losses round about lat. 50° N (in mid-Channel) appeared to have been due to allowing vessels to cross areas that were not patrolled. To meet his views the Admiralty thereupon issued instructions that vessels crossing the Channel between Beachy Head and the Downs were to cross by the patrolled route from Folkestone to Boulogne at the authorised times.<sup>2</sup> Further west, in the Devonport area, on September 24, the *Porpoise*, *Spitfire* and *Unity*, which had been lent from the 4th Flotilla at Immingham, were still on the look out. *Q.4*, one of Admiral Sir Lewis Bayly's ships, had orders to continue in the Channel; *Q.9* pushed out from Falmouth that night, as well as the *Rosilla*, a small decoy ship disguised as a Dutch trawler. All transports for Havre were held up and an A.B.M.V. war warning<sup>3</sup> went out to all ships coming in from the westward to zig-zag at high speed east of long. 15° W., to take all precautions and to show no unnecessary lights. No more reports of losses came in, and the next day (September 25) the traffic from Channel ports to the Atlantic and Mediterranean was released, with instructions to proceed west of the Scilly Islands as far as long. 9° W. before joining the ocean route, while Channel traffic was to cross in the dark hours. The Harwich destroyers, cruising that evening between Portland and La Hague, were sighted by one of the submarines, which fired a torpedo at the *Lennox* at 7.50 p.m. The *Lennox* made for the track and dropped two depth charges,<sup>4</sup> both of which failed to explode. This small burst of activity in the Channel at the end of the month has an interest of its own, for the smallness of the loss shows that in narrow waters, a system of patrols and escorts supplemented by traffic control and the rapid issue of route instructions could be entirely effective in its results.

The results may be given briefly in statistical form.<sup>5</sup> There were sunk in the Channel during September altogether some

<sup>1</sup> Adty. Tel., September 24, 12.10 p.m. H.S. 280/808.

<sup>2</sup> Adm., Dover, to Adty., September 24, 9.44 a.m. H.S. 280/493, 760, 986, 1067.

<sup>3</sup> A.B.M.V. was the prefix to submarine warnings addressed to merchant shipping in the Atlantic.

<sup>4</sup> Lat. 49° 58' N., 2° 40' W (*circa.*).

<sup>5</sup> H.S. 246/196.

50 ships (British, Allied and neutral), with a total tonnage of 47,188 tons, and of the following nationalities:—

	No.	Tons, Gross.	Per cent. of Channel Total.
British .. .. .	13	21,339	34
French .. .. .	19	6,618	10·2
Italian .. .. .	2	7,176	11·1
Norwegian .. .. .	11	18,767	29
Danish .. .. .	3	4,785	7·4
Swedish .. .. .	1	2,595	4
Greek .. .. .	1	2,898	4·3
	50	64,178 <sup>1</sup>	

This was the work of some three submarines, *U.B.18*, *U.B.29* and *U.B.39*, and of this total all but 4,158 tons was sunk in the first fortnight. The total world sinkage for the month by submarines (British, Allied and neutral) was 206,184 tons, of which the Flanders submarines in the Channel contributed 23 per cent.

In the Channel the bulk of the losses fell on neutral ships. With no guns, no escorts and no special routes, they fell an easy prey. The achievements of the convoy system should not blind us to the fact that in 1916 escorted traffic was almost equally immune from attack.<sup>2</sup> The transports which were escorted across Channel suffered no losses in September 1916. Nor did the fleet auxiliaries in the same area. And even the ordinary traffic safeguarded merely by the proximity of patrols, did not suffer very severely so far as British shipping was concerned. It is not easy to gauge precisely the causes of this immunity. Speed, darkness and routeing, all played their part in helping a ship to evade the enemy; escorts, defensive armaments and patrols helped to drive him off. One factor required for a proper appreciation of the work of the patrol areas is not available, viz., the volume of traffic passing through the area where the submarine was at work. The Transport Department knew what transports and fleet auxiliaries were at sea; the Operations Division and Trade Division issued the routes; the local commands knew the number and positions of the patrols at sea; the Submarine Section of the Intelligence Division had a good idea of the movements of enemy submarines, but so far as mercantile shipping was concerned the information was not gathered into a single focus and protection was interpreted in terms of individual ships and fleet auxiliaries and not of the whole seaborne trade of the Kingdom.

<sup>1</sup> The German announcement reported 53 ships of 74,880 tons as sunk between September 3 and 13, an exaggeration of about 25 per cent. in the tonnage. H.S. 279/821.

<sup>2</sup> Precise figures are not available, and one of the merits of the convoy system was that it insisted on precise figures from the start. In 1916, it is not always possible to say whether a ship was under escort. The form for submarine attacks (I.D. Form S.A.), included sixty items but omitted this important point.

The system, certainly, did not ensure the safety of neutral shipping and the Commander-in-Chief at Devonport (Vice-Admiral Sir George Warrender) pressed this home in a letter written on September 20 on the subject of the Dutch s.s. *Antwerpen*.

**115. Routes for Neutrals.**—The Dutch s.s. *Antwerpen* was a vessel of 6,040 tons net and was the largest ship sunk in the Channel during the month. She had been chartered by the American Petroleum Company and was bound for London with a cargo of 10,000 tons of oil. She was coming up Channel on September 12. It was a fine morning<sup>1</sup> with a smooth sea when she was stopped by a shot from a German submarine. No other ship was in sight. The crew of 39 took to the boats, to be picked up later by the destroyer *Cameleon*, and the ship was sunk by a torpedo. She apparently had no route instructions and was relying implicitly on her neutral character. Her sole action was to send a wireless call to Lands End.<sup>2</sup> The Commander-in-Chief, Devonport, (Vice-Admiral Sir George Warrender)<sup>3</sup> pointed out that this was a valuable ship with a valuable cargo for England, apparently insured at Lloyds, and yet, being a neutral ship, was allowed to follow a course which must inevitably bring it into danger, for neutrals took small notice of the A.B.M.V. warnings. He suggested, that if it was considered undesirable to give neutrals the confidential routes for British merchant vessels, it might be possible to give neutrals, under British charter and insured in England, some alternative route which would take them off the trade route. The Trade Division remarked "that neutral oilers, if on British Government account, were ordered to call at Queenstown, and it might be possible for other oilers bringing cargoes on private account to do the same thing, but it would be impossible to give them more detailed instructions." The Operations Division concurred, pointing out, however, that oversea oilers could proceed to Falmouth or Kirkwall, as well as Queenstown, and that only one neutral oiler, the *Caloric*, was employed by the Admiralty. It added that the War Office contracts were sometimes shipped in neutrals, but Operations Division was not always informed of the vessels, which were given orders by owners and were run on their account. The main point at issue, however, namely, the safe routeing of neutrals with British cargoes remained untouched and the First Sea Lord called for further proposals (October 1). The Trade Division, therefore, (October 21) asked the Director of Transports what neutral oil carrying vessels there were on War Office and on private charter and whether anything could be done to give them "secret advice as to what route they should take."

The Director of Transports replied on November 20 that in the case of neutral vessels carrying War Office cargoes arrangements

<sup>1</sup> Lat. 49° 30' N., long. 6° 47' W., 8 a.m.

<sup>2</sup> "Attacked by German submarine, send assistance."

<sup>3</sup> C.-in-C. Devonport, September 20, M. 08107/16.



had already been made for these vessels to be treated "exactly as transports so far as the provision of escorts is concerned," and a weekly list would be sent to the Director of the Trade Division showing, as far as was known, the neutral vessels conveying oil to the United Kingdom or allied ports on private account, and enclosed a draft letter to be sent to charterers suggesting that a port of call should be stipulated in the Charter Party. The Transport Department, however, did not wholly appreciate the question of international law involved in the use of the word "escorts," and the Trade Division pointed out (November 23) that there should be no mention of "escort," and that the question was entirely one of routes. Another draft was prepared in which the word "security" replaced the word "protection," and Trade Division pointed out clearly (on December 6) that "no escort need be offered or provided, as there is nothing to prevent a vessel passing along a patrolled route, nor can such vessels prevent the patrol vessel's movements from coinciding with her own." A second draft letter was accordingly drawn up (December 21) and Trade Division (January 1 1917) raised no objection to the "arrangement<sup>1</sup> so far as the issuing of route instructions is concerned," but asked for masters of neutral oilers to apply for sailing instructions at the port of loading if there was an officer at that port competent to give them, and offered to supply a list of competent officers if required. It was supplied on January 1 1917, and finally a letter on the subject went out on February 6 1917.<sup>2</sup> The correspondence is interesting, and it is interesting to observe that over four months elapsed before the letter was despatched, indicating very clearly that the procedure was too slow and clumsy to deal with exigencies which were already felt in September, and by the end of October were becoming acute. The reorganisation of the Naval Staff was already looming ahead.

116. **German Submarines, North Sea, September 23.**—The same day that the submarines appeared in the Channel (September 23) *U.54* arrived off the Swarte Bank, on the East Coast, and attacked the fishing fleet, sinking ten trawlers. The wreck of the *Falmouth* (sunk August 19), where a salvage ship was working, was guarded by a trawler and mine net drifters and was not attacked. The *Active* and destroyers of the 4th Flotilla went out at daylight on September 24 to hunt for the submarine, hoping, with the assistance of armed trawlers, to drive her in to the mine net drifters off the Humber,<sup>3</sup> but met with no success.<sup>4</sup> The same day (September 24) *U.57*, which had reached the coast two days before, sank the Norwegian s.s. *Laila* and another trawler off

<sup>1</sup> i.e., presumably the issue of route instructions from the port of call. T.S.D.D.

<sup>2</sup> To Union Petroleum Products Company. T.0928/16. The correspondence is in Papers titled *Dutch S.S. Antwerpen*, B. 1054/1916.

<sup>3</sup> 20 miles N.E. by N. from Humber and 20 miles N.E. by E. from Flamborough Head.

<sup>4</sup> H.S. 436/150.

Flamborough Head. Seventeen Hartlepool trawlers were sunk the next day (September 25). Besides the *Active* and 4th Flotilla, there were 24 armed trawlers working from Immingham, and 2 armed trawlers and 11 drifters towing mine nets, but the only attack reported was on September 28, when the Lowestoft armed smack *Holkar* engaged a submarine. She had been cruising with three other armed smacks during the night, but had lost them in the haze. At 9.30 a.m. (September 28) she found herself off Smith's Knoll (Lat. 52° 45' N., Long. 2° 20' E.). It was a fine day but hazy, and the sea was quite calm. The smack was going S. by W. when a submarine was sighted making straight towards it. It turned at 600 yards and opened fire with a machine gun. The *Holkar* replied with a 13-pdr., and apparently hit the submarine just below the conning tower, and she went down rapidly. Not a sound could be heard on the hydrophone, and the skipper sent off two pigeons with an account of the action. The Admiralty awarded £1,000 for sinking a submarine, and Skipper A. R. Thompson received a bar to his D.S.C., but there is no reason to believe that the submarine was sunk.<sup>1</sup>

Just as in the Channel, German submarines were very chary about attacking ships under escort, some ten<sup>2</sup> of which passed along the Yorkshire coast between September 23 and 30 without a single attack.

This short burst of activity extended right up the East Coast, and was probably related to the airship raid of September 23–24, or may have been part of a disposition preliminary to the movement of the German Fleet on September 25. On September 24, in addition to *U.54* and *U.57*, which were lying off the Humber and Tees coast, *U.49* was off Holy Island, *U.64* off Aberdeen, and no less than four submarines, *U.24*, *U.44*, *U.55* and *U.20*, were located in the Orkneys area. That same evening (September 24) the Dutch mail boat *Prins Hendrik*, on her way from Flushing to Gravesend, was stopped<sup>3</sup> by six German destroyers, who removed 67 passengers and the English and French couriers and mail, and the Dutch s.s. *Batavier* was brought into Zeebrugge with contraband, which led the Admiralty to issue instructions that fast vessels should make the journey at utmost speed, and to propose to the Commander-in-Chief, Nore, that passages should be made in daylight.<sup>4</sup> Off the Orkneys the destroyer *Manners*, searching that afternoon (September 24) 18 miles east (magnetic) of the Pentland Skerries, sighted a conning tower awash 5,000 yards ahead. She made straight for it, but the submarine disappeared when she was still 1½ miles away. The *Manners* dropped a depth charge, but a search of the area with five other destroyers<sup>5</sup> brought no further result.

<sup>1</sup> M. 08623/16.

<sup>2</sup> 28 during the month.

<sup>3</sup> 9½ miles N.W. by W. from Schouwen Bank Light Vessel, H.S. 280/949.

<sup>4</sup> Tel. 1940, H.S. 280/1129.

<sup>5</sup> M. 08747 in X. 8775/196.

117. **High Sea Fleet, September 25.**—On September 25, the High Sea Fleet was again showing signs of activity, and some eight submarines were lying off the British coast, possibly intended to act in conjunction with the airship raid. At 11 a.m. Scheer had given orders for the fleet to be at one hour's readiness at 6 p.m., and at 3 p.m. his flagship took over wireless control and sent out a signal to say that airships were attacking England that night. The 1st Battle Squadron and the 1st Scouting Group were to be off Terschelling<sup>1</sup> the next morning (September 26) at 4 a.m., where the 5th and 13th Flotillas were to pick them up. These signals were intercepted at the Admiralty by 7 p.m. and the usual steps were taken to meet them in the south. Six of Commodore (T)'s destroyers had gone off to bring the Dutch traffic across, and at 9.42 p.m. he received orders to recall them and rendezvous with his forces west of the North Hinder at daylight. He sailed at 1.45 a.m. (August 26), and at 6 a.m. was off the East Coast with six light cruisers and nine destroyers. Commodore (S) was told to send four submarines at full speed to spread four miles apart west of the Haaks light vessel, close to the Texel, and some 50 miles from the German squadron.<sup>2</sup> Submarines were to be off the coast at dawn, with aircraft up scouting for the enemy. The 3rd Battle Squadron was ordered to have steam at half hour's notice by daylight, and all coastal traffic was held up. One important change, however, marks the orders issued that day. The Grand Fleet did not move. This decision was based partly on the grounds that the German movement was intended merely to cover returning Zeppelins, partly on the reports of German submarines at sea. The Grand Fleet, therefore, remained at short notice but did not sail, and this may be regarded as the first occasion on which the Revised Orders for the Fleet, which had only just reached the Commander-in-Chief<sup>3</sup> came into effect. Though the Fleet itself did not move, the Commander-in-Chief shortly after midnight (12.20 a.m.) ordered the submarines at Blyth and the Tees to be spread by noon some 10 miles from the Tyne (Lat. 55° N., Long. 1° W.<sup>4</sup> At daylight (September 26) five British submarines were lying off Yarmouth and seven off Harwich, but the alarm was over. Shortly after 4 a.m. the 3rd Scouting Group met the German torpedo flotillas off Terschelling and turned home. The latter had run down the Hoofden as far as the latitude of Lowestoft (lat. 52° 20' N., long. 3° E.), but had seen nothing of Zeppelins or of British craft.<sup>5</sup> At 8.5 a.m. the order went out on the British side to resume normal conditions, Commodore (T) was recalled, and the submarines put back to harbour. The four

<sup>1</sup> In 53° 35' N., 5° 25' E.

<sup>2</sup> Tel. to Capt. (S) 9.5 p.m., H.S. 280/1141; to Commodore (T) 9.15 p.m. H.S. 280/1143.

<sup>3</sup> H.S. 280/1133.

<sup>4</sup> H.S.A. 73; H.S. 431/105.

<sup>5</sup> I.D., Vol. 3020, 26/9, 0659.

Harwich submarines sent to the Haaks arrived there at 2.30 a.m. (September 26) and remained till the next day but saw nothing. There were in addition five British submarines<sup>1</sup> cruising in the western approach to the Bight, but *E.53* was the only one in the track<sup>2</sup> of the German forces, and at 6.45 p.m. on September 25 was driven down by their destroyers. The others saw nothing.<sup>3</sup>

118. **Airship Raid, September 25-26.**—While the German battle cruisers and torpedo flotillas were waiting off Terschelling their airships were dropping bombs on Sheffield and Bolton. Eight airships started in the afternoon (September 25). The night was calm. *L.13* turned back with engine trouble before she was half way across. *L.23* followed suit 50 miles from the Yorkshire coast, and *L.30* steered only a little way down the Norfolk coast. *L.21* and *L.22* pushed right in and passed over Sheffield, where they dropped 30 bombs, demolishing nine houses and a chapel, damaging 62 more and killing 29 people.

*L.21* went on to Bolton, where she dropped 20 bombs, wrecking 6 houses and killing 14 people, and leaving the coast at Whitby. *L.31*, as bold as ever, skirted the south coast and passed for the first time over Portsmouth, evidently intent only on reconnaissance, for she dropped nothing in the harbour. Returning by land she left the coast at Hastings at 2.45 a.m. The raid was no light one. The total bombs dropped were 63 high explosive and 65 incendiary; the casualties, chiefly in Sheffield and Bolton, were 43 killed (14 men, 17 women, 12 children),<sup>4</sup> and all the airships got safely home.

119. **German Submarines, September 25-26.**—The German submarines, if they intended any attack, were disappointed, for the Grand Fleet did not put to sea, but *U.20* and *U.44* met with a small measure of success, not far from the harbour of the Grand Fleet itself. On September 26 the *Thelma*, a ship of 1,002 tons, carrying coal from Glasgow to Gothenburg, had passed through Fair Island Channel, and was some 24 miles E. by S. of Fair Isle<sup>5</sup> when she was stopped at 3.30 p.m. by a submarine which appeared on the surface on her port quarter some two miles off, flying the usual signal M.N. (stop instantly).

It was hazy, and there were no patrols in sight. The ship made to the southward, but was hit by a couple of shots, and stopped. The crew took to the boats. The submarine came up and torpedoed the ship at once. Apparently, to prevent the alarm going out, the crew of 17 were taken out of their boats and ordered into the submarine, to be transferred two hours later to a Norwegian schooner, the *Marie*, and finally taken off the next

<sup>1</sup> *E.54*, *E.55*, *H.10*, *V.3* and *E.53*.

<sup>2</sup> In the area 53° 15' N., to 53° 30' N., between 4° E. and 4° 40' E., from September 22 to 29.

<sup>3</sup> Commodore (S), H.S.A. 272/310.

<sup>4</sup> Air raids G.H.Q. 1916, September 23 to October 2 1916.

<sup>5</sup> Lat. 59° 22' N., long. 0° 52' W.

morning by the destroyer *Mischief*, patrolling east of the Pentland Skerries.<sup>1</sup> This was the work of *U.20*, who apparently made straight home. *U.44*, lying some 30 miles to the north-westward, was also able to register a success. The *St. Gothard*, a collier of 1,790 tons, coming down from Swarbacks Minn (Shetlands) to the Forth in ballast, was off Fair Island,<sup>2</sup> when she was stopped at 4.35 p.m. by the armed yacht *Conqueror II*, of the Northern Patrol (Kirkwall), with the armed trawler *Sarah Alice* in company, who thought that she was flying the wrong flag.<sup>3</sup> The three ships lay stopped for nearly half an hour, waiting unconsciously for their doom. The *St. Gothard* had barely received permission to proceed when a torpedo struck the *Sarah Alice*, and she foundered at once. The *Conqueror II* had scarcely time to man her guns before she, too, was struck, broke in half, and sank in three minutes, barely giving time for the rafts to get away. The *St. Gothard* lowered her boats, which were hardly clear when she, too, was hit, and sank in five minutes. The submarine then came leisurely to the surface, picked up a wounded officer, put him into one of the *St. Gothard's* boats, asked for the ship's papers, presumably as a shadowy recognition of the formalities of visit and search, and disappeared to the east. The explosions were seen by two other armed trawlers of the Northern Patrol, the *Horace Stroud*, which was on her way back from escorting the Norwegian s.s. *Victoria* to Lerwick, and the armed trawler *Vulture*, which was on her way to the same port with a Danish schooner, but they picked nobody up. Nor did the *Thelma's* boats, and it was not till the next morning that the survivors of the *Conqueror II* (15 out of 37), on their rafts, were rescued by the destroyer *Sylvia* and armed trawler *Armageddon*. Her commander (Commander Agassiz, R.N.R.) went down with her.<sup>4</sup> These exploits, small in themselves, showed that submarines were prowling unpleasantly near the Orkneys, and heralded a burst of renewed activity.

120. **British Submarines and Minelaying.**—Beyond the usual dangers encountered with the usual resource, there are no incidents to record in the work of the British submarines in September. The Harwich boats kept the Terschelling patrol going continuously through the month, four being usually on patrol there at a time,<sup>5</sup> and a submarine was also watching for enemy submarines off the Schouwen Bank Light Vessel for 14 days in the month. The cruises were comparatively uneventful, and they saw little but merchant steamers, Zeppelins and trawlers, except

<sup>1</sup> Papers entitled *S.S. Thelma*, Board of Trade, September 29 1916.

<sup>2</sup> Lat. 59° 41' N., 1° 45' W.

<sup>3</sup> She was flying Flag Q, the flag of the day, (H.F. Memo. of 12.7.16).

<sup>4</sup> Papers on Loss of H.M.T. *Conqueror II*, X. 9177/1916.

<sup>5</sup> Altogether there were 16 submarine sailings for the Terschelling area and all got safely back.

<sup>6</sup> Noon position, 54° 19' N., 4° 47' E.

on September 23<sup>6</sup>, when *E.54* (Lieutenant-Commander Robert Raikes) had to dive for two destroyers which came suddenly on her with no lights. *E.53* (Lieutenant-Commander J. N. Glen-cross), too, in the evening of September 24, having come to the surface to charge, 15 miles W. by S. from Terschelling, was put down by a division of destroyers, who had evidently come out ahead of the 1st Scouting Group to support the airship advance on that day. Cruising some 100 miles to the north-east of them, in the latitude of Horn Reefs, were the Blyth submarines, who were on patrol three at a time for 14 days in the month. They, too, had little to report. Three of them (*G.8*, *G.11*, *G.12*) were on patrol from September 6–14. On September 7 they sighted a submarine (probably *U.B.22*) some 4 miles off.<sup>1</sup> The next day *G.12* was put down in lat. 55° 25' N., 6° 42' E., by three or four destroyers. Later in the month, *G.7*, *G.10*, *G.12* went out, and were cruising 40 miles west of Horn Reefs, some 14 miles apart. *G.10* had to return on September 27 with her starboard main motor short circuited and port clutch shaft broken. *G.12* (Lieutenant-Commander C. O. Regnart) had a more eventful cruise. On September 28 a British destroyer made an unsuccessful effort to ram her,<sup>2</sup> and passed over her twice. The next day (September 29), on her way home,<sup>3</sup> she sighted a German submarine, which dived as she opened fire.<sup>4</sup>

*E.41* was lost, and no mines were laid by British submarines in September, nor, indeed, by any surface craft. The destroyer *Abdiel*, leaving Scapa on August 30, laid a field of 78 service mines about 24 miles south of the Horn Reefs Light Vessel on the night of August 31–September 1. The night was clear, the lightship's beam was shining serenely, and gave her an accurate position. Returning at 25 knots, Captain Berwick Curtis was back in the Forth on September 1, and his mines apparently lay unlocated till January 1917.<sup>5</sup>

121. **Merchant Shipping and the Submarine.**—The conference which took place on September 13<sup>6</sup> on board the *Iron Duke* was concerned chiefly with the strategy of the Grand Fleet, and the growing menace of the submarine campaign against commerce was not mentioned in it. But towards the end of the month this note was beginning to be heard, till, in a gradual crescendo, it became in April 1917 the prevailing note, not merely of naval strategy, but of the war. The warning came from Norway. The losses on the Archangel route in the Channel and

<sup>1</sup> Lat. 56° 3' N., long. 4° 59' E.

<sup>2</sup> Lat. 55° 27' N., long. 1° E.

<sup>3</sup> Lat. 55° 27' N., 1° E., 90 miles east of Blyth.

<sup>4</sup> For Harwich submarines, Commodore (S) report, H.S.A. 272/269; Blyth's submarines, H.S. 626. The *Maidstone* preserved the original reports.

<sup>5</sup> Lockhart Leith's History, field 65, cap. VIII. See also British Mine-laying Operations, Heligoland Bight, H.S. 838/240.

<sup>6</sup> Papers in M. 07599/16 and in H.S.A. 141/142.

Mediterranean had not only caused a great outcry in Norway against the German submarine campaign, but had also alarmed the shipowners. The Norwegian Government guarantee behind their insurance scheme was exhausted.<sup>1</sup> The British Treasury stepped into the breach, and authorised a scheme to help them. There remained only the question of what would be done in the way of naval assistance. The Admiralty was not very hopeful. It would not entertain proposals for armed protection, and there were said to be "obvious objections" to communicating special routes<sup>2</sup> to neutrals, and so impairing their secrecy. It was suggested that members of the Norwegian Shipowners' Association should come to London to discuss the question, and that the best policy would be to employ neutral vessels in overseas trade, thus releasing British ships for trade in home waters. But if this was all that could be done it was not enough. The problem was to become the main issue in the coming month, and in the figures marshalled by the Shipping Control Committee and the Board of Trade the storm cloud could be seen gathering, menacing and incalculable.

## CHAPTER IX.

### OCTOBER, 1916.

122. **Airship Raid, October 1-2.**—It was calm over the southern portion of the North Sea on October 1, and 11 airships rose that afternoon to attack England. Only seven crossed the English coast, and wandered vainly over the eastern counties between the Humber and Thames. *L.31* entered at Lowestoft, and never returned. She pushed boldly for London, was heavily attacked off Waltham as she came south, and was driven westward, twisting and turning in vain efforts to elude the searchlights. Lieutenant W. Tempest followed her hard, and at 12,700 ft., over Potters Bar,<sup>3</sup> drove her down a blazing wreck at 11.54 p.m. *L.24* and *L.21* saw her fall, and made for home, and the raid collapsed. Its results were insignificant. There were dropped 117 high explosive and 84 incendiary bombs. At Cheshunt, where *L.31* dropped her bombs, one man was killed and four houses damaged. Commodore (T) had detailed a Zeppelin patrol of three light cruisers, but they did not go out. The losses of their three finest airships, *L.31*, *L.32*, *L.33*, within a month damped German ardour, and no further raid took place till the end of November.<sup>4</sup>

<sup>1</sup> Losses by Norwegian War Insurance Club, in August 9,960 tons, 5,640 million krone; in September 25,106 tons, 15,350 million krone. Papers, Protection of Norwegian Shipping, Board of Trade, September 25 1916.

<sup>2</sup> M. 51663/16.

<sup>3</sup> About 8 miles north of London.

<sup>4</sup> Air Raids 1916, G.H.Q.

The German Fleet did not move, and there was no sign of naval activity except that the *Friedrich der Grosse* took over wireless control at 6 p.m., which led to the *Active* and her destroyers in the Humber being told at 6.10 p.m. to keep to the westward of 2° East.<sup>1</sup>

123. **Channel, German Submarines, October 1-5.**—Both in September and October submarine activity was patchy and irregular, and between October 6 and 20 not a single ship was sunk in the Channel. Two Flanders boats were working in the Channel entrance in the first week of the month and one or two off Ushant. The former worked in an area 20 miles south of Lands End, the latter on the French side some 20 miles round Ushant. Their doings may be briefly summarised. In five days the Lands End submarine sank nine ships, totalling 5,560 tons. Five of these were French (2,184 tons) and four Norwegian. Its first appearance was on September 30, when it sank a small British sailing vessel, the *Pearl* (144 tons), at 10.40 a.m., and another French sailing vessel, the *Irma* (844 tons). As soon as the news came in, sailings were suspended in the Bristol and English Channels.<sup>2</sup>

On October 1 the submarine was lurking some 30 miles south of Lands End, and between 11 a.m. and 6 p.m. sank four French and one Norwegian ship within a radius of 5 miles. Of the cargoes, two consisted of coal, one of iron ore from Bilbao, and two of pit-props. On only one occasion was a patrol vessel close at hand. At 8 a.m. on October 3 the Norwegian s.s. *Ada* (1,111 tons) was 22 miles south of Lands End, going 8 knots. She was on her way from Bilbao to Ayr with 1,600 tons of iron ore. A German submarine appeared right ahead, dived and came up on the port quarter. The ship was brought to and sunk with bombs. As she was sinking the armed trawler *Fusilier*, from Falmouth, hove in sight, opened fire at 1,300 yards, and drove the submarine down.<sup>3</sup> Three more armed trawlers hurried up, and the submarine did no more that day (October 3).

The boat off Ushant had still less to record. On October 1 her bag consisted of a single French sailing vessel, the *Musette* (245 tons); on October 2 a British sailing vessel *Alice A. Leigh* was attacked, and had been abandoned when a French destroyer, *Gabion*, came hurrying up, forced the submarine down, and saved the ship. On October 5 a British s.s. *Isle of Hastings* (1,575 tons) was sunk off Ushant. She was bound from South America to London with 2,100 tons of meat, and was 10 miles from Ushant, making about 8½ knots in a rough sea and hazy weather. A submarine appeared at 7.50 a.m., and opened fire. No patrol vessel was in sight, and the ship being unarmed was sunk with bombs.<sup>4</sup> The two boats, with the whole crew of 21, were picked

<sup>1</sup> H.S. 282/221.

<sup>2</sup> October 1, 1.24 a.m., H.S. 282/13, 26, 109.

<sup>3</sup> Commodore Falmouth, October 4, M. 08814/16.

<sup>4</sup> M. 52515/16, Board of Trade, 9.10.16.

up by different ships. A Norwegian s.s. *Risholm* (2,650 tons) not far off was also sunk, a total in five days of four ships and 4,997 tons.

**124. North Sea, German Submarines.**—In the North Sea the losses in the early part of the month were insignificant, and were limited to a single British ship, the s.s. *Lanterner* (1,685 tons), which was mined on October 6, 2½ miles north-east of Cromer. A small Norwegian ship, the *Tyr* (250 tons), was damaged by a mine or torpedo in the Bight, and towed to Terschelling.

The immunity of fleet auxiliaries must be attributed to escorts and careful routeing, though this often involved considerable delay. Thus a report of a submarine (*U.55*) in the Cape Wrath area on September 28, and her appearance the next day in Fair Island Channel, delayed the journey of three incoming British oilers, the *Calipol*, the *San Eduardo* and *San Patricio*, on their way to the Humber, Forth and Invergordon. They were sent to Aultbea, in Loch Ewe, where the S.N.O. asked for route instructions, and was told to send the ships to Stornoway to get them (5.42 p.m., October 2). Four hours later, however, the Rear-Admiral, Stornoway, was told to send the route instructions to Aultbea instead, and finally the ships sailed with armed trawler escorts,<sup>1</sup> and got safely to their journey's end.

**125. E.43 on October 4 1916.**—Down in the south, *E.43*, a Harwich submarine, was on diving patrol off the Schouwen Bank on October 4, lurking on the route of the Flanders "U.C." mine-layers. At 9.30 a.m. she sighted a submarine which had just come to the surface<sup>2</sup> and was spreading its bridge screen. She pushed to the northward after it, bumping heavily over the shoal, and after stalking it for two hours in a nasty sea, managed to get within 550 yards and let go both her bow torpedoes.<sup>3</sup> Rising to the surface in less than a minute, she saw only a great swirl in the water, and thought she had destroyed her chase, but there is no evidence that any German submarine was destroyed at the time.

Four hours later, some 35 miles to the north-east, the *Llewellyn* with three other Harwich destroyers was waiting for the Dutch traffic that afternoon when a torpedo passed five yards ahead of her.<sup>4</sup> She replied with a depth charge that did not explode.

**126. Routeing—October.**—The system of routeing in force at this time is a subject of particular interest. In 1915, the Admiralty was averse to holding up traffic and preferred a policy of dispersion for the larger vessels, though the smaller vessels were recommended to hug the coast in daylight.<sup>5</sup>

<sup>1</sup> H.S. 282/ October 2.

<sup>2</sup> Lat. 51° 43' N., long. 3° 19' E.

<sup>3</sup> 11.17 a.m., October 4. Lat. 51° 50' N., long. 3° 15' E.

<sup>4</sup> Lat. 52° 5' N., 3° 46' E., 3.30 p.m., October 4.

<sup>5</sup> Trade Division Letter, August 30 1915 in M. 06860/15.

In 1916 this policy was reversed. As soon as a submarine was known to be operating, outgoing traffic was held up for a time. Thus on October 1, sailings were suspended in the Bristol Channel for the Mediterranean and Atlantic; they were resumed at 3 p.m. that day, and vessels were directed to hug the south coast of Ireland and to make long. 9° west before joining the ocean route. At 9.30 p.m. that night, defensively armed ships were released, and on October 2, at 5 p.m., all Bristol and English Channel traffic was released after being held up for some 40 hours.<sup>1</sup> The French held up the traffic at Brest in the same way for the submarine operating off Ushant, and on October 2 released ships only which could reach Wolf Rock during the night.

The whole question was intimately associated with routeing, and for the ordinary merchant ship routes, framed on very general lines were laid down from time to time.<sup>2</sup> Captain Bertram Smith states that after August 18 1916, these became so elaborate as to preclude their issue by Customs Authorities and masters had to be referred to the nearest Shipping Intelligence Officer.<sup>3</sup>

On September 10, after a suspension of traffic on account of submarines, new orders were issued, including certain general instructions, that vessels were to pass close to all headlands in the English Channel and that vessels from the Clyde, Irish Sea and Bristol Channel bound to Mediterranean and South Atlantic ports were to proceed along the south Irish coast as far as 9° west before turning to the southward.<sup>4</sup>

These were followed on September 22 by instructions based on a system of "divergent courses through a specified zone (or area)." Thus vessels bound to the North Atlantic from Clyde, Irish Sea and Bristol Channel were sent close along the south coast of Ireland and were to cross the 13th meridian between lat. 51° 30' N., and lat. 52° 30' N.<sup>5</sup>

In October 1916, it was found that the system of changing routes by means of long and elaborate telegrams was too clumsy, and it was decided to draw up and issue a table of routes from which appropriate routes might be selected to suit any particular occasion. The change did not come too soon, but it did little to help neutral vessels.

It was one of the weaknesses of the system that distinctions were drawn between various classes of vessels. Thus there were—

- (a) H.M. Ships proper.<sup>6</sup>
- (b) Merchant Fleet Auxiliaries and troop transports.
- (c) Vessels carrying Government stores.
- (d) Ordinary British and Merchant vessels.
- (e) Neutral vessels on White List.
- (f) Neutral vessels not on White List.

<sup>1</sup> H.S. 282/267, 313, 446.

<sup>2</sup> Instructions in force in October 1916, dated August 18 1916, are in C.I.O. 1462/1916 (with amendment C.I.O. 1572/16.)

<sup>3</sup> Control of Mercantile Movements, Technical History 30/101.

<sup>4</sup> Technical History 30/55.

<sup>5</sup> Technical History, 30/56.

<sup>6</sup> M. 0148/16 and A. L., February 23 1916.

These distinctions, designed rather to preserve a required degree of secrecy than to safeguard shipping as a whole, bore hardly on neutrals. "Valuable" ships, which included transports, oilers and ammunition ships, were met at pre-arranged rendezvous, and escorted in by destroyers from a flotilla based on Devonport for the purpose. This system was well established in 1916, and transports were escorted out to sea by the Devonport destroyers, who then proceeded to the rendezvous given to incoming ships and brought them in. It was the business of the Operations Division to arrange these rendezvous and issue route instructions for such ships, and a large proportion of their telegrams are concerned with them. Ships with Government cargoes for Liverpool were given a secret route and rendezvous about 170 miles west of Fastnet,<sup>1</sup> where they were met by Admiral Bayly's sloops from Queenstown, whose regular passage to and fro on this work constituted a sort of patrol of the Fastnet approach. In autumn, however, when the winter gales began to blow the rendezvous were shifted nearer the shore and two alternative routes were given for approaching Ireland and the Channel. Devonport (Vice-Admiral Sir George Warrender) and Queenstown (Vice-Admiral Sir Lewis Bayly) had not a single ship too many for this task.

On October 1 1916, Admiral Bayly reported that he had only 11 sloops; one was refitting and two had gone to "X" rendezvous to escort a valuable ship.<sup>2</sup> If more ships were to be met at rendezvous "X," he would not be able to meet ships on "D" route unless the patrols were given up. At Devonport there were no destroyers available to escort the *Calgarian*, due to leave Liverpool on October 3,<sup>3</sup> and the Commander-in-Chief, Portsmouth, was told to send one, and sent the *Lydiard*, which belonged to Commodore (T).

That the system of routing was not without its complications appears in two letters from the Commander-in-Chief, Devonport.<sup>4</sup> In one he pointed out that certain messages affecting homeward bound transports had not been communicated to him or to the Commander-in-Chief, Portsmouth, though it might be presumed that outward bound ships would follow the same route. In another he enclosed his printed Route Directions of October 12 1916, embodying five Admiralty orders issued since September 23,

<sup>1</sup> Rendezvous "X" (on southern approach) on July 5 1916, in 48° N., 9° W., H.S. 322/457; Rendezvous "C" (on northern approach) in lat. 55° 10' N., long. 13° W., on August 6 1916; Rendezvous "Y" in lat. 51° 30' N., long. 14° W.

<sup>2</sup> Tel. 1.10.16, 11.46 p.m. H.S. 282. In Auxiliary Patrol, Positions and Movements, October 1 1916, p. 22, the First Sloop Flotilla numbers 19, of which there are at Queenstown 14 (one repairing), at Gibraltar 2, refitting Tees 2, on passage 1.

Between September 28 and October 3 there were some 14 large ships with Government cargoes on their way across. H.S. 282/702, 710. On October 3, 3 ships were due at rendezvous "X." H.S. 283/364.

<sup>3</sup> H.S. 282/123, 208, 610.

<sup>4</sup> September 25 1916, and October 13, 1916, in M. 09038/16.

and asked to be informed if they were a correct interpretation of the Admiralty orders in force. They were certainly in a simpler form.

**127. Protection of Norwegian Shipping.**—The wind was blowing up from another quarter. On September 25, the Board of Trade in view of the Norwegian losses<sup>1</sup> asked if further assistance could be given in the way of route instructions to Norwegian shipping.

The Admiralty was prepared to assist with routes and advice, but could offer no hope of armed assistance as, anything of the sort would deprive neutrals of the shreds of security still hanging round their neutral status. Ten Norwegian ships were held up at Vardo, and the Commodore, White Sea, was told that Norwegian vessels would be advised to call at Hammerfest to communicate with the British Consul, who was to apply to the Commodore for advice. Routes were to be based on the principle of ships scattering, and leaving and making the coast during dark hours, but the routes given were to be clear of the routes followed by allied vessels, which were not to be compromised in any way.<sup>2</sup>

This policy of secrecy weighed heavily in the matter and the Admiralty was inclined to regard the dangers run by neutral vessels as inevitable on the grounds<sup>3</sup> that (a) they could not defend themselves, (b) they could not be given the full secret instructions for danger of leakage, (c) they could not be convoyed.

The Trade Division was stoutly opposed to convoy and proposed a patrolled route between the Shetlands and Norway, which the Chief of the War Staff pointed out would require at least ten vessels (20 miles apart) always at sea. He suggested instead, a system of controlled sailings on the same lines as the Dutch traffic, with vessels assembling and crossing on pre-arranged days. The correspondence continued through October and November, and towards the end of that month the Norwegian Legation was presented with some very general advice for Norwegian masters, including the somewhat comfortless recommendation that they should study closely the positions and times of sinkings of other Norwegian vessels.<sup>4</sup>

The issue was a large one. It involved complicated questions of re-insurance<sup>5</sup> and the introduction of a sound system of routing.

<sup>1</sup> Papers titled *Board of Trade*, September 25 1916. For August it stated the Norwegian losses as 9 ships of 9,916 gross tons, for September 1 to 15, 14 ships of 25,101 tons, total loss 20.9 million kronen.

<sup>2</sup> Tel. to Commodore, White Sea, October 15, 1602.

<sup>3</sup> A. L. November 20 to Ministry of Blockade. M. 09568 in idem, B. of T. September 25.

<sup>4</sup> Adty. to F.O., November 27 in M. 010124/16.

<sup>5</sup> Premiums in force were: East Coast of U.K. to North Coast France, 1.6 per cent.; to French Bay ports, 2 per cent.; Mediterranean, 3.2 per cent.; Archangel (not quoted); Bordeaux to Archangel, 6 per cent. The losses to Norwegian shipping between November 3 and November 23 amounted to £1,400,000, and there was a deficit of £2,000,000 in Norwegian insurance. Tel. Findlay to F.O., November 27, and F.O. to Rodd, Dec. 1, 5.30 p.m. in idem.

Both Trade Division and Operations Division were opposed to sending neutral vessels by a route used by British vessels,<sup>1</sup> but the proposal for controlled sailings took shape, and on December 3 the Commander-in-Chief, Grand Fleet, submitted proposals by which Norwegian vessels were to be met by armed trawlers at a rendezvous 60° 30' N., 0° 30' E. (130 miles from the Norwegian coast and 50 miles from Lerwick). For eastbound traffic a 50 mile stretch from Lerwick could be crossed during the day under escort and the traffic would pass the remaining 130 mile stretch during dark hours, reaching the Norwegian coast at dawn. Similarly, the westbound traffic would arrive at the rendezvous at daylight and do the daylight stretch to Lerwick under escort. This was the beginning of the Norwegian Convoy.

**128. The Question of Merchant Tonnage.**—In February 1916, the number of British and Allied ships over 100 tons gross was 12,151, of 25·221 million tons gross.

The figures were (of ships of 100 tons and upwards gross) :—

	<i>Number of Ships.</i>	<i>Tons, Million.</i>
United Kingdom .. .. .	8,472	18·924
Belgium .. .. .	145	·245
France .. .. .	993	1·851
Italy .. .. .	653	1·531
Japan .. .. .	1,146	1·801
Russia .. .. .	742	·867
<b>Total .. .. .</b>	<b>12,151</b>	<b>25·221</b>

The actual loss since the beginning of the war had been 601 ships and 1,652,000 tons. The net loss, however, was only 121 ships, and in tonnage there was an actual net increase of 75,000 tons. The figures for interned vessels and prizes and for new construction were :—

Enemy interned vessels and prizes (British, French, Russian, Italian and Portuguese) .. .. .	1,414,000 tons.
New construction, 1914, 1·948 .. .. .	} 2,709,000 tons.
" " 1915, ·761 .. .. .	

Partly by new construction and partly by the employment of prizes and interned ships the shipping position had been maintained.<sup>2</sup>

But during 1916 the scale began to turn. The figures for British ships in September 1916, compared with July 1914, were :—

*British Ships Available.*

	<i>Number.</i>	<i>Tons, Million.</i>
July 1914 .. .. .	3,888	16·841 tons gross.
September 1915 .. .. .	3,873	17·016 " "
September 18 1916 .. .. .	3,642	16·255 " "

<sup>1</sup> D.O.D. 7.12.16 in idem.

<sup>2</sup> Memo. on Merchant Shipping, March 3 1916.

and the Transport Department figures for September 30 1916 showed, of ships of 1,600 gross tons and over, only 3,536 ships. Of these there were—

Requisitioned for naval and military purposes and for Allied Governments .. .. .	1,123, or 31·76 per cent.
Under direct control for specified purposes .. .. .	759, or 21·46 per cent.
Free to trade .. .. .	1,654, or 46·78 per cent.

In April 1916, the War Committee had decided that the Admiralty and the War Office should reduce their requirements by 200 ships, but this had not been done. The Director of Transport estimated that, in 1917, 54 ships would be required for Salonica; 100 additional steamers had been allotted to Russia (April 25), and finally, the failure of the American wheat harvest would mean longer routes for wheat and would require 82 additional ships in 1917.<sup>1</sup> Our shipbuilding was not keeping pace with losses. Our demands did not diminish. We were becoming more and more dependent on neutral shipping. Everywhere the clouds were gathering, and the Germans were fully alive to this aspect of the situation and were determined to drive it home.

**129. German Policy.**—The conference at Pless on August 31 had decided that the decision on the vexed question of unrestricted warfare was to be left to Hindenburg. The Chancellor seems to have interpreted this as meaning that Hindenburg would merely state that the time had come, leaving the actual order on the momentous issue to be given by himself and the Kaiser. He was thunderstruck, therefore, when Admiral Holtzendorff, Chief of the Admiral Staff, informed him on October 1 that the General Staff had advised him to begin unrestricted warfare on October 18, and to issue the order on October 10. He appealed at once to the Kaiser, and Hindenburg sent a polite note to say that he regretted the mistake. On October 5 Hindenburg sent another to say that he had understood from the discussions at Pless that the decision was to rest with the High Command, and would be grateful if the Chancellor would favour him with his view. The Chancellor replied that this was not what he had said, and that the final decision on a matter closely involving relations with foreign powers could not be taken without consulting the Chancellor. Meanwhile, the Admiral Staff had been busy bringing their array of figures up to date. England's wheat harvest for 1916 was stated to be only 6 million quarters, against 8·7 million in 1915; the harvest of Canada and the United States was estimated at 21½ million tons against 37½ million in 1915. The collapse of England was promised within six months. In vain Helfferich tried to stem the rising tide. He argued that the strength of British obstinacy and power of organisation had found

<sup>1</sup> From Memo. Board of Trade, October 24 1916.

no place in their calculations. It meant war with the United States. It was the last card, and, if it did not win, the game was lost. The Chancellor had barely sent his answer to Hindenburg, when the Centre Party, which controlled the Reichstag, passed a resolution on October 7, advising that the Chancellor's decision should be based on that of the High Command, and if the latter decided for unrestricted warfare, the Chancellor could be certain of the Reichstag's support.<sup>1</sup> The Chancellor felt the great Centre Party slipping away from him. He decided to approach President Wilson with overtures of peace and received the Kaiser's approval for this step (October 20).

**130. Scheer's Attitude.**—The very day that the Centre Party passed this resolution (October 7) Admiral Scheer received an order to resume restricted or cruiser warfare in British waters. He had been bitterly opposed to it, and had resisted the strivings of the Chief of the Admiral Staff in this direction. Admiral von Müller, who as Chief of the Marine Kabinet attended on the Kaiser, had sent a letter on June 23<sup>2</sup> urging him to abandon his policy of everything or nothing. In his opinion the naval Commander-in-Chief should help the Chief of the Staff to arrive at a compromise between the harsh professional conception of the weapon<sup>3</sup> and the general, political and military requirements to be met by the Chief of the Staff. It was necessary that the Commander-in-Chief should accept the decisions of the All-Highest with regard to the limitation of submarine warfare, as the outcome of the most serious consideration of the military, political and economic situation. "What I ask of you is this—that you set to work personally to establish an understanding with the Chief of the Admiral Staff aiming at a positive result, and so put an end to a situation in which His Majesty, instead of merely attaching his approval, may have to issue orders, such as that so many submarines are to be detached to the Mediterranean as a more promising field."

Admiral Scheer clung to his ideas. He believed that the submarine should be used as a sword of victory, whereas, as his Chief of Staff, Captain von Trotha, put it, it was used merely to gull the nation, while its blunt edge was directed to the enemy. In the Mediterranean, however, restricted warfare had been carried on with considerable success, and in September the Flanders boats had renewed their campaign. The losses of neutrals rose suddenly in that month. Taking the figures of neutral losses on April 1916 as equivalent to 100 (neutral losses 17 ships, 21,623 tons), the losses in May were 70, June 39, July 19.5, August 138, and in September 320. It was on these grounds that the Army Command decided in favour of restricted warfare and a definite order was issued to resume it in British waters and to send four submarines to the Mediterranean. Admiral Scheer saw no hope of

<sup>1</sup> Helfferich 2/390.

<sup>2</sup> Germany's High Sea Fleet 243; Hochseeflotte 344.

<sup>3</sup> "eine Verständigung zwischen der schroffen Zunftauffassung."

pursuing his policy in face of a definite order and against the pronouncement of the Army Command. He could recount no striking success achieved by the Fleet in conjunction with submarines, and, in face of the successes against neutrals<sup>1</sup> and in the Mediterranean, could no longer be responsible for postponing the attack on British trade, which had been suspended since April.<sup>2</sup>

The suspension had, indeed, been only partial, and extended no further than the months of May, June and July. In August a dead set had been made at Italian shipping in the Mediterranean, and 48 Italian ships, of 55,700 tons, had been sunk. In September the attacks on neutrals had been redoubled, and 41 neutral ships<sup>3</sup> (69,486 tons) had been put down. The total losses (Allied and neutral) had risen steeply in that month,<sup>4</sup> and it was this success, obtained under conditions of cruiser warfare, which culminated in the issue of orders to Scheer to resume it. The British Admiralty attributed the large proportion of neutral tonnage sunk (35.8 per cent.) to the fact that neutral merchant ships were unarmed, their coasts were unprotected, and their merchant captains could not be given the Admiralty prescribed routes. Admiral Jellicoe now took the matter up.

**131. Conference, Commander-in-Chief, October 12.**—On October 12 the Commander-in-Chief and 3rd Sea Lord met at a conference on board the *Iron Duke*. Proposals for better above-water protection for the new battle cruisers were put forward. The 3rd Sea Lord gave particulars of the new "V." class of destroyers, which were to be 300 ft. long and carry four 4-in. guns; the 12-pdr. armament of the new sloops (*Aubretia* class) was discussed and the Commander-in-Chief pronounced himself in favour of 4-in. guns. The 3rd Sea Lord stated that no surface minelayers were being built, and only three submarines were being fitted as minelayers. The Commander-in-Chief asked for six and for destroyer minelayers. The question of seaplane carriers and the design of submarines was considered. Finally, the Commander-in-Chief placed great stress on the growing power of the German submarine. He pointed out that the continual increase in their numbers, activity and radius of action constituted a great and increasing menace to our sea supremacy, and especially to our food supplies; that in open waters small craft in the shape of destroyers, sloops, yachts and trawlers were powerless against the oversea submarines, having neither the seakeeping qualities nor

<sup>1</sup> Scheer does not mention neutrals in his book. In September 1916, of 206,184 tons (British, Allied and Neutral) sunk by submarines, 42,663, or 20.2 per cent., was Norwegian. Losses in the Mediterranean were 103,276 tons, or 50 per cent.

<sup>2</sup> Hochseeflotte 275.

<sup>3</sup> Including 27 Norwegian, of 43,785 tons.

<sup>4</sup> Taking April 1916 (162,466 tons) as 100, the total losses in merchant ships were May, 59.6; June, 55.5; July, 61.3; August, 93; September, 127.



the fuel endurance to cope with them.<sup>1</sup> He urged that we should concentrate all the scientific resources of the country on this problem, and followed up his remarks a fortnight later with a letter which was to become the starting point of a great scheme of reorganisation.

**132. German Sortie of October 19.**—The calm which had reigned for some weeks in the North Sea was broken in the middle of the month. A sortie, planned in September on the same lines as that of August, had been prevented by the weather. Meanwhile orders had gone out for the resumption of restricted submarine warfare (cruiser warfare), and Scheer no longer had submarines available for fleet work. "Lacking submarines," he says, "I was forced to adopt a different scheme, and instead of making for the English coast and luring the enemy on to our line of submarines before the actual battle took place, I had to make a wide sweeping advance with torpedo craft to take stock of merchant traffic, and to capture prizes, with the fleet following up to support the light craft."<sup>2</sup>

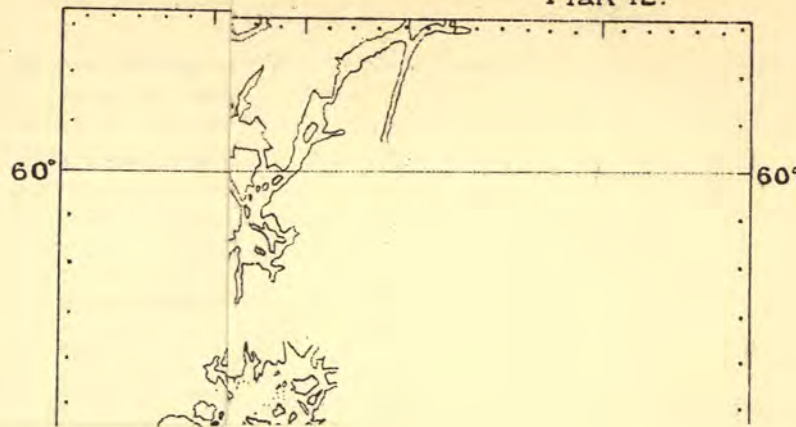
The sortie was, therefore, of the nature of a sweep against commerce, and reports of the sailings of merchant ships were collected and issued for the purpose. It was known that the Wilson liner *Harrogate* was leaving Bergen for Hull on October 18 with a cargo of zinc. A Swedish steamer, the *Anund*, was reported to be leaving Gothenburg for England the same day with a cargo of iron, and two more Swedes were said to be leaving the same port the next day.

All was ready. Orders were given for the fleet to hold on if any ship struck a mine, and it put to sea by "Way Middle" shortly after midnight. It steered west for the southern end of Dogger Bank, and at dawn on October 19 was some 55 miles north of Terschelling. Though Scheer had no submarines, he still had his airships,<sup>3</sup> and ten of them were spread ahead of the fleet in a wide semi-circle across the Bight. Two of them, *L.21* and *L.23*, returned early with breakdowns, but the remainder stayed out till the afternoon of October 19.<sup>4</sup>

**133. Admiralty Instructions.**—Scheer had signalled at 5.30 p.m. on October 18 his intention to carry out an operation. This was received at Whitehall, and at 7.46 p.m. the Grand Fleet was ordered to be at short notice.<sup>5</sup>

The order was received by Admiral Burney, for the Commander-in-Chief was on his way south at the time in the *Iron Duke* to confer with Admiral Beatty and Admiral Lowry at Rosyth. Four hours passed, further signals confirmed the first, and at

Plan 12.



<sup>1</sup> H.S. 141/149, Conference of October 12, C.-in-C. to Admiralty, 14.10.16.

<sup>2</sup> Hochseeflotte, 187.

<sup>3</sup> From N.E. to S.W., *L.17*, *L.24*, *L.21*, *L.22*, *L.23*, *L.34*, *L.14*, *L.13*.

<sup>4</sup> I.D. 3021.

<sup>5</sup> Adty. to C.-in-C. 2005: "German Fleet shows signs of moving."



**OCT 19. 1916.**

**HIGH SEA FLEET SORTIE.**

From Scheer's Hoch see flotte. Karte 6.

British Submarines from H.S.A 272 and H.S. 285.

E 38's patrol 54° 15' to 54° 25' 5° E to 5° 40' E

H.S.A 272/367.

11.30 p.m. orders went out to Commodore (T), Rear-Admiral, East Coast, at Immingham, and the Vice-Admiral, 3rd Battle Squadron in the Thames to prepare for a naval raid south.<sup>1</sup>

The Admiral, East Coast, was told to recall all auxiliary patrol vessels and minesweepers by the secret word and to have submarines off the ports in his command at dawn. Captain (S) Tees was to have his submarines off the harbour by dawn awaiting orders; but in accordance with the policy laid down in the Memo. of September 23, the Grand Fleet did not move.<sup>2</sup>

Commodore (S) was told to spread three submarines off the Texel 330° from a position 53° N. 4° E., 15 miles apart, and *E.23*, *E.54* and *H.9* left at midnight for this task. His remaining submarines were in two groups, one of two submarines with the *Melampus* and a second group of three with Commodore (S) in the *Lurcher*.<sup>3</sup>

The Harwich force was to rendezvous off the North Hinder. It left at 1 a.m., consisting of the *Centaur* and 6 light cruisers, the *Nimrod* and 14 destroyers.<sup>4</sup> The German intentions were not known.

**134. E.38 Torpedoes the "München."**—A British submarine was again to take toll of Scheer's fleet on its way out. There were four Harwich submarines, *E.38*, *H.7*, *V.2* and *E.30*, at the time patrolling off the Dutch coast, and three Blyth submarines, *J.6*, *G.1* and *G.3*, patrolling off Horn Reefs.<sup>5</sup>

*E.38* (Lieutenant-Commander John de B. Jessop) had been there since October 13, and on the morning of October 19 at 6.22 a.m. was some 50 miles north of Terschelling,<sup>6</sup> when he sighted the funnels and masts of heavy ships to the eastward, altered course north and speeded up to attack. (Plan 12.)

They soon appeared as five battle cruisers steering to the westward and zigzagging in single line ahead, with a destroyer screen. At 6.40 a.m. they turned to the north-west and passed out of range. Lieutenant-Commander Jessop altered course to west and at 6.50 sighted light cruisers coming from the eastward. Two destroyers were zigzagging ahead; *E.38* passed one, as it zigzagged to the southward, and turned to port to fire the port beam tube. But just as the helm was put over, the port motor stopped and the periscope dipped. There was just time to fire the bow tubes (7.3 a.m.) as the sights came on at 600 yards but the shots missed. This revealed his presence and when he came cautiously up at 7.20 a.m. destroyers were careering about in

<sup>1</sup> For the detailed arrangements for a naval raid south, see M. 00144/16.

<sup>2</sup> Adty. 2330, "Grand Fleet, no action yet," H.S. 451.

<sup>3</sup> Adty. to Com. (S) October 18, 2322, H.S. 285/18, H.S.A. 272/413.

<sup>4</sup> Eight destroyers had been sent to the 3rd B.S. in the Thames.

<sup>5</sup> *E.38* from 54° 15' to 54° 25' N., 5° to 5° 30' E.; *H.7* in 53° 45' to 54° N., 5° to 5° 45' E.; *V.2* in 53° 30' to 53° 45' N., 4° to 4° 50' E. H.S. 383/197; *E.30* in 53° 30' to 53° 15' N., 4° to 4° 45' E; H.S.A. 272/390.

<sup>6</sup> 54° 20' N., 5° 14' E.

search of him. At 7.27 a.m. the main body was coming up and he could count 11 battleships and several destroyers, but his efforts to reach them failed and they passed out of sight at 7.50 a.m. standing to the south-west. Ten minutes later (8 a.m.) a three-funnelled cruiser appeared to the north-east zigzagging with four destroyers. Lieutenant-Commander Jessop, nothing daunted, turned north-west to attack her, and at 8.43 a.m. fired both foremost tubes one point before the port beam at 1,300 yards. As the submarine went down the dull roar of a detonation could be heard. By this time *E.38*'s batteries were almost exhausted and she could not follow. The light cruiser was the *München*.<sup>1</sup> She was able to go 7 knots and reached harbour later in tow of the *Berlin*. As the latter came up from the south-west, *E.38* attacked her, and at 10.16 a.m., fired a stern tube torpedo at her at 3,000 yards. It missed and she passed out of range.<sup>2</sup> The tracks of these five torpedoes and the damage to the *München* probably cooled Scheer's ardour. By 8.20 a.m. he had reached a position in 54° 18' N., 4° 55' E.,<sup>3</sup> and turned to the southward for a time when the *München*'s report came in, then held on to the westward for a couple of hours. The weather was bad, the destroyers found it difficult to keep up and he turned home and, avoiding the area where the *München* had been hit, proceeded in by Horn Reefs channel. None of his ships were seen by *H.7*, *V.2* or *E.30*, which were working to the south-westward of *E.38*, but on his way in he skirted the edge of the Blyth submarines' patrol off Horn Reefs. At 5.11 p.m. directionals placed him in 55° 11' N., 5° 53' E., steering almost due east, and at 7.15 p.m., *G.3* had to dive for three of his destroyers coming down on a southerly course.

**135. British Movements, October 19.**—On the British side day had dawned without any report from the coast. The Commander-in-Chief had arrived at Rosyth at 7 a.m. No further orders had come from the Admiralty and the Commander-in-Chief sent a telegram suggesting that the Grand Fleet could not concentrate before dark unless it sailed by 8 a.m.<sup>4</sup>

The Admiralty was following the new policy laid down in September. At 9 a.m. they sent the Commander-in-Chief the position of the German flagship by directionals at 8 a.m.<sup>5</sup> and at 9.20 a.m. ordered Commodore (T) to scout north to 53° 30' N.,

<sup>1</sup> The I.D. records gave it at first as the *Stettin*. The *München* was paid off on March, 1917, and her crew turned over to the new light cruiser, *Karlsruhe*. T.S.D.D.

<sup>2</sup> For Lieut.-Comdr. Jessop's report, October 22, see Comm. (S) H.S.A. 272/368.

<sup>3</sup> A position by directional, 54° 15' N., 3° 51' E. at 8 a.m., was sent to the C.-in-C. at 9 a.m. This was incorrect, probably due to lack of practice in continuous wave directionals. It was corrected by the above 8.20 a.m. position sent to C.-in-C. at 12.40 p.m.

<sup>4</sup> H.S. 285/99, H.S. 284/63.

<sup>5</sup> 54° 5' N., 3° 57' E. This was not correct.

3° 30' E.<sup>1</sup> At 9.30 a.m. a reply was sent to the Commander-in-Chief, "It appears probable that enemy will be off East Coast of England port before nightfall with darkness to return. In this case, Grand Fleet cannot intercept. Another contingency is enemy going north to stop concentration. Rosyth ships should sail at ebb to ensure enemy not getting out to northward. Report your submarine disposition."<sup>2</sup>

At 9.40 a.m., Captain (S) in the *Lurcher* was ordered to proceed with his group of submarines to lat. 52° 50' N., long. 3° E., and await orders.<sup>3</sup> The Commander-in-Chief reported his submarine disposition at 12.6 p.m. The 10th Submarine Flotilla was spread off the Tyne on a line 152° from 55° N., 0° 50' W., ten miles apart, with the *Medea* and *Termagant* in company. The 11th Submarine Flotilla was to eastward of it. It had been ordered to spread 180° from lat. 55° N. long. 0°, but the telegram went to S.N.O., Leith, instead of to Blyth and the submarines<sup>4</sup> did not get away till 12.45 p.m. The Commander-in-Chief suggested that the German intention might be to draw the fleet to the south and west so as to leave a path clear for raiders to break out. To deal with anything of the sort he held the *Weymouth* and *Melbourne* and the ships of the 2nd Cruiser Squadron ready to sail in order to cover the probable course of the raiders' exit.<sup>5</sup>

Their instructions<sup>6</sup> were to rendezvous at 6.30 a.m. on October 20, in lat. 59° 50' N., 2° 30' E. They were then to spread on a line between the Shetlands and Norway from 59° 30' N., 1° E., to lat. 60° N., long. 4° 20' E., and sweep 155° at 17 knots.<sup>7</sup> They sailed at 3 p.m., and at 12.6 p.m. the Admiralty cancelled the orders for the Rosyth force to sail.

**136. Harwich Force.**—The Harwich Force had sailed at 1 a.m. It consisted of the *Centaur* and 6 light cruisers, the *Nimrod* and 14 destroyers. It made for the North Hinder,<sup>8</sup> and at 7.20 a.m. Commodore (T) detached half his force to cruise 5 to 10 miles west of it, while the *Centaur* and the other half cruised to the east of it.

When the German position at 8.20 a.m.<sup>9</sup> came in, Commodore (T) was ordered at 9.20 a.m. to scout to the northward to a position some 70 miles south-west of the German Fleet,<sup>10</sup> and stationing

<sup>1</sup> H.S. 285/90.

<sup>2</sup> H.S. 451, October 19.

<sup>3</sup> H.S. 285/95, Adty. to Capt. (S) 0940.

<sup>4</sup> *G.5*, *J.1*, *J.2*, and *J.3*. H.S. 285/149, 197, 239.

<sup>5</sup> H.S. 285/130.

<sup>6</sup> *Minotaur* and *Achilles* with four destroyers from Cromarty, and *Weymouth* and *Melbourne* with two Scapa destroyers. H.S. 285/237, 257.

<sup>7</sup> For their instructions see C.-in-C. to Adty., October 19, 1435, H.S. 285/237. They were recalled on October 20. H.S. 285/430.

<sup>8</sup> Lat. 52° 5' N., long. 2° 40' E.

<sup>9</sup> Lat. 54° 18' N., 4° 55' E.

<sup>10</sup> Lat. 53° 30' N., long. 3° 30' E. Comm. (T) Diary gives the position as 54° 30' N., 3° 38' E.; received 9.55 a.m., H.S. 246/231.

the *Canterbury* and *Carysfort* 5 miles on each beam of the *Centaur* he steered N. 30 E. at 22 knots, ordering the detached part of his force to follow at 18 knots. Three Zeppelins were sighted at 12.30 p.m., and one of them reported Tyrwhitt's force quarter of an hour later.<sup>1</sup> At 2 p.m. the wind was blowing strong with a heavy rising sea. Scheer had made a signal at 1.51 p.m. ordering all airships to proceed in,<sup>2</sup> and at 3.54 Commodore (T) received a signal to return.

By 5 p.m. the German Fleet was on its way back, making a bee line for Horn Reefs. Thus ended the sortie of October 19 1916, the last sortie of the German Fleet for many a long day, and noteworthy on the British side as being the first time that the principles enunciated in the Memo. of September 23 were put in force.

**137. Air Reconnaissance for C.M.B. Attack.**—On October 22, an air reconnaissance was made as the forerunner of a coastal motor boat attack which did not itself materialise. During August Captain Hubert Lynes had reported that 12 coastal motor boats had arrived at Queensborough and would be ready for service on August 9. They had been built to attack capital ships at anchor in Schillig Roads and to assist, too, in defending the Thames Estuary from an enemy raid. Plans for an attack on Schillig Roads had been prepared some time before and on August 22, Commodore (T) was told to revise them.<sup>3</sup> His plan was to take the twelve boats (two of which could be carried in each light cruiser, though they could not be turned in when hoisted and were liable to be damaged or lost if caught in a gale) to a position in the Bight in lat. 54° 23' N., 7° 33' E., which would leave them a run of 50 miles to their objective, but as they would have to cross the Mellum Flats, it was thought advisable to reconnoitre the Schillig Roads at first from the air. Commodore (T) submitted his plan on August 11. The reconnaissance was to be carried out by a single seaplane and the Harwich Force. The 5th Light Cruiser Squadron screened by two destroyer divisions was to proceed from "K" Channel<sup>4</sup> through a position A in lat. 54° 16' N., long. 4° 18' E., so as to arrive at a position B in lat. 54° 20' N., long. 6° 20' E., by 7 a.m. Destroyers were to be stationed to guide the seaplane. The destroyers of the 3rd Division were to proceed to Terschelling Lightvessel and spread 20 miles apart between it and position B, making smoke for one minute at intervals of ten minutes and, when the seaplane passed, were to follow it to position B. The light cruiser force was to refuel the seaplane, meet the destroyers and remain near Terschelling Lightvessel. The destroyers of the 4th Division were to be stationed 25 miles apart between the Shipwash and a position C, 3 miles

<sup>1</sup> I.D. War Diary, October 19, 12.25 p.m.

<sup>2</sup> I.D. War Diary.

<sup>3</sup> H.S. 258/606.

<sup>4</sup> The swept channel through the Southwold area.

north west of Terschelling Lightvessel,<sup>1</sup> making smoke every quarter of an hour between 3 a.m. and 6 a.m. and between noon and 3 p.m. The *Vindex* was to go with the light cruisers to deal with Zeppelins. The Admiralty pointed out that the line between position B and Terschelling light fouled a minefield,<sup>2</sup> and position B was altered to 54° 24' N., 6° 25' E. The *Lightfoot* and her destroyers came down from Immingham on August 18 to take part in the operation.<sup>3</sup> August 19, however, intervened and it was not till September 22 that Commodore (T) asked permission to proceed with it, but German forces were moving in the Bight at the time and the Admiralty withheld consent. At last in the evening of September 28, the Harwich force sailed to carry it out. The *Aurora* and a destroyer division had left to intercept the German steamers *Adolph Woermann* and *Rhenanda* off the Hook of Holland, but the steamers had sailed and they were recalled.<sup>4</sup> They joined up with Commodore (T)'s force about 8 p.m. The seaplane started at 6.15 a.m. (Sept. 29) the next morning but the weather was bad and Commodore (T) at 7 a.m. ordered the two light cruisers and three destroyers to run down her route and turn her back. They missed her, and at 10.15 a.m. she reached the rendezvous near Terschelling. Ordered to return she landed near the *Landrail* to refuel, but the destroyer, while taking her in tow, collided with her and smashed her port wing. She could not fly and the *Landrail* took her in tow. The lines parted. The *Lightfoot* took her in tow again, but the line parted four times and about midnight the plane collapsed and sank near the Sunk Lightvessel.<sup>5</sup>

A final attempt at reconnaissance was made on October 22. This time the *Vindex's* seaplanes were to be used. The *Centaur*, *Carysfort*, *Conquest*, *Canterbury*, *Penelope*, *Vindex*, and 13 destroyers left Harwich in the afternoon of October 21. They arrived in lat. 54° 24' N., long. 6° 26' E. (70 miles from the Jade) at 5.30 a.m. (October 22). The *Vindex* stopped and hoisted out two seaplanes. She then made for the Humber, escorted by two destroyers, and the Harwich Force steamed north-west with the light cruisers spread 3 miles apart. The two seaplanes that went up were No. 9757 (Flight Commander Harold T. Fowler) and Short seaplane No. 9760 (Flight Lieutenant T. N. Halsted, with Lieutenant Childers, R.N.V.R., as an observer). No. 9757 got away at 5.45 a.m., but an hour later entered a fog bank and, at 7.32, came down about 15 miles off Heligoland to consult with his observer. He made another attempt and picked up Heligoland at 7.45 a.m., but could not distinguish any ships and returned and

<sup>1</sup> H.S.A. 287/772.

<sup>2</sup> H.S.A. 256/717. Amended orders in M. 00132/16. The line passes through the field laid by the *Princess Margaret* on May 3 1916. Monograph H.W.VI s.160.

<sup>3</sup> H.S. 246/113.

<sup>4</sup> H.S.A. 287/784.

<sup>5</sup> Report in M. 08657/16.

landed by the *Centaur* at 9.5 a.m.<sup>1</sup> Short seaplane 9760 got away at 5.56 and, steering to strike Wangeroo, was carried by an easterly drift over Norderney at 7 a.m. and steered eastward. A dense fog hung over the water, which showed no sign of lifting. Proceeding north-west, Heligoland was sighted at 8.15 a.m., but only a few small craft could be seen. Two planes rose from the harbour and gave chase. At 8.37 a.m. 10 enemy destroyers were seen steering south-easterly. At 9.30 a.m. she came down by the *Conquest* and was picked up. A Zeppelin and a Taube were coming up in pursuit and were driven off by the cruiser's guns, and at 9.40 a.m. the squadron proceeded west.

On the German side the planes were reported from Norderney at 5.32 a.m., and the order was given for "Air action, Norderney."<sup>2</sup> A thick fog hung over part of the Bight, but reports of the British planes came in from time to time. At 8.33 a.m. the German Commander-in-Chief ordered special readiness and at 9.41 a.m. postponed an impending operation<sup>3</sup> and ordered all forces to be placed under the Admiral, Commanding the 1st Squadron, to repel an attack. By 10.11 a.m. all airships were up and at 10.29 the capital ships of the Scouting Groups and 1st Division began to move out.<sup>4</sup> *L.17* had gained touch with the Harwich Force by this time and at 11.25 a.m. Commodore Tyrwhitt was ordered<sup>5</sup> to return immediately though *L.17* maintained touch till 1.33 p.m., when she lost sight of him.<sup>6</sup> The operation, both on the naval and air side, had been carried out without a hitch, but the reconnaissance had been spoilt by fog. Bad weather had also interfered with a rehearsal<sup>7</sup> of the coastal motor boat attack and the further execution of the plan remained in abeyance till 1918.<sup>8</sup>

**138. German Activity, October 23.**—On the evening of October 23, the 3rd and 9th Flotillas started for Zeebrugge and the German Fleet moved out to help them on their way. This operation, which had been postponed on October 22 on account of the *Vindex* air attack, was resumed at 9.46 a.m. on October 23, when the 1st Battle Squadron, the 1st and 2nd Scouting Groups were warned to prepare for it, and the 1st Scouting Group ordered measures middle<sup>9</sup> from 2 p.m. This started the ball rolling and at 1.28 p.m. the Admiralty warned the Commander-in-Chief that the German 1st Battle Squadron, 1st Scouting Group and 2nd Scouting Group, and destroyers appeared to be sailing, and

<sup>1</sup> H.S.A. 287/818.

<sup>2</sup> Luftsperr.

<sup>3</sup> Possibly in connection with the support of the T.B. Flotillas, which were to go to Flanders that day.

<sup>4</sup> I.D. War Diary, October, 1916.

<sup>5</sup> Received 11.55 a.m., H.S.A. 287/812.

<sup>6</sup> In 54° 15' N., 4° E.

<sup>7</sup> For September 9.

<sup>8</sup> For the Orders of the Harwich Force and Reports of Seaplanes, see Harwich Force War Records H.S.A. 227/801.

<sup>9</sup> i.e., mark boats and lights on the Middle Channel. They could not be ready till 4.30 p.m., as Heligoland only received the order at 11 a.m.

the Grand Fleet should be at short notice by midnight.<sup>1</sup> *U.53*, on her way back from America, was located in the Atlantic almost at the same time in 58° 8' N., 9° 18' W., steering 53°, and this news went on to the Commander-in-Chief at 1.35 p.m.

Captain (S) Harwich was told at 1.40 p.m. to send a submarine at once to lat. 53.45 N., long. 3° 30' E., and another to 53° 20' N., 3° 30' E., and *E.35* and *E.54* were off on this mission by 4 p.m. Captain (S) Blyth was told at 5.15 p.m. to send two of his submarines to spread on a line 360° from lat. 54° 10' N., long. 3° E. by daylight,<sup>2</sup> which made up a force of four submarines in a position half-way across the North Sea, between Flamborough Head and the Wash. At 5 p.m. the German flagship took over control and the usual series of orders followed rapidly on the British side. All patrol vessels were recalled by the secret word; the Vice-Admiral, Dover, was told to recall the Belgian coast patrol; at 6.31 p.m. the word went out to Commodore (T) to rendezvous east of North Hinder, and at 6.40 p.m. the order went out to the East Coast to prepare for naval raid south.<sup>3</sup> Submarines were to be outside the ports before daylight, air scouts were to be up, and the Rear-Admiral, Immingham, was told to place one submarine off Flamborough Head and Scarborough.

Commodore (T) was off by 10.30 p.m. with the *Centaur* and six light cruisers, the *Lightfoot*, *Nimrod* and 14 destroyers.<sup>4</sup> The submarines of the 10th and 11th Flotillas were told at 10.48 p.m. to spread on a line 145° from lat. 55° N., long. 0° 52' W. by daylight, and four submarines, with the *Termagant* and *Medea*, left the *Lucia* at 2 a.m. to spread in that position 8 miles apart.<sup>5</sup> At 11.15 p.m. came a signal from the Admiral Commanding, 1st Battle Squadron, to say that the fog was too thick for leaving Scapa. Captain (S) left with the *Lurcher*, *Melampus*, and four submarines (*E.31*, *E.53*, *E.55*, *E.56*) shortly after midnight.<sup>6</sup> The night wore on. No reports came in. At 5.15 a.m. Commodore (T) was cruising off the North Hinder<sup>7</sup> between 52° N. and 52° 25' N. when a message went out to him to say that German destroyers were off the Maas at 2 a.m. They were the two German flotillas on their way to Zeebrugge. Aircraft were up and one of them reported six enemy battle cruisers off the Cross Sand, which turned out to be paddlesweepers. Commodore (T) was told to return at 8.50 a.m. At 9 a.m. the order was given to resume normal conditions and information was sent to the Commander-in-Chief, Dover, the

<sup>1</sup> H.S. 451.

<sup>2</sup> H.S. 286/110, 147, 173.

<sup>3</sup> H.S. 286/181, 189, 195, 196. H.S. 451. For Naval Raid South, see M. 00144/16.

<sup>4</sup> H.S. 286/274.

<sup>5</sup> H.S. 286/331.

<sup>6</sup> For Group 2. No submarines available for Group 1. H.S. 286/993. At 12.35 a.m., Lowestoft sent a message in auxiliary code to *P.22* to tell all vessels to return to harbour at once, but there is nothing to show that the Germans took it in.

<sup>7</sup> 52° 5' N., 2° 40' E.

Nore and Commodore (T) that a destroyer force, believed to be one flotilla, had reached Belgium during the night. The German squadrons had proceeded in at 2.47 a.m.<sup>1</sup>

139. **German Submarines—Channel, October 20–31.**—On the night of October 19–20, *U.B.18* and three other submarines entered the Channel, and another followed the next night. Of these probably three worked off the Lizard and Scillies, one off the Brittany coast and one off Ushant. *U.B.18* ran down mid-Channel sinking three small British ships on October 20 on her way down—the *Duke* (376 tons), the *Marchioness* (553 tons), and the *Cliburn* (440 tons). The s.s. *Duke* was on the way from Rouen to Newhaven in ballast, when she was stopped and sunk 40 miles N.N.E. of Cape Le Heve at 9.15 a.m. She had put to sea between 3 and 4 a.m. in spite of orders that transports were not to sail till after dark. The British s.s. *Marchioness*, bound with 650 tons from Glasgow to Fécamp, was stopped at 2.30 p.m. 30 miles N.E. of Fécamp. No ship was in sight and she was sunk. Her boats were picked up by a Norwegian steamer and the crew arrived at Dover the next day. The British s.s. *Cliburn* was on her way from Swansea to Honfleur with 493 tons of coal, when she was stopped at 4.10 p.m. on October 20 and sunk 30 miles S.S.E. of St. Catherine's Point. The boats were picked up at 8.30 p.m. by a Norwegian ship and the crew was landed at Cardiff on Oct. 22.

*U.B.18* appeared again off the Casquets on October 21 and sank four ships during the forenoon—the Norwegian s.s. *Fulvio* (300 tons), the Norwegian s.s. *Rabbi* (875 tons), the French s.s. *Condor* (759 tons), and the French sailing vessel *Brizeux* (2,197 tons). The *Fulvio* was on her way from Barry to Honfleur with 256 tons of coal, going 8½ knots, when she was stopped at 7.30 a.m. 12 miles N.N.W. of the Casquets. The only vessel in sight was another merchant ship and the ship was sunk at 8.15 a.m. The crew were picked up by an armed yacht, *Vanadis*, from Portland, and were brought to Weymouth in a trawler. Within an hour the submarine overhauled a Norwegian s.s. *Rabbi* (875 tons) and the French sailing vessel *Condor* (759 tons), and sank them both. Two hours later (10.50 a.m.) the French sailing vessel *Brizeux* (2,197 tons) came in sight on her way from Havre to Buenos Aires in ballast, 12 miles N.N.W. of the Casquets, and met the same fate. A Norwegian ship, the *Tempo*, was stopped and in danger of being sunk when a large ship coming from the westward opened fire on the submarine. This was the British s.s. *Matiana* (5,313 tons) from Bombay to London. She was armed and making to the south-west at 11 knots, engaged the submarine, which abandoned the chase and submerged.

The report of the sinking of the *Cliburn* (October 20) reached the Admiralty at 9.46 a.m. on October 21. A signal from the *Matiana* that she was being chased came in from Devonport at

<sup>1</sup> H.S. 286/361, 374, 379.

12.5 p.m., and at 1.35 p.m. orders went out to the Rear-Admiral, East Coast, to send six destroyers of the 4th Flotilla to Portsmouth at once to operate against submarines in the Channel.<sup>1</sup> The *Attack* and *Goshawk*, which had gone up to Belfast from Devonport to escort the *Glorious* were sent back post haste. It was clear, too, from directionals, that submarines were on their way down West of Ireland, and at 2.24 p.m., October 21, the order went out to suspend sailings from the Clyde and Irish Sea ports to the South Atlantic and Mediterranean. Sailings to North Atlantic ports were to be sent by the north of Ireland. British and Allied ships bound down Channel were to be detained in the Downs.<sup>2</sup>

The order had barely gone out when Admiral Bayly pointed out that the armed yacht *Pioneer II* had seen a submarine at 3 p.m. that day in 55° 47' N., 11° 1' W.,<sup>3</sup> and at 7.25 p.m. all sailings to North Atlantic ports were suspended.

*U.B.18*, after the escape of the *Matiana*, went off to the Scilly Islands. The weather was very bad on October 23 and she did not reappear till 10 a.m. on October 24, when she stopped the *Cannebiere* 30 miles south of the Scillies. This was a French sailing ship of 2,454 tons, on the way from Buenos Aires to Havre, and *U.B.18* towed her two boats for some hours towards the Scillies, where they were picked up by trawler patrols. *U.B.18* then apparently turned home, sinking two more French sailing craft on the way, making a total bag of some 8,600 tons. There are no signs of her being attacked. The four destroyers of the 4th Flotilla arrived at Portsmouth from Immingham on October 23 and were sent on to Devonport by the Commander-in-Chief to hunt submarines,<sup>4</sup> but met with no success.

Another submarine was working with *U.B.18* in the Scillies area on October 24. It had entered the Channel about October 20 and sank two ships on the way down. In the morning of October 24 it was some 20 miles south-west of the Lizard. At 6.30 a.m. a steamer came in sight. This was the *Bagdale* (3,045 tons), an empty Admiralty transport on her way from Nantes to Glasgow. She was steering N. by W. 7 knots and was quickly overhauled. She stopped, the boats were lowered and the crew of 25 pulled off. A little brigantine which had been coming up from the westward with a S.S.W. wind was passing half a mile off to the northward. Suddenly it opened fire. It was *Q.17* from Milford Haven. The first shot fell short, the second and third seemed to hit. The submarine replied with four shots and submerged. Another submarine was seen to the westward and engaged.<sup>5</sup> Two Falmouth trawlers making for the sound of gunfire came in sight about

<sup>1</sup> H.S. 285/713, 986.

<sup>2</sup> H.S. 285/729, 776.

<sup>3</sup> 103 miles west of Donegal Bay. This was *U.57* on her way south. H.S. 285/781, 818.

<sup>4</sup> Arrived October 25, H.S. 286/711.

<sup>5</sup> The French ship *Cannebiere* was sunk some 40 miles to the westward at 10 a.m.

9 a.m. The crew was picked up and put back on board their ship and the *Bagdale* reached Falmouth safely,<sup>1</sup> bringing a D.S.O. to Lieutenant-Commander Henry Westmore, R.N.R. and £1,000 award to Q.17.

The submarine was not, however, destroyed, and at 9.30 a.m. 20 miles south of the Wolf Rock, stopped the British s.s. *Sidmouth* (2,605 tons) on her way from Cardiff to Spezia with a cargo of 6,600 tons of coal, and the Norwegian s.s. *Anna Guirine* (670 tons) going from Glasgow to Nantes. It was a fine day and the two ships, which were about a mile apart, were stopped by gunfire. The Norwegian ship was sunk by bombs. At 10.30 a.m. the destroyers *Cameleon* (2nd Flotilla, Devonport) came in sight, escorting the s.s. *Mokoioa* to Plymouth. The *Cameleon*, after signalling to her convoy to proceed at full speed and zigzag, made for the spot and opened fire on the submarine, which dived after firing a torpedo into the *Sidmouth*.<sup>2</sup> An hour later the defensively armed British s.s. *Izaston* (3,060 tons), on her way to Glasgow, was attacked some 5 miles to the eastward.<sup>3</sup>

It was fine clear weather and the master at once brought the submarine astern and opened fire at 1,700 yards, with his 12-pdr. gun. The second shot fell close to the submarine and she dived. The submarine, having been attacked by a "Q" ship, a destroyer, and a defensively armed merchant ship in a single forenoon, evidently thought it better to retire, and seems to have made for home after sinking some 9,079 tons.<sup>4</sup>

**140. Submarines, Channel.**—The only other attack made on submarines in the Channel at the end of October, was by Q.8, the *Vala*, a small ship of 606 tons, in the Ushant area. A submarine, which appeared there on October 21, sank three ships on that day.<sup>5</sup> The morning of October 22 was rainy and overcast with a strong wind from S.S.E. Q.8 was about 20 miles north-east of Ushant,<sup>6</sup> steering E.N.E. at 6½ knots at 6.35 a.m. when two shots, fired by a submarine, abaft the starboard beam two miles away, plumped across her bows. By 6.45 a.m. the submarine was steering a parallel course at a range of 3,000 yards. She did not close and as the weather conditions were against stopping the ship, the screens were dropped and fire opened at 7 a.m. A 12-pdr. shell was seen to hit, smoke and flame rose high in the air and the submarine disappeared. At 7.15 a torpedo track was seen on the starboard beam. The helm was put hard over and it passed a few feet ahead. This was the last seen of her and Q.8 steered to Ushant and then across to Bishop's Rock. She had been under fire for

<sup>1</sup> Papers X. 8888/16 (*Bagdale*); M. 09518/16 (Q.17).

<sup>2</sup> M.09383/16, C.-in-C., Plymouth, October 25.

<sup>3</sup> 49° 38' N., 5° 44' W. I.D. Log.

<sup>4</sup> From Etudes, Mouvements et Actes, I.D. 725a.

<sup>5</sup> Norwegian s.s. *Snestad* (2,350 tons), Danish s.s. *Hebe* (775 tons), French s.v. *Julia* (166 tons).

<sup>6</sup> Lat. 48° 46' N., long. 4° 56' W.

some 20 minutes, and her captain, Lieutenant-Commander A. A. Mullen, was awarded a D.S.O. and an award of £100 was made to the officers and men.<sup>1</sup>

This submarine seems to have gone off to the southward and worked during October 24 and 25 on the approach to Lorient, sinking four small ships, and a French fishing vessel.<sup>2</sup>

Her total bag was about 4,600 tons; she had been engaged once by a man-of-war (Q.8); two British ships had engaged her with guns and escaped<sup>3</sup> and a third had been too fast for her. The total tonnage sunk in the Channel from October 20 to October 31 by five Flanders boats was 34,072 tons, and 34 ships.<sup>4</sup> Of these, the British S.S. *Midland* (4,274 tons) on her way from Melbourne to Havre with 6,570 tons of wheat, was the largest. She left Capetown on September 17, and had passed Ushant and was going up Channel on October 20, some 10 miles from the coast, when she was stopped at 6 p.m.<sup>5</sup> She was unarmed, no other ship was in sight and she was sunk by bombs. The crew were picked up by a French schooner and landed at St. Malo on October 23.

On October 24, British and Allied ships with defensive armament had been released,<sup>6</sup> a step fully justified by results, for not a single armed merchant ship had been sunk and eight of them, attacked in the Channel between October 20 and 26, all escaped.

The burst of activity in the Channel ended on October 26, the last vessel sunk being the small French vessel *St. Charles* (125 tons).<sup>7</sup> She was on her way from the Newfoundland fishing bank to Fécamp, and at 4 p.m. on a clear fine day was 30 miles south of the Lizard, going 2½ knots, when she was stopped and sunk by bombs.

**141. German Submarine, South-west Approach, October 20.**—A profound calm had reigned in the Western Approach since May.<sup>8</sup> It was now broken by a temporary burst of activity at the end of October, when several High Sea Fleet submarines appeared again in that area.<sup>9</sup> Six of them—*U.20*, *U.55*, *U.57*, *U.66*, *U.69*, *U.70*—started about October 13. On October 17, a submarine was sighted just north of the Shetlands<sup>10</sup> at 3.15 p.m. This was *U.20*, and the

<sup>1</sup> Report V.-A., Queenstown, October 25, in H.S. 646/248, M.09421/16; also in Keble Chatterton's Auxiliary Patrol Chronology (typescript) H.S., C.I.D.

<sup>2</sup> October 23 Nor. s.s. *Venus II* (784 tons); October 24, Fr. s.v. *St. Pierre* (138 tons); Dan. s.s. *Alf* (1916); October 25, French s.v. *St. Yves* (165 tons).

<sup>3</sup> *Glenmay* (2,485 tons) October 20, 11.15 a.m. off Casquets; *Stork* (2,029 tons), October 21, 4.15 p.m. off Ushant; *Glenmorag* (3,535 tons), October 20, 4.45 p.m.

<sup>4</sup> British 10, French 10, Norwegian 9, Danish 3, Greek 1, Belgian 1.

<sup>5</sup> 48° 55' N., 3° 46' W., B. of T. 27.10.16.

<sup>6</sup> Admiralty to S.N.O., Ramsgate, 6.45 p.m. H.S. 286/562.

<sup>7</sup> 49° 26' N., 4° 55' W., 4 p.m.

<sup>8</sup> The last ship sunk was the *Cymric* (13,370 tons) on May 8.

<sup>9</sup> This was probably associated with Hindenburg's request to the Chief of the Admiral Staff to begin unrestricted warfare on October 18.

<sup>10</sup> 60° 57' N., 0° 50' W., 3.15 p.m.



next day at 4.15 p.m. another (*U.57*) was sighted near the same spot and was fired at by an armed trawler.

On the way to the Hebrides on October 18, *U.20* met the *Ethel Duncan* (2,510 tons) an Admiralty collier bound from Cardiff with 3,000 tons of coal, which turned to keep the submarine astern. Fire was opened and after the ship had been hit four times, she was torpedoed.<sup>1</sup> The crew was picked up by a trawler and taken to Stornaway. Two days later, October 20, *U.20* reached the level of Tory Island and at noon fell in with *Q.15* (the *Salvia*, three 12-pdrs.)<sup>2</sup> which had been sent by Admiral Bayly from Queenstown up towards St. Kilda on the strength of reports received. The submarine was sighted astern, opened fire and gave chase. It was a misty day, with a rough sea, and wind 4-5. *Q.15* stopped engines and the submarine came up rapidly but kept warily off some 2,000 yards on the quarter. *Q.15* was hit by a 4-in. shell which burst in the engine room, causing a great escape of steam. She made a dash for the submarine, which dived. The steering gear broke down and it took a little time to shift to hand steering. The submarine came up again and gave chase, then suddenly turned round and disappeared. It reached the South-western Approach by October 23, sank two ships there and reappeared on October 26 in the approach to the Bristol Channel.

Thirty-five miles to the westward of *Q.15*, the s.s. *Cabotia* (4,309 ton gross) was being chased by *U.69*.<sup>3</sup>

She was on her way from Montreal (October 9) to Manchester with a cargo of 5,200 tons of wood pulp, and horses. She was going east true, 10 knots at 12.25 p.m. (October 20) when a submarine was sighted on the starboard bow. A strong south-west wind was blowing with a heavy sea. The ship was not defensively armed, but turned round to keep the submarine astern and sent out a signal of distress. She was hit in the funnel after an hour and a half's chase, the crew of 74 took to the four boats, and the ship was sunk by gunfire 120 miles from land.<sup>4</sup> Bunrana took in the signal and sent it out to the armed yacht *Pioneer II* off Eagle Island (S.W. coast of Ireland), who, making her way against the heavy sea, arrived on the spot at 8.50 a.m. (October 21) and picked up two boats with 42 survivors. A long and fruitless search was made for the other two boats with the master and 32 men, but they were never seen again.

*U.57* was coming down behind *U.20* and was to deal the next blow. On October 23, the Queenstown sloop *Genista* was on patrol some 120 miles west from Cape Clear. At 4.15 p.m. she had met the

<sup>1</sup> 59° 25' N., 4° 36' W.

<sup>2</sup> Lat. 55° 4' N., long. 10° 50' W., M. 09441/16; H.S. 646/272; H.S. 455/152.

<sup>3</sup> I.D. Chart 60, October 1916. French "Etudes" give it to *U.20*, I.D., Vol. 725a.

<sup>4</sup> 2.53 p.m., 55° 16' N., 11° 16' W. Papers, Vice-Ad., Queenstown, October 24, L. 649/1916.

Leyland s.s. *Alexandrian*, homeward bound,<sup>1</sup> and was escorting her in. At about 6.20 p.m. the *Genista* was suddenly struck by a torpedo on the port side, shattering the ship fore and aft and a second hit her abaft the main engine room a few moments later. There was just time to get the four Carley rafts afloat, when the ship broke in two. The *Alexandrian* turned and a torpedo fired at her just missed astern. She sent out a signal at 6.30 p.m. and Admiral Bayly at once ordered the sloops *Camellia* and *Zinnia* to proceed to the spot.

The *Zinnia* arrived at 10.30 p.m. but saw nothing. Admiral Bayly, knowing the difficulty sloops had in picking up a position, put to sea himself in the *Adventure* at 10.30 p.m. and arrived on the spot at 10 a.m. October 24. A strong south-south-east wind was blowing with a tumbling sea. At about 10.45 a.m. a Carley raft was seen and 12 survivors of the *Genista* were picked up from four rafts. After 16 hours exposure they were all cheery and wanted only sleep and warmth. The remainder, including the captain, Lieutenant-Commander John White, went down in the ship.

About the same time, 150 miles to the northward, *Q.14* had fallen in with *U.63* on her way out to the Mediterranean. *Q.14* (the *Viola*), had left Queenstown on October 22 to cruise to the West of Ireland and wait for the submarines coming down. At 4.35 p.m. (October 23) some 50 miles<sup>2</sup> west of Blacksod Bay, she sighted a submarine on the surface W.N.W., 3,000 yards off. It closed and hoisted a signal. *Q.14* stopped and the "panic party" cleared away the boats. The submarine closed to 1,200 yards when it suddenly took alarm, possibly at a glimpse of the above-water torpedo discharge, and made off. *Q.14* followed, opening fire; two shots seemed to hit just abaft the conning tower, and the submarine disappeared. It looked as if she had been damaged and the crew was awarded £200.<sup>3</sup>

*U.57* ran on some 90 miles to the south-west and the next day at noon (October 24), fell in with the French s.s. *Ionie* (4,555 tons)<sup>4</sup> which engaged her and escaped. *U.57* had run into heavy weather, in which one of her officers<sup>5</sup> had been killed, and she turned back. On her way north, not far from where she had sunk the *Genista*, she met the s.s. *Rowanmore*, of 10,320 tons, which had left Baltimore for Liverpool on October 14 with orders to proceed by confidential route Y. (51° 30' N. 14° W). At 8.45 a.m. (October 26) when the *Rowanmore* was some 40 miles past the rendezvous in 51° 30' N., 12° 58' N., going east at 12 knots, she sighted the submarine some four miles to the northward.

The weather was fine with a heavy swell. She was unarmed, and turning at once to bring the submarine astern, she made off, sending out a wireless for help. The submarine opened fire and

<sup>1</sup> Evidently at Rendezvous Y, in 51° 30' N., 14° W.

<sup>2</sup> Lat. 54° 10' N., long. 11° 25' W.

<sup>3</sup> M. 09552/16.

<sup>4</sup> Lat. 50° 24' N., long. 15° W.

<sup>5</sup> Oberleutnant Curst Eysel of *U.57*, on October 25 1916 (Mittler).

gained on her. She received four hits, and about 9.30 a.m. a shell struck the after wheel house and carried away the steam pipe of the steering gear. The captain stopped and lowered the boats. The sloop *Sunflower* had just picked up the signal and was coming up at full speed, but it was too late. At 10.25 a.m. just as she got within range and opened fire at 4,000 yards, *U.57* sent a torpedo into the *Rowanmore* and went down, after taking the captain prisoner. She came up again and the *Sunflower* opened fire at 2,800 yards at 10.50 a.m. and thought she scored a hit. Then she went down. The *Sunflower* picked up the crew and brought them in.<sup>1</sup> Had the *Rowanmore* been armed it is very possible that she could have kept off the submarine till the *Sunflower* came up. *U.57* returned home, sinking on her way the *Floreal*, a small British fishing vessel, whose boats she towed towards land, and the Norwegian s.s. *Saturn* (1,108 tons).

Further to the south on October 23, small armed trawlers had again proved their value. Two of them from Falmouth, the *Ulysses II* (1 6-pdr) and the *Clyde* (1 3-pdr.) were escorting the oiler s.s. *Trinculo* to the westward, and at 4.30 p.m. October 23, had reached a position in 49° 45' N., 10° 31' W. Suddenly the British s.s. *Kandy*, which was on their starboard quarter steering west, altered course south, opened fire on her starboard quarter and hoisted the signal for a submarine. The s.s. *Trinculo* made to S.S.W.; the armed trawlers left her, pushed to the northward after the submarine and opened fire on it at extreme range. They kept up the chase till dusk at 6.15 p.m. when the submarine was lost to sight.<sup>2</sup> This may have been *U.66*,<sup>3</sup> and it was apparently the only attack she made.

*U.20* at 7.15 a.m. on October 24, had fallen in with the Norwegian s.s. *Sola* (3,057 tons) on her way from New York into Havre with a general cargo of 4,000 tons, which she stopped and sank 80 miles west of the Scillies. The crew of 25 took to the boats. The wind was blowing with a heavy sea. It increased to a whole gale and it was with the greatest difficulty the crew kept the boats afloat. Fifty hours passed before they were picked up off the Scillies in a state of terrible exhaustion. Two other ships were not so lucky and were never heard of again. One of them was the *North Wales* (4,072 tons) which sailed from Hull on October 20, empty for Canada. She dropped her pilot off the Isle of Wight on October 24 at 2.30 p.m. and nothing more was heard of her. She must have been sunk by *U.69* or *U.20*, possibly about October 26, and the boats may have been swamped.<sup>4</sup>

The other was the *Rappahanock* (3,871 tons) which left Halifax for London on October 17, with a 5,000 ton cargo of grain,

<sup>1</sup> Papers L. 838/1916.

<sup>2</sup> M. 09464/16, B. 995/1916.

<sup>3</sup> Or possibly *U.20*.

<sup>4</sup> The British s.s. *Adriatic* (3,028 tons) which left Cardiff October 31 for Marseilles, another total loss, was also probably sunk by a High Sea Fleet boat

deals and general goods, and with her whole crew of 37, was never heard of again. *U.20* went off to the approach to the Bristol Channel on October 26 but had little success. The s.s. *Fabian* (1,445 tons) that day was on her way from America to Manchester. Since she passed Ushant on October 25 she had met with a heavy W.N.W. gale and very thick weather. At 7.10 a.m. between the Scillies and Smalls<sup>1</sup> a shot was fired by a submarine on the port beam. The ship turned away and opened fire with her 3-pdr. Vickers-Maxim. The sea was rough and firing was difficult; the ship was hit twice and the 3rd officer killed, but the master, Captain W. J. Price, held on. The chase continued for nearly an hour, then a shot seemed to strike the submarine and she dived. She appeared again but fired no more and the *Fabian* got safely to Liverpool.<sup>2</sup> *U.20*, going to the north-east, stopped the Norwegian s.s. *Dokka* at 11 a.m. then went down towards Lundy Island. There at 4 p.m. she met the British s.s. *Morlais* (950 tons gross) on her way from Swansea to Rouen with 1,050 tons of coal. The *Morlais* tried to get away but she was unarmed, had no wireless, and stopped after being hit. The ship was abandoned,<sup>3</sup> and the boats pulled away. Then suddenly the tables were turned. The armed trawler *Michael Angelo* from Swansea came up and opened fire, and the submarine after replying with three or four shots made off. The crew went aboard again and took the *Morlais* back to Swansea,<sup>4</sup> while *U.20* proceeded home.

The last ship to be sunk was the British s.s. *Marina* (5,204 tons gross) on October 28. She left Glasgow outward bound for Baltimore at 11 a.m., October 25, and was armed with a 4-in. gun. She had cleared the coast of Ireland, and on October 28 at 3.40 p.m. was about 30 miles west of the Fastnets, going 10 knots, when she was torpedoed without warning.<sup>5</sup> She was fitted for carrying horses, and had a crew of 104, including cattlemen, on board. Four boats got away, and in 15 minutes the ship broke in two and sank. A sloop, the *Zinnia*, patrolling off the Fastnets, had seen her hull down half an hour before, but lost sight of her in a rainstorm. Another armed trawler, the *Ina Williams*, patrolling off the Tearaght (Dingle Bay), received a report of boats from the Skellig's keeper, and picked them up on a dark and dirty night in Ballinskelligs Bay. Eighteen of the crew were lost, including six American citizens, in contravention of the pledge given by Germans after the torpedoing of the *Sussex*. The incident, though overshadowed by the Presidential election then in full blast, roused another burst of feeling. The German Government contended that the ship was painted

<sup>1</sup> 50° 56' N., 6° 25' W.

<sup>2</sup> Cap. F. 77, 1916, M. 010236/16.

<sup>3</sup> 50° 50' N., 4° 57' W.

<sup>4</sup> Board of Trade, October 30, M. 83843/16.

<sup>5</sup> Leaving Glasgow at 11 a.m., she would appear to have covered some 450 miles in 75 hours, an average speed of only about 6 knots. She was not obeying the instructions to make and leave the coast during dark hours.

gray, displayed no flag, and had a wooden superstructure for horse transport similar to those in use at the Dardanelles.<sup>1</sup> The Admiralty replied that the *Marina* was not requisitioned nor under Government charter. She was in her owner's service, and her sole commitment was that she had carried, but was not at the time carrying, animals for the Government at a rate per head. She was en route to the United States for a further deck load of horses, but this was only a small part of her homeward cargo. The correspondence dragged on through December, but was swallowed up in the larger question of Germany's tentative proposals for peace.

This ended the week's incursion into the South-western Approach. Six submarines had taken part in it, and two had passed through on their way to the coast of Spain. They had sunk 10 merchant ships of 38,907 tons (six British and one fishing vessel, 30,068 tons; two Norwegian, 4,165 tons; one French sailing vessel, 274 tons; one Italian, 4,400 tons) and one sloop. Of these, two ships were never heard of again, and one was sunk without warning. Three ships, defensively armed, had escaped. Two "Q" ships sent out to attack the submarines had engaged them, without result. Two ships had been saved by the intervention of armed trawlers.<sup>2</sup> The *Marina*, defensively armed, had been torpedoed without warning, and the *North Wales*, which also had a gun,<sup>3</sup> probably suffered the same fate.

These sinkings, taken in conjunction with those of *U.49* and *U.63* off the coast of Spain between Cape St. Vincent and Gibraltar, which started at the same time, swelled considerably the figures for the month.

The totals for October 20-31 were:—

	Ships.	Tons.
Channel (five Flanders boats)	34	34,072
West and South-western Approach (six boats) ..	10	38,907
Spanish coast (two boats) ..	8	24,865

52 ships 97,844 tons

or 31·2 per cent. of the total tonnage sunk by submarines during the month (315,377 tons).

**142. Measures taken, Western Approach.**—The undoubted success of the convoy system in 1917 tends to hide the relative success attained in 1916 by the system then in force. The measures taken then were effective, but they applied only to ships under Government control. Ships crossing the Atlantic to Liverpool were given a rendezvous Y (51° 30' N., 14° W.),

<sup>1</sup> Page to Grey, Foreign Office, 4.12.16. Unofficially it was argued that the ship had been formerly employed by the Admiralty and was not entitled to the immunities of a peaceful trader.

<sup>2</sup> Br. s.s. *Kandy* and Br. s.s. *Morlais*.

<sup>3</sup> C.I.O. 1343/1916.

150 miles from the Fastnets, where "valuable" ships were met by Admiral Bayly's sloops. The rendezvous for the Channel (Devonport or Cherbourg) was at X (48° N., 9° W.), 150 miles from the Scillies,<sup>1</sup> where "valuable" ships were met by the Devonport destroyers. The appearance of *U.53* off Nantucket on October 8 led to the detention of slow traffic<sup>2</sup> on October 9. It was released on October 12, and between October 8 and October 31 some 56 ships seem to have sailed from ports in the States or Canada.<sup>3</sup> Of these, only the *Rowanmore* (ordered to Y) was sunk.<sup>4</sup> The answer to the submarine in the Western Approach lay in "Q" ships, defensive armaments, escorts and routeing. The two "Q" ships sent out both met with submarines, but were unsuccessful.<sup>5</sup> In the case of the *Rowanmore* (October 26), another hour's steaming would have brought her in touch with the sloop *Sunflower*. Three large transports, which left Halifax on October 19, convoyed by the *Dupetit Thouars*<sup>6</sup> were due at K (50° N., 15° W.) on October 26, and arrived safely.

The drawback of what may be called the Routeing and Escort system was that it could only supply escorts to a limited number of ships, and did not permit of routes being quickly changed. When the *Genista* was sunk on October 23 Admiral Bayly suggested that ships leaving for the westward should be held up, and at 11.50 p.m. the order went out to suspend sailings from the Clyde, Irish Sea and Bristol Channel to North Atlantic, South Atlantic and Mediterranean ports.<sup>7</sup> This traffic was released the next day (October 24) at 7.10 p.m., and vessels for North Atlantic ports were ordered to proceed by the south coast of Ireland to 13° W.<sup>8</sup>

When the *Rowanmore* was sunk (October 26) Admiral Bayly suggested that rendezvous Y should be changed. When the reports of attacks in the Bristol Channel came in<sup>9</sup> that day, he held up all traffic out of the Bristol Channel, and at 7.30 p.m. an Admiralty order went out for "Vessels from Clyde and Irish Sea ports to North Atlantic ports to proceed by north of Ireland route. Vessels for Clyde and Irish Sea ports to South Atlantic and Mediterranean to proceed by south coast of Ireland route to

<sup>1</sup> Y. see Tel. 17.5.16, X. see Tel. 6.7.16.

<sup>2</sup> Ships under 13 knots detained. H.S. 324/553.

<sup>3</sup> Of which 5 were ordered to X, 3 to Y, 4 to K (51° N., 15° W.) and 3 to C (56° 10' N., 13° W.), which gives an idea of the proportion which might require escort. From reports of sailings N.A. and W.I. Tel. H.S. 324.

<sup>4</sup> The two other inward bound ships, the *Cabotia* and *Rappahannock* are not among the reported sailings.

<sup>5</sup> Enemy submarine positions derived from intercepts and directionals do not appear to have been sent on by telegram to Queenstown, Milford Haven or Falmouth.

<sup>6</sup> *Cameronian* (10,963 tons), *Northland* and *Metagama*.

<sup>7</sup> Tel. 23.10.16, 2350. H.S. 286/294.

<sup>8</sup> Tel. 24.10.16, 1916. H.S. 286/568.

<sup>9</sup> Tel. 26.10.16, 11.47 a.m. H.S. 286/946.

9° W., and join ocean route to west of that longitude. Suspend all sailings from Bristol Channel to Atlantic and Mediterranean ports."<sup>1</sup>

In accordance with Admiral Bayly's suggestion to move rendezvous Y (51° 30' N., 14° W.) it was moved 60 miles to the northward (52° 30' N., 14° W.). This was done on October 29,<sup>2</sup> but Admiral Bayly immediately pointed out that his sloops were working at the limit of their possible distance, and suggested a position in 52° N., 13° W. It was, therefore, shifted on November 4 to 52° N., 13° W., and called "P," and then, in view of wintry weather, it was again shifted to the southward to 50.30 N., 13° W., and called "Q."<sup>3</sup>

Under the escort system a heavy strain fell on the Devonport destroyers. There were 20 destroyers there, belonging to the 1st and 2nd Flotillas, but they did much more than escort ships in from the south-west, for sometimes they might be sent to Liverpool or Belfast to take ships out by the north of Ireland,<sup>4</sup> or sometimes with a battleship to the Clyde or round to Rosyth.

In these circumstances the number of ships they could meet and bring in was severely limited,<sup>5</sup> and any scheme of supplying escort to all ships must have involved their being brought in in batches, which really meant convoy. The pre-convoy system was deficient, not because the escorts were inefficient, but because only a small proportion of ships was escorted and because ships sailing independently (as in the case of the *Marina*) did not always obey orders and could not be controlled once they had sailed.

**143. German Submarines, North Sea.**—The North Sea presents a marked contrast to the Channel and South-west Approach in the comparative immunity which it enjoyed. Four submarines started in the North Sea about October 19, and were working there for a week without sinking a single British ship. The flail fell with redoubled force on neutrals. *U.B.22* left about October 19, worked some 60 miles from the Farne Islands, and sank one Danish and four Norwegian ships (3,346 tons). *U.B.21*, in the same area, sank one Danish, two Swedish and three Norwegian ships (2,502 tons). *U.B.34*, working about 100 miles from Aberdeen, sank two British trawlers and two Norwegian ships (2,292 tons). On October 28 she was sighted and engaged by the armed trawlers *Searanger* and *Oku* some 50 miles east of Aberdeen.

<sup>1</sup> Tel. 26.10.16. H.S. 286/1116. The *Marina* left Glasgow October 25, 11 a.m., and was probably following South of Ireland route, ordered on October 23. H.S. 286/114.

<sup>2</sup> Tel. to Consul-Generals, 29.10.16, 1352. H.S. 324/903.

<sup>3</sup> Admiral Bayly, October 30, M. 09571. Adty. Tel. H.S. 325/16, 328.

<sup>4</sup> 25.10.16. Two Devonport destroyers were required at Liverpool for *Roxburgh* and one for *Olympic* to escort to long. 14° W., via north of Ireland. H.S. 286/807.

<sup>5</sup> On October 28, First Flotilla (10 boats) had 2 repairing, 3 at the Tyne (on way back from Rosyth), 1 at Queenstown and 4 at Devonport, of which 1 was probably resting.

Four trawlers hurried out from Peterhead to assist in the search, and were joined by two airships, *C.7* and *C.18*, from Longside Air Station, but nothing more was seen of the submarine.<sup>1</sup>

The fourth submarine, *U.B.35*, worked almost in the centre of the North Sea, and between October 17 and 27 sank six Norwegian and two Danish ships (5,869 tons). The large mine-layers were given a new role. Two of them were employed cruising in the Cattegat, stopping and searching shipping. *U.78*, working off the Danish coast, between October 19 and 22 stopped and examined seven Scandinavian ships and brought one Norwegian ship, the *Alte Jarl*, into harbour. *U.71* worked further east off the Skaw, and between October 18 and 29 stopped 15 ships and sank four—one Norwegian and three Swedish (4,723 tons).

The worst sufferers in the North Sea during this spell of activity were the Norwegians, who lost 20 ships (27,316 tons). The Swedish lost six (4,830 tons) and Danish four (2,310 tons), a total of 30 ships and 34,456 tons. The *Searanger's* was the only attack made on submarines during this period of activity at the end of October. The almost entire immunity of British shipping<sup>2</sup> in the North Sea remains something of a problem. Traffic on the East Coast was suspended during the activity of the German Fleet on October 19 and October 23, and the sailing of store carriers from Aberdeen to the north was held up from October 23 to 26, but this in itself cannot account for the immunity enjoyed. The system may have had much to do with it. In the North Sea British and Allied traffic was confined to a single channel (the War Channel), and patrols were concentrated in its vicinity, which seems to have provided a greater degree of security than the methods employed in the Channel.<sup>3</sup>

**144. German Minelaying, October.**—Minelaying activities continued off the East Coast and in the Channel during the month. On the East Coast, between Cromer and the Sunk, six ships, British and neutral, of 8,345 tons, were lost by mines. Part of these losses were due to neglect to carry out instructions. Thus, the British s.s. *Lantern* (1,685 tons), when she was struck (October 6, 8.20 p.m.), 2½ miles north-east of Cromer, was 3½ miles outside the War Channel. She was carrying 2,050 tons of coal from Newcastle to London. The position was carefully swept, but no more mines were found, and the Admiral Minesweeping thought she had possibly been torpedoed.<sup>4</sup> The British

<sup>1</sup> Peterhead Reports, H.S. 567/215.

<sup>2</sup> One British s.s., *Sparta*, 480 tons, mined off Southwold (October 28) was the only loss between October 20 and October 30.

<sup>3</sup> Admiral Bayly was in favour of concentrating patrols on a single route. The Channel traffic was a more complicated problem than that of the North Sea, and the cross traffic was much greater, but the cross-Channel traffic did not suffer any excessive loss. One of the most important factors in the problem is the amount of total traffic moving in the two areas. No statistics on the subject have been found in the papers or minutes of the Operations or Trade Divisions.

<sup>4</sup> M. 52642, in Board of Trade, October 11 1916.

s.s. *Huguenot* (642 tons), in ballast, was  $1\frac{3}{4}$  miles to westward of the swept channel when she struck a mine off the Sunk Light Vessel on October 20.<sup>1</sup> She sank in two minutes.<sup>2</sup> The British s.s. *Framfield* (1,609 tons), on her way from Algeria to Middlesbrough with a cargo of 3,660 tons iron ore, was mined not far from the same spot four days later.<sup>3</sup> She sank before the boats could get clear and eight of her crew were drowned. The ship was in charge of a pilot, and the area she was in had been announced as dangerous on October 20, when the *Huguenot* was sunk.<sup>4</sup> Another small ship, the s.s. *Sparta* (480 tons), carrying 380 tons of coke from Hull to France, was in the Stanford Channel, off Lowestoft, on October 28, when she was mined and sank in eight minutes. The area had been reported dangerous just before she sailed, but she did not obey the signal of a patrol trawler to stop.<sup>5</sup> Two days later, some ten miles to the south, a much larger ship was mined, but managed to reach port. This was the *Mantola* (8,253 tons), on her way from Middlesbrough to Colombo with a small general cargo. She was abreast of Aldborough<sup>6</sup> at 8.25 a.m., going  $11\frac{1}{2}$  knots, when a mine exploded under No. 1 hold. The master stuck stoutly by her, patrol vessels came hurrying up, and she reached the Nore safely at 11.30 p.m. She was fitted with Skipjack bow-mine-protection gear. The largest ship mined during the month was the *Alaunia*, a Cunarder of 13,405 tons. She left New York on October 7 with a full cargo of 8,000 tons, mails and 200 passengers, and after calling at Falmouth and landing passengers (October 17-18) was on her way up Channel. On October 19, at 4.15 a.m., she was 2 miles south of the Royal Sovereign Light Vessel, going 15 knots, when she struck a mine aft. The weather was clear, with a light S.W. wind and smooth sea.<sup>7</sup> The propeller shafts were broken and the master dropped his anchors<sup>8</sup> and abandoned the ship. Two men were drowned getting into the boats. A distress signal had gone out, and the armed trawler *Highlander* arrived quickly on the scene and began to take the crew on board. At 5.30 a.m. *T.B.3* (Lieutenant W. F. Smithwick) arrived and found the ship lying with both anchors down, slightly down by the stern with a list of  $20^\circ$  to port. A party of volunteers was immediately sent aboard under Lieutenant Tate, R.N.R. Steam was on the windlass and the cables were shortened in. A party went down to the engine room, found the dynamo running, lights burning, and 120 lb. of steam in the boiler. The water-tight doors between the engine room and stokeholds and

<sup>1</sup> 1 p.m.,  $51^\circ 55' N.$ ,  $1^\circ 40\frac{1}{2}' E.$

<sup>2</sup> H.S. 285/532.

<sup>3</sup> October 24, 12.58 p.m., three miles N.E. of Sunk Light Vessel.

<sup>4</sup> Warning October 20, 360 Q. declared an area eastward of the Shipwash for some five miles dangerous. H.S. 285/265. Papers, B. of T., October 26 1916.

<sup>5</sup> Papers, Board of Trade, October 31 1916.

<sup>6</sup>  $52^\circ 9' N.$ ,  $1^\circ S. 2' E.$

<sup>7</sup> Master's affidavit.

<sup>8</sup> At the suggestion, he said, of a patrol boat.

into the shaft passage were open and the ship was making water rapidly. At 6.30 a.m. *P.11* (Lieutenant-Commander A. J. Landon) arrived on the scene with *P.24*. He did not think the ship in immediate danger of sinking and prepared for towing. *T.B.3* left at 7.15 a.m., and it was only then that Lieutenant-Commander Landon discovered that the master was in a trawler. Lieutenant-Commander Landon thought there was a fair chance of towing her the two miles to shore and put his mate, Mr. Devlin, and four hands on board. Lines were passed to a tug which had arrived. They weighed the starboard anchor, but could not disconnect the winch to weigh the port anchor. By the time one of the *Alaunia's* officers came aboard it was too late, and the ship sank at 9.20 a.m. in 12 fathoms.<sup>1</sup> In Lieutenant-Commander Landon's opinion the ship could have been saved if the captain and officers had remained on board and re-worked the pumps. The Admiralty asked for a formal investigation, and it was ordered by the Board of Trade on January 25, but finally abandoned in July 1917. The area round the spot was immediately announced as dangerous.<sup>2</sup>

**145. Destroyer Raid, Dover, October, 26.**—Simultaneously with the submarine attack in the Channel and South-west Approach, a blow was aimed at the passage through Dover Straits. It was made by two flotillas of destroyers, which had come round from the Bight on the night of October 23-24. They had been located by the Admiralty that night off the Maas at 2 a.m.<sup>3</sup> and were believed to consist of one flotilla. The report of a recent visit by the Kaiser to Zeebrugge and of steel barges with machine guns in the Belgian canals, led the Admiralty to expect a possible German landing west of Nieuport, and on October 26 Commodore (T) was told to send a light cruiser and four destroyers to Dunkirk. The *Carysfort* and the *Laforey's* division<sup>4</sup> left Harwich at noon on this mission. The *Carysfort* remained at Dover, the *Laforey's* division of four boats, after sending officers ashore to correct their charts, left for Dunkirk at 8 p.m. and arrived there at 10.27.<sup>5</sup> About half-way across it was seen to port at 9.18 p.m. by the German 18th Half Flotilla rushing down to Gris Nez at the time.

Neither the Admiralty nor any British force had any warning of the raid. The *Lawford* (Lieutenant-Commander Arthur Scott) and her division, lent to Dover by Commodore (T) in accordance with instructions given some months before, was lying in the Downs. The Dover forces were in the following positions: There were six Tribals (*Viking*, *Mohawk*, *Tartar*, *Nubian*, *Amazon*,

<sup>1</sup>  $50^\circ 41' N.$ ,  $0^\circ 27' E.$  For reports see Papers titled s.s. *Alaunia*. X. 9227/1916.

<sup>2</sup> To all ships, Tel. October 19, 0845, Q. message 359.

<sup>3</sup> Tel. Ady. to Comm. (T), Admiral, Dover, October 24, 0515, H.S. 451.

<sup>4</sup> *Laforey* (Comdr. R. A. Hornell), *Liberty*, *Lucifer* and *Laurel*.

<sup>5</sup> Charts H.S. 317/40. They had not got the Dover barrage buoys on their charts and the *Laforey* and *Lucifer* knew nothing of them.

*Cossack*) in Dover. On the net barrage in the Straits were five divisions of drifters, 28 boats in all,<sup>1</sup> most of them unarmed. With them was the yacht *Ombra* and the armed trawler *H. E. Stroud*, and behind them the 30-knot destroyer *Flirt* (1 12-pdr., 5 6-pdr.).

Further west, on the transport route, the destroyer *Zulu* and two "P" boats, *P.23* and *P.34*, were patrolling. It was a pitch dark night, with a sky clear at first, but overcast after midnight. The sea was calm, but about 2 a.m. a breeze sprang up from the south-west, which increased later to a gale. It was high water at Dover at 10.40 p.m., with a rise of 18 ft., and the east-going stream began to run about 9.15 p.m.

146. **The Attack.**<sup>2</sup>—The German force consisted of twenty-four destroyers.

*The 3rd Flotilla.*

5th Half Flotilla. *V.71* (Commodore Michelsen), *V.73*, *V.81*, *G.88*, *V.67*, *V.68*, *V.47* (7 boats).

6th Half Flotilla. *S.55*, *S.53*, *S.54*, *G.42*, *V.70*, *G.90* (6 boats).

*The 9th Flotilla.*

17th Half Flotilla. *V.79*, *V.80*, *S.60*, *S.51*, *S.52*, *S.36* (6 boats).

18th Half Flotilla. *V.30*, *V.28*, *V.26*, *S.34*, *S.33* (5 boats).

The 5th and 6th Half Flotillas were to attack patrol craft, the 5th on the north side of the Colbart-Sandettie line, the 6th on the south side.

To the 17th and 18th Half Flotillas was given the task of attacking transports in the Straits; the 17th on the Dover side, the 18th off Calais. The starting rendezvous was fixed in 51° 21' N., 2° 5' E. some 15 miles from the barrage. At 8.18 p.m. the 18th Half Flotilla (5 boats) went off. It sighted the *Laforey's* division, which passed some six minutes ahead of it going to Dunkirk, and off No. 9 Buoy<sup>3</sup> saw on the port bow a destroyer with side lights burning and altered course to clear it.

At 9.35 p.m.<sup>4</sup> a division of boats was sighted by the *Flirt* on the port beam, showing no lights and going fast. The *Flirt* challenged and the leader flashed back the same challenge. Doubts arose. The signal log was consulted. It was thought they might be the *Laforey's* division,<sup>5</sup> and the *Flirt* continued to patrol at slow speed without making any report. The 18th Half Flotilla pushed on. At 10.18 p.m. it was off Cape Gris Nez and turned down towards Boulogne. The 17th Half Flotilla had started at the same time,

<sup>1</sup> For disposition and names, see Dover Monograph, 83 and Enclosure, Vice-Admiral, Dover, of 30.10.16, H.S.A. 308/206.

<sup>2</sup> From German Historical Section.

<sup>3</sup> About 51° 3' N., 1° 42' E. The *Flirt's* side lights were burning, H.S.A. 308/242.

<sup>4</sup> H.S.A. 308/201.

<sup>5</sup> The *Laforey's* division seems to have been about 8 miles to eastward.

and keeping a course about 3 to 4 miles to westward, ran slap through the barrage without being seen. By 10.46 p.m. it was off the Ridge between Folkestone and Boulogne.<sup>1</sup>

Three-quarters of an hour after the 9th Flotilla, the 5th and 6th Half Flotillas started driving down towards the barrage. The first seen of the barrage raiders was at 10.10 p.m.<sup>2</sup> when they attacked the drifter *Waveney*, whose main steam pipe was broken by the first shot. The *Flirt*, some six miles to the southward, saw the flashes of gunfire, and made for the spot. She reached the drifter *Waveney*. The firing had ceased. There were several destroyers visible a short distance off, but they were thought to be French, and Sub-Lieutenant J. D. Chater, R.N.R., and an able seaman jumped overboard to pick up one of the drifter's crew. While the *Flirt* was picking up the *Waveney's* crew, the *Ombra* (Commander Wm. H. Owen, R.N.R.), patrolling some four miles to the eastward, saw the enemy's searchlights at 10.20 p.m., and at once grasping the situation sent out by wireless, "Enemy's warships 20 miles east of Dover." This was the first report sent in and set the machinery at Dover in motion. The *Ombra* made for the drifters and ordered all she saw to make for Dover. Some twenty minutes later (10.30 p.m.) another group of German boats (the 6th Half Flotilla) steamed through the barrage line at 9 A buoy and began rolling it up. A heavy fire was opened on the *Flirt* at point blank range. Her boilers blew up and she disappeared in less than five minutes.<sup>3</sup> It was then about 10.40 p.m. The *Ombra's* signal had come in. The Tribals were at once ordered out (10.40 p.m.), and Commodore Dunkirk was told to send out the "L" class (i.e., *Laforey's*) division, which had just anchored in the roads. For more than an hour the German barrage raiders were cruising about, but most of the drifters, hidden by the night and warned by the *Ombra*, escaped. They sank only six. To the southward the Germans had small success. About 11 p.m. the 17th Half Flotilla captured the enemy transport *Queen* (1,676 tons gross) off the Varne.<sup>4</sup> The Tribals were leaving harbour. By 11.20 p.m. they had all got away, but did not get away together. The *Viking* (Commander H. G. L. Oliphant), *Mohawk*, and *Tartar* left by the western entrance, and the *Nubian* (Commander M. R. Bernard), *Cossack* and *Amazon* by the eastern entrance. The *Nubian* could not see the *Viking*, and the two groups did not join up. Another burst of firing had broken out in the middle of the drifters' line as with doused lights the boats made for Dover. The *Nubian* saw the flashes and made for 9 A Buoy. The *Cossack*, a slow boat, could not keep up, and the *Amazon*, keeping station on the *Cossack*, dropped astern with her. The *Nubian* found herself alone. At 11.17 p.m. the

<sup>1</sup> Lat. 50° 50' N., 1° 19' E.

<sup>2</sup> *Flirt* says 10.10 p.m. H.S.A. 308/202, also *Waveney*, I.D. 239.

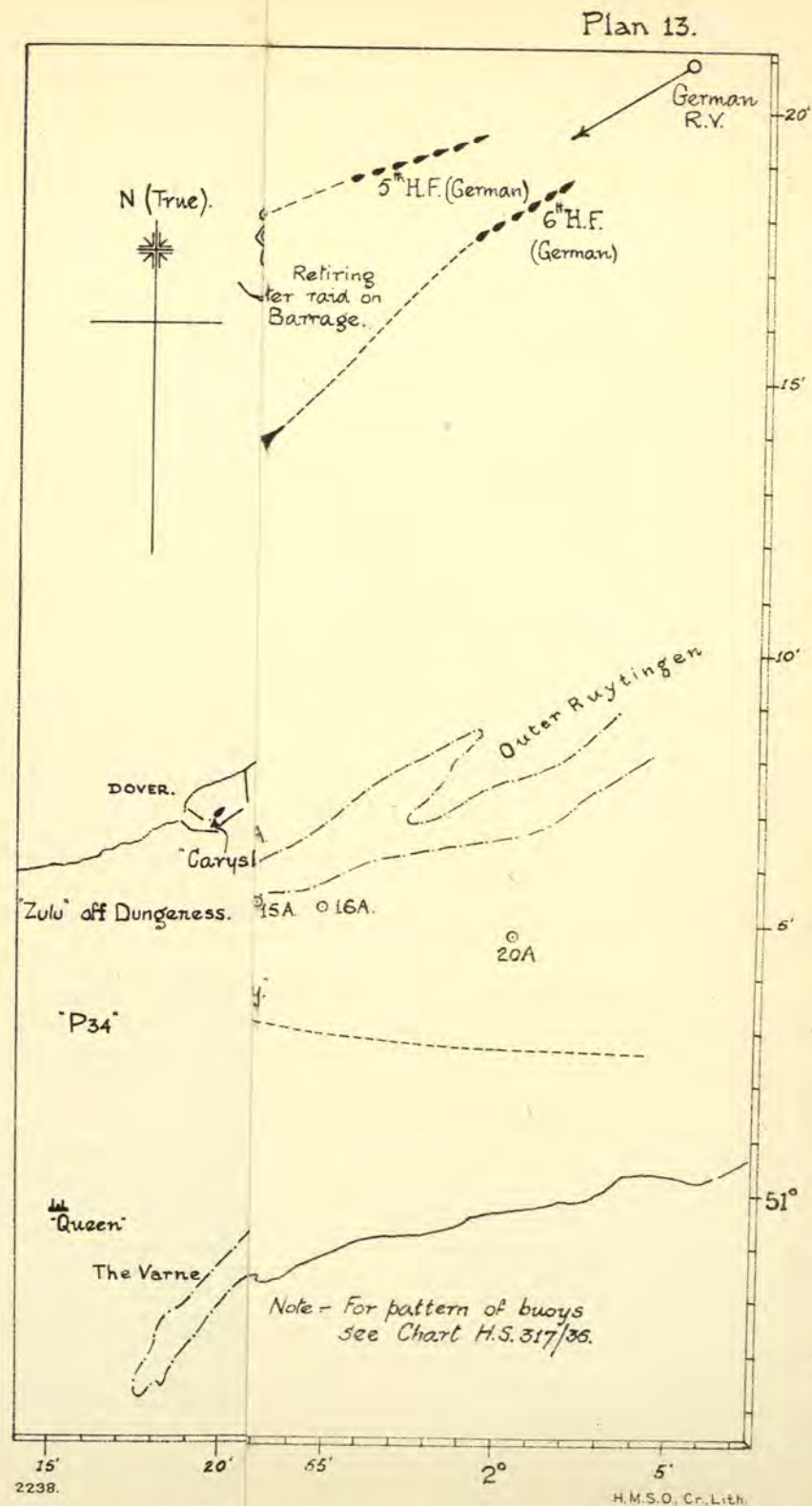
<sup>3</sup> H.S.A. 308/232.

<sup>4</sup> About 3 miles N.E. of Varne.

*Lawford's* division in the Downs had been told to weigh and keep a good look out. The *Carysfort*, in Dover, was raising steam. At 11.20 p.m. the code word "Nauplius"—Enemy raid south—went out. At 11.35 p.m. the *Ombra* sent another signal—"Enemy at number 9 Buoy,<sup>1</sup> close to me." The *Laforey's* division had weighed at Dunkirk and was coming west (11.35 p.m.). The Tribals were out and making for the barrage. The *Nubian* had taken in the *Ombra's* first signal and was making for 9 A Buoy. All the British forces were on the move. There was a lull of about an hour (11.35 p.m.—12.40 a.m.). By 11.40 p.m. *P.34*, patrolling to the westward 3 miles from the Varne, had picked up the boats of the *Queen*, and at midnight sent an urgent signal reporting her loss and the presence of German destroyers off Folkestone Gate. The German 5th and 6th Half Flotillas had left the barrage by then; the 17th and 18th Half Flotillas had turned and were racing back in the pitch dark night. At midnight they were roughly on the Dover-Gris Nez line. The *Lawford* was still patrolling in the Downs. At 12.20 a.m. she intercepted *P.34's* signal reporting enemy destroyers off Folkestone. She had taken in the *Ombra's* first signal as "airships" instead of "warships," and had not left the Downs. When destroyers were reported she decided to put to sea and passed the South Goodwin Light Vessel at 12.32 a.m. The British forces were then all converging on the barrage. The *Nubian* had reached 9 A Buoy and turned round to the westward (course S. 80 W., 15 knots). The German 17th Half Flotilla was speeding straight towards her. She sighted a destroyer close ahead and thought it must be the *Lawford*. She challenged. No reply was made, and five destroyers passing 40 to 50 yards on the port beam opened fire. They fired two torpedoes, which missed ahead and astern. Commander Bernard at once gave the order to open fire, but the Tribals had no fire gongs, and no British torpedoes were fired because the order was not heard aft. A torpedo hit the *Nubian* and blew her fore part away.<sup>2</sup> The small armed trawler *H.E. Stroud* (Lieut. Jas. R. McClorry, R.N.R.), pushing gallantly up to help the drifters, was attacked and her captain killed. A few minutes later the Germans met the *Amazon*, who thought they resembled "L" class destroyers, and when they opened fire replied with the challenge. The Germans raced past at full speed. Their shells started a fire and put two boilers out of action. The *Lawford's* division was then coming up and saw the German smoke. The *Viking's* group was some five miles to the eastward. It had kept together and was coming down on a southerly course. At 12.50 it sighted the enemy (18th Half Flotilla) on the port bow. The *Viking* challenged. The Germans replied with a salvo and swept past. The *Mohawk* was hit, her helm jambed, and by the time the

<sup>1</sup> This was apparently meant for 9 A Buoy on the barrage.

<sup>2</sup> H.S.A. 308/324.

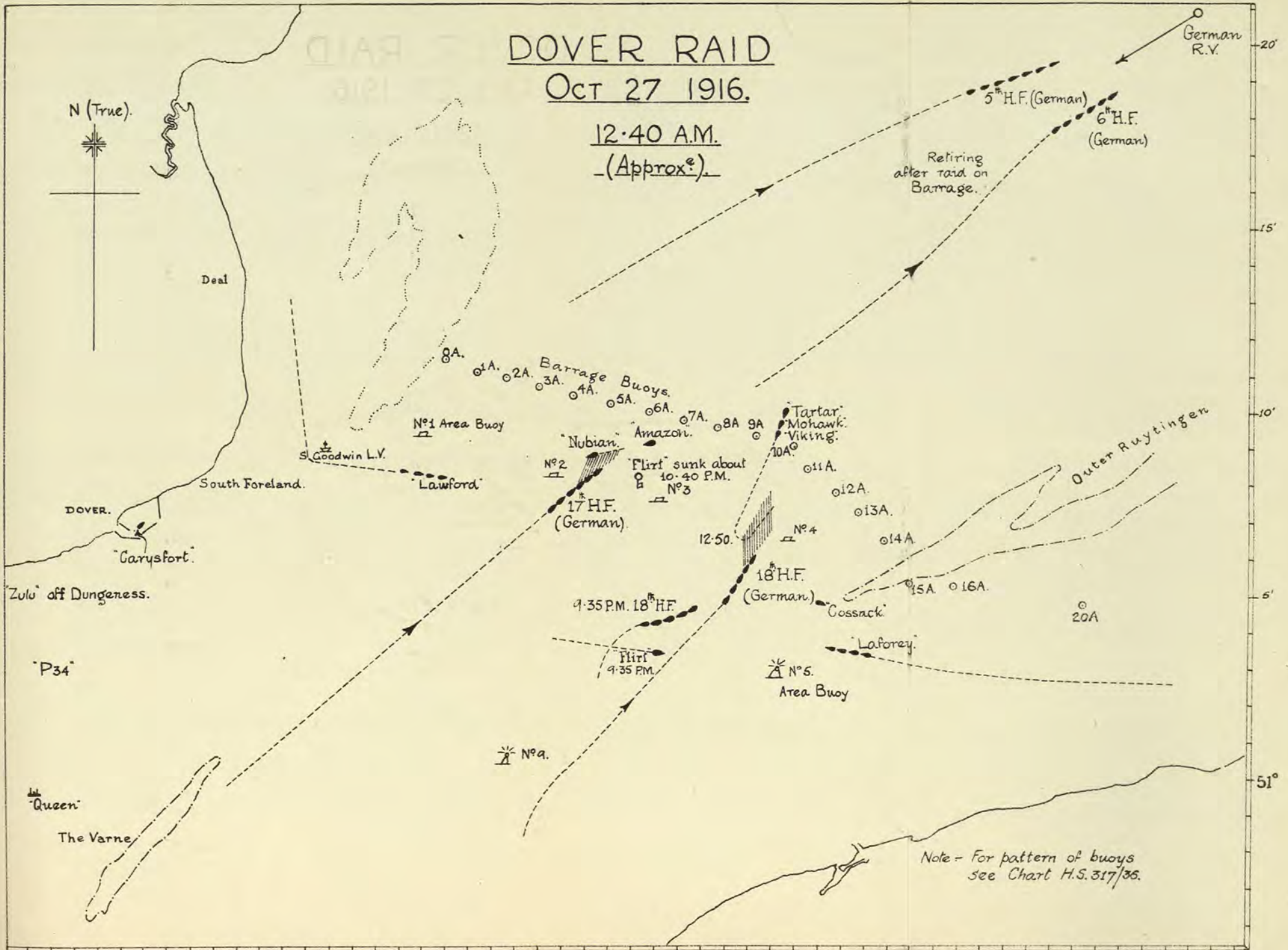


# DOVER RAID

Oct 27 1916.

12:40 A.M.

-(Approx:)-



Note - For pattern of buoys see Chart H.S. 317/35.



*Viking* could turn and follow, the Germans were out of sight.<sup>1</sup> The *Lawford's* division was ordered back to the Downs (12.48 a.m.). The *Laforey's* division was some two to three miles to the southward, but could not have overtaken the enemy, and shortly afterwards took in a signal (meant for the *Lawford's* division) to return to the Downs. On the whole, the Germans had little to boast of. The British losses were one destroyer (*Flirt*), sunk by gunfire, and one, the *Nubian*, torpedoed but still afloat. One empty transport had been left derelict and six drifters (two armed and four unarmed)<sup>2</sup> had been sunk. It had done little against the Channel transport.<sup>3</sup> The darkness which shrouded their doings had been equally helpful to the British transport line. The *Nubian* was taken in tow by the *Lark*, but a gale sprang up and she drove ashore near the South Foreland. The tug *William Grey* (Thos. W. Smith, Master), went gallantly alongside and saved her wounded. The master of the *Queen* had reported his vessel sunk, but she remained afloat for six hours and finally sank off the Goodwins.

147. **Result of Raid.**—The raid opened a new phase of German activity, and Admiral Bacon thought that four divisions and one light cruiser must be added to Dover Patrol till the barrage could be made more formidable.<sup>4</sup> It was not possible, he thought, to prevent its recurrence. "It is as easy," he wrote, "to stop a raid of express engines with all lights out at night at Clapham Junction as to stop a raid of 33-knot destroyers on a night as black as Erebus in waters as wide as the Channel."

A number of enquiries followed on the events of the night, and the conclusions reached at the Admiralty were formulated in two letters. The principal task of the Dover Force was laid down as the protection of the cross-Channel traffic and of the Downs from the attack of surface vessels. The disposition made by Vice-Admiral, Dover, on the night of the raid was regarded as correct. The Admiralty did not, however, agree with the separate sailings of the Tribals. They considered that destroyers proceeding at night to gain touch with an enemy should be kept in company, and separate forces working from different bases should on dark nights be confined to certain areas. No questions were asked as to the utility of the barrage or of the unarmed drifters posted on it.<sup>5</sup>

148. **The Dover Patrol further Reinforced, October 28.**—The raid emphasised the importance of protecting the lines of communication in the Channel and showed that the efficiency of the Dover Barrage had been greatly exaggerated, for in the course

<sup>1</sup> For details *Viking's* report, H.S.A. 308/151, *Mohawk* in *idem*, 144.

<sup>2</sup> *Spotless Prince, Datum, Gleaner of the Sea, Ajax II, Roburn, Launch Out.* H.S.A. 308/197.

<sup>3</sup> Fifty-seven transports were due to cross that night.

<sup>4</sup> October 27. H.S. 308/187.

<sup>5</sup> A.Ls., November 14 and February 8, H.S.A. 308/223; V.-A., Dover, October 27, October 30 (full report), November 1, November 6, H.S.A. 308/187-218; November 19, H.S.A. 308/250.

of the night 14 British destroyers had crossed it without damage. It was realised that Admiral Bacon would have to depend entirely upon destroyers for the protection of the Straits. For more than 4 months reinforcements from Harwich had been strengthening the Dover Patrol, but after the return of the German 2nd Flotilla from Zeebrugge to the Bight at the end of July the reinforcement had been reduced from two light cruisers and two destroyer divisions to one destroyer division, which at the end of October was the *Lawford's*, though the *Laforey's* had been sent as an additional reinforcement on October 26 and left the Downs for Dunkirk that evening. The *Lapwing* and *Phoenix* were transferred to the 6th Flotilla from Portsmouth and Devonport to take the place of the *Nubian* and *Flirt*. On October 27 Commodore Tyrwhitt was ordered to detach a flotilla leader and four more destroyers to the Dover area,<sup>1</sup> and next day the *Lightfoot* and three destroyers of the *Loyal's* division sailed for Dover.<sup>2</sup> The temporary loss of these destroyer divisions was a serious drain on the strength of the Harwich Force, and its immediate effect was to limit the sailings of the Dutch traffic to one crossing a week. The addition of these destroyers to his command did not, however, entirely satisfy Admiral Bacon, for in his report on the raid, written on October 30, he pointed out that neither the "Tribals" nor the "L" class destroyers were any match for the German boats,<sup>3</sup> and expressed an opinion that the best defence was to stop the transport of troops,<sup>4</sup> as had been done hitherto.

It was thought at the Admiralty that it would require at least three flotillas of up-to-date destroyers to give the cross-channel transports complete immunity from destroyer attack, but the destroyers could not be found, and in any case three flotillas would be beyond the existing berthing capacity of Dover. It remained only to make the best of the available resources, until such time as the destroyer requirements of the Grand Fleet had been satisfied.<sup>5</sup>

**149. Commander-in-Chief's Plans against Raiders.**—The very day (October 26) that the German set out on their ineffectual destroyer raid in the south, the Commander-in-Chief was revising his plans for dealing with raiders breaking out to the north. Two dispositions were laid down.

In Disposition No. 1 the 2nd Cruiser Squadron and armed boarding steamers were to patrol between the Shetlands and Faroes (200 miles); the 10th Cruiser Squadron to take up patrol line No. 2, running from the Butt of Lewis (Hebrides) to Iceland

<sup>1</sup> H.S. 287/282.

<sup>2</sup> *Loyal, Legion, Lysander*. They were followed by the *Leonidas* on the 29. T.S.D.D.

<sup>3</sup> H.S. 308/193. German 2nd Flotilla 3-4-1", 4. T. or 4-4-1, 2 T. 32 K. British "F" class ("Tribals") 2-4", 2 T. or 5-12-pdr. 2 T. 33 K. British "L" class 3-4, 4 T. 29 K.

<sup>4</sup> Presumably at night. T.S.D.D.

<sup>5</sup> M. 09546/16.

(420 miles); the 4th Light Cruiser Squadron, with screening destroyers, were to patrol between the Shetlands and Norway.

In Disposition No. 2 the 2nd Cruiser Squadron was to patrol between the Faroes and Iceland (240 miles); the 10th Cruiser Squadron to take up patrol line No. 3 (i.e., between Rockall and Iceland) (360 miles); and the 4th Light Cruiser Squadron with destroyers and available armed boarding steamers between Noup Head (Orkneys) and Sydero Light (Faroes) (180 miles). Fair Island was to be guarded by flotilla leaders or light cruisers.<sup>1</sup> The winter was to put these dispositions to a severe test.

**150. Question of Norway, October 26.**—The resolution of the Norwegian Government to prohibit the passage of belligerent submarines through their waters<sup>2</sup> evoked a strong protest from Germany. On October 26, in view of the heavy losses, the Norwegian War Assurance Society again forbade sailings to Archangel.<sup>3</sup> There was serious talk of Norway entering the war, and the Commander-in-Chief was asked what he could do to help her. The Foreign Office evidently had an exaggerated idea of the potency of the Grand Fleet, and assumed that British naval power could ensure Norwegian territory from invasion.<sup>4</sup> Actually, the Admiralty could not afford to send a force of any strength to Norwegian waters and there was no base in Southern Norway capable of accommodating a fleet superior to the High Sea Fleet. The Commander-in-Chief could only promise to base the 2nd Cruiser Squadron, with 9 submarines and 16 destroyers at Christiansand. Germany did not press her protest to an ultimatum and the Chancellor was too absorbed in his proposals for American mediation to desire any extension of the war. But this was not known and at Whitehall the Chiefs of the Staff were kept busy with the possibility of Norway entering the war and of Germany invading Denmark.

The possibility in the latter case of sending an expeditionary force to Denmark had been mooted and the Chief of the War Staff pointed out in memorable words that on however small a scale an expedition to Denmark commenced it would increase and swell, similarly to the Dardanelles expedition, and a few months after its inception it would have reached similar dimensions. "With our present oversea commitments neither the necessary naval or mercantile requirements can be provided and to undertake another large expedition would produce such a drain on our resources as to render stagnation and failure inevitable in the other theatres of oversea operations."<sup>5</sup>

<sup>1</sup> For details C.-in-C., October 16, 1916, M. 09488/16. These plans were drawn up as a result of the conference of September. See H.S.A. 212.

<sup>2</sup> October 15 1916. Text in papers titled *Foreign Office*, February 18, 1916. and in C.I.D. 2004/1916.

<sup>3</sup> H.S. 286/896.

<sup>4</sup> F.O. Memorandum, October 29, 1916, in H.S. 500/303.

<sup>5</sup> C.O.S. October 2, 1916, in H.S. 500/75. Question of Norway entering the war, C.O.S. October 28, in H.S. 500/284, and Tel. C.-in-C. to Adty. October 28, 10 p.m. *idem*, 302. These are papers of the first importance.

**151. Merchant Shipping and the Commander-in-Chief, October 29.**—In his paper on Denmark, the Chief of the War Staff had pointed out that the Navy and Mercantile Marine were trying to maintain about 2,000,000 soldiers in foreign service. This question of tonnage, according to the First Sea Lord, was the determining factor and must be faced. The alarm was sounding right through Whitehall. On October 24 the President of the Board of Trade presented to the War Committee a memorandum on the state of affairs, placing the situation in a clear statistical light. A memorandum of the First Lord sounded the same note.

In the smallest compass it presented the framework of naval strategy. "To maintain the blockade of Germany, which is an offensive operation, and to defend our shores from invasion, which is a defensive operation, are the two main functions which (at the present moment) the Grand Fleet has got to perform." "But," it continued, "the most formidable and most embarrassing problem was that of submarine attack on merchant vessels."<sup>1</sup>

Meanwhile, the Commander-in-Chief had been watching the doings of *U.53* on the American coast and the new attacks in the Arctic, while the renewed activity in the South-west Approach and in the Channel was probably in his mind. On October 29 he despatched a letter emphasising the "very serious and ever increasing menace of the enemy's submarine attack on trade" as "by far the most pressing question at the present time."<sup>2</sup> He urged the importance of devising new weapons and methods of attack and pressed for the formation of a committee "with the one and only aim of producing in the shortest possible time and not later than the spring of 1917," methods for overcoming the most serious menace that the Empire had ever faced. He wished to see at the head of it a senior officer with the energy to carry through all promising suggestions and unhampered by restrictions. Finally, he stated that it might quite conceivably be a wise policy to divert destroyers from the Grand Fleet and all other available sources for a thoroughly organised attack on submarines known to be operating in comparatively narrow waters such as the Channel. This letter may be regarded as the beginning of the vast network of organisation and reorganisation which was to cope with and finally defeat the submarine. The Commander-in-Chief was summoned to the Admiralty to confer upon it and the conference was held on November 2. October may be regarded as a month of great beginnings, for it was then that on the German side the idea of unrestricted warfare crystallised and on the British side a colossal effort began, not a moment too soon, to cope with the growing menace.

<sup>1</sup> Memo. First Lord (Balfour), Report on Recent Naval Affairs, October 14 1916, in H.S. 500/418.

<sup>2</sup> C.-in-C., October 29. Anti-Submarine measures, M. 011623/16.

## CHAPTER X.

NOVEMBER 1916.

**152. Conference, November 3.**—The Commander-in-Chief regarded the submarine menace so seriously that he had addressed a letter on the subject to the Prime Minister, as well as to the First Lord and First Sea Lord. This was read by the Prime Minister at a meeting of the War Committee on October 31. Admiral Jellicoe expressed his increasing anxiety that the Allies might be forced to conclude peace through the loss of merchant shipping, emphasised by his anticipation of a large increase of German submarines in the approaching spring. He proposed the establishment of a small expert committee, charged with the task of devising new methods of meeting the submarine and urged that it might have the first call on manufacturers and designers. The First Lord expressed his approval of the Commander-in-Chief's letter to the Prime Minister and proposed that he should come before the War Committee two days later. Neither he nor the Commander-in-Chief could see any means of coping with the new menace.

On November 1 the Commander-in-Chief left the *Iron Duke* at Cromarty to visit the Admiralty. He attended a meeting of the War Committee the next day (November 2) and the question of submarine attacks on commerce was discussed. The arming of merchant vessels, a system of convoy and a new gun for attacking submarines were proposed as antidotes, but the Commander-in-Chief's main recommendation to the Admiralty, namely, the appointment of an expert committee, was not discussed. After hearing naval experts on the question the system of convoys did not meet with general approval,<sup>1</sup> though Mr. Lloyd George was inclined to support it as a last resort. Admiral Sir John Jellicoe displayed a clear and penetrating vision of the danger ahead when he stated that "our merchant ship losses might be so great that we should be brought to our knees in summer for want of food."<sup>2</sup> It remained to devise naval measures to meet it and a conference met for the purpose at the Admiralty on November 3. It mustered an imposing array. It included the First Sea Lord (Admiral Sir Henry B. Jackson), the Second Sea Lord (Vice-Admiral Hon. Sir A. Gough-Calthorpe), the Third Sea Lord (Rear-Admiral C. Tudor-Tudor), the Fourth Sea Lord (Commodore Cecil F. Lambert), the Commander-in-Chief (Admiral Sir John Jellicoe), Admiral of the Fleet Sir Arthur Wilson, the Chief of the War Staff (Vice-Admiral (Acting) Sir Henry Oliver), the Director of Naval Ordnance (Rear-Admiral Morgan Singer), the Admiral Mine Sweeping (Rear-Admiral Hon. E. S. Fitzherbert), the Captain, Submarine Committee, and Lieutenant-Commander Deniston Burney and

<sup>1</sup> "was not generally accepted."

<sup>2</sup> Preliminary Narrative, Grand Fleet, Scottish Area.

Lieutenant-Commander K. B. M. Churchill. The Commander-in-Chief proposed the formation of a small committee selected from those who had developed practical methods. Sir Arthur Wilson laid stress on the possibility of operations against submarines passing Fair Island Channel, but it was pointed out that tides and weather prevented the use of drift nets and anything in the form of a permanent patrol of destroyers would demobilise a portion of the battlefleet. Besides, only a small percentage of submarine losses could be directly attributed to destroyers.<sup>1</sup> The features of an experimental "stick" howitzer were discussed. It weighed 1,100 lb. and was capable of propelling a 200 lb. bomb 1,100 yards with a 100 lb. burster, which exploded 30 ft. under water. The D.N.O. was instructed to prepare designs for a 3-barrelled gun of this nature. The principal recommendation, however, was that a flag officer of authority and energy should be appointed to the Admiralty for the sole purpose of developing anti-submarine measures and pressing them to a conclusion. This received general approval, but there was one point on which a considerable difference of opinion arose. Was the flag officer to have control over the movements of ships? On the one hand it was difficult to imagine that the submarine campaign was to be seriously affected merely by the adoption of a depth charge mortar and by the appointment of a flag officer destitute of the power of control; on the other hand, the Operations and Trade Divisions evidently regarded with anxiety any such invasion and curtailment of their particular function. The Chief of the War Staff, therefore, was in favour of the flag officer dealing merely with the provision and development of appliances. On another point a difference of opinion was manifest. It was the question of defensive versus offensive. Was it better to lock up our available forces in escort work or use them for offensive sweeps against the submarines? The Chief of the War Staff emphasised the immunity enjoyed by escorted ships and pointed out that if troopships were lost it would be difficult to justify the abandonment of a plan which had proved eminently successful. The conference ended and may be regarded as the first step towards the Anti-Submarine Division.<sup>2</sup>

**153. Harwich Force Recapture a Dutch Steamer, November 2.**—Meanwhile another alarm had occurred in the south. At 6.40 p.m. on November 1 a German signal was intercepted directing the 3rd Torpedo Flotilla not to go to Dover Straits, but to support the 9th Flotilla. The auxiliary patrols at Dover and the Nore were at once recalled. It was anticipated that an attack in

<sup>1</sup> Up to October 31, 1916, out of 41 submarines sunk, 9 (i.e., 22 per cent.) were sunk by auxiliary patrol craft, and only 3 (or 7 per cent.) by destroyers and torpedo boats. In the final figures of 1918, out of 180 sunk, some 56 (or 31 per cent.) were sunk by destroyers and patrol craft, and 32 (or 17 per cent.) by destroyers.

<sup>2</sup> Anti-submarine Measures, November 4, 1916. M. 011623/16. See also T.D. 3026 prepared for Commander-in-Chief's visit, November 2, 1926.

strength was impending, and Commodore (T) was ordered to raise steam and send all available destroyers to reinforce Dover. The *Nimrod*, with 12 destroyers, left for the Downs at 10 p.m. Commodore (T) left with six light cruisers an hour later and made for the Scheldt to cut off the German forces on their way back. By midnight the German intentions were more clearly known. Commodore (T) was told at 12.5 a.m. that one enemy flotilla would operate against commerce between North Hinder and Maas, passing Schouwen Bank Light Vessel before dawn.<sup>1</sup> His move met with success. The Germans had no intention of raiding Dover, but the 9th Flotilla had been despatched to Schouwen Bank to attack Dutch traffic. Commodore (T) was off Schar Bank<sup>2</sup> at 5.30 a.m. He swept up to the north-east, and near Schouwen Light Vessel an hour later sighted a steamer steering south with Dutch colours painted on her hull. The *Cleopatra* closed her. She was flying the German ensign, and Captain Loder Symonds, taking her for a raider, opened fire. The crew immediately abandoned ship, and an explosion occurred on board. The *Conquest* picked up the boats, including a German officer and nine men, who had been put on board as a prize crew. The steamer was the Dutch s.s. *Oldambt*, of Rotterdam, bound for London with foodstuffs. She had been stopped by a German destroyer at 2.40 a.m. off the North Hinder, and a prize crew put on board. The Germans had attempted to sink her with bombs, but she remained afloat, and the *Cleopatra* took her in tow towards the Maas Light Vessel. The squadron then swept to the south-west, and shortly after 7 a.m. sighted the Dutch s.s. *Prins Hendrik* with five German destroyers in chase. The *Centaur* opened fire at long range, and they retired behind a smoke screen. The squadron reached the Maas Light Vessel at 1 p.m., and turned the *Oldambt* over to a Dutch tug. The Harwich light cruisers, after recapturing a neutral prize and frustrating the German plan, returned to their base at 6 p.m. The destroyers returned from the Downs the next morning (November 2).<sup>3</sup>

**154. "U.56" Sunk in Arctic, November 2.**—The gloom gathering round the submarine campaign was brightened early in November by the report of an encounter in the Arctic. Two *U* boats had been working there regularly since September, and at the end of October a number of vessels were held up off Vardo as Archangel was full.<sup>4</sup> Two German submarines (*U.54* and *U.56*) were working in the Arctic Sea. *U.54* had only arrived on November 1, and attacked the British s.s. *Daybreak* (3,238 tons) that day some 160 miles north of Vardo.<sup>5</sup> The *Daybreak* replied with her 12-pdr. gun, and *U.54* dived and gave up the chase. *U.56* was working close in to the coast, and after capturing the

<sup>1</sup> H.S. 451.

<sup>2</sup> 12 miles WSW of Schouwen Bank Light Vessel.

<sup>3</sup> H.S. 451; H.S. 246; M. 09681/16; M. 09988/16.

<sup>4</sup> Tel. October 27, H.S. 667/521.

<sup>5</sup> Lat. 73° 5' N., Long. 31° E.

Norwegian s.s. *Ivanhoe* (1,136 tons) off Vardo sank her on November 2 after taking all her crew on board.<sup>1</sup> An hour and a half later a convoy of three or four vessels, including a large floating crane, was coming out of Varanger Fiord<sup>2</sup> when it sighted *U.56*. The Russian destroyer *Grozovoi* and the armed auxiliary *Kupava* opened fire at long range, and a shot hit *U.56*, destroying her wireless, killing three men and holeing her aft. The submarine went off, and the next day, very early in the morning, entered Tana Fjord, some 80 miles to the westward, and landed the Norwegian crew. She never appeared again.<sup>3</sup> As a result of these reports the route was shifted northward some 140 miles from the coast as far as ice would permit. *Q.2*, formerly the transport *Waitemo*, had left the Shetlands on October 31, and arrived just in time on November 7 when the ice was coming down.

There were 53 ships in Archangel on November 8 when an appalling explosion shook the country for miles around. The Russian s.s. *Baron Driesen*, loaded in New York, had blown up alongside Bakaritsa Quay, and a fire broke out, which added to the damage. The British s.s. *Earl of Forfar* was completely destroyed and eight other ships severely damaged; three berthing billets and one-third of the shed accommodation were demolished; the 100-ton crane was blown up; five hundred Russians and thirty British were killed, and some 10,000 tons of munitions were blown into the air. It was only by strenuous exertions that the damaged ships were got to sea before the river froze. This was a heavy disaster, but it did not affect the work of the year. During the summer there had been discharged 379 ships, with 890,000 tons of cargo, and 232 colliers, with 865,000 tons of coal. Two German submarines had prowled on the route since September and had sunk eight British and 14 Norwegian ships, not including one British and one Norwegian ship lost on mines. Out of 611 ships, 24 had been sunk, a loss of 4 per cent.

155. "U.30" Breaks Down, November 2.—The very day that *U.56* was lost (November 2), *U.30*, working off the Norwegian coast, where she had sunk the British s.s. *Brierley Hill*<sup>4</sup> on November 1, broke down some 25 miles west of Bergen. Both Diesel motors were out of action, and she began calling for help. *U.20*, under Lieutenant-Commander Schwieger (of *Lusitania* notoriety), on her way home from the south-west of Ireland (see S. 141) some 40 miles to the southward, heard her, and at 8.30 p.m. hastened to her aid.

The British Admiralty also heard her,<sup>5</sup> and at 10.30 p.m. informed Admiral Burney, who was in command during the

<sup>1</sup> Lat. 72° 5' N., long. 32° 50' E.

<sup>2</sup> Near Vardo.

<sup>3</sup> Tel. November 6, H.S. 307/370. Her captain, Karl Welt, and her first lieutenant met their death that day, November 2. (Mittler.)

<sup>4</sup> 1,168 tons, on way to Hull with 1,500 tons of pitprops.

<sup>5</sup> *U.30*'s first signal was at 7 p.m. November 2, position, 60° 20' N., 4° 31' E. *U.20*'s position at 9 p.m. was 59° 39' N., 4° 30' E.

Commander-in-Chief's visit to the Admiralty, that a submarine had broken down in lat. 60° 20' N., long. 4° 34' E. Admiral Burney received the signal at 10.56 p.m. A force consisting of the 2nd Battle Squadron, three light cruisers and the 11th Destroyer Flotilla had left Scapa at 4 p.m. for exercises north-east of the Shetlands, and was then some 170 miles from *U.30*'s position. It was 2 a.m. when *U.20* picked *U.30* up, and they proceeded south at 6 knots. Meanwhile orders had gone out to intercept them. The *Botha* (Captain Walter L. Allen), with four destroyers of the 14th Flotilla, left Scapa at 4 a.m. (November 3) with orders to proceed to Skudenaes and sweep up the Norwegian coast as far as Udsire.<sup>1</sup> They reached the rendezvous at 1.35 p.m. (November 3), but it was too late. The German submarines had passed ahead of them, and were then some 18 miles to the southward. Unaware of this, for the submarines had not betrayed their position since the night before, the *Botha* swept north at 20 knots, and, on reaching the latitude of Bergen at 5.18 p.m., turned east and closed the coast. She then ran south again. There was nothing in sight, and at 6.40 p.m. (November 3) she turned home.<sup>2</sup> Two other forces had been despatched on the same mission. The *Faulknor* (Captain Anselan Stirling) with six destroyers of the 12th Flotilla, left Cromarty at 10 a.m. (November 3). Her orders were to be in 57° 45' N., 5° 40' E.,<sup>3</sup> by dawn (November 4), and then to sweep to the northward, passing 10 miles west of Udsire in order to intercept a damaged German submarine.<sup>4</sup>

At Rosyth the Battle Cruiser Force had just come back from an exercise cruise and was still coaling, but the 1st Light Cruiser Squadron and eight destroyers of the 13th Flotilla got away by noon (November 3) with orders to be in lat. 57° 20' N., long. 8° E.,<sup>5</sup> at 8 a.m. to support the Scapa and Cromarty destroyers. These orders involved the detachment of 18 destroyers from the Grand Fleet, which was deprived of part of its screening forces till they returned.<sup>6</sup> The fortune of the day was with the submarines. At 3 p.m. (November 3) *U.30* reported the Diesel motors again serviceable, and able to make 12 knots. Admiral Burney, on hearing this, recalled the Cromarty and Rosyth forces, and they turned back at 8 p.m., when still a long way off their rendezvous.<sup>7</sup>

<sup>1</sup> Orders in G.F. Orders and Memoranda, H.S.A. 224.

<sup>2</sup> See Plan 14.

<sup>3</sup> 30 miles S.W. of Lister.

<sup>4</sup> Orders in H.S.A. 224. All information available was given to her.

<sup>5</sup> 70 miles S.W. of Lister.

<sup>6</sup> C.-in-C. to Adty. Recd. 3.47 a.m.

<sup>7</sup> See Plan, Grand Fleet Narrative (H.S. 431) says the *Botha* was recalled at 4 p.m. on account of weather, but her log shows her turning at 6.40 p.m. and her weather report at 4 p.m. states "Wind force 2; sea, slight swell" (confirmed by other logs). The *Faulknor*'s log gives "Wind force 3." The weather was bad, however, to the southward. *Galatea*'s deck log (1st L.C.S.) says, "Wind force 6-8; sea 5." The destroyers with her were sent back at 5.40 p.m. on account of the heavy sea.

156. "**U.20**" Runs Ashore.—*U.30*'s motors broke down again by 10 p.m. (November 3), and at 8 a.m. (November 4) the two submarines were still 100 miles from the Danish coast. Their fortune then deserted them. A blanket of thick fog came down on them, and at 7.20 p.m. (November 4) both boats ran aground on the Danish coast some 5 miles north of Bovbjerg. *U.30*, by throwing 30 tons of gear overboard, got off, but found herself too buoyant to submerge easily and unable to steer submerged. A swell surging on the sandy coast carried *U.20* into a sand pocket,<sup>1</sup> and she could not get clear. Her consort stood by her. Scheer got the news soon after 9 p.m. The situation was unpleasant. *U.20* was lying stranded on a neutral coast, exposed to enemy attack. The 4th Half Flotilla was ordered out at once, and was away by 10.15 p.m. An hour later<sup>2</sup> Admiral Hipper was ordered to advance to Horn Reefs with the outpost forces, and by 10.30 p.m. the *Regensburg*, 2nd Scouting Group, the 1st Torpedo Flotilla, the *Seydlitz* and the 5th Division of the 3rd Squadron were moving out west of Amrum Bank. Half an hour passed, and the whole of the 3rd Squadron was told to proceed, and the order for special state of readiness went out to all battle squadrons and cruisers in the inner roads. The night passed anxiously. At 5.8 a.m. (November 5) the Commander-in-Chief took over wireless control. Commander Dithmar, with the 4th Half Flotilla, arrived on the scene about 6.30 a.m., and the leader at once anchored to seaward of the stricken boat. Thrice they attempted to haul her off and thrice the hawsers parted. A nasty swell making from the southwest proved a heavy handicap. At high water (10 a.m.) a final effort was made, but *U.20* would not budge. It was decided to blow her up, and at 11 a.m. the flotilla turned for home. To the south-west the 3rd Squadron had been patrolling with its cruisers keeping a look out to the south-west and north-west. At 11.30 a.m. it was some 50 miles south-west of Bovbjerg,<sup>3</sup> going N.E. by E. at full speed. At 11.41 a.m. Hipper gave the order to turn at noon and reduce to 12 knots. They were doing so at 12.4 p.m. when the *Grosser Kurfürst* was hit by a torpedo. The squadron increased to full speed, but it was too late. A second torpedo struck the *Kronprinz*.

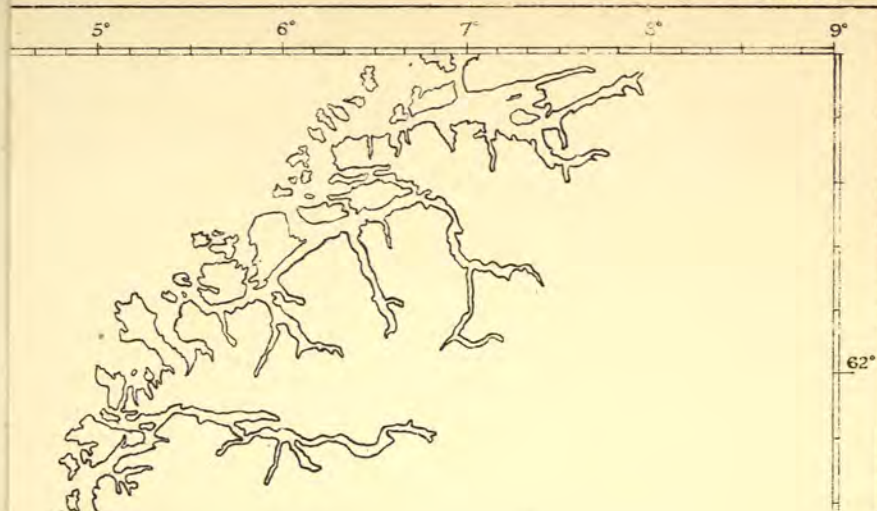
157. "**J.1**" torpedoes "**Grosser Kurfürst**" and "**Kronprinz**" November 5.—The British submarine *J.1* (Commander Noel Laurence, D.S.O.) had left Blyth to patrol off Horn Reefs.<sup>4</sup> He had dived at dawn on Sunday, November 5, and was patrolling submerged in a circle of some 30 miles diameter round lat. 55° 56' N., long. 6° 50' E. The weather was stormy, and to avoid breaking surface he was keeping at 70 feet, rising occasionally to search the horizon. At 11.50 a.m.

<sup>1</sup> The coast is low lying and sandy but fairly steep to. See chart 152, and North Sea Pilot IV, 185.

<sup>2</sup> 10.7 p.m.

<sup>3</sup> Lat. 55° 22' N., long. 7° 3' E.

<sup>4</sup> *G.7* left for the same area on October 27, but *E.44* and *G.13* had had to return with defects.

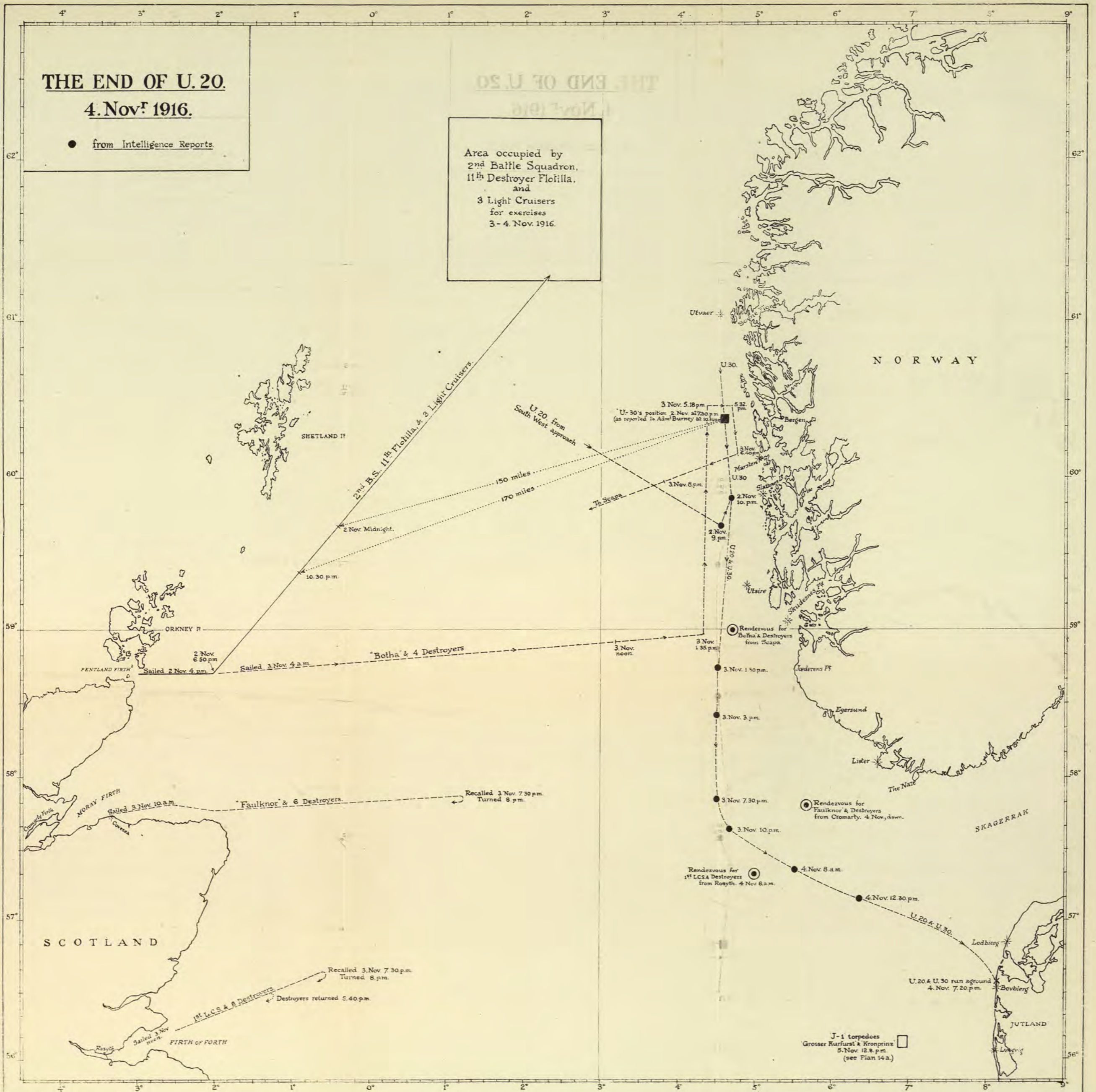


# THE END OF U. 20.

## 4. Nov<sup>r</sup> 1916.

● from Intelligence Reports

Area occupied by  
2<sup>nd</sup> Battle Squadron,  
11<sup>th</sup> Destroyer Flotilla,  
and  
3 Light Cruisers  
for exercises  
3-4 Nov. 1916.



he was some 30 miles south-west of Horn Reefs, and rising on a north-east course sighted some vessels astern looming indistinctly through the mist, which reduced the visibility to about 2 miles. He altered course to east and recognised them as four enemy battleships of the *Kaiser* class steering north.<sup>1</sup> Submerging entirely to avoid breaking surface, he turned sixteen points. When he rose again heading west, the battleships were right ahead turning together to south. *J.1* broke surface in the heavy swell and it was necessary to go full speed to get her under. The distance was about 4,000 yards and the battleships had turned and were already beginning to draw away. Just as the periscope dipped, with the boat under small port helm, the sights came on the third ship of the line and Commander Laurence let go four torpedoes with a spread of 5°. It was 12.8 p.m., and at the end of 3½ minutes the dull roar of an explosion was heard in the boat followed by another two minutes later.<sup>2</sup> *J.1* went down and when she came to the surface at 2.30 p.m. there was nothing in sight. She reached home safely on November 7. The first torpedo hit the *Grosser Kurfürst*<sup>3</sup> aft and the second the *Kronprinz* on the port bow. The *Grosser Kurfürst* shipped 300 tons of water and sustained injury to her rudder, but both ships, though considerably damaged and requiring to be docked, were able to reach harbour under their own steam. This was the only occasion in the war on which two battleships were torpedoed in one attack, and it is interesting to note that of the five hits<sup>4</sup> made on German dreadnoughts by submarines during the war, Commander Laurence was responsible for three. He was awarded a bar to the D.S.O. already won by him for torpedoing the *Moltke* in the Baltic on August 19 1915.

158. **The Kaiser and Admiral Scheer.**—This was a severe blow to the High Sea Fleet and had its repercussions in Germany. The German Emperor expressed the opinion<sup>5</sup> that to send out a squadron and nearly lose two capital ships in order to save a submarine was out of all proportion to the possible gain, and was not to occur again. Admiral Scheer thought that this dictum<sup>6</sup> might easily impose too great a restraint on the fleet out of fear of submarines. On November 22, therefore, when summoned to Great Headquarters at Pless, he seized the opportunity of submitting his view to the Kaiser and obtained his full concurrence. It was briefly this: "In the uncertainty of naval warfare, it is not possible to determine beforehand whether

<sup>1</sup> *König, Grosser Kurfürst, Kronprinz, Markgraf*, Third Squadron, 5th Division, Quarterly Return C.B. 1013 (11).

<sup>2</sup> For Report see H.S. 626/232. Torpedoes were Mark VII, Amatol, adjusted for long range. *J.1* was apparently not seen by the battleships.

<sup>3</sup> *Grosser Kurfürst* completed 19.8.14, *Kronprinz* completed December 1914; both 25,390 tons, 10 12 in., 14 5.9 in.

<sup>4</sup> *E.1* on *Moltke* August 19 1915; *E.23* on *Westfalen* August 19 1916; *E.42* on *Moltke* April 25 1918.

<sup>5</sup> "die Ansicht geauszert" Hochseeflotte, 278.

<sup>6</sup> Beurteilung.



the stakes risked are out of proportion or not. England, threatened by the submarine, would gladly have heard of a submarine sunk close to the German coast, and still more gladly of the destruction of *U.20*, which had sunk the *Lusitania*. The dangers menacing our submarines are so great that they are justified in demanding the utmost support that the fleet can give. They must never think that when in difficulties they will be left to their fate. Besides, English torpedoes have never proved fatal to our big ships. The temporary loss of our ships is certainly a hindrance and precludes for a time any considerable operation. For the salvaging of the boat it is true that a few torpedo boats would have sufficed, but had they been attacked by stronger English forces, further losses would have been possible and the object of the operation would have been defeated. One can only make every sortie as strong as possible so far as forces are available for it. The whole organisation for holding the fleet in readiness is directed towards providing the highest possible degree of security to each enterprise. The maintenance of this principle is important, because in the further course of the submarine war, on which in my opinion the whole of our naval strategy must sooner or later be based,<sup>1</sup> the fleet will have to devote itself entirely to one task, namely, to get the submarines safely in and out. For us each submarine is of such importance, that it is worth staking the whole available fleet to lend it support."<sup>2</sup>

**159. German Submarines.**—The end of 1916 is marked by a great effort to throw the tentacles of submarine warfare further afield. Of the 85 *U.* boats,<sup>3</sup> in November 1916, there had been sunk 24; the remainder were employed—for training 9, in the Baltic 2, in the Mediterranean 14, refitting 3, nearly complete 9, leaving 24 for work from the Bight. During the lull in 1915, and again in 1916, several had been sent to the Mediterranean, but they were now seeking new fields to exploit and striking out into the Atlantic.

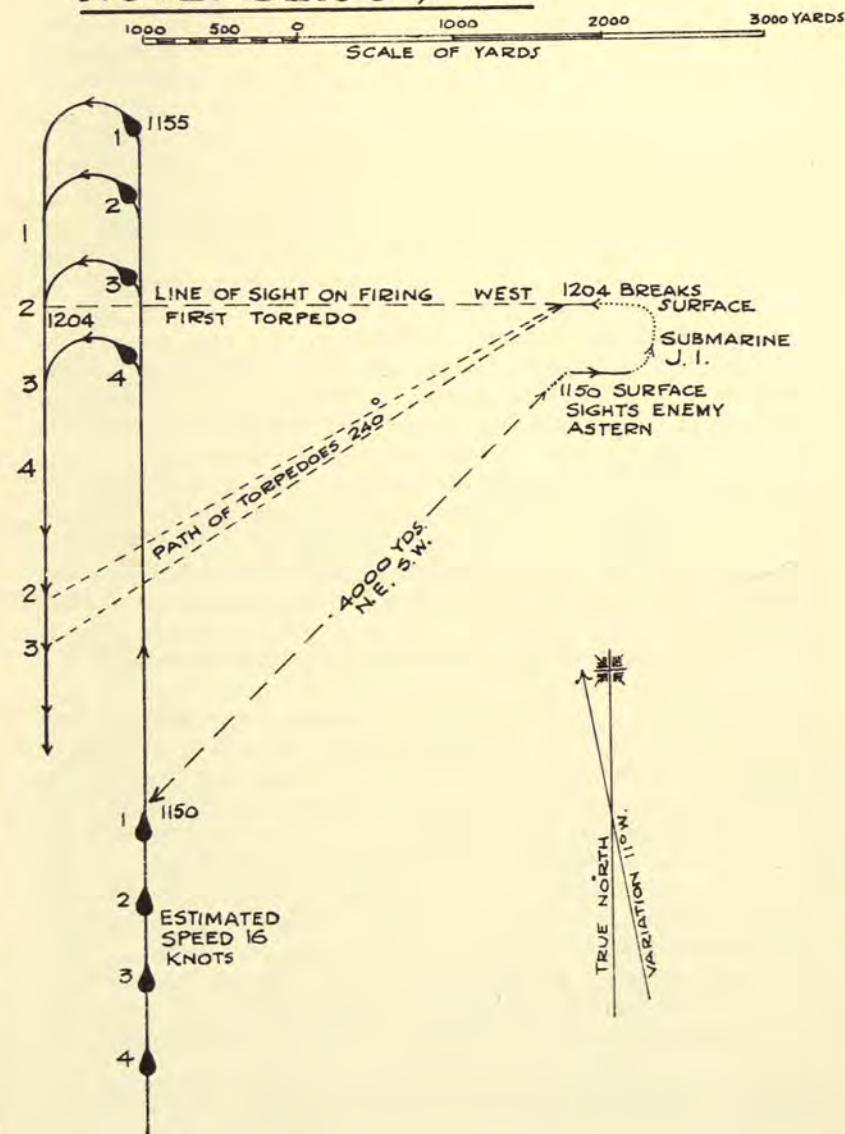
**160. "U.49" and "U.50" in the Bay.**—*U.49* and *U.50* had left Germany on October 23 and 27, and made for the Bay of Biscay north about. *U.49* captured on the way a small Danish trawler, the *Bragi* (October 29, lat. 56° 53' N., long. 10° 35' W.), which she took with her to embark the crews of ships sunk. On November 1 at 10 a.m. she sunk the British s.s. *Seatonia* (3,533 tons) off the south-west coast of Ireland (lat. 52° N., long. 11° 30' W.). The *Seatonia* was on her way from Newfoundland for Barry Roads with 3,000 tons of pitprops. She was 60 miles from the Fastnets in rough and squally weather, blowing half a gale from the west, when she was stopped. The crew of 31 took to the boats and were picked up by the Swedish s.s. *Axel Johnsen* and landed

<sup>1</sup> sich einstellen.

<sup>2</sup> Scheer, Hochseeflotte, 277.

<sup>3</sup> Not including *U.B.* and *U.C.* boats. *U.42* did not exist. *U.86* was completed in December 1916.

## DIAGRAM SHOWING J. I.'s ATTACK OF GERMAN 3<sup>RD</sup> SQUADRON NOVEMBER 5<sup>TH</sup>, 1916



at Gothenburg. The master, Captain Arthur Pattison, was taken on board the submarine and remained there for over a week. The trawler *Bragi* was released off the Spanish coast on November 5, and landed the master of the *Seatonia* and the crews of three British trawlers at Santander on November 7. On November 8 at 5.30 p.m., *U.49* captured the Swedish s.s. *Varing* (2,296 tons) on her way from Newport to Oran with coal in lat. 44° 50' N., long. 10° W.<sup>1</sup> With an armed guard on board she took the place of the *Bragi* and was released with the captured crews on November 12. The day she met the *Varing* (November 8) *U.49* sank her largest ship, the U.S.S. *Columbian* (8,580 tons), on the way from St. Nazaire to Genoa with a cargo of steel and copper. November 12 saw another British loss, the *Lady Carrington* (3,268 tons), a collier transport on the way from Barry to Malta, with 4,850 tons of coal. She was attacked at sunrise (6.40 a.m.) on November 12 in lat. 45° 20' N., 8° 40' W., about 130 miles from Ferrol. A high sea was running and the wind was blowing strong from the south-east. The ship was defensively armed with a Japanese 12-pdr., but no use was made of it. Fire was not opened, as the master was opposed to firing unless he was certain of a hit,<sup>2</sup> on the plea that if he fired without hitting, the submarine might commit an atrocity. The ship was abandoned without being hit. Meanwhile *U.50* was working to the northward. On November 10 she had torpedoed without warning the British s.s. *Bogota* (4,577 tons). This was the largest British ship sunk during the cruise. This ship was on her way from the west coast of S. America to Swansea with 7,500 tons of cargo, and on November 10 at 0.15 a.m. was in 46° 51' N., 6° 54' W., some 125 miles from Ushant, on a course N. 69° E., when she was suddenly struck by a torpedo. Three boats were lowered when a second torpedo hit the ship. Only the conning tower of the submarine was visible. Fortunately, though a high swell was running, the weather was fine and the wind light and the crew was picked up at 6.15 a.m. by the Danish s.s. *Dagny* and brought to Brixham.<sup>3</sup> The British s.s. *Sarah Radcliffe* (3,333 tons), like the *Lady Carrington*, was an Admiralty collier and suffered the same fate. She was taking coal from Cardiff to St. Vincent (Cape Verde Is.), where supplies were getting low, and on November 11 at 7.10 a.m. was in the Bay of Biscay in lat. 46° N., long. 7° W., steering W.S.W. at 9 knots, when a submarine was sighted 4 miles to starboard. The weather was thick with passing fog banks and a light wind from the south-east. The ship turned to keep the submarine astern. A shot destroyed the wireless, but the ship was not otherwise hit. She was not armed and after being abandoned was sunk by a torpedo. The boats were picked up almost at once by the Norwegian s.s. *Hugin*.<sup>4</sup> The

<sup>1</sup> Papers *re* Swedish s.s. *Varing* in M. 010928/16, marked N. 1483/1916.

<sup>2</sup> For enquiry see B. of T., November 23 1916, M. 60397/16. There was no power under the Defence of Realm Act to enforce action on a master or to deal with cases of this sort.

<sup>3</sup> B. of T., November 13 1916, M. 54699/16.

<sup>4</sup> Papers in Swedish s.s. *Varing*, N. 1483/1916.

submarine (*U.50*) went off to the northward and met the British s.s. *Morazan* a few hours later.

The British s.s. *Morazan* (3,486 tons) was a defensively armed ship but could not stand up to the "U" class submarine. She was on her way from Calcutta to Middlesborough with 6,000 tons of jute and manganese ore. On November 11, at 9.20 a.m., she was in the Bay in 46° 41' N., 7° 39' W., going N. 40 E. (true), when she sighted *U.50* on the starboard quarter and at once brought her right astern. Fog was hanging over a smooth sea. The submarine crept up and opened fire at 7,000 yards. The ship, which was armed with the not very satisfactory weapon of a 15-pdr. converted military, on a 6-pdr. crinoline mounting, replied at 5,000 yards and fired 13 rounds, all of which fell short. The submarine commenced to hit. Her fourth shot struck the funnel and a steam pipe; another exploded in the forecastle and set it on fire, wounding a man. The ship was abandoned and the submarine sank her with a torpedo. The crew were picked up by the Danish s.s. *Beira*. The master, Captain C. J. Leggett, was taken on board the submarine<sup>1</sup> and seems to have become a prisoner of war.

*U.49* and *U.50* may have met one another on the night of November 12 when they turned home. *U.49's* last encounter in the Bay, was not so fortunate. The British s.s. *Idaho* (3,093 tons) had left New York on October 29 for Portland loaded with munitions, with orders to proceed to rendezvous X.<sup>2</sup>

On November 13, the Commander-in-Chief, Devonport received a signal from her saying that she would be at the rendezvous on November 14, at 1 p.m. and Captain (D) 2nd Flotilla, sent off the destroyer *Alarm* from Devonport to bring her in. The *Alarm* was held up, however, in the Sound by fog and did not get away till November 14, at 11 a.m. By that time the *Idaho* was lying abandoned and on the verge of destruction in the Bay. She had reached lat. 48° N., long. 9°, 49' W., on November 14, and was steering east at 9 knots. The weather was fine and clear with a light S.S.E. wind, when at 9 a.m., a submarine was sighted 3 miles off on the starboard bow. This was *U.49* with the Norwegian s.s. *Dicto*, captured by her the day before. The *Idaho* turned away, zigzagging, and sent out a S.O.S. At 9.20, *U.49* loosed two torpedoes, one of which missed ahead and the other astern, and at 9.40 a.m. opened a regular fire. She crept gradually up. Her shots began to fall closer and though the ship was not hit, her cargo of explosives did not brook delay and at 10.14 a.m. she stopped. The very last signal she made was caught a minute later at 10.15 a.m. by the destroyer *Tigress* (Lieutenant J. L. Yorke), then on her way home from an outward bound escort, some 36 miles to the north-westward.<sup>3</sup>

<sup>1</sup> The enquiries after his whereabouts do not seem to have had any result up to March 1917. M. 60007/16, M. 54876/16.

<sup>2</sup> Lat. 48° N., long. 9° W. H.S. 325/16.

<sup>3</sup> *Tigress* gives her position as 48° 3' N., 10° 45' W., which makes her 45 miles off, but she reached the spot by noon.

The *Idaho* was abandoned at 10.30 a.m. but the *Tigress* was racing down to her at 27 knots and about 11.30 a.m. her funnels could be seen growing rapidly on the horizon. *U.49* did not wait but went down at once, and when the *Tigress* reached the scene, she found only the abandoned ship. The crew returned on board, got up steam again, and proceeded at 3.30 p.m. escorted by the *Tigress*, whose captain was subsequently complimented on his smart piece of work.

Two British transports, the *Nestor* and *Kenilworth Castle*, were due at Rendezvous W. on November 14<sup>1</sup> and the timely arrival of the *Tigress* no doubt helped to get them safely home. Her sudden appearance saved, too, the Norwegian s.s. *Dicto*, on a coal trip from Cardiff to Genoa, captured the day before. The crew of the Danish s.s. *Terese* was in her, but no prize crew, though her master (Captain Gabrielsen) had been taken aboard *U.49*. He told later of another British ship sunk on November 15, at 8.30 a.m. This may have been the *Lorca* (4,129 tons) which left Virginia for Cherbourg with timber. She was never heard of again.<sup>2</sup>

This ended the cruise of *U.49* and *U.50*. They returned to Emden north about and were back on November 26 and November 23 respectively. *U.49* had sunk 10 steamships (4 British, one Norwegian, two Greek, one Italian) totalling 34,417 tons, and *U.50*, seven steamships (two British, one U.S.A., three Norwegian, two Danish, one Greek) totalling 22,041 tons. *U.49* was driven off twice by British armed merchantmen and had two ships snatched away from her by the destroyer *Tigress*. *U.50* was driven off twice by defensively armed merchantmen.

**161. Action taken, U.49 and U.50.**—The first report of submarines in the Bay came from the American s.s. *Columbian*, on November 7th, which sent out an S.O.S. at 3 p.m. An hour or so later came a warning from Brest of the French s.s. *Louis*, attacked the day before (November 6) at 8 a.m. in 42° 10' N., 9° 40' W., and at 4.53 p.m. a War Warning went out reporting a submarine active in lat. 44° N., long. 8° 30' W.<sup>3</sup> During the day, there came a telegram<sup>4</sup> from the Vice-Consul at Santander, with the report of the arrival of the Danish trawler *Bragi* with the crews of ships sunk.

*Q.1* had just left Queenstown for the Mediterranean, and at 10.30 p.m. (November 7) Admiral Bayly was told to pass the information of the French s.s. *Louis* on to her. No reports had come in from the south-west approach and vessels from the

<sup>1</sup> H.S. 328/345.

<sup>2</sup> The s.s. *Lorca* is not in the return (January 1 1918) of British Vessels Captured or Destroyed. *U.49* would then be somewhere about 50° 30' N., 11° W. Papers on s.s. *Idaho* and *Tigress* in M. 010145/16, marked B. 844/1916, *Lorca* in M. 61320/16, B. of T. January 31 1917.

<sup>3</sup> *Columbian's* reported position at 1.25 November 7.

<sup>4</sup> Not traced, mentioned in Adty. to Vice Consul Santander, November 8, 1300 H.S. 307/707.

Clyde, Irish Sea and Bristol Channel to North Atlantic were given permission to proceed by the south coast of Ireland (11.20 p.m., November 7).

On November 8, at 1.5 p.m., homeward bound transports were ordered to keep 100 miles from Cape St. Vincent and to cross the parallel of lat. 43° N., between 13° W., and 14° W.;<sup>1</sup> almost simultaneously came a telegram from Gibraltar repeating the Vice-Consul's report from Santander of the day before.

On November 9, the War Warning of November 7 went out, again, and at 2.7 a.m. an order was sent to Gibraltar that British vessels bound from Gibraltar were to cross long. 10° W. between lat. 34° N. and lat. 35° N. and to cross lat. 35° N., between long. 13° W. and 15° W. No vessel was to pass within 150 miles of Cape Finisterre.<sup>2</sup> No order to this effect, however, seems to have been issued to outward-bound ships<sup>3</sup> and the *Lady Carrington*, which left Barry that afternoon (November 9), was making right into the War Warning area, when sunk on November 12, as was the *Sarah Radcliffe*, which left Cardiff on November 8, the day after the first War Warning had gone out. That evening (November 9, 5.49 p.m.) came information of further sinkings from Santander, and on November 10 Admiral Bayly sent *Q.7* to cruise on T route (Bay of Biscay) for a week. Then at 5.12 p.m. (November 10) the final step was taken of stopping traffic and an order went out to stop all sailings from the Clyde, Irish Sea, Bristol Channel and English Channel ports for South Atlantic, Mediterranean and Biscay ports. Vessels from the English Channel bound to North Atlantic ports armed with 12-pdr. guns and above were allowed to sail, and were to proceed west from the Scillies as far as long. 9° W. Vessels without defensive armament were to be detained.<sup>4</sup>

These orders were still in force on November 12, when Devonport was told that no troop transports for Mediterranean were to sail until further orders.<sup>5</sup>

**162. Submarines, Channel, November 6-15.**—The English Channel had been quiet since October 28, but activity burst out again on November 6. The first report came from a Norwegian, the s.s. *Sneffjeld*, which was making for Rouen in ballast, when she was chased, stopped by gunfire on November 6, at 3.30 p.m. in lat. 50° 13' N., 0° 12' E. and had her papers examined. The next day the British s.s. *Suffolk Coast* (778 tons) on her way from Glasgow to Fécamp, with a general cargo of 782 tons, was 14 miles S.S.E. of Cape Barfleur going S.E. at 8 knots when a submarine was sighted three miles off on the starboard bow. The ship had

<sup>1</sup> i.e., 180 miles from C. Finisterre, H.S. 328/320.

<sup>2</sup> H.S. 328/331. This meant a run of some 300 miles west from Gibraltar.

<sup>3</sup> There is none in Home Waters Telegrams, H.S. 307.

<sup>4</sup> H.S. 308/257.

<sup>5</sup> H.S. 308/832, 4.20 p.m.

no wireless, no patrols were in sight, and after a short chase she was boarded and sunk by bombs. The crew were picked up 15 hours later by a French destroyer.<sup>1</sup> Meanwhile the *Sneffjeld's* report had reached Sheerness at 2 p.m. and at 11.20 p.m. (November 7) the Commander-in-Chief, Devonport, was told to send the 4th Flotilla destroyers up Channel to search for the submarine.<sup>2</sup>

The situation was made more difficult by Havre being closed on account of mines except for two hours each side of high water. The Commander-in-Chief, Portsmouth, urged that it was impossible to continue the passage of mails and transports under these restrictions, which involved increased risk for the longer daylight passage. The Chief of the War Staff urged the point at Whitehall, and British minesweepers were at once sent over to Havre to clear the entrance. Six British trawler minesweepers were despatched from Falmouth to be stationed permanently there,<sup>3</sup> and by November 9, Havre was open again at all states of tide.

The next British ship to suffer was the s.s. *Killellan* (971 tons) an Admiralty collier with 2,300 tons of coal on board for Rouen. It was boisterous weather with a heavy sea when she was stopped off the Colbart Light Vessel in Dover Straits and sunk by two torpedoes at 2.5 p.m. on November 8.

On November 8 at 7.52 a.m. three destroyers of the 4th Flotilla (the *Martin*, *Brisk*, *Unity*) had got away from Devonport with the *Cockatrice* from Portland and were making a sweep in the Channel.<sup>4</sup>

The *Zulu* had been mined that afternoon on her way from Dover to Dunkirk, and at 7.55 p.m. (November 8) orders went out to detain British and Allied ships bound down Channel unless defensively armed with a 12-pdr. Eighteen transports were due to cross that night, when at 10.50 p.m. the Vice-Admiral, Dover, stopped cross-Channel traffic. A few hours later (11.15 p.m. November 8), the *Goshawk* and four destroyers pushed out of Devonport for a submarine hunt. They had orders to spread at dawn on a line joining Portland Bill and Casquets and sweep to between Anvil Point and Cap de la Hague.<sup>5</sup> But their search was fruitless. The next day (November 9) a Flanders submarine appeared for the first time in the month off Ushant. The small British s.s. *Marga* (674 tons) on her way from Cardiff to Lorient with 854 tons of coal was 16 miles N. by W. of Ushant on a course S. by W.  $\frac{1}{2}$  W., going  $6\frac{1}{2}$  knots, when she sighted a periscope three miles on the starboard beam. The weather was fair and clear, but a nasty high sea was running and the wind was blowing strong

<sup>1</sup> M. 54667/16. Bruges had issued orders to submarines on November 4 at 9.2 p.m. that all ships on a course between England and France might be sunk without warning between Beachy Head and St. Alban's Head.

<sup>2</sup> H.S. 307/661.

<sup>3</sup> H.S. 307/470, 422, 414, 423.

<sup>4</sup> H.S. 307/610, 643.

<sup>5</sup> H.S. 308/511. No report of the cruise has been seen.

from north-north-west (force 7). The ship was not armed and the master at once brought the submarine astern and made for a French patrol boat, the *Sainte Jehanne* about five miles off. The submarine opened fire. One shot holed the port bow, another wrecked the cabin and the ship stopped and boats were got out. Meanwhile the *Sainte Jehanne* had opened fire and was coming up and the submarine, after firing a torpedo which missed ahead, went down. It was then about 3.45 p.m. (November 9). The ship remained afloat. The crew went back on board, and escorted by the French patrol vessels *Sainte Jehanne* and the *Etoile de la Mer*, made for Brest. But the heavy sea was too much for the *Marga*, and at 6.45 p.m., eight miles from Ushant, she listed over and had to be abandoned. The crew (7 British, 3 Japanese, 2 Greeks) was landed at Brest by a French destroyer.<sup>1</sup>

The submarine continued operating off Ushant, though she was attacked and driven down on November 13 by the French patrol boat, *Grondeur*.<sup>2</sup>

The Flanders submarines were evidently very careful to avoid contact with patrol vessels, but the next day (November 10) the armed trawler *Gavina* (one 12-pdr.) from Portsmouth, patrolling in mid-Channel at dawn with the armed trawler *Isle of Man* (one 3-pdr.) sighted one lying in wait for a small British steamer, the *Channel Trader* (684 tons), and opening fire at 4,000 yards drove her under.<sup>3</sup> Four destroyers, the *Martin*, *Brisk*, *Unity* and *Cockatrice*, which had come up from Devonport, had left Portsmouth the night before on a submarine hunt but apparently saw nothing.<sup>4</sup>

A couple of days passed without further British losses, but on November 13 two British ships were sunk on their way back from France. On November 13, the British s.s. *Caterham* (1,084 tons) in ballast from Rouen to the Tyne, was about 12 miles off Beachy Head steering E.N.E. at 9 knots when she was stopped at 7.30 a.m. by a "U.C." boat. She was unarmed and sunk by bombs 15 miles S.S.E. of Beachy Head. It was thick and the enemy gave the boats the bearing and distance of Beachy Head and the crew were picked up by a destroyer and landed safely at Dover the next day.<sup>5</sup>

An hour or two later the British s.s. *Bernicia* (957 tons) suffered the same fate near the same spot. She had left Rouen at 2.50 p.m. on November 12, and was on her way to London, when she stopped at 9.10 a.m. on November 13 off Beachy Head, after being hit twice by shell. No patrol vessels were in sight; the ship was unarmed and had no wireless, and after being

<sup>1</sup> M. 60063/16.

<sup>2</sup> November 13, p.m. 19 miles S. 70 W., true from Creach Point (Ushant).

<sup>3</sup> November 10, 6.55 p.m., lat. 50° 12' N., 0° 38' W. H.S. 275/249.

<sup>4</sup> H.S. 308/68. They returned to Portsmouth to complete with oil on November 11. No report of their cruise has been seen.

<sup>5</sup> M. 010077/16 and M. 54924/16.

ransacked for brass and provisions was sunk by bombs. The boats made their way to the Royal Sovereign Light Vessel and the crew was landed at Dover the next day.<sup>1</sup>

The next British ship sunk was inside the area, Beachy Head to St. Albans. This was the s.s. *Polpedn* (1,510 tons) on Government service in ballast from Dunkirk to Ayr. She was torpedoed without warning at 3.30 a.m. November 14, ten miles south of the Owers Light Vessel. The crew took to the boats and were all picked up.<sup>2</sup>

These three ships were all coming from France, were all unarmed and without escorts, and were all making up Channel well over 12 miles from land.

On the question of routes the Admiralty on November 16 asked the Vice-Admiral, Dover, what route was being given in the Downs to British and Allied ships proceeding from the Downs to Fécamp, Havre and Rouen, and was informed that they were being sent along the English coast to call at Spithead for the latest information, and to cross the Channel by night.<sup>3</sup>

The *Caterham* and *Bernicia* were evidently not following any instructions framed on these lines, and the latter was almost in mid-Channel in broad daylight when she was sunk.

For nearly a week four destroyers lent from the 4th Flotilla had been hunting in the Channel for submarines, but their efforts were quite ineffectual so far at least as destruction was concerned. Large hopes were based on the efficiency of these "hunts," and it was decided to send the whole of the 4th Flotilla<sup>4</sup> from Immingham to the Channel in order to provide a permanent destroyer force for the purpose.

Five of the most seaworthy and efficient were to proceed to Dover to join the 6th Flotilla. The remainder were to be based on Portsmouth. This deprived the Grand Fleet of the potential services of the 4th Flotilla in the North Sea, but the Commander-in-Chief had himself suggested measures of the kind, and it was arranged that escorts for the 10th Sloop Flotilla (when sweeping M or N or Queen's Channel in the North Sea) should be provided by the Grand Fleet.<sup>5</sup>

These losses were the work of three (or possibly four) Flanders submarines.<sup>6</sup>

They had sunk six British, seven Norwegian, 10 French and one Spanish ship. The French losses were all small sailing vessels, of which about half were engaged in the coal trade. Of the seven

<sup>1</sup> M. 54924/16.

<sup>2</sup> M. 54962/16.

<sup>3</sup> Admiral, Dover, Nov. 16, 10.52 a.m. H.S. 309/677.

<sup>4</sup> *Active*, *Hecla* and 15 destroyers.

<sup>5</sup> Admiralty to Commander-in-Chief and Rear-Admiral, East Coast, November 14 1916, M. 09963/16.

<sup>6</sup> Possibly U.C.17, U.C.18, and U.B. 29. There were 10 "U.B." and 8 "U.C." boats in the Flanders Flotilla at this time.

Norwegian ships, five were taking coal to France. This trade suffered severely, and the losses it incurred led later to a determined effort to improve matters, which resulted in the Falmouth Coal Convoy.

163. **Minelaying, Channel, November 6-15.**—One of the "U.C." boats had scattered its cargo of 13 mines outside Dartmouth, Plymouth and Falmouth, probably about November 8. The mines off Dartmouth were sighted on November 10 while sweeping for an English mine, which had been reported there, and the trawler minesweeper *Benton Castle* was blown up on that day with a loss of 10 lives. The channel was reported clear on November 17.

Mines had also been found off Portland, Havre and Brest,<sup>1</sup> and, though the damage done by them was comparatively small, they helped to dislocate traffic.

Off Calais another "U.C." boat had been busy laying mines, which were to terminate the *Zulu's* career.<sup>2</sup> She left Dover at 1.40 p.m. on November 8 with passengers and mails for Dunkirk, and at 2.52 p.m., in lat. 51° 4' N., long. 2° 3' E., struck a mine, which shattered the whole of her after part, killing two men and injuring three others. A French torpedo boat took off the passengers and crew; the after part broke off and sank at 5.50 p.m., leaving the forepart to be towed to Calais by tugs and to reappear, after being joined to the after part of the *Nubian*, as the destroyer *Zubian*.<sup>3</sup> Two days later (November 10), 8 miles to the westward, the *Legion* was patrolling with the *Leonidas* on the Dover barrage at 5.16 a.m., when, in 51° 3' N., 1° 49' E., she struck a mine, which exploded aft, disabling the engines and doing extensive damage, though only one man was injured. The weather was fine, and she was brought into Dover by the *Leonidas* and *Lightfoot*.<sup>4</sup>

164. **The "Virgen del Socorro," November 8.**—In the morning of November 8 the armed drifter *Paramount*, belonging to the Downs Flotilla,<sup>5</sup> was patrolling some 16 miles east of the South Goodwin Light. It was heavy weather, when, at 7.30 a.m., a schooner was sighted running to the north-east before a strong breeze from the south-south-west. She had evidently not passed through the Downs, and the *Paramount* fired a blank charge to bring her to. This had no effect. The *Paramount* gave chase, and she hove to after a 6-pdr. shot had gone through the mainsail. Her replies were unsatisfactory, and she was brought into the Downs. She turned out to be the *Virgen del Socorro*, with 20 Germans on board and a long tale to tell. At Vigo there were a number of Germans from interned merchant ships and from the Cameroons,

<sup>1</sup> Brest, Pierres Noires dangerous, November 12, 0240, H.S. 328/371.

<sup>2</sup> German statement of mines laid, minefield 232.

<sup>3</sup> *Zulu's* log, also M. 22632/16.

<sup>4</sup> M. 010080/16.

<sup>5</sup> S.N.O., Ramsgate, was Capt. G. M. Tomlin; the armed drifters were under Comdr. Walter Saunders.

who sat in the Spanish cafés longing to be home. For 11,150 pesetas (£418) they bought a little schooner, only 50 ft. long and of 15 ft. beam.<sup>1</sup> She was not in good condition; she had not even a boat, but the hull was sound—"pretty good," at any rate. It had good need to be. They "sneaked out" of Vigo in the early morning of October 7 when it was raining hard, and shaped a bold course round Ireland for home. Heinrich Zuppe, second officer of the interned German s.s. *Goeben*, was the master, and Karl Hilburg was the mate. There were four other seamen on board, and altogether 20 persons, soldiers and police officers from the Cameroons. It was a perilous voyage. By October 24 they were some 300 miles W.S.W. of Bantry when they fell in with a heavy gale from the north-west. They cast a sea anchor from the bow, but the boat lay labouring heavily beam on to the sea, in hourly danger of foundering. At 7 p.m. the rudder stock broke. By October 26 they had made an emergency rudder, but they could no longer hope to get round Scotland, and on October 29 they were scudding before a south-west gale under a forestaysail. They sighted Trevose Head on October 31. On November 4 they sighted Lundy Island about 8 a.m., and were able to pass the Lizard on November 6, with the wind blowing north-west 5-6, in a very choppy sea. On November 7 the wind blew fair from the south-west, and they came bowling up Channel. At 6 a.m. they sighted a destroyer off Portland, a mile or so off, but it did not stop them. That night they passed close to two more off Dungeness, but got safely past. They were a bare 40 miles from home with a fair wind behind them when fortune deserted them, and the *Paramount* brought them to. A voyage "assez mouvementé," as Sir Arthur Hardinge, the Minister of Madrid, expressed it. He had sent information of her departure from Vigo on October 11,<sup>2</sup> but they were able to get almost within sight of home, after a voyage of 32 days. There followed strong representations to the Spanish authorities that they should keep a better look out on Germans on land, and the master of the tug *Andurina*, which had towed them clear of harbour, was fined 375 pesetas (£14),<sup>3</sup> while the men who had braved the perils of an Atlantic winter passed dejectedly into Wandsworth Prison.

165. **German Submarines, North Sea.**—In the North Sea during November activity was less marked than in the Channel, and was confined more definitely to particular areas. The Skagerrak was the principal area of activity, and there the minelayer *U.75* was working from November 3 to 26, cruising off the Skaw with a brief cast (November 15-19) towards Christiansand and Christiania. She stopped nine ships and sank three, two Danish sailing vessels and one Swedish ship. Lurking off Christiansand<sup>4</sup>

<sup>1</sup> Tonnage not given, but could not have been over 100 tons.

<sup>2</sup> Tel. October 11 recd. 11.40 p.m.

<sup>3</sup> Papers titled *Virgen del Socorro X*. 6913/16 and S.N.O., Ramsgate, to Adty. November 12 1916, X. 6969/16.

<sup>4</sup> Lat. 59° 58' N., long. 8° 13' E.

on November 15 she stopped and set on fire the Danish sailing vessel *Viliak* (200 tons), on her way to England with timber, and the next day, close to the same spot, the Danish sailing vessel *Fenja* (433 tons), from Krageso to St. Nazaire with timber, suffered the same fate. Her biggest capture was the Swedish s.s. *Arthur* (1,384 tons), which had been bought by Swedes, with British money, and was specially insured by the British. Carrying pit props one way and coal the other, she had proved a financial success. On November 15 she was on her way from Leith to Gothenburg with 1,600 tons of coal, when she was stopped off the Skaw (lat. 57° 46' N., long. 10° 56' E.) at 8.40 a.m. The mails were seized, and the ship sunk with bombs.

**166. Off Norway.**—The coast of Norway was another area of activity. *U.C.29* was cruising off the Naze from November 4 to 10, and stopped nine Scandinavian ships. *U.30* went up to Utvaer, and there on November 1, at 10.30 a.m., in lat. 61° N., 4° 31' W., stopped the British s.s. *Brierley Hill* (1,168 tons gross), from Bergen to Hull with 1,500 tons of pit props, and sank her with a torpedo after the crew had taken to the boats.

*U.30* then moved south, and her breakdown the next day led to the loss of *U.20* (see S. 156). The British s.s. *Spero* (1,132 tons gross) had left Bergen 12 hours after the *Brierley Hill*. She was stopped and sunk the next day (November 2) at 8.5 a.m. by a submarine mid-way between Fair Island and Norway in lat. 59° 43' N., 1° 52' E. This was the work of *U.69* on her way back north-about from the south-west of Ireland.

*U.54*, returning from the Arctic, cruised off Stadlandet from November 6 to 10, and stopped one or two Norwegian ships; she chased the British s.s. *Edendale* (November 8, 6.30 p.m.). *U.81*, in the same area, stopped the Norwegian s.s. *Corvus* (326 tons) on her way from Liverpool to Narvik, and made her jettison her cargo (November 6, 7.30 a.m., in lat. 62° 19' N., long. 5° 16' E.).

**167. Submarines, Scottish Coast, November.**—No German submarine was seen north of Aberdeen during the month, but two ships were sunk off the Forfar coast. On November 8, at 3.30 p.m., the trawler *Vineyard* was seen to blow up in 56° 54' N., 1° 49' W., between Aberdeen and Arbroath, and went down with all hands. Nine days later the collier *Canginian*<sup>1</sup> (1,143 tons), which left Methil on November 17 at 8 a.m. for Scapa, was seen to founder that day by the s.s. *Strongwald* in 56° 35' N., 2° 22' W., 10 miles from Arbroath, at 1.15 p.m. The *Strongwald* closed, but found only a wooden case, and nothing more was seen of the collier except a board with her name on it which was picked up later at Montrose.

Minesweepers swept the spot without finding anything, and the sinkings were attributed to a submarine, but it is known that

<sup>1</sup> Not in T.D. return of British Ships, Captured and Destroyed.

a "U.C." boat laid a field in this area toward the end of the year,<sup>1</sup> and mines were found there in February 1917.<sup>2</sup>

**168. Off Yorkshire Coast, November 13.**—A German submarine was working off the Yorkshire coast from November 12 to November 21, but did comparatively little. She examined four Swedish ships, and on November 13 sank one British ship. This was the s.s. *Corinth* (2,367 tons), a collier on her way from Blyth to Rochefort with 5,500 tons of coal on War Office account. At 6 a.m. (November 13) she was just north of the Humber, making 8 knots and steering S.½E., when fire was opened on her. She made to south-westward at full speed, but was hit several times. The master abandoned her at 7 a.m., and she was sunk by bombs at 8 a.m. in approximately lat. 53° 43' N., long. 0° 14' E., 8 miles from the coast. Twenty minutes later (8.20 a.m.) *T.B.35* came on the scene and drove the submarine down, and was reinforced by the destroyer *Waveney*, which dropped a depth charge on the spot. There ensued a hunt by 10 destroyers, five motor launches, three seaplanes and three airships, which probably made the submarine nervous, for nothing more was seen of it for some days.<sup>3</sup>

A correspondence on the subject developed, from which it appeared that the North Sea pilots were not kept informed of the Admiralty instructions, which were issued to the master marked "Secret." The ship had been sunk some 3¼ miles to eastward of the War Channel, and it was pointed out that being south-bound she should have been on the west side of the War Channel. The North Sea pilot taken on board at Blyth admitted that he had altered course S.½E. after passing Flamborough Head. The Admiralty asked for disciplinary action as the ship had not been following the Admiralty safe route, and the Pilotage Commissions sent a reply to say that the pilot said he had no instructions with regard to the Admiralty safe route and that the master never showed him any, and that they considered some scheme should be devised by which they should be made known to North Sea pilots.<sup>4</sup>

**169. Lowestoft, Mines, November 3-9.**—The East Coast and Lowestoft area suffered considerably from mines. On November 3 the minesweeping trawler *Glenprosen* was sunk 1 mile NNE of the Cross Sand Light Vessel.<sup>5</sup> Mines had been laid, too, off Newarp Light Vessel and were found on November 6 (52° 42½' N., 1° 48' E.). Their sweeping resulted in the loss of the paddle sweeper *Fair Maid* on November 9 at 8.15 a.m. She was hauling in a damaged kite when she was struck by a mine, cut almost in two and sank in 20 minutes, with a loss of one officer and four men.<sup>6</sup>

<sup>1</sup> Date not known.

<sup>2</sup> Mines were swept up February 10-25 1917, in about lat. 56° 41' N., long., 2° 21' W.

<sup>3</sup> M. 60872/16 and H.S. 308/972.

<sup>4</sup> Pilotage Commissioners, 22.3.17 in X. 9251/1916.

<sup>5</sup> Lat. 52° 39' N., 1° 56½' E.

<sup>6</sup> X. 8238/16.

That same morning (November 9) a ship was blown up further south off Southwold. This was the British s.s. *Sunnyside* (447 tons) on her way from Hull to Rotterdam with a general cargo, when she was blown up at 12.45 a.m. in 52° 21' N., 1° 46' E., 2½ miles from shore and sank in three minutes with the loss of the master and three hands.

Mines were found that afternoon (November 9, 4.40 p.m.) three miles south of the Sunk Light Vessel, and all traffic to and from the Black Deep was stopped.

170. **East Coast, November.**—The day the s.s. *Corinth* was sunk (November 13) off the Humber, another submarine was working off Yarmouth and sank two fishing smacks, the *Superb* and *Our Boys*, by gunfire at 9 a.m. off Smith's Knoll. A torpedo was also fired at the paddle sweeper *Cheltenham* without effect. The armed trawler *Cotsmuir* was sent to the spot and Commodore (T) when he got the news sent off the *Hornet* with eight destroyers. Some way to the southward *P.30* at 12.45 p.m., sighting a submarine about 500 yards off, attempted to ram and dropped a depth charge (52° 12' N., 2° 15' E.).

Three days later (November 16) an armed smack, the *Kentish Knock* (1 3-pdr. gun), was patrolling off Smith's Knoll (Lat. 52° 50' N., 2° 20' E.) when a submarine appeared and engaged her at 9 a.m. at 2,500 yards. The *Halcyon* and *P.32* were sent at full speed to assist her, but by the time they arrived the submarine had disappeared.

171. **Dutch Traffic.**—Three German submarines were working off the Dutch coast from November 10 to 14 stopping and examining neutral traffic. On November 10 two of them stopped the Dutch s.s. *Köningen Regentes* at 8 a.m. A Dutch destroyer arrived on the scene followed by two German destroyers and two seaplanes, and after a heated discussion between the German and Dutch commander she was taken into Zeebrugge for examination. Six British passengers were made prisoners of war and two bags of mail were seized.<sup>1</sup>

The next day (November 11) the American s.s. *Goldshell* (5,614 tons), from Rotterdam to New York, was stopped off the North Hinder right in the middle of the North Sea (52° 4' N., 6° 35' E.) at 6.45 a.m., and, after examination, was allowed to proceed. This policy had its effect. The submarine campaign must not be judged wholly by the number of ships sunk. The examination of ships in broad daylight in the North Sea made a deep impression on neutrals, and confirmed Germany's grounds for confidence in the efficacy of her blockade. Some 43 ships were examined during the month, most of them in areas far removed from British patrols.<sup>2</sup>

<sup>1</sup> M. 09953/16.

<sup>2</sup> Channel 9; Dutch coast 8; Skagerrak 11; Yorkshire coast 5; North Sea 8. Neutral ships examined by the British in Downs and Kirkwall numbered roughly 300 to 400 a month.

Of the big minelayers *U.80*, the only really good boat of her class, laid 34 mines in a long straggling line 5 miles south of the Isle of Man,<sup>1</sup> probably about October 30. On November 4 the s.s. *Skerries* (4,278 gross), on her way from Barrow-in-Furness to Barrow, Wales, struck one of them in about 53° 45' N., 4° 18' W., and went down in ten minutes, with the loss of the master, who did not leave the ship. A large area was declared dangerous the next day,<sup>2</sup> and ships were instructed to round the Skerries within four miles if possible. The Holyhead trawlers were ordered to search the area but found nothing.<sup>3</sup> The area declared dangerous included only half of the line laid, and on February 15, 1917, the White Star liner the s.s. *Celtic* (20,904 tons) ran on another mine (53° 57' N., 4° 40' W.) in this field, but reached Liverpool safely.

172. **Watch for "Brandenburg," November 11.**—Reports were rife in October that the German s.s. *Brandenburg* (7,500 tons), which had been lying at Trondhjem for many months, was waiting a chance to get home. On October 7 the Commander-in-Chief pointed out that two armed boarding steamers had been kept waiting at Lerwick to intercept her, and if nothing more definite was known, he would like to withdraw them. The Admiralty replied (October 16) that she would probably sail at the end of the month, with an ordinary cargo of fish and salt, and take in a contraband cargo of tinned food from barges. On November 1 the Vice-Consul reported that her crew had arrived, and the Commander-in-Chief, in reply to a request for further information, was told that not more than 20 hours' notice of her sailing could be given, and that she might leave at the end of the week. On the strength of this report the *Caroline* (4th Light Cruiser Squadron) moved to Lerwick<sup>4</sup> with two destroyers to be ready to intercept her. They were to maintain steam for 20 knots at one hour's notice, and on orders to proceed were to make the Norwegian coast south of Krakenaes Light (62° 5' N., 5° E.), near Stadlandet, and sweep up to lat. 62° 15' N. They remained at Lerwick till November 24, when the Commander-in-Chief, on a further request, was told that the Vice-Consul had promised a notice of 36 hours. Nothing more came in, and on December 4 the *Caroline* returned to Scapa with her destroyers, after an ineffectual vigil of nearly a month<sup>5</sup>—a single instance only of the teasing obligations which the Commander-in-Chief had to be prepared to meet. Whether due to bad weather or the presence of German submarines, or to the delicacy of the Norwegian situation at the time, November passed without any of the usual sweeps up the Norwegian coast, which were not resumed till December 8.

<sup>1</sup> From a position Chicken Rock (South point of Isle of Man) 335° five miles, through 53° 53' N., 4° 29' W., to 53° 51' N., 4° 24' W.

<sup>2</sup> November 5, Q. telegram 393.

<sup>3</sup> See Preston's Minesweeping, p. 35.

<sup>4</sup> Trondhjem is about 190 miles from Stadlandet; Lerwick about 200.

<sup>5</sup> *Caroline's* orders are in H.S.A. 224, November 8.



173. "E.30" and "E.37" Lost, November.—The Harwich submarines suffered two more severe losses during the month. *E.30*, Lieutenant-Commander Geoffrey N. Biggs, an experienced and capable submarine officer, left Harwich on November 15 by the Sledway to cruise between 54° N. and 53° 45' N., and between long. 3° 30' E. and 4° E. She did not return and was never heard of again. She was lost with 3 officers and 26 men. Her loss was attributed to a mine in the Bight, and her patrol area was barred for further cruising,<sup>1</sup> but it seems possible that she struck a mine in a scattered field laid off Orfordness, just north of the Sledway, which was located on November 25.<sup>2</sup> Two fields, each of 12 mines, were laid there during the month, and were responsible for the loss of the minesweeping trawlers *Burnley*, on November 25, and *Trevani*, on December 3. A Q message was sent out on November 26 at 8.25 p.m. warning ships not to approach within 2 miles of this position in lat. 52° 4' 30" N., long. 1° 53' E.<sup>3</sup> This minefield may have been responsible for another loss, for *E.54* (Lieutenant-Commander Robert H. T. Raikes), going out by the Sledway with *E.37* at 11 p.m. on November 30, felt a violent shock in lat. 52° 5' N. near the War Channel, and though he thought at first he had struck wreckage, he attributed it later to *E.37*'s striking a mine. *E.37* never returned, and her captain (Lieutenant-Commander Hubert Chisholm) and all her crew were lost.<sup>4</sup>

174. Intended Exercises, November 18.—It was Admiral Jellicoe's intention to take the Grand Fleet out on November 18 to sweep down as far as Aberdeen (lat. 57° 15' N., long. 2° E.) and then to carry out exercises north of the Shetlands, but a heavy gale blew up from November 16 to 19 and the Fleet had to raise steam on account of the weather. In northern waters the Admiralty<sup>5</sup> collier *Harmonic* damaged her rudder and went ashore; the Russian s.s. *Slavonic*, with a valuable cargo, lost her propeller out in the Atlantic; and the British s.s. *Tirso*, with 7,488 tons of oil fuel, damaged her rudder. They all had to be assisted with tugs, and all got safely to harbour.

175. Recapture of Norwegian s.s. "Older," November 18.—The gale blew favourably for the *Otway*. She was patrolling in 59° 18' N., 11° 58' W. when she sighted a ship, the s.s. *Older*, flying Norwegian colours. The *Older* stated that she was on her way from Halifax to Leith, but Lloyd's Weekly Index reported her at Havre on October 19. Commodore Booty decided to board

<sup>1</sup> H.S.A. 272/474.

<sup>2</sup> On parallel of 52° 5' N., between 1° 39' E. and 1° 53' E., spread out for 8½ miles.

<sup>3</sup> Q. messages 442 Q. H.S. 311/1060. The position given in Mine-sweeping Statements, Vol. III, November 30, for loss of *Burnley* is 52° 5' N., 1° 42' E., that is 6, miles to westward. But H.S. 311/1056 gives wreckage in 52° 4½' N., 1° 55' E., and date of loss November 25 (H.S. 311/937). Mines were found on November 26 in 52° 5' N., 1° 41' E., H.S. 311/980, 981.

<sup>4</sup> H.S.A. 272/480.

<sup>5</sup> H.S. 309/961; G.F.N. 168.

her in spite of the heavy sea, and found a German prize crew on board with the crews of several ships sunk. She had been captured by *U.50* in the Bay of Biscay on her way to Gibraltar with coal on November 13 (10 a.m. lat. 47° 8' N., long 9° 6' W.), and was trying to get home north about. The situation was not an easy one. The Germans had placed bombs, or at least said they had. There was only a midshipman and two armed men to face nine Germans, but all hands were transhipped by 4 p.m. They numbered sixty-four—the crew of the ship numbering twenty-two; the crew of the Italian s.s. *Lila*, sunk on November 13, when the *Older* was captured, twenty-five; the crew of the British trawler *Hatsuse*, sunk on November 14, and the prize crew of nine Germans. The *Older* did not sink. She was afloat the next day. Steam was raised and she was brought safely to Stornoway.<sup>1</sup>

176. Sweep Down M Channel, November 21.—In accordance with the Commander-in-Chief's suggestion after August 19 for occasional sweeps down the North Sea, the *Dublin* and *Melbourne* sailed from Rosyth with four destroyers on November 21 at 4 p.m. They were to be in 54° 14' N., 1° 30' E. at 8 a.m. on November 22, and to keep to the eastward of 3° 15' E. so as to keep clear of the Terschelling submarine patrol. They turned north again at 10.30 a.m. (November 22) in a position some 100 miles east of Flamborough Head, and were sighted at 3.15 a.m. by *G.11* (Tees Flotilla), who had received a signal to expect them. No enemy was seen, and the force was back in Rosyth by 8 a.m., November 23.

177. The "Moewe" out, November 23.—It was part of German strategy to supplement the submarine attack on trade by an attack with surface raiders in the outer seas. This had been foreseen by the Commander-in-Chief, and dispositions had been prepared for it, but without some preliminary warning nothing could prevent German ships slipping up the Norwegian coast during the long nights of a northern winter. The *Moewe* had returned home from her first cruise at the end of February 1916. Somewhere about November 18 she left Kiel under her old commander, Count Nikolaus of Dohna Schlodien, and on November 22–23 was steaming to the north, hugging the Norwegian coast in dirty weather.<sup>2</sup> No word of her departure had reached the Admiralty, and none could be sent to the Commander-in-Chief.

178. Grand Fleet Exercises, November 22–24.—The Grand Fleet had left Scapa the day before (November 22, 10 a.m.) for exercises, north of the Shetlands.<sup>3</sup>

<sup>1</sup> M. 010442, V.-A.C. 10th C.S., November 22 1916, X. 9041/1916.

<sup>2</sup> See Two Cruises of the Raider *Moewe*, I.D. 1171. The chart in Commerce Raiders, 1916–17, 1165A, makes Nikolaus go north of Iceland, but his story does not confirm this.

<sup>3</sup> *Iron Duke*, 1st B.S. (less *Bellerophon* and *Blanche*), 4th L.C.S. (less *Caroline* and *Comus*), 11th 12th, 14th, and 15th Flotillas.

The exercises consisted in deployments, attack by destroyers during deployment and destroyer attacks on the opposing van.<sup>1</sup> This was the last occasion on which Admiral Sir John Jellicoe took the fleet to sea.

**179. Preliminaries to Change, November 22.**—As the *Iron Duke* was slipping from her buoy on November 22<sup>2</sup> and while the rest of the battlefleet was already on its way out, the Commander-in-Chief received a telegram from the First Lord, Mr. Balfour, asking him to take the post of First Sea Lord and hoping that he could take up his duties without delay.<sup>3</sup> Clouds were lowering ahead, the task was no easy one, but the Commander-in-Chief, after consulting with the Chief of Staff, Admiral Sir Charles Madden, decided that he ought to accept the post in order to bring to practical accomplishment the measures he was then urging to meet the submarine menace.<sup>4</sup>

At 1 p.m. he had directed Admiral Beatty to arrange a sweep between Scotland and the Naze for the Battle Cruiser Force, leaving on November 24. This was cancelled (at 3.15 p.m.), for the First Lord wished to meet him and Admiral Beatty in Edinburgh on November 25. When the reply from the Commander-in-Chief came in, the post of Commander-in-Chief was in its turn offered to Admiral Beatty and was accepted.<sup>5</sup> On November 23, at the end of the forenoon exercises, the *Iron Duke* parted company from the fleet and shaped course for Rosyth,<sup>6</sup> taking with her on his way to Whitehall the Commander-in-Chief, who had borne the heavy burden of the first two years of command and who brought with him all his experience of the war at sea.

**180. German Sortie against Downs, November 23.**—The Dover Patrol had been considerably strengthened since the raid on October 26, and on November 21 three destroyers of the 4th Flotilla, the *Porpoise*, *Paragon* and *Ambuscade*,<sup>7</sup> joined it from the Humber.

Two days later (November 23) the armed drifter *Acceptable* (Sub-Lieutenant W. F. Fitzgerald, R.N.R.) was patrolling on a S. by W. course about 1 mile N.E. of Broadstairs Knoll Buoy. The weather was fine, with a light mist when, at 10.50 p.m., he sighted six destroyers stealing past on a S.S.W. course. They crossed his stern about 150 yards off.

<sup>1</sup> See Orders for Operation R. or S. in H.S. A.160/263.

<sup>2</sup> "3.51 p.m., slipped." *Iron Duke* (I).

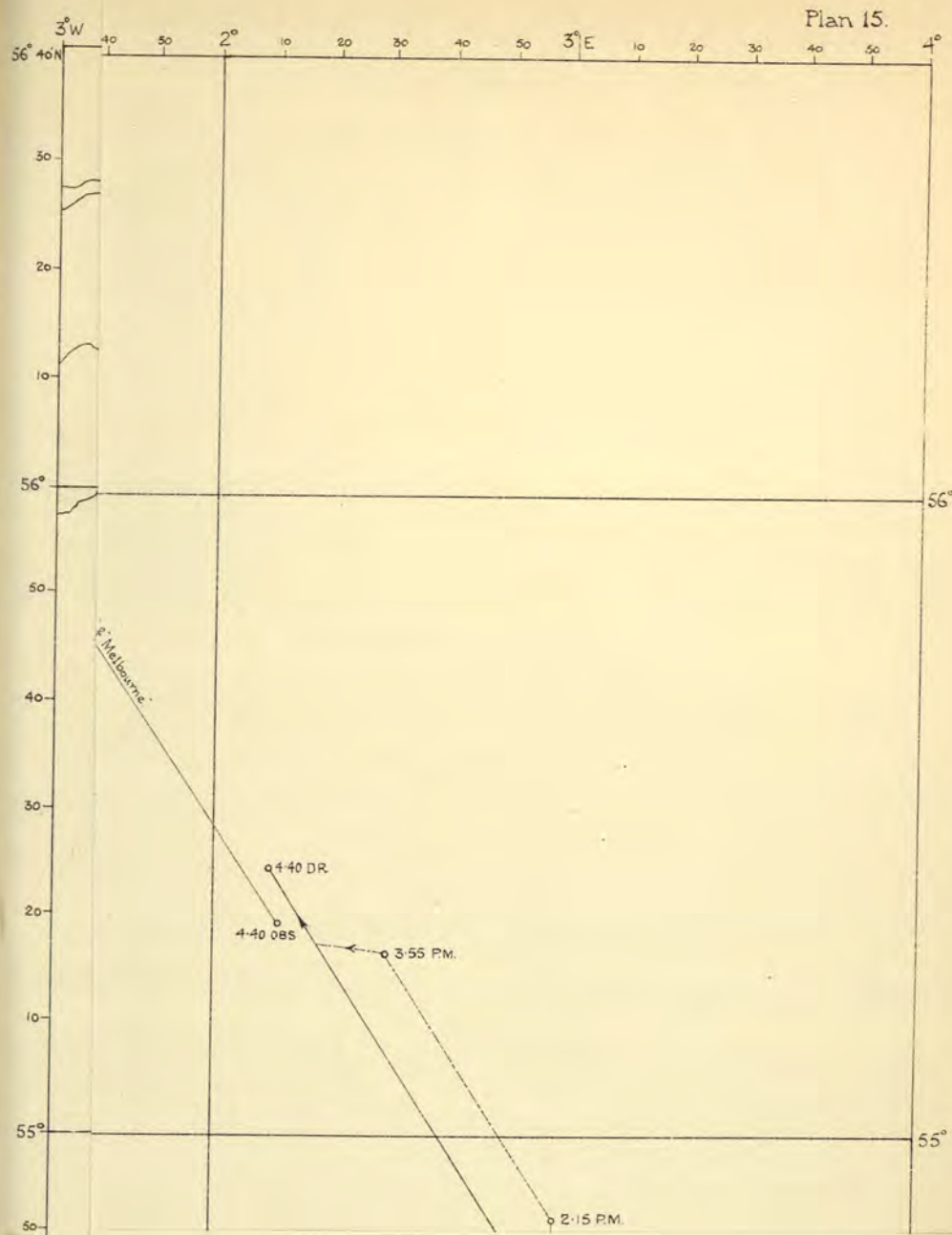
<sup>3</sup> Admiralty to C.-in-C., November 22, 1.25 p.m. H.S. 310/949.

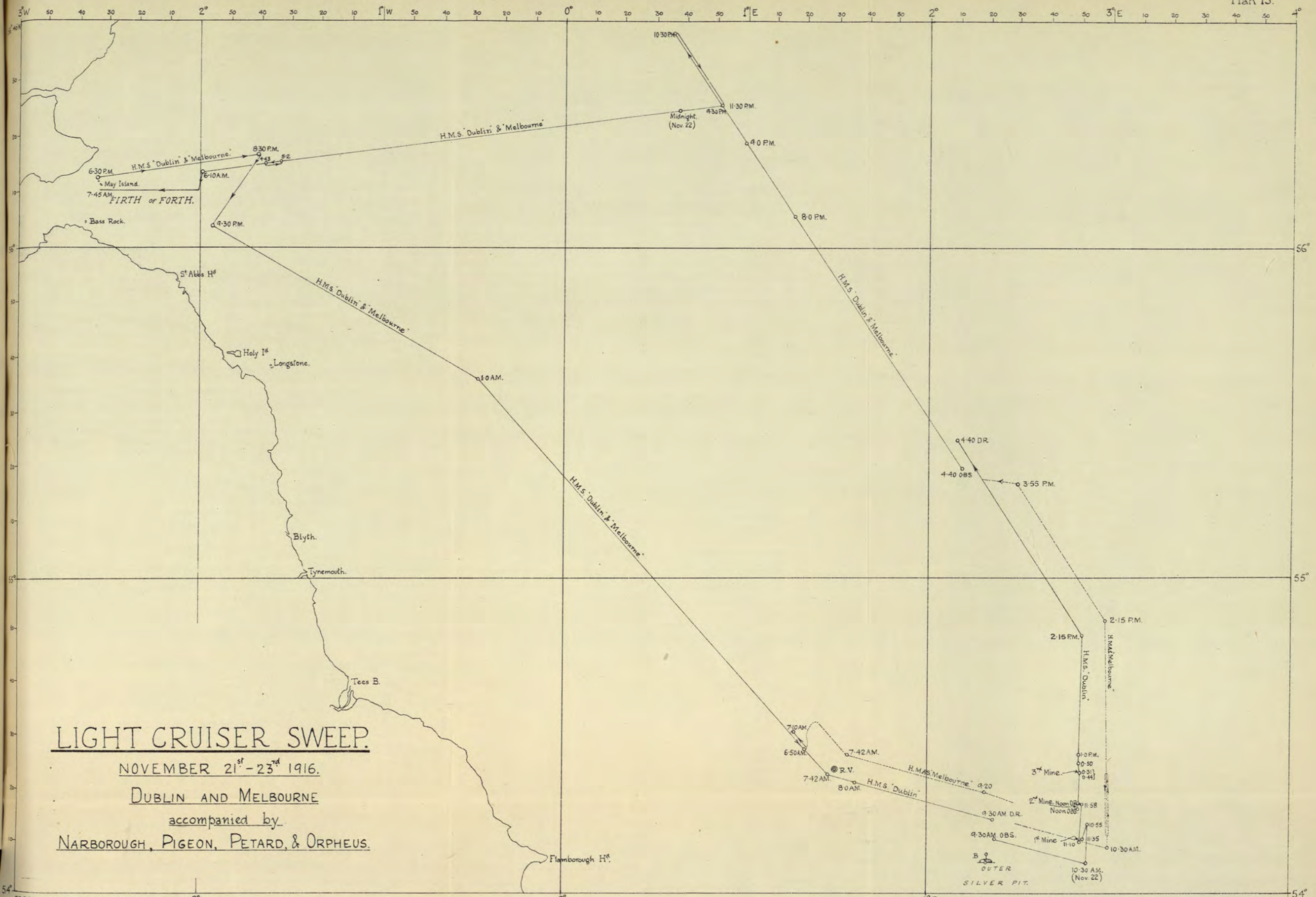
<sup>4</sup> Lord Jellicoe, Grand Fleet 461.

<sup>5</sup> Admiralty to V.-A., B.C.F., November 22, 5.10 p.m. H.S. 310/1034. V.-A., B.C.F. to Admiralty, 8.35 p.m. H.S. 310/1100.

<sup>6</sup> *Iron Duke's* log November 23. "11.50 a.m., altered course S.W. by S. Parted company with fleet". The position was about lat. 61° 28' N., long. 1° 33' E. (*Iron Duke* noon).

<sup>7</sup> H.S. 310/652.





**LIGHT CRUISER SWEEP.**  
 NOVEMBER 21<sup>st</sup> - 23<sup>rd</sup> 1916.  
 DUBLIN AND MELBOURNE  
 accompanied by  
 NARBOROUGH, PIGEON, PETARD, & ORPHEUS.

The last boat opened fire and sent nine rounds into the drifter, smashing her boat and doing considerable damage. Seven miles to the southward the destroyers *Crusader*, *Mermaid* and *Saracen* were on watch in the Downs, and when the warning rocket<sup>1</sup> went up they slipped and made to the northward, but by the time they reached the spot the enemy had disappeared. It was the 9th Torpedo Flotilla (Commander Goehle), which had come across with orders to attack the north entrance to the Downs, destroy men-of-war and auxiliary ships, capture merchant ships, and if occasion offered, bombard Margate. They were off the North Foreland about 10.12 p.m. and ran down some 5 miles towards the Downs, keeping a couple of miles from the coast. When the warning went up<sup>2</sup> they evidently made for home (10.45 p.m.).

At 11.25 p.m. Commodore (T) was ordered to have steam at short notice and all destroyers raised steam for full speed, but the alarm died down and at 0.25 a.m. (November 24) the order was countermanded.<sup>3</sup>

The raid had petered out, but it had come dangerously near the shipping in the Downs, and the Vice-Admiral, Dover, deemed it wise to add one light cruiser and one flotilla leader to the force of three destroyers stationed there at night.

The general distribution of the Dover force was given by Admiral Bacon in his report of the incident.

The Day Defence was as follows:—

Straits ..	Patrolling between South Goodwin and Calais.	5 destroyers (1 division, Harwich).
	Escorting transports ..	6 destroyers.
	Dungeness Patrol ..	1 destroyer.
	Beachy Head Patrol ..	1 destroyer.
Downs ..	In Downs .. ..	1 12-in. monitor. 1 destroyer.
Dover ..	Reserve at Dover ..	1 division, Harwich de- stroyers (steam at 1 hour). 2 light cruisers (steam 10 minutes). 2 <sup>4</sup> flotilla leaders (steam 1 hour).

The Night Defence consisted of:—

Straits ..	Cross Channel Patrol ..	1 division of 5 destroyers (Harwich).
	Dungeness .. ..	1 destroyer.
	Beachy Head .. ..	1 destroyer.
	Folkestone Gate ..	1 destroyer.

<sup>1</sup> Comdr. Walter Saunders, November 24. H.S.A. 308/411.

<sup>2</sup> Vortoss der IX Torpedo boots flotille (from Historische Section, Berlin).

<sup>3</sup> H.S. 246/275.

<sup>4</sup> The Admiralty had arranged to increase these to four.

Dover .. Reserve at Dover ..	1 division (Harwich) (steam at 10 minutes).
	1 division (Tribals) (steam at 10 minutes).
	1 flotilla leader.
	1 light cruiser (steam 1 hour).
Downs .. North anchorage <sup>1</sup> (ready to slip).	1 3rd class cruiser. 1 flotilla leader. 1 division destroyers. (if available).
South anchorage ..	1 12-in. monitor.

Admiral Bacon added that it was no use pitting vessels of inferior armament against the Germans and that for this reason he was waiting anxiously for the *Broke* and *Faulknor*—a view justified amply in the coming year.<sup>2</sup>

He put forward, too (November 24), an important proposal to reinforce the barrage by three lines of deep mines running from the Goodwins to the Dyck. Rear-Admiral Ommaney stated that sufficient mines were available (11,000 naval service mines and 4,000 British Elia), and the project was approved on November 28.<sup>3</sup>

The raid, too, had a further result in transferring the examination of south-bound traffic to the Nore.<sup>4</sup>

It had been aimed at the northern portion of the Downs, where the south-bound traffic lay and where what was called locally the Northern Examination Service worked.

To decrease the liability to attack and to diminish the congestion in the Downs, steps were set on foot to find another examination area, and on February 18 1917, the examination service for southbound traffic was shifted to Southend.<sup>5</sup>

The growing demands on Dover, including the necessity of a sufficient guard for the Downs and the provision of strong escorts in the channels against submarines, added to the difficulty of keeping a 12-in. monitor on patrol in winter, led to the withdrawal on November 30 of the Belgian Coast Patrol.<sup>6</sup>

**181. Plan to Attack Belgian Coast.**—The day (November 23) the German flotilla left Zeebrugge for their harmless drive against the Downs, a conference was sitting at the War Office to consider the possibility of driving them out of the Belgian ports. It was attended by General Sir William Robertson, Chief of the Imperial General Staff, General Sir Douglas Haig, Commander-in-Chief,

<sup>1</sup> North anchorage, off the Gull; south anchorage, opposite Deal.

<sup>2</sup> Vice-Admiral, Dover, November 25 1916. M. 010418/16, X. 9736/16.

<sup>3</sup> M. 010360/16.

<sup>4</sup> For Downs Examination Service (Captain George N. Tomlin), see N.S. Monograph, Economic Blockade, C.B. 1554, p. 113.

<sup>5</sup> C.-in-C., Nore, December 22 1916, Southend Examination Service C. 1659/1916.

<sup>6</sup> M. 010598/16, November 30 1916.

Admiral Sir Henry Jackson, First Sea Lord, Vice-Admiral Sir Henry Oliver, Chief of the War Staff, and Vice-Admiral Sir Reginald Bacon, Commanding the Dover Patrol. All were agreed on the value of the operation. The plan was ready, Admiral Bacon was prepared to co-operate, and it remained only to consult with General Joffre. On December 12 it was decided definitely to prepare for its execution<sup>1</sup> somewhere about July 1917.

**182. Minelaying, November 24–28 1916.**—The British policy of laying extensive minefields in the Bight, started in 1915, had not been followed up in the early part of 1916,<sup>2</sup> when the big British surface minelayers were mostly working off the Belgian coast.

In the latter part of the year, however, the work was renewed and the *Princess Margaret* visited the Bight again.

*E.45* (Lieutenant-Commander Geoffrey R. S. Watkins), whose last field had been laid off the Ems a month before, left Harwich on November 22 and on the night of November 24–25, laid a small field about 14 miles north-east of Heligoland.<sup>3</sup>

Twenty mines were laid 400 yards apart, fitted with 38 day sinking plugs. *E.45* sighted nothing and returned to Harwich safely on November 25.<sup>4</sup> German minesweepers were at work some 10 miles to northward on December 20 and swept up four mines, which may, however, have belonged to the field laid near that spot by *E.41* on June 10.

The *Abdiel's* last field had been laid on August 31 in her favourite locality on the Horn Reefs route.

Thither she sailed from Scapa on November 24 and on the night of November 25–26, Captain Berwick Curtis laid a field of 80 service mines about 25 miles south of Horn Reefs.<sup>5</sup>

The mines were laid ten to the mile, set for 15 feet L.W.O.S. with 38-day sinking plugs. The weather was bad, with a considerable sea. Nothing was seen and she got home safely. The *Galatea*, *Inconstant* and four destroyers had sailed from Rosyth and were waiting to support her some 130 miles north-west of Horn Reefs.<sup>6</sup>

These mines were discovered on December 27,<sup>7</sup> and a warning was sent out.

Another large field was laid a day or two later by the *Princess Margaret* (Commander Lockhart Leith), the first field of any size laid in the Bight since May. She left Immingham on November 28,

<sup>1</sup> M. 011648/16. The reverse at Paschaendale prevented it. See Admiral Bacon's Dover Patrol.

<sup>2</sup> In 1915 nine large fields containing 4,538 mines were laid in the Bight. In 1916, 17 fields were laid containing 1,766 mines.

<sup>3</sup> Captain Lockhart Leith's Chart, Field 102, lat. 54° 23' N., 8° 12½' E., to lat. 54° 17' N., long. 8° 14' E.

<sup>4</sup> H.S.A. 272/451.

<sup>5</sup> Field 66 (Leith) from a centre point, lat. 55° 9' N., long. 7° 10' E.

<sup>6</sup> Lat. 56° 40' N., long. 4° 30' E., G.F.N. H.S. 431/179.

<sup>7</sup> Captain Lockhart Leith says December 18 1916. For *Abdiel's* orders see H.S.A. 224, November 18, amended November 21.

and escorted by the Harwich destroyers, *Sandfly*, *Ferret* and *Moorson*, laid a field of 500 British Elia mines about 20 miles west of Borkum Light vessel.<sup>1</sup>

The mines were laid at various depths from 7 to 15 feet below L.W.O.S., and all but 99 were fitted with 38-day sinking plugs. A south-westerly gale was blowing and nothing was sighted. The mines were discovered on December 8.

**183. November 26. Advance of German Destroyers.**—A force of German destroyers advanced towards Aldeburgh during the night of November 26. They stopped the Dutch s.s. *Beijerland* ten miles north of the Shipwash at 10.30 p.m.<sup>2</sup> and took her pilot prisoner.

The *Beijerland* stated that she saw 12 destroyers and that about 10.45 p.m., half a mile to the southward, one of them sank an unknown vessel by gunfire. This was the armed trawler *Narval*, which disappeared that night on her way from Grimsby to Harwich and whose boat was picked up in the vicinity<sup>3</sup> the next day (November 27).

A Berlin communiqué reported a vessel sunk and her crew taken prisoners,<sup>4</sup> but it was only on December 8 that news came that the whole crew of the *Narval* were in Ruhleben.

Little is known of this sortie though the Germans were within five miles of the coast and only 30 miles from Harwich. The German wireless gave little indication of it, though directionals picked up from an enemy vessel S.10°E. from Lowestoft at 11.33 p.m. were sent to Commodore (T) at 12.50 a.m.

Aldeburgh at 11.45 p.m. reported gunfire from a mysterious ship bearing east eight miles at 11.15 p.m. Commodore (T) sailed at midnight with the *Centaur*, *Carysfort* and three destroyers to support the Dutch Traffic Patrol, but saw nothing of the enemy.

**184. Airship Raid. November 27-28 ("L.34," "L.21").**—Eight weeks had elapsed since *L.31* had fallen in flames at Potter's Bar, but the German Command was loath to admit the futility of their favourite weapon, and in the afternoon of November 27 ten airships left their sheds for an attack in England.

Only seven airships crossed the coast. The three newest, *L.34*, *L.35* and *L.36*, together with *L.24* made an attack on the Tyne, while a group of five crossed the Yorkshire coast in an attack on the Midlands. Some 206 bombs were dropped—119 high explosive and 87 incendiary. The damage done was not great. The total casualties amounted to 2 men and 6 women killed, and 8 men 12 women and 8 children injured. Some

<sup>1</sup> Leith, Field 151, centre in lat. 53° 47' N, long. 5° 31' E.

<sup>2</sup> Lat. 52° 11' N., 1° 47' E.

<sup>3</sup> In lat. 52° 34' N., long. 1° 52' E. H.S. 312/173. M. 60740, Misc. Office, November 29 1916.

<sup>4</sup> Berlin Communiqué, 28.11.16, H.S. 312/463. M. 61291.

18 houses were destroyed and a hundred damaged. Two airships were brought down, *L.34* and *L.21*. *L.34* crossed the coast some 4 miles north of Hartlepool at 11.30 p.m. and was at once picked up by a searchlight. Second-Lieutenant I. V. Pigott, R.F.C., who had gone up from Seaton Carew (3 miles south of Hartlepool), sighted her coming south in the beam of the searchlight. He swept down and passed underneath her, and then flew alongside her for some five miles, firing all the time, as she made for the sea. He saw a small patch of the envelope become incandescent and soon the whole ship was engulfed in fire. She fell flaming about midnight into the sea and nothing was left of her but an oily scum. The heat of the blazing mass scorched Pigott's face 300 yards away.

Her consorts saw the blaze and fled. Of the raiders to the south, all had left the coast by 1 a.m. except *L.21*. She penetrated as far as Hanley, turning home at 1.30 a.m. She was picked up to the south of Grantham and chased by two aeroplanes at 2.08 a.m. but escaped to the eastward. But at 4.40 a.m. the Admiralty had warned the East Coast of a Zeppelin at King's Lynn in difficulties at 4.15 a.m. and every station was on the alert.

Naval planes had gone up from Holt and Barton at 5 a.m. She was sighted at Yarmouth and two naval planes, piloted by Flight Lieutenant E. Cadbury and Flight Lieutenant G. W. A. Fane, went up from Burgh Castle (4 miles south-west of Yarmouth) at 6.35 a.m. Dawn was breaking and the airship was plainly visible. The planes came down on her in swift pursuit and she was overtaken some 9 miles off Lowestoft. Cadbury fired all his ammunition into her without effect. Fane's gun jammed. Just then another plane (Flight-Sub-Lieutenant E. L. Pulling) from Barton came on the scene and opened fire at 90 yards. She caught fire, fell stern foremost into the sea and was engulfed, affording another lesson that an airship caught in daylight courts destruction.

The Zeppelins had done their best and their worst. They had made 22 raids during the year, dropped some 125 tons of bombs, killed 293 persons and wounded 69. They had reached their heyday in the autumn of 1916,<sup>1</sup> and the future that lay before them was grim and dark.

**185. German Submarines, Channel, November 16-21.**—In the Channel, submarines continued their operations. On November 16, the British s.s. *Trevarrack* (4,199 tons) was sunk coming up Channel. She was on her way from Buenos Ayres to Hull with 7,290 tons of maize, and going 8½ knots, when she sighted a submarine on the port beam at 8.30 a.m. some 2 miles west of Guernsey (lat. 49° 40' N., long. 3° 48' W.). A shell fell over the ship; the engines were put to full speed, but the submarine overhauled her and she was stopped, abandoned and sunk. The crew were picked up by a trawler and were landed that night at Brixham.<sup>2</sup>

<sup>1</sup> Air Raids, 1916, November 27-28, 1916. G.H.Q. (I) German Air Raids, Captain Joseph Morris.

<sup>2</sup> M. 60065/16. The I.D./S.A. form cannot be traced.

The *Trevarrack* had left Teneriffe on November 10, and Devonport was asked to enquire whether the master had received instructions as to crossing the English Channel only in dark hours and, if so, why he did not follow them.<sup>1</sup> The relevant instructions for homeward bound ships had been sent by wire to St. Vincent, Pernambuco, on July 1, and stated—"Vessels bound for English Channel ports approach Ushant from the southward, crossing the 47th parallel north latitude between the 5th and 6th meridian of west longitude. Pass as close to Ushant as safe navigation permits and thence to destination, keeping as close to coast as possible without entering the Bays."<sup>2</sup>

Further instructions had been sent on October 10. "British vessels whose course takes them across English Channel should cross Channel only in dark hours."<sup>3</sup>

These orders illustrate some of the complexities of routeing. Vessels were to keep "as close to the coast as possible without entering the Bays." But if a ship did not enter the Bays, she might be far from the coast. The *Trevarrack* was running from Ushant to Guernsey across the St. Malo Bight and was nearly 40 miles from the French mainland. The routeing orders for ordinary merchant vessels were framed only on general lines. They did not tell a ship where it would meet with protection from patrols and, issued weeks before, might easily be out of date when the ship made the Channel.

Another submarine was working off Cape Antifer and stopped the ketch *Vanguard* (240 tons) on her way from Honfleur to London in ballast. She was 10 miles from the French coast; there were no vessels in sight and she was sunk with bombs about 10.15 a.m. (November 16).

A third submarine working in mid-Channel between the Scillies and Ushant stopped the French ketch *Eugenie* (65 tons) at 7 a.m. some 35 miles south of the Lizard (lat. 49° 23' N., long. 5° 11' W.). She was on her way from Cardiff to Lannion with coal and was sunk with bombs. The crew were picked up that afternoon at 2.30 p.m. 2 miles from the Lizard by the British s.s. *Pivoc* (482 tons) and were landed at Dartmouth. That afternoon, near the same spot, five miles to the southward, the French schooner *Petit Jean* (126 tons) was sunk at 2.20 p.m.

Some 20 miles to the eastward at 3 p.m. (November 16) a submarine stopped the Norwegian s.s. *Joachim Brinch Lund* (2,500 tons). This ship was on her way from Santander (Spain) to Sunderland with iron ore and was going E.N.E. at 8 knots, when she sighted a submarine 2 miles to the northward going fast to the W.S.W. No other ship was in sight and she, too, was quickly stopped and sunk,<sup>4</sup> another melancholy instance of a neutral ship

<sup>1</sup> 1955, November 17, in H.S. 309/1118.

<sup>2</sup> July 1, 1720, H.S. 327/498.

<sup>3</sup> 2116, October 10, in H.S. 328/90.

<sup>4</sup> Lat. 49° 28' N., long. 4° 40' W.

in mid-channel in the middle of the day. Two boats put off from her. The mate and three men were picked up by a French ship, but the Norwegian captain and eight men were lost, the boat being found with the captain's body in Falmouth Bay on November 20.

A fourth submarine, working some 12 miles from the Brittany coast, was sighted on the surface at 1 p.m. by a French torpedo boat No. 303 (November 16).<sup>1</sup> It reappeared a couple of hours later some eight miles to the eastward and sank the French schooner *Lebia* (80 tons).<sup>2</sup> The torpedo boat's report came in at 7.14 p.m. (November 16) and an A.B.V.M. issued at 10.52 p.m., warned all ships of a submarine working off Brest.<sup>3</sup>

This submarine was sighted that night and engaged by the British s.s. *Achilles* (257 tons) a defensively armed merchantman on her way from Brest to Ardrrossan. Two steamers left Brest that evening at 8.15 p.m. under escort (November 16) and others were keeping company with them voluntarily. The night was dark and clear. They had orders from the French authorities to cross to the Longships without lights. At 9.10 p.m. (48° 40' N., 4° 42' W.), a large submarine was seen closing fast on the starboard quarter. Four steamers and two patrol boats were in sight 3 miles on port bow. The *Achilles* opened fire with her 3-pdr. and the submarine turned away and was lost to sight.<sup>4</sup>

The last casualty of the day (November 16) was the defensively armed s.s. *Vasco* (1,914 tons) on her way from Hull to the Mediterranean with a general cargo of 2,100 tons. She had passed Beachy Head, when at 10.10 p.m. she struck two mines and sank within five minutes.<sup>5</sup> A small field of four mines had been laid here in October,<sup>6</sup> and an area close to it had been declared dangerous on November 10.

The English Channel had been closed to all outward bound traffic except defensively armed merchantmen since November 8,<sup>7</sup> and at 12.57 p.m. (November 16) the Vice-Admiral, Dover, asked if unarmed British and Allied vessels might proceed down Channel by the French coastal route, which the French considered safe. In view of the report of a submarine seen off Cape Barfleur at 1.20 a.m. (November 16) permission was withheld. An important set of new Route Instructions had been issued on November 7 1916.<sup>8</sup>

<sup>1</sup> Lat. 48° 52' N., long. 4° 17' W.

<sup>2</sup> 50° 1' N., 5° 40' W.

<sup>3</sup> H.S. 309/965.

<sup>4</sup> M. 010241/16, Cap. W. 251.

<sup>5</sup> Lat. 50° 43' N., long. 0° 2' W., 4½ miles from the coast.

<sup>6</sup> German Statement O.U. 6020 B, field 219b. On November 10, ships had been warned to pass 10 miles off the coast between long. 0° and 0° 45' E. (404 Q., H.S. 308/379). This was cancelled November 14, 0130 (H.S. 309/17).

<sup>7</sup> Tel. November 15, 1655, H.S. 309/514, Details of Routes in Technical History 31, p. 48. Appendix V, Route numbers above 200 applied to defensively armed merchantmen only (Tel. 14.11.16, 0155).

<sup>8</sup> M. 09748/1916 in Case 504, Vol. I.

The routes were numbered 1 to 99 and gave alternative routes from the English Channel, Bristol Channel, Irish Sea and Clyde ports to ports in the North Atlantic, South Atlantic, Bay and Mediterranean. A chart was issued with them,<sup>1</sup> and the numbered routes signalled were to be regarded as open to traffic.

One of the defects of the system is obvious. The movements of homeward bound ships were not under definite control. The *Trevarrack* was not armed; had she been outward bound the English Channel would have been closed to her; but she was on her way home and had not received the latest instructions. The next day (November 17) there were only three losses. The British s.s. *Monmouth* (4,078 tons) with a cargo of 5,000 tons of oats and steel, on her way from Cherbourg to Dunkirk struck a mine off Cherbourg (lat. 49° 41' N., 1° 39' W.), at 8.10 p.m. (November 17). She was towed in and saved by two French tugs. The position was promulgated as dangerous the next day, and though the port was only closed for a day the area was not completely swept till December 15. The submarine working off Havre was then on her way home, and at 9 a.m. (November 17) in mid-Channel between Beachy Head and Dieppe (50° 23' N., 0° 30' E.) stopped the French sailing vessel *St. Rogatien* (1,581 tons) on her way from Dieppe to Buenos Ayres. It was foggy and the first sign of the submarines was a shot which hit her main top gallant yard. The captain and helmsman refused to leave the ship and the submarine, possibly suspecting a trap, sent her to the bottom with a torpedo. To the westward the submarine working off Guernsey stopped the Portuguese s.s. *San Nicola* (2,697 tons) on her way from Lisbon to Havre and sank her with bombs 15 miles S.W. of the Casquets at 1 p.m. (November 17). The British s.s. *Kintail* at noon (November 17) 6 miles S.W. of Beachy Head sighted a submarine, which dived as soon as she opened fire. It was seen again by a Newhaven armed trawler at 1.15 p.m., but Newhaven had no torpedo boats available to search for it. There had been no British losses in the Channel on November 16 and on November 17 the Channel route to the North Atlantic, South Atlantic and Mediterranean, which had been closed for unarmed ships since November 8, was reopened.<sup>2</sup> The Admiralty directions were to keep close to the headlands on the coast and to steer due west from the Scillies to long. 9° W. (about 100 miles to westward).<sup>3</sup> At 2.15 p.m. (November 17) the Vice-Admiral, Dover, asked if unarmed vessels bound to Dieppe and Havre might proceed by Folkestone and Boulogne and down the French coastal route. This was approved, and at 10.35 p.m. (November 17) was extended to ships proceeding to ports east of Cherbourg.<sup>4</sup>

<sup>1</sup> These routes are in T.H. 31/48. The chart will be found in Technical History 32 C.B. 1515, plan 19, and is on the same system as a London bus route chart.

<sup>2</sup> Tel. November 17, 1245. H.S. 309/1003.

<sup>3</sup> The routes opened were numbers 1, 3, 5, 12, 22, 41, 51, 71, 82. For details see T.H. 31/50.

<sup>4</sup> H.S. 309/1027, 1143.

On November 18 an easterly gale was blowing and a high sea running in the Channel. The British s.s. *Tanfield* was off the Start<sup>1</sup> on her way down Channel when at 11.40 a.m. she sighted a submarine close to her on the port beam. She at once brought it astern making for the shore, manned her gun and sent out an S.O.S. The submarine was lost to sight about 12.30 p.m. and off the Start the *Tanfield* picked up two patrol boats and got away. On November 19 some forty miles to the eastward (lat. 50° 6' N., 2° 45' W.), the Norwegian s.s. *Finn* (3,806 tons) on her way from Newcastle to Genoa with 4,000 tons of coal and coke, was stopped at 2.50 p.m. and sunk with bombs. A heavy sea was running and the submarine towed the boats for over an hour towards the coast. This was another case of a neutral ship in mid-Channel in the middle of the day. A day passed without any losses. Two French ships were the next victims on November 21. The French s.s. *Alice* (822 gross) was on her way from South Shields to Rouen with 1,160 tons of coal, when at 7 a.m., with Beachy Head bearing 19 miles N.W. (true),<sup>2</sup> on a course S. 45 W., she was stopped by a shot and sunk by bombs. The crew were picked up by a Danish ship and brought to Dover by a British trawler. The route which had been given to the *Alice* at the Downs was the French coastal route, then in force, viz., from Folkestone Gate, across the Ridge to Boulogne, then down the coast to Dieppe and Havre.<sup>3</sup> She preferred her own route by mid-Channel and was sunk. In the Guernsey area the American s.s. *Sacramento* (ex German s.s. *Alexandria*, 5,378 tons) was stopped at 8.10 a.m. (November 21) about 6 miles north of Guernsey. She had a cargo of corn for the French Minister of Commerce and a wordy discussion ensued in which the master argued that his cargo was intended for civilian use. The submarine commander insisted on the ship being abandoned. The captain contended that her boats were unseaworthy, and finally the ship was allowed to proceed. Forty miles west of Guernsey the French sailing vessel *Cap Lihou* (252 tons) was sunk (lat. 48° 53' N., 3° 30' W.), at noon (November 21). These ships were all sunk in broad daylight. Darkness was one of the great safeguards against the submarine and 28 transports crossed the Channel safely under escort that night (November 21).<sup>4</sup> In the Atlantic that day (November 21) the British s.s. *Errington Court* (4,461 tons) was on her way to Halifax, 60 miles west of Dingle Bay,<sup>5</sup> when she sighted a submarine at 3.45 p.m. abaft the starboard beam. This was *U.47* on her way to the Mediterranean. The *Errington Court* was unarmed, but the weather was bad, with a heavy swell, and the submarine after following her for half an hour abandoned the chase.

<sup>1</sup> Lat. 49° 58' N., 3° 20' W.

<sup>2</sup> X. 7151/16, lat. 50° 27' N., 0° 2' E.

<sup>3</sup> V.-A., Dover, November 24, X. 7151/16.

<sup>4</sup> H.S. 310/715.

<sup>5</sup> Lat. 52° N., 12° 4' W.



186. **Submarines, Channel, November 22-26.**—At 8.30 a.m. on November 22, the Norwegian s.s. *City of Mexico* (1,511 tons) on her way from Blyth to Rochelle was right in the middle of the Channel between the Isle of Wight and the Somme<sup>1</sup> in broad daylight. She was stopped and sunk and the boats were picked up by the hospital ship *Carisbrooke Castle* and brought to Portsmouth. To the westward some 10 miles north of Ushant at 9.30 a.m. (November 22) the Norwegian s.s. *Trym* (1,801 tons) also on her way to Rochelle from the Mersey, met the same fate. The Ushant submarine proceeded to the southward and at 1.30 p.m. (November 22) some 30 miles south-west of Ushant<sup>2</sup> the P. and O. s.s. *Peshawar* (7,634 tons) on her way to Cherbourg sighted its periscope on the port bow and opened fire. Two French torpedo boats examining a British ship, the *Ardgern*, some 3 miles away, came speeding up and the submarine disappeared.<sup>3</sup> While the French craft were hunting for it the submarine made to the westward and attacked another ship. This was the British s.s. *Brierton* (3,254 tons), defensively armed with a 12-pdr., homeward bound from Karachi to Manchester, with 5,050 tons of wheat. The weather was fine and clear and the ship was some 30 miles<sup>4</sup> south-west of Ushant at 3.45 p.m. (November 22) going N. 10 E., at 9 knots when a periscope was sighted 500 yards on the port beam. The master turned away and gave the order to open fire, but before it could be carried out, a torpedo hit the ship on the port quarter dismounting the gun, and wounding four men. Two French torpedo boats, Nos. 299 and 338, came hurrying up and picked up the crew<sup>5</sup>. A War Warning sent out at 6.15 p.m., reported a submarine operating off Ushant and instructed south-bound ships to pass at least 150 miles to westward of Ushant. Off the Owers there seem to have been two submarines working, one of which at 4.20 p.m. (November 22) 32 miles S.W. by S. of Beachy Head<sup>6</sup> stopped the British sailing vessel *Grenada* (2,268 tons) on her way from Havre to New York. She, too, was right in the middle of Channel, apparently crossing to the English coast.<sup>7</sup>

Some 12 miles to the westward at almost the same time (4.15 p.m.) the French s.s. *John Lambert* (1,150 tons) was stopped. She was on her way from Montreal to Havre with coal for ballast and was 23 miles S. 9 E. from the Owers Light Vessel when she was struck by two shells.<sup>8</sup> She was abandoned but did not sink. Twenty miles north-west of her the armed trawler *Everton* was patrolling off the Isle of Wight when she received a signal from

<sup>1</sup> Lat. 50° 20' N., 0° 25' W.

<sup>2</sup> Lat. 48° 4' N., 5° 26' W.

<sup>3</sup> M. 60862/16.

<sup>4</sup> Lat. 48° N., 5° 22' W.

<sup>5</sup> M. 61019/16, M. 60597/16.

<sup>6</sup> Lat. 50° 18' N., 0° 5' W.

<sup>7</sup> She was going N.E. by N.,  $\frac{1}{2}$  N., with a W.N.W. wind. M. 60506/16.

<sup>8</sup> Lat. 50° 16' N., 0° 27' W.

Portsmouth and went off at 6.30 p.m. to the south-east. The night was pitch dark with a heavy swell when, at 10.15 p.m., she sighted the *John Lambert*. She stood by her during the night and the next day tried to tow her in. But the towing hawsers parted and the ship sank at 3.20 p.m. (November 23) 15 miles from Beachy Head.<sup>1</sup> This ship had been crossing the Channel in broad daylight and the Admiralty asked why. Montreal telegraphed that verbal instructions had been given her "to approach Ushant from the southward—pass as close to it as safe navigation permits and from there to keep as close to coast as possible without necessarily entering the Bays," and also instructions "to call at Cherbourg for orders before proceeding to Havre." Sealed orders had, however, been given to her by the French consul at Montreal, which possibly rendered these instructions void.<sup>2</sup>

187. **"Q.11" in action November 22.**—It was in these circumstances that *Q.11* (*Tamarisk*) had been ordered by Queenstown on November 19 to proceed to lat. 47° N., long. 14° W., where an S.O.S. had gone out<sup>3</sup> and on November 22 at 11.52 a.m. in 48° 47' N., 11° W., sighted a large submarine on the surface on the port bow steering on an opposite course. A heavy swell was running with a choppy sea. The submarine gave chase. The ship stopped and swung out her boats. The submarine opened fire, keeping well away, and as she evidently meant to disable the ship before closing, *Q.11* opened fire at 5,000 yards and the submarine dived.<sup>4</sup> This was *U.47* on her way to the Canaries.

188. **Submarines, Channel, November 23-26.**—The losses on November 23 in the Channel were confined to a single ship, the Danish s.s. *Dansted* (1,492 tons) on her way from Cardiff to St. Nazaire, which was sunk by bombs 30 miles west by north of Ushant at 7.30 p.m. November 24, was another quiet day and the only loss was the Norwegian s.s. *Oifjeld* (1,998 tons) on her way from Bilbao to Boulogne with iron ore. She was sunk<sup>5</sup> off Dieppe some six miles from the coast which led to the French suspending daylight sailings between Havre and Dieppe at 10 p.m. (November 24),<sup>6</sup> *Q.13* was cruising in the Channel at the time, three destroyers of the 4th Flotilla (from Portsmouth) were at sea searching for submarines without result and *Q.7* was sent to the Channel from Milford Haven that day.

The next day (November 25) the submarine on the Havre route was again active. At 9.30 a.m. the British s.s. *Emlynverne* (546 tons) unarmed, in ballast from Treport to Swansea, was

<sup>1</sup> Portsmouth Patrol, H.S. 275/279.

<sup>2</sup> Trade Division. "Neutral Vessels," Collection (French), *John Lambert*.

<sup>3</sup> Not traced.

<sup>4</sup> Queenstown, November 24. H.S. 646/323.

<sup>5</sup> Report states torpedoed, but gives no details.

<sup>6</sup> H.S. 311/546.

going down Channel in thick misty weather when a submarine opened fire from astern and sank her by gunfire. This took place 30 miles N.W. of Cape Antifer, almost in mid-Channel<sup>1</sup> in daylight, and the Commander-in-Chief, Portsmouth, pointed out that merchant ships were apparently disregarding the instructions to cross in dark hours. Some 22 miles north of Ushant two small French sailing vessels<sup>2</sup> were sunk at mid-day, indicating the arrival of a fresh submarine in that area. On November 26, the Norwegian oiler, *Caloric* (7,100 tons) on her way from Surfleet to Texas, had been picked up off Beachy Head at 6 p.m. by two Portsmouth escorts, the armed trawlers *Smew* and *Ben Torc*, and was on her way along the coast, when at 7.2 p.m. in a position seven miles W.S.W. of Beachy Head a terrific report was heard and the *Caloric* listed and sank deeply by the head. The crew took to the boats, but the master and a few men stuck to her and the *Ben Torc* and *Smew* took her in tow. Two more armed trawlers came up in answer to an S.O.S., a tug came to her help and she was anchored safely close to Newhaven that night. It was at first thought she had been torpedoed, though fragments of a horn battery found on board showed later that she had been mined,<sup>3</sup> and the Admiralty at 10.40 p.m. ordered Dover to stop all traffic going westward, except on the Folkestone-Boulogne route.<sup>4</sup> Enquiries had come in from France as to the safest route for ships from the Bay and at 7.25 p.m. (November 26) Captain Kelly, Naval Attaché at Paris was told that they should pass as close to Ushant as possible, thence to the Wolf, making the passage in dark hours, and thence to destination keeping close to the coast. Vessels outward bound to the Bay were being given a different route well to the westward from the Scillies to long. 9° W. and thence with a wide sweep round Ushant to Belle Ile.<sup>5</sup>

189. **Submarines, Channel, November 27.**—On November 27 the principal activity was off Guernsey and the Start. At 7.30 a.m. 15 miles north of the Casquets, a submarine stopped the Norwegian s.s. *Perra* (1,688 tons). She was carrying iron ore from Bilbao to Calais, and was sunk with bombs, the submarine towing her boat some six miles towards Cherbourg. The submarine then proceeded westward, and at 12.45 p.m. stopped and sank another Norwegian ship, the s.s. *Boro* (819 tons) 20 miles W.N.W. of Guernsey, carrying coal from Port Talbot to St. Malo. It was a clear, fine day, and the submarine towed the boat for a

<sup>1</sup> Lat. 49° 57' N., long. 0° 30' W.

<sup>2</sup> Fr. s.v. *Alfred de Courcy* (164 tons), *Malbina* (112 tons).

<sup>3</sup> Lieut. G. F. Trigg, R.N.R., A.T. *Smew* (M. 10531/16), gives position as 7 miles W.S.W. of Beachy Head, i.e., 50° 40' N., 0° 6' E. Newhaven Tel. (H.S. 312/25) gives position 50° 30' 38" N., 0° 1' 30" E. The first position is evidently more correct. This is 5 miles S.E. of where the *Vasco* was mined on November 11. The Bi-Monthly Report (December 1) gives 1 mile S.W. of Beachy Head. No Q. telegram has been traced.

<sup>4</sup> H.S. 311/1086.

<sup>5</sup> H.S. 311/1043.

short time towards the French coast. Some ten miles to the north-eastward, at 2.30 p.m. (November 27), 19 miles N.W. by N. of Guernsey, she stopped and sank with bombs the British s.s. *Rhona* (640 tons) with a cargo of 713 tons of coal from Cardiff to St. Servan. The ship had left Cardiff on November 23 and was crossing the Channel in broad daylight, entirely contrary to instructions, though this escaped comment at the time.<sup>1</sup>

Another submarine was active off the Start and opened the day at 9.30 a.m. (November 27) by stopping and sinking the Norwegian s.s. *Visborg* (1,300 tons) 14 miles S.E. of the Start. The coal traffic suffered again, for the *Visborg* was on her way from Barry to Cherbourg with 1,760 tons. She sighted two submarines, and one of them went off to stop a large British steamer steaming west. This was the British s.s. *Huntscape*, a transport, coming west, which sighted a submarine 20 miles from the Start at 9.20 a.m., engaged it and got away.<sup>2</sup> At 1 p.m., 15 miles S. by W. from the Start, another Norwegian ship was stopped, the s.s. *Belle Ile* (1,883 tons), inward bound with 2,960 tons of iron ore from Bilbao to Middlesbrough. At 1.45 p.m. two patrol vessels came in sight to the eastward. They were the armed trawlers *Lord Stanhope* and *Maristo*, and the submarine, when it saw them coming up, sent a torpedo into the *Belle Ile* and went down.

A War Warning had gone out from Queenstown reporting a submarine working off Lands End at noon,<sup>3</sup> and to the eastward the three destroyers, the *Spitfire*, *Christopher* and *Contest* were searching between the Isle of Wight and Beachy Head,<sup>4</sup> an area which was to be the principal scene of the next day's activity.

190. **Channel, November 28.**—At 6 a.m. (November 28), while it was still dark, the armed drifter *Sarepta King* (16-pdr.), patrolling off Portland,<sup>5</sup> and making for the Shambles Light Vessel, saw a black object on the water coming up under her stern. She was hailed "Heave your ship to." The skipper answered, "Yes, sir"; "All right, sir," and gave the order to the gun's crew, "Let fly." The first two shots appeared to hit the submarine close to the conning tower; four men came out of the conning tower to man the submarine's gun and opened fire. The drifter *Sailor King* had opened fire, too, and got off eight shots, and the submarine submerged in a ring of bursting shell. It was still dark, but very clear. The *Sarepta King* was awarded £200, and, though there is nothing to show that the submarine was sunk, it may have received some damage.<sup>6</sup> Another submarine was off

<sup>1</sup> M. 61552/16.

<sup>2</sup> Tel. Prawle Point, November 27, 12.20 p.m. Lat. 50° N., long. 3° W. H.S. 312/96.

<sup>3</sup> H.S. 312/107.

<sup>4</sup> H.S. 312/153, 169.

<sup>5</sup> Lat. 50° 20' N., 2° 40' W.

<sup>6</sup> C.-in-C., Portsmouth, December 4, M. 010687/16, M. 011299.

the Owers, evidently watching the transport route, and between 7.45 a.m. and 8.15 a.m. sank two small storeships. The first was the British s.s. *Alison* (286 tons), on her way from Havre to Littlehampton, which was stopped and sunk with bombs 8 miles E.S.E. of the Owers Light Vessel at 7.45 a.m. The *Alert* (289 tons), which was with her, suffered the same fate. The British s.s. *Ramsgarth* (1,552 tons), on her way from Cardiff to the Tyne in ballast, was coming from the westward and passed the *Alert* with steam escaping when she, too, was stopped a few miles to the eastward at 8.15 a.m. and sunk.<sup>1</sup> At 9 a.m. the Newhaven armed trawlers *Smew* and *Ben Torc*, waiting off the Owers to escort an oiler, heard of the attack from a transport, the s.s. *Shining Cave*, and made at top speed for the spot, but were only in time to pick up the boats and survivors at 10 a.m.<sup>2</sup> The submarine off the Start was still active, for at 8.40 a.m. a seaplane sighted it some 30 miles S.W. by W. from Portland Bill and dropped two bombs near it which sent it down.<sup>3</sup> About an hour later the small British sailing vessel *Lady of the Lake* (79 tons), on her way from Cardiff to Alderney, was about 35 miles S.E. of the Start<sup>4</sup> when at 9.30 a.m. a plane suddenly landed on the water, warned her of a submarine, and flew away. The wind was very light and she accordingly got her boat out, when a submarine appeared to the northward, waved to the boat to get clear, and sank the ship with four shots.<sup>5</sup> This was the only success she had that day. Another submarine was working off Ushant, where it sank the Spanish s.s. *Lucienne* (1,054 tons) at 9.0 a.m., and at 11 a.m., 12 miles to the eastward, the French sailing vessel *Auguste Marie* (64 tons), 30 miles north of Ushant.

The submarine attacked that morning off Portland by the armed drifter *Sarepta King* was evidently lying in wait near the spot, for the armed drifter *Sailor King*, 12 miles S. by W. of Portland Bill at 12.15 p.m., saw her 3 miles E.S.E. and fired six shots, which drove her down. Some 12 miles to the westward a submarine attacked the Brixham fishing fleet at 3.30 p.m. and sank three of them<sup>6</sup>. Off the Owers a submarine had reappeared close to the scene of the morning sinkings and was sighted by the armed trawler *Gavina* at noon in 50° 37' N., 0° 49' W. The *Gavina* opened fire with her 12-pdr. at 4,700 yards and the submarine went down.<sup>7</sup> Newhaven sent the destroyer *Lancer* out at 1.5 p.m. to hunt her, and three destroyers of the 4th Flotilla, the *Spitfire*, *Contest* and *Cockatrice* left Portsmouth on the same quest, but nothing more was seen of her, and four million pounds in gold, escorted by the *Active*, *Hardy* and *Midge*, came safely across from Cherbourg that day (November 28). Westward-going traffic had been held up for over 36 hours ever since the report of the

<sup>1</sup> M. 60844/16.

<sup>2</sup> 50° 6' N., 2° 55' W.

<sup>3</sup> M. 61077/16.

<sup>4</sup> H.S. 275/300.

<sup>5</sup> H.S. 275/298.

<sup>6</sup> 49° 58' N., 2° 50' W.

<sup>7</sup> H.S. 312/853. In 50° 19' N., 3° W.

s.s. *Caloric* came in on the night of November 26. It was released that afternoon at 2.25 p.m. (November 28).<sup>1</sup> To the westward, off the Start, an interesting little engagement had taken place illustrating clearly the value of the small patrols in keeping submarines down. Two Portland armed trawlers, the *Maristo* (Lieutenant P. Nicholson, R.N.R.) (1 6-pdr.) and *Marconi* (1 6-pdr.), were proceeding on a southerly course about 20 miles S.E. of Start at 12.30 p.m. (November 28), when a sail was sighted on the horizon E. by N. Not much notice was taken of it at first, as there were a number of fishing craft about, but at 1 p.m. it seemed to have closed exceptionally fast, and soon after the sail was doused and the conning tower of a submarine was seen some 6 miles off to the S.E. The submarine dived and was evidently waiting for a barque, the *Celtic Burn*, which was coming up from the westward making S.S.E. on the starboard tack. The armed trawlers steered south-west for the barque, and at 2.15 p.m. were on her port quarter, when the submarine came up 1,000 yards astern and opened fire. The trawlers turned and engaged it, and after four shots the submarine went down. It was seen again to the westward about 3.15 p.m. apparently making for a steamer; fire was opened again and the submarine again went down. The *Marconi* went off to escort the barque towards the land, when at 4 p.m. the submarine was again sighted some 5 miles to the westward. The *Marconi* hoisted the red flag and both trawlers continued to chase the submarine to the westward till 5.40 p.m., when darkness fell.<sup>2</sup>

191. **Submarines, Channel, November 29.**—Three "Q" ships were cruising in the Channel at this time, *Q.7*, *Q.13* and *Q.14*. *Q.7* (*Penshurst*, Commander F. H. Grenfell) had left Milford Haven and was off Lands End on the morning of November 29, in the hope of picking up the submarine which the armed trawlers *Maristo* and *Marconi* had chased westward in the afternoon of the day before. His hope was fulfilled. At 7.45 a.m. he was some 23 miles south-eastward of the Lizard,<sup>3</sup> steering S. 81 W. at 8 knots. Seven miles off on the port bow an armed British steamer, the *Wileysike*, was coming up Channel. On the starboard bow a sailing vessel was hull down. The sun was just rising and a breeze was blowing from the south-west. On the port beam a small object could be seen in the glare of the morning horizon some 5 miles off. Suddenly at 7.52 a.m. it fired a shot which fell 60 yards short. Another went over the mainmast. Commander Grenfell turned to north-west to bring the submarine astern; then to cover the *Wileysike* turned west again, and at 8.12 a.m. began to "panic." The submarine was then steering parallel to the ship some 3,000 yards off silhouetted against the glare. She was evidently suspicious and would not

<sup>1</sup> H.S. 312/510. "Traffic sailing westward may proceed."

<sup>2</sup> Commodore, Portland, December 12. H.S. 223/325.

<sup>3</sup> Lat. 49° 45' N., 4° 40' W.

come closer, so at 8.20 a.m. Commander Grenfell opened fire; but he had only time to get off two rounds from the 12-pdr. and 6-pdr. and three from the 3-pdr. before the submarine went down. He made at full speed for the spot and dropped a depth charge, then closed the *Wileysike*, which had stopped.<sup>1</sup> While this action was going on, another submarine in the Portland area had stopped at 8.30 a.m. a small British sailing vessel the *Grace* (135 tons), on her way to Rouen with china clay, and sank her with bombs in mid-Channel 40 miles S.E. by E. of the Start. In the same area, 5 miles north of Alderney, the British s.s. *Kandy* (4,921 tons), armed and outward bound, was attacked by a submarine which dived after three rounds had been fired at it. The *Kandy* sent out an S.O.S., which brought two French destroyers to her help at 12.30 p.m.<sup>2</sup> Her signal was picked up by *Q.7* to the westward, and coming up Channel in reply to it she met the next day with a brilliant success.

In mid-Channel, 28 miles S.W. of Beachy Head the armed Trawler *Offa II* at 12.10 p.m. had fired three rounds at a submarine which had submerged. *Q.14* (*Viola*, Lieutenant P. J. Hogg, R.N.R.) was also fortunate enough to fall in with a submarine. She had picked up the boats from the sailing vessel *Grace* that day at 10.30 a.m. and at 2.15 p.m. was some 25 miles to south-eastward of St. Catherine's (Isle of Wight) when she sighted the conning tower of a submarine S.  $\frac{1}{2}$  E., steering parallel about 8,000 yards off. At 3.25 p.m. the submarine opened fire at 6,000 yards, the shell falling 200 yards ahead. The *Viola* stopped and got out her boats, but the submarine continued to fire, keeping about 5,000 yards off. At 3.44 p.m. the *Viola* went on at full speed and opened fire and the submarine dived, firing a torpedo which missed close astern. For his services on this day and on October 23, Lieutenant Hogg was awarded a D.S.C. Traffic between Channel ports was suspended at the time<sup>3</sup> and the *Hardy*, *Midge*, *Christopher* and *Cockatrice* were at sea hunting submarines in the Portsmouth area, but saw nothing. While *Q.14* was fighting off the Isle of Wight, the French s.s. *St. Phillipe* (3,419 tons) fell a victim off Guernsey to another submarine.

On her way from Algiers to Rouen she was attacked at 4 p.m. 15 miles west of Guernsey. She was armed with a 3.6-in. gun and answered the fire, but the submarine made several hits and the ship was abandoned and sunk. This was the largest French ship lost in the Channel during the month.

192. "Q.7" sinks "U.B.19," Channel, November 30.—After sinking the *St. Phillipe* the "Guernsey" submarine went westward and at 7.30 a.m. (November 30), 40 miles west of Guernsey, stopped the Norwegian s.s. *Harald* (1,093 tons) on her way from Algiers to Cherbourg and sank her with gunfire. Off Portland the small

<sup>1</sup> H.S. 646/338.

<sup>2</sup> *Kandy*, Pro. H. 529/18.

<sup>3</sup> Tel. Portland to Adty. and reply H.S. 312/900, 1003.

British sailing vessel *Behrend* was stopped and sunk at 8.30 a.m. 34 miles south-west of Portland Bill, the last victim to fall to *U.B.19*. Another submarine was lurking off Ushant, but the heaviest attack of the day fell on the route down the Cornish coast from the Bristol Channel, where six small ships (three sailing and three steam) were sunk, one British, two French, one Danish and two Norwegian, totalling 4,850 tons. The largest was the Norwegian s.s. *Aud* (1,102 tons) on her way from Cardiff to Lisbon, which was stopped and sunk at 1.30 p.m. seven miles from the coast.<sup>1</sup>

Another submarine was operating that day off Ushant and at 3.30 p.m., 30 miles northward of Ushant, stopped and sank the Norwegian s.s. *Draupner* (1,126 tons), crossing the Channel from St. Nazaire in broad daylight.

In mid-channel between the Start and Cape de la Hague, *U.B.19* met her end about the same time. After sinking the small sailing vessel *Behrend*, she had chased the British s.s. *Ibex*, which sent out an S.O.S. Seaplane 8379 (Flight-Sub.-Lieutenant J. R. Ross) flying from Portland sighted the *Ibex* at 12.35 p.m., warned her of the submarine she herself had reported, was told where it had gone and went off after it. *Q.7* (H.M.S. *Penshurst*), Commander F. H. Grenfell, had taken in the *Ibex's* signal and was coming south. The seaplane, commendably busy took her for a tank steamer, and at 1.50 p.m. went off to warn her, but had gone only a few miles, when the submarine came up a few miles astern, and he turned and dropped a 65-lb. bomb, which fell 100 feet short. He then landed at 2.23 p.m. near the supposed tank steamer. It turned out to be the *Penshurst* (in lat. 50° N., 2° 48' W.) and Commander Grenfell arranged that the plane should co-operate with him and fire a signal light when over the submarine (2.22 p.m.) Up went the plane and crashed, breaking a wing. The *Penshurst* had to lower a gig to save the crew and had just grappled the plane and was about to hoist it in when at 3.14 p.m. a shell pitched 200 yards ahead. Two more followed quickly and a submarine appeared to the north-east 6,000 yards on the port quarter. The seaplane was at once cast off and Commander Grenfell with the gig in tow and out of sight on the starboard quarter, proceeded slowly to the south and west. The submarine overhauled him slowly and at 4.12 p.m., when she was 1,000 yards off, the *Penshurst* stopped engines and abandoned ship. The submarine passed close under the stern and at 4.26 p.m. when she was on the starboard quarter, the *Penshurst* with all guns bearing opened fire at 250 yards. There was no one at the submarine's gun at the time and the fire was not returned. The second shot went through her engines. The *Penshurst* sent a hail of shell into her (83 all told) "fairly riddling her" and blowing away large pieces of the conning tower and hull plating with the 12-pdr. lyddite shell. She sank bows first at 4.36 p.m. 18 miles north-westward of the Casquets, in

<sup>1</sup> Lat. 50° 24' N., 5° 23' W.

49° 56' N., 2° 45' W. Six of her men were killed and the remaining three officers and thirteen men, including the captain, Lieutenant Erich Noodt, were taken prisoner. Commander F. H. Grenfell was awarded the Distinguished Service Order and Lieutenant Cedric Naylor, R.N.R., the Distinguished Service Cross, and £1,000 award was paid<sup>1</sup> to the officers and men.

The action was a splendid solace for weeks of weary cruising and shed a ray of hope over a disappointing month. Vice-Admiral Sir Lewis Bayly, in forwarding the report, added that Commander Grenfell had stuck to his work through the stormy winter, never being down or discouraged. To him the action proved that with picked officers and men, the "Q" ships were a deadly weapon, for though her crew "were thrown haphazard at the ship," Commander Grenfell had drilled and imbued them with his spirit. The submarine was *U.B.19*, armed with one 8.8 cm. (22-pdr.) gun. She had left Zeebrugge on November 22 and had sunk three steamers and one sailing ship. She had been on her way to attack a Norwegian steamer when she was driven down by a seaplane. On rising at 3 p.m. another steamer was in sight. This was *Q.7*. *U.B.19* was coming under her stern to collect her papers when she opened fire. A number of men were on deck. The submarine was struck by the second or third round and when she dived was making water and had to come up. As she rose, fire was opened again, she was hit several times and sank with a loss of 7 men out of 23.<sup>2</sup>

**193. Submarines, North Sea, November 16-30.**—In the North Sea during the latter part of November submarine activity was chiefly confined to the Bight, the Naze, the Skaw and the Hook of Holland. Not a single British ship was sunk by submarine during the fortnight. A large number of neutrals were stopped, but only seven were sunk, a total of 5,575 tons. The only vessel sunk on the East Coast was the Swedish s.s. *Faunus*, which struck a mine 14 miles S. by E. of Flamborough Head at 6 p.m. on November 21. The vessel was taken in tow by a Danish steamer, but eventually capsized. This minefield was also responsible for the loss of the Norwegian s.s. *Modig* (1,704 tons) on December 21, and was not found till December 25. The mining submarines were particularly troublesome in the Harwich approach and four fields of 12 mines each were laid off the Sunk and northern end of Shipwash in the latter part of the month, which were responsible for the loss of two minesweeping trawlers, the *Burnley* on November 25, and the *Lord Airdale* on November 28.

**194. Changes in Command, November 28.**—The orders preliminary to the pending changes went out on November 26. Admiral Sir John Jellicoe was to strike his flag on November 28, and proceed to the Admiralty to assume the post of First Sea Lord. Vice-Admiral Sir David Beatty was to hoist his flag as

<sup>1</sup> R.N. Officers did not share in these awards.

<sup>2</sup> I.D. 590/56.

Commander-in-Chief with the acting rank of Admiral. On Tuesday, November 28, Admiral Jellicoe turned over his great command and issued his last memorandum. It was one of farewell. He bade farewell to the Flag Officers, Captains, Officers and Men of the Fleet, which it had been his privilege to command since the commencement of the war and expressed his warmest thanks for their loyal support. He left them with feelings of the deepest regret, but with the knowledge that all were imbued with the spirit which had carried their forefathers to victory.<sup>1</sup> His flag was hauled down in the *Iron Duke*<sup>2</sup> as she lay in the Firth of Forth, and the next day he was speeding south to his new and onerous charge. On November 29, Sir David Beatty hoisted his flag as Admiral and Commander-in-Chief of the Grand Fleet. Changes of such magnitude involved a number of important appointments. Vice-Admiral Sir Cecil Burney went to the Admiralty as Second Sea Lord<sup>3</sup> and Vice-Admiral Sir Charles Madden was given the acting rank of Admiral, and hoisted his flag in the *Marlborough* as Admiral Commanding, the 1st Battle Squadron and Second-in-Command. Rear-Admiral William C. Pakenham was appointed as Rear-Admiral Commanding, the Battle Cruiser Force, which was no longer to be known as the Battle Cruiser Fleet. Rear-Admiral Osmond de B. Brock became Chief of Staff. Captain Lionel Halsey went to the Admiralty as Fourth Sea Lord and Captain Hon. Herbert Brand took his place as Captain of the Fleet and Commodore. Rear-Admiral Richard F. Phillimore took over Rear-Admiral Osmond Brock's command of the 1st Battle Cruiser Squadron, and Rear-Admiral Arthur Leveson went to the *Australia* to take command of the 2nd Battle Cruiser Squadron in place of Rear-Admiral Pakenham. Vice-Admiral Sir Thomas Jerram, who was senior as a Vice-Admiral to Sir Charles Madden, was asked if he preferred to keep his command of the 2nd Battle Squadron, but he asked to be relieved, and was succeeded by Vice-Admiral (acting) Sir John M. de Robeck, who was then in command of the 3rd Battle Squadron in the Thames. Rear-Admiral William Goodenough hoisted his flag in the *Orion* in place of Rear-Admiral A. C. Leveson, and Captain Cecil Lambert (late 4th Sea Lord) took command of the 2nd Light Cruiser Squadron. Vice-Admiral Sir Doveton Sturdee elected to remain in command of the 4th Battle Squadron. Vice-Admiral (acting) Herbert L. Heath succeeded Vice-Admiral (acting) Sir John de Robeck and Rear-Admiral Sidney Fremantle came from the 9th Cruiser Squadron (mid Atlantic) to take Rear-Admiral Heath's place in the 2nd Cruiser Squadron. Rear-Admiral Alexander Duff was ordered to proceed to the Admiralty, where he was to fill a new post created to wrestle with the submarine,

<sup>1</sup> The Memorandum is in Grand Fleet Orders and Memoranda, November 28 1916, H.S.A. 224.

<sup>2</sup> Sunset, November 28, 3.55 p.m.

<sup>3</sup> The 2nd Sea Lord, Vice-Admiral (Acting) Hon. Sir Somerset Gough-Calthorpe became Admiral Commanding Coast Guards and Reserves and later C.-in-C., Mediterranean.

and Rear-Admiral Wilmot Nicholson took his place in the 4th Battle Squadron. It was Mr. Balfour, the 1st Lord, who issued this long roll of new appointments. But as Admiral Jellicoe was speeding south, the Government was in the throes of an impending crisis. Public opinion was profoundly stirred by the collapse of Rumania. The effect of the submarine was beginning to be felt in the demand for rationing. A source of renewed hope had to be found. On December 1, Mr. Lloyd George addressed a letter to the Prime Minister, urging the necessity for a drastic overhaul of the machinery of war direction.

On December 3, Mr. Asquith advised His Majesty to consent to a reconstruction of the Government. Mr. Lloyd George resigned on December 5, and Mr. Asquith tendered his resignation the same day. The new War Cabinet met on December 9, and Sir Edward Carson took Mr. Balfour's place. Sir John Jellicoe arrived in London on November 29, but owing to a slight attack of influenza it was December 5 before he took up his appointment, so that he only served a few days with the First Lord who had summoned him to his task.

**195. Harwich Force out, November 30–December 1.**—In the middle of these momentous changes a German signal was received about 5 p.m. on November 30, to say that the 9th Flotilla was leaving Zeebrugge for the Bight at 7 p.m. and would arrive at Terschelling about 5 a.m. (December 1). Outpost Forces were to be in a state of readiness from 11 p.m. This was passed to Commodore (T) at 6.8 p.m. with instructions to try and intercept them, but not to go north of the Texel, as no support would be available. Further measures followed. The Battle Cruiser Force was ordered to raise steam. Captain (S) was told to send six submarines to spread 270° from Haaks Light Vessel four miles apart by daylight.<sup>1</sup>

Commodore (T) was away by 8.30 p.m. with his five light cruisers, *Centaur*, *Carysfort*, *Canterbury*, *Cleopatra*, and *Undaunted*, the *Lightfoot* and 16 destroyers. The *Lightfoot* was detached with seven destroyers to patrol off Brown Ridge and the remainder went on towards Terschelling. At 10.22 p.m., the Admiralty informed the Commander-in-Chief and Vice-Admiral, Battle Cruiser Force, that the Battle Cruiser Force would not be required to sail but was to remain at one hour's notice.<sup>2</sup>

Submarines *E.37*, *E.54*, *E.56* and *E.29* left Harwich about 9 p.m. followed by *H.7* and *V.2*<sup>3</sup> from Yarmouth at 10.40 p.m. They arrived off the Haaks at 7.30 a.m. and took up a diving patrol.

Commodore (T) patrolled off Terschelling on north-east and south-west courses till 7.37 a.m., when he received orders to return

<sup>1</sup> H.S. 451; H.S. 312/1225; H.S. 246, Comm. (T's) Diary.

<sup>2</sup> H.S. 312/1298.

<sup>3</sup> *V.2* struck the pier wall with an ebb tide and could not get clear till 2.20 a.m. She sighted the Harwich light cruisers on their way back at 10.50 a.m.

to his base. Nothing was seen of the enemy, but a German signal came in reporting the Ninth Flotilla at 5.30 a.m. in a position four miles north-east of Terschelling Light. They had passed out of his reach. The submarines remained out till December 2; *E.37* (Lieutenant-Commander Robert F. Chisholm) did not return. Going out by the Sledway on the night of November 30, *E.54* (Lieutenant-Commander Robert Raikes) had felt a violent shock in lat. 52° 5' N., and thought at the time he had struck wreckage or a War Channel buoy. She showed no mark of anything in dock, and her commander thought *E.37*, which was a mile or so away, might have struck a mine, which seems the more probable, as German "U.C." boats were busy off Orfordness and round the Sunk at the end of the month.<sup>1</sup> Three officers and twenty-seven men were lost in her.<sup>2</sup>

**196. Shipping Losses, November 1916.**—The figures of British shipping losses showed only a small decrease in November. The gross tonnage of British ships sunk by submarines was 42 ships of 144,837 tons, compared with 41 ships of 146,891 tons in October, and the tonnage situation remained as grave as ever, though the losses in total tonnage (Allied and neutral) were somewhat less (299,024 tons in November 1916, compared with October, 315,377 tons). The British losses were heaviest in the Mediterranean. In the Channel, though they bulked large compared with the North Sea, they were only 14 per cent. of the whole. The figures were as follows:—

British Merchant Ship Losses, November 1–30 1916.

	By Submarine.		Per cent.	By Mine.	
	No.	Tonnage.		No.	Tonnage.
North Sea .. .. .	3	5,969	4	2	1,589
Channel .. .. .	20	21,483	14.5	2	1,989
Atlantic .. .. .	5	18,849	13		
Mediterranean .. .. .	14	99,536	68.2	2	17,265
Irish Sea .. .. .	—	—	—	1	4,278
Total .. .. .	42	144,837	—	7 <sup>3</sup>	25,112

Of the 20 ships lost in the Channel, 9 were sailing vessels, which could not be tied down to a fixed route, and the largest of which, the *Grenada* (2,268 tons, November 22), was transgressing

<sup>1</sup> The trawler *Loch Buie* reported two enemy moored mines in the north approach to the Sledway on November 28, 2.35 p.m., H.S. 312/545. *E.54* returned at 1.52 p.m. on the afternoon of November 30, by the Sunk Channel, but several mines had been found in that vicinity on November 29, and she was escorted in by minesweepers. Two more were found on November 30 at 2.40 p.m. by *P.28* and one at 4 p.m. by the *Atalanta* (H.S. 312/965, 1155, 1186, 1199). See s. 173.

<sup>2</sup> H.S.A. 272/480.

<sup>3</sup> *Canginian*, 1,142 tons, mined in North Sea (November 17), has been added to Trade Division Return, 1918.

the Admiralty instructions by crossing the Channel in day time. The two largest steamers sunk—*Trevarrack* (November 16) and *Brierton* (November 22)—were both homeward bound and were, presumably, less conversant with the latest instructions. No ships under escort along the coast had been sunk, and in proportion to the volume of traffic moving, the losses, which may be estimated at 5 per cent., were not excessive.<sup>1</sup> So far as the security of British transports and Government ships were concerned, the system in force in the Channel was effective, and could be regarded by the War Staff with an air of complacency. Norwegian shipping circles and the Shipping Control Committee, however, were not so happy about it. Out of a total of 29 Norwegian ships of 46,214 tons lost in November, 20 ships of 28,847 tons, or 62 per cent., went down in the Channel, where their losses exceeded the British. The French lost 26 ships of 12,980 tons, of which 23 were sailing vessels, whose routes were largely governed by the wind. Of the total losses of submarines of all ships, British Allied and Neutral in November 1916 (299,024 tons), the Channel was responsible for 66,150 tons, or 22 per cent. The Norwegians felt their losses profoundly, and their feelings are reflected in Foreign Office letters to the Admiralty. There the responsibility was laid on the Norwegian Government, and the War Staff complained bitterly that the Norwegian Government would not advise their masters to hug the coast in accordance with the memorandum sent them.<sup>2</sup> This was one of the most teasing anxieties of the time.

**197. Suggestions from Fleet.**—The cardinal problem which faced Admiral Jellicoe on coming south was the defeat of the submarine. In a memorandum issued in the Grand Fleet on November 9<sup>3</sup> he had called for suggestions on the subject, and a number of interesting answers were sent in. As early as October 21 1916, Captain Humphrey Smith, of the *Alsatian* (10th Cruiser Squadron), had sent in a suggestion on the subject of the convoy. In the 10th Cruiser Squadron he said they frequently met straggling lines of merchant ships which appeared to be much more vulnerable to attack than a compact squadron. If they were to sail in close formation, attended by an escort of fast trawlers and accompanied by a few destroyers, submarines could not attack except with the torpedo, and the chance of immunity would be greater. On the supposition that the best plan is to attack the submarine in its zone of operations, a convoy system of this kind would entail the necessity of submarines

<sup>1</sup> Cross-Channel Transport Traffic was 1,585,804 tons from October 31 to November 27, and the same tonnage may be taken as having returned, of which only two small storeships, the *Aleri* and *Alison* were sunk. Traffic up and down Channel may be taken at 1,062,000 tons (September figures). See Appendix N.

<sup>2</sup> Memorandum of advice for Norwegian masters, 20.11.16 in M. 010124/1916, Foreign Office, 31.10.16.

<sup>3</sup> H.F. 0022/500, *Iron Duke*, November 9 1916, in H.S.A. 224.

operating in the vicinity of anti-submarine craft. This was, indeed, the essential principle of the convoy system. The suggestion<sup>1</sup> sent on by Vice-Admiral Reginald Tupper was received in the War Staff with something less than enthusiasm. Convoying squadrons were not to be had, and it was, therefore, considered useless to propose anything of the kind, and, further, that all ideas were useless if they entailed the employment of vessels which were not there. The idea, however, figured in more than one of the suggestions sent in to the Commander-in-Chief, which indicated a strong trend of opinion flowing in favour of unity of control, a convoy system, and definite patrolled routes. Captain Michael Hodges (*Indomitable*, 16.11.16) recommended regular sweeps with destroyers on a large scale. Lieutenant H. L. Vaughan Williams (*Australia*, 16.11.16) suggested the escort of all shipping by patrol vessels to within 20 miles of the coast and for ships defensively armed to sail in threes or pairs. Lieutenant Commander H. Rundle (Rosyth, 26.11.16) suggested the concentration of patrols in areas of passage, and Admiral Sir F. T. Hamilton, Commander-in-Chief, Rosyth, in forwarding it added that he was in favour of greater elasticity and concentration of auxiliary patrols. "In the Irish Channel there must be a very large number of trawlers which have not been within a hundred miles of a German submarine for over a year."<sup>2</sup> Commander Norton A. Sullivan (*Marksman*, 2.12.16) sent in detailed suggestions for a system of convoy. Lieutenant-Commander Patrick Crohan (*Marksman*, 10.12.16) proposed a lane 240 miles long running west from the Scillies, divided into 20 mile squares, each patrolled by a unit consisting of one destroyer and four drifters, with a similar lane running from Ushant to Carnsore Point, in Ireland.<sup>3</sup> Captain the Hon. Plunkett-Ernlé-Drax (*Lion*, 1.12.16) foreshadowed the new regime in suggesting an anti-submarine department, with central control of the auxiliary patrol system, and the institution of a form of compulsory convoy in which steamers in dangerous areas should move in groups of four to six, at least half being armed.<sup>4</sup> The same note was sounding in shipping circles. Mr. Donald MacLeod, shipbroker, had sent a letter on November 6 urging that there was only one way of saving ships and cargo, and that was by convoy and closer co-operation between the Admiralty and shipowner.<sup>5</sup>

The main objection to anything of the nature of convoy was the lack of vessels for escorting purposes. In Operations Division it was thought that "if we had enough destroyers they could be usefully employed on convoy duty in home waters and the Mediterranean."<sup>6</sup> Trade Division was not inclined to favour it.

<sup>1</sup> M. 09653/16, V.-A., 10th C.S., October 23.

<sup>2</sup> M. 010752/16, C.-in-C., Rosyth, December 5.

<sup>3</sup> M. 011346/16.

<sup>4</sup> M. 011345/16.

<sup>5</sup> Pro. M. 498/1916.

<sup>6</sup> M. 010987/16.

"The question of convoy had frequently been gone into, but experience had not justified its existence outside the Mediterranean. Convoy is not much use to defensively armed ships provided they zig-zag properly."<sup>1</sup> Rear-Admiral Duff, the Director of the new Anti-Submarine Division, was not at first favourable to it. Differences of speed, loss of safety afforded by zig-zagging, the inevitable tendency to straggle, were some of the reasons assigned against it (21.12.16). In short the Admiralty view was definitely opposed to it at the end of the year.<sup>2</sup> Defensive armament had proved a powerful safeguard, and this policy was pushed forward with renewed vigour. The submarine campaign was, however, reinforced by the appearance of raiders on the ocean routes. The *Moewe* had sailed at the end of November, the *Wolf* followed her on November 30, and the *Seeadler* was waiting to slip out. The appearance of the *Moewe* led Admiral Jellicoe to consider the possibility of introducing ocean convoys for protection against raiders, and he called for a review of the subject. Figures carefully collated by the Trade Division for this purpose give an interesting survey of the Atlantic traffic. The actual number of vessels en route from Halifax and North America ports to the United Kingdom, France and Mediterranean on a particular day<sup>3</sup> was 128. The total number in North American ports was 122. The daily average of British ships on voyage on the North Atlantic route during December was 33, and the estimated monthly sailings of British vessels from Halifax, Boston, New York, Philadelphia, Norfolk and Baltimore, were—

To United Kingdom .. .. .	180
France .. .. .	62
Mediterranean .. .. .	62
Total .. .. .	304 <sup>4</sup>

198. **Channel Traffic, November.**—It is important to remember that in the system in vogue no escorts were provided for ordinary mercantile traffic at this time. The only ships escorted were transports, oilers, munition, store-ships,<sup>5</sup> and "valuable" ships. There was no machinery at the Admiralty to do more.<sup>6</sup> This policy and the system of routes in force were viewed with anxiety in the Channel and proposals for reorganisation came in

<sup>1</sup> For an earlier expression of the Trade Division view, see "Admiralty Policy for Control of British Shipping," A.W.S.T.D. 3026, prepared in anticipation of C.-in-C.'s (Admiral Jellicoe's) visit to the Admiralty on November 2 1916.

<sup>2</sup> "Convoy is impossible as a protection against submarines," M. 010987/16 (December 29 1916).

<sup>3</sup> January 4 1917.

<sup>4</sup> M. 0533/17. Papers titled Admiralty, December 24 1916.

<sup>5</sup> The orders for passing these on from area to area will be found in M. 01693/16 of 23.2.16, Case 1324.

<sup>6</sup> "It had never been contemplated that we should have a big enough navy to protect the whole of the world's commerce." November 30 1916.

from every Flag Officer in that area.<sup>1</sup> The orders prepared in the Trade Division and issued by the Admiralty, directed ships to cross the Channel only in dark hours, but left the route undefined and largely optional. They were "to make for the spot directly opposite to that from which they struck across."<sup>2</sup> The Vice-Admiral, Dover, had submitted objections to this arrangement at the time, urging that in his area ships should stick to the route prescribed by him from Folkestone to Boulogne and to the times that he appointed. This had been conceded, so that in his area, East of Beachy Head, ships could only cross from Folkestone to Boulogne at given times. The sinkings under this system were remarkably small, and there can be little doubt that the policy proved itself entirely sound and practical. Admiral Colville, Commander-in-Chief at Portsmouth, had suggested earlier<sup>3</sup> that shipping should keep close to the coast and had also urged that patrols instead of trying to patrol "large indefinite areas" should be concentrated on the coastal routes and on certain definite cross-Channel routes. In reply he was told (October 15) that the system of following the coast was in force<sup>4</sup> and the system of concentrating on a single cross-Channel route was in force at Dover, but presented difficulties in the Portsmouth and Devonport areas. The Vice-Admiral, Dover, pointed out that the French system was the opposite of our own.<sup>5</sup> It appeared to him that the methods of dealing with Channel traffic must lead to disaster if the enemy resumed indiscriminate sinking. The fact that no ships were attacked in the Dover area was due to the fact that there were none to sink.<sup>6</sup> The French regulations were "in direct contradiction to the British," so that "we are enjoying the extraordinary spectacle of diametrically opposed orders<sup>7</sup> governing the cross-Channel traffic." Admiral Ronarc'h, he said, was in despair when the English orders were first issued. Finally he urged the following proposals—

- (a) To fix definite<sup>8</sup> trade routes near the coast.
- (b) To institute controls at Lands End, Devonport, Portland and St. Helen's of one torpedo-boat and two trawlers to stop and divert traffic, similar to the system at Folkestone "Gate."

<sup>1</sup> Vice-Admiral Sir Lewis Bayly (Queenstown), Admiral Hon. Sir Alexander Bethell (C.-in-C., Devonport), Admiral Hon. Sir Stanley Colville (C.-in-C., Portsmouth), and Vice-Admiral Sir Reginald Bacon (Dover).

<sup>2</sup> See M. 09748/16, A.L., November 7 1916, General Instructions (f). Also M. 09562/16.

<sup>3</sup> September 29 1916, M. 08615/16.

<sup>4</sup> The patrols, however, were not concentrated on the coastal route. T.S.D.D.

<sup>5</sup> The French permitted ships to cross on three routes only, Boulogne to Folkestone, Cherbourg to Isle of Wight, and Ushant to the Wolf. See Paris, September 29 1916, M. 0800/16. T.S.D.D.

<sup>6</sup> i.e. They only sailed at prescribed times on a definite patrolled route. T.S.D.D.

<sup>7</sup> i.e., the three prescribed French routes, as opposed to the British system of optional routes, west of Beachy Head.

<sup>8</sup> i.e., presumably a patrolled route from point to point, and not merely "to keep close to the coast."



- (c) Three, and only three, cross-Channel routes.  
 (d) Prohibit all other routes in the Channel to vessels under escort.<sup>1</sup>

But the War Staff was not to be convinced by the consensus of opinion in the four Channel Commands. It thought it better to have "no definite fixed lines, but vessels to cross north and south, the whole crossing after dark, without lights," and it was pointed out that the only British ships lost by submarines in the Channel were a few who had been disobeying this rule and crossing in the daytime. These general statements of the War Staff were not absolutely correct and the heavy losses experienced by neutrals were passed over without mention.<sup>2</sup>

The Commander-in-Chief, Portsmouth's, letter of September 29, went on to Dover, who expressed himself in complete agreement with it and offered to release and place on the Channel traffic routes<sup>3</sup> 40 vessels from the barrage. The arguments presented in the War Staff against change were not convincing. It was estimated that there were 141 auxiliary patrol vessels in the Channel, and excluding the minesweeping trawlers, which had to be kept available for sweeping,<sup>4</sup> and allowing one-third for refitting, on a mileage of 347 miles, their numbers would allow one patrol vessel to every six to eight miles.<sup>5</sup> The concentration of traffic resulting from the suggestions put forward by the commands would encourage minelaying<sup>6</sup> and the present system of escorting important ships would have to be discontinued. The latter was a weighty argument and carried the day against the Channel commands. But Dover's proposals had hardly been rejected when suggestions to the same effect came sweeping in from Queenstown. Admiral Bayly enclosed a letter from Commander E. L. B. Lockyer (9.12.16), who said he had been cruising in a "Q" ship on the traffic routes in the Channel for 24 days and in 16 days had not sighted a patrol or war vessel of any description. Commander Lockyer suggested to the Admiral, Queenstown, that all Channel traffic should pass only on a coastal patrolled route and that a flag officer should be in charge of the "defence of the Channel," and should have authority to detain and release shipping.

Admiral Bayly recommended the idea of all auxiliary patrol vessels being under a single Admiral of the Channel Patrol, "stationed at some central position such as Portland," leaving cross-Channel traffic under the present directing officers. His main

<sup>1</sup> M. 09108, V.-A., Dover, October 15 1916. See also M. 09668/16, for remarks.

<sup>2</sup> M. 09688/16.

<sup>3</sup> Dover, 30.10.16, M. 09652/16. The vessels were chiefly drifters, but included trawlers.

<sup>4</sup> They were, however, armed, and on a definite patrolled route could and did give a large measure of support.

<sup>5</sup> The arithmetic is incorrect. The actual figure is 1 to 5.4 miles.

<sup>6</sup> It did so in the War Channel route on the East Coast, but the losses by minelaying never compared with the losses by submarines. T.S.D.D.

object was unity of control and Admiral Bethell, Commander-in-Chief at Devonport, expressed a general concurrence with the view.<sup>1</sup> This view was also held by Vice-Admiral Sir John de Robeck, who, on relinquishing command of the 3rd Battle Squadron in the Thames, submitted the urgent necessity of appointing an officer in general charge of operations against submarines, to have command of all patrol craft "except those reserved for defence of ports," and charged with control of all routes for mercantile traffic.<sup>2</sup> Three conceptions can be discerned in these suggestions—unity of traffic control, a single definite patrolled route and a single Channel command for "hunting" submarines. Many months passed before they were even partly realised. When the new Anti-submarine Division was instituted at the Admiralty it was proposed (22.1.17), that a Captain or Commander should be appointed as Inspecting Officer of the Channel Patrols, from Beachy Head to the Scillies, with headquarters at Portland, under the direct orders of the Admiralty, but the idea did not materialise.

199. **French Coal.**—The industrial life of France was largely dependent upon British coal, of which she imported some 1,500,000 tons<sup>3</sup> in October. A considerable portion of this was sunk. Much of it was carried in neutral vessels and during September, October and November these were a special target of attack and the coal trade was badly hit. In the second week of November, out of seven Norwegian vessels sunk in the Channel five were carrying coal to France, and out of six small French sailing vessels that went down three were in the coal trade. In December 1916, out of fourteen Norwegian ships sunk in the Channel, nine were carrying coal, and Steinbrinck (*U.B.18*) reported that out of 22 ships that he had sunk, 11 were carrying coal for France or Italy. The submarine campaign continued in December as strenuously as ever. There was indeed a decrease in the total tonnage sunk,<sup>4</sup> but the British tonnage lost in the Channel was greater (18 ships, 39,254 tons) and the Norwegian losses were much the same (14 ships, 22,122 tons). These losses led the French to ask for a system of controlled sailings at the end of the year<sup>5</sup> and the establishment of the Falmouth Controlled Sailings was not only one of the first important measures taken against the submarines, but served as a preliminary step towards the subsequent introduction of convoy. The actual British losses in the Channel and Home Waters at

<sup>1</sup> Queenstown, 16.11.16, in B. 1030/16. M. 011134/16.

<sup>2</sup> M. 010592/16, November 30 1916.

<sup>3</sup> These figures are from Commandant Vandier's report in paper *Admiralty*, December 30 1916. Coal imported by France, 1 to 18 October, 1,079,584 tons; 1 to 18 November, 918,786 tons.

<sup>4</sup> British ships sunk—October, 41 ships (146,891 tons); November, 42 ships (144,837 tons); December, 36 ships (109,945 tons). Total British, Allied and Neutral—October, 179 ships (315,377 tons); November, 155 ships (299,024 tons); December, 155 ships (263,245 tons).

<sup>5</sup> Papers, *Admiralty*, December 20 1916.

this time were not excessive. The heaviest losses were in the Mediterranean. But at home the necessity of protecting trade with neutrals and neutral traffic led first to the institution of controlled sailings for British ships on the Hook of Holland route and then to a modified form of the same system on the Lerwick and Bergen route.

200. **The Change, December 7.**—The beginning of 1917 was to see the same system installed for the French coal trade in the Channel. The time was coming when all shipping moving on the seas had to be gripped and controlled. The old War Staff possessed neither the organisation nor the momentum for the colossal task which confronted the new First Sea Lord. And yet in spite of the serious losses inflicted on British shipping one can question the wisdom of the German policy in forestalling their unrestricted campaign with a period of restricted warfare. Their sinkings in the six months of restricted warfare (August 1916–January 1917) were large but not half so large as their first sinkings in the unrestricted campaign.<sup>1</sup>

The blow in the latter part of 1916 was heavy but not crushing. The sinkings in September and October awakened in the Fleet and in Whitehall a sense of impending peril. The new First Sea Lord brought with him a strong and vigorous impulse from the Fleet and set on foot the preparations which were to meet the heavy and more terrible attack of the coming year. There was just time. The position was not so acute that it could not be met. The Admiralty prepared to meet it. It is in this light that the month of November 1916 stands out as a month of change and impending preparations. The Government was on the brink of dissolution when Admiral Sir John Jellicoe became First Sea Lord on December 4. Mr. Asquith resigned the next day. Mr. Lloyd George succeeded him on December 7. Sir Edward Carson succeeded Mr. Balfour as First Lord on December 12, the very day that the Central Powers announced that they were ready to negotiate for peace.

<sup>1</sup> Total sinkings British, Allied and Neutral, by submarine, average per month from August 1 1916, to January 31 1917 (restricted) 253,393 tons. From February 1 to July 31 1917, average per month, 581,630 tons.

### APPENDIX A.—CAP. I, SECTION 3.

*Extract from D.N.C.<sup>1</sup> Memorandum in S.02136/1916, Dec. 19, 1916.*

These three ships<sup>2</sup> were sunk before they had received heavy punishment and the deduction is that flame reached the turret magazines causing them to explode. It is now the generally accepted opinion that the fault to which these explosions may be attributed lay in the method adopted in the transportation of charges to the guns, whereby these charges which were not in non-inflammable cases had an open course from the magazine to the gun. This in association with the number of charges that were usually in the handing room, revolving trunk, working chamber and gun house provided a direct train of cordite from the turret to the magazine. There would seem to be an impression in the Fleet that these three ships were lost because enemy shells penetrated the lower protective deck and exploded either in the magazines or so close to it as to ignite the contents. This is not substantiated by a detailed examination of all the reports that have been received, and in the ships that returned from the engagement there is no known case of an enemy shell travelling so far down before bursting and only one known case (that of Barham) where a shell which burst a short distance beyond the point of penetration sent a fragment so far into the ship. Further there were very few cases where fragments of projectiles penetrated the protective deck over the machinery spaces which occupy a much larger portion of the ship than the magazines, are in the midship part of the ship and are not better protected.

... It will be seen that these (diagrams) do not bear out the contention that enemy shells can penetrate the lower protective deck of modern battle cruisers and battleships before they burst, nor that they burst so far beyond the point of entry as to explode in the immediate vicinity of the magazines. If the impression that enemy shells can do this amount of damage be allowed to remain, it will lead to demands for a further considerable increase in protection in future warship construction and the result will be that ships will become very much greater in displacement and cost, without proportionate increase in armament, as a greater proportion of the total weight will be given up to protection than hitherto. The fundamental maxim of British warship design has been that the best defence is superior power of offence and it is considered that this action shows this maxim to be essentially sound, as although British battle cruisers were in action with enemy battleships they were not then put out of action, whereas the more heavily protected and less heavily armed German ships received very severe punishment. 19.12.16.

<sup>1</sup> Director Naval Construction.

<sup>2</sup> *Indefatigable, Queen Mary, Invincible.*

APPENDIX B.—CAP. I, SECTION 4.  
TACTICS—POST JUTLAND.

*Extracts from Grand Fleet Battle Orders, page 13, of Sept. 11, 1916.  
Sec. VII., Battle Tactics, superseding same of Dec. 1915 (H.S. 289).*

Par. 2. . . . The Commander-in-Chief may make the signal M.P. This signal is used when the Commander-in-Chief desires to emphasise the fact that under the existing conditions he finds it very difficult to control the movements of the whole battle fleet, and is a *reminder* of his desire that the flag officers of battle squadrons shall manœuvre their squadrons independently whilst acting in support of the squadron or division to which the fleet flagship is attached. *It is in no way intended to imply that such decentralisation is not to take place unless the signal M.P. is made.* If made it merely points out that decentralisation has become *essential* for the line.

Par. 3. In all cases the ruling principle is that the Dreadnought fleet as a whole keeps together . . . and so long as the fleet are engaged on approximately similar courses, the squadrons should form one line of battle.<sup>1</sup>

Par. 5. . . . at a range of about 18,000 to 20,000 yards.<sup>1</sup>

Par. 7. . . . Until the enemy is beaten<sup>2</sup> by gunfire it is not my intention to risk attack from his torpedoes.<sup>1</sup>

Par. 6. . . . German ideas before the war undoubtedly favoured a short range action in which their secondary armament and torpedo craft were to play an important part.<sup>1</sup>

Experience during the war, however, indicates a change of view and shows that their tactics may be devoted to keeping their heavy ships either out of range or at very long range whilst affording opportunities for their torpedo craft to attack. These tactics are facilitated by the high speed of their battleships if the German Second and Fourth Squadrons take no part in the action.

Par. 9. Enemy Retiring Tactics<sup>3</sup> . . . but the German First and Third Squadron alone have probably a higher speed than the British battle fleet as a whole, and this will add to the difficulty of turning away especially if as on the 31st May, 1916, these tactics are accompanied by torpedo attack on the centre and rear of our fleet. If the rear, or centre and rear only, are threatened by torpedo attack the flag officer leading the van of the main battle fleet should use to his utmost the speed of his squadron in order to keep within effective gun range of the enemy.

The experience of the Battle of Jutland when the enemy escaped serious punishment by turning away covered by smoke screens and destroyer attacks showed the desirability of considering methods of reducing the torpedo menace other than that of turning the fleet away by the Preparative, especially if in low visibility this turn takes the fleet out of gun range and allows the enemy to execute his turn away when not under gunfire.

Par. 10. When the action commences in water which can obviously not have been prepared by the enemy either by mines or submarines, the risk of our van leading in is small. Discretion will, therefore, be required on the part of the flag officer "leading in" to keep or close the range.

Par. 11. . . . General outline of procedure in the event of torpedo attacks.

<sup>1</sup> Not altered from issue of December 1915.

<sup>2</sup> This portion ends Par. 6 in issue of December 1915.

<sup>3</sup> A revision of par. 8 of December, 1915.

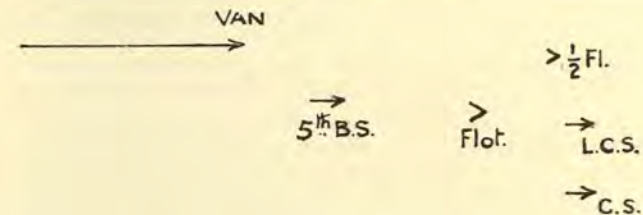
APPENDIX B.1.

POST-JUTLAND TACTICS.

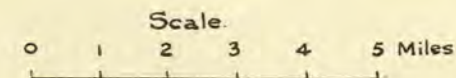
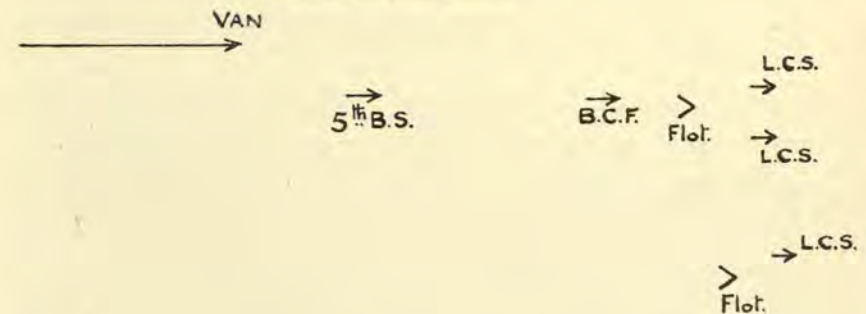
DEPLOYMENT DIAGRAM

APRIL 7. and JUNE 19.

APRIL 7, 1916.



JUNE 19, 1916.



[From H.S. 289]

Subject to the remarks in paragraphs 9 and 10, the van if not threatened by torpedo attack should keep within effective gun range of the enemy; the centre if not threatened will support the van both proceeding at high speed; the van and centre, if seriously threatened must take steps to avoid the torpedo threat. The alternatives open to the rear are:—

- (a) To turn away and increase speed when the attack is made.
- (b) To stand on but to open the intervals between ships to three cables or more to minimise the risk of being hit. . . . .
- (c) To form the rear squadron or division on a line of bearing in open order, the line of bearing being towards the engaged side, the direction of the line of bearing being approximately at right angles to the bearing of the rear of the enemy. This also minimises the risk of being hit.
- (d) To turn *towards* the attack whether in line ahead or on a line of bearing.

**Remarks on these four alternatives.**—(i) A TURN AWAY has no disadvantages if the visibility is such that gun range can be maintained while the squadron is placed outside torpedo range. These conditions, however, are not likely to obtain if the enemy turns away two or three points on making the torpedo attacks, or if the distance between the rear of our own and the enemy's line of battle is greater than the distance between the two vans, and to turn away will probably be advisable only if the destroyer attack is not associated with the retirement of the enemy.

(ii) The alternative of MAINTAINING A STEADY COURSE and opening the intervals to 3 or  $3\frac{1}{2}$  cables reduces the chances of being hit, especially from torpedoes running at right angles to the line, and gives greater freedom to individual ships, but it takes time to open eight or nine ships one or more cables, and it may be too late to adopt this course when the attack is seen to be developing. There is also the disadvantage of extending the line and forcing back the cruisers, light cruisers and destroyers stationed at the rear.

(iii) The alternative of a LINE OF BEARING IN OPEN ORDER towards the engaged side possesses several advantages; gun range is maintained, no ground is lost if the Commander-in-Chief closes and keeps up a vigorous pursuit of the enemy and, while the interval between ships presented to torpedoes crossing at right angles is about the same as in line ahead at three cables apart, it is much greater to torpedoes which approach from before the beam. Against these advantages must be placed the disadvantages always attaching to a line of bearing in action. The disadvantages are lessened by placing the ships in "Open order."

The formation adopted by the flag officer commanding the rear of the line must depend on the circumstances of the moment and to some extent on the movements of the van and centre. Flag officers commanding squadrons should after full consideration be clear in their minds as to the formation they intend to adopt under all probable conditions.

(iv) If the moment at which the enemy's torpedoes are fired can be seen, a perfectly safe course is for ships to steer direct for the attacking destroyers. Unless allowance has been made for such a turn, which is highly improbable, the torpedoes cannot hit under these conditions but must pass ahead.

## APPENDIX C.—CAP I, SECTION 5, 1916.

*Re B.C.F. and 5th B.S.—V.A. B.C.F. to C.-in-C., March 3, 1916.  
(M.02071.)*

Sir,

In reply to your communication H.F. 0010/113 of 24th February,<sup>1</sup> while recognising the existence of the limitations that you specify, I venture to submit the following remarks.

2. Paragraphs 2 and 3 of your communication question the value of the 5th Battle Squadron as support to the Battle Cruisers on account of their lack of speed. I submit that even if they are unable, when leaving port, to do more than 23½ knots their value could be enormous. It is, however, assumed that with a considerable reduction of their fuel on board, say by 1,000 tons, it would so reduce their draught as to enable them to acquire the speed for which they were designed, i.e., 25 knots—equal to the 3rd Battle Cruiser Squadron.

3. It might be said that this would reduce their radius of action to a dangerous extent. Against this I would submit that, being based at Rosyth, 100 miles nearer the probable scene of operations, this point is not of vital importance in an area restricted to the North Sea, and that in any case it would provide them with sufficient fuel to enable them to last at 20 knots for approximately the same time as the ships of the Battle Cruiser Fleet.

4. Past experience shows that they would in all cases be able to keep with us until the moment when we sight the enemy. If we are then east of the enemy, the 5th Battle Squadron would be invaluable. Taking the worst case, we may be west of them and may have a long chase at full speed. After chasing for three hours, i.e., a distance of at least 75 miles, the 5th Battle Squadron with their 23½ knots would then be at most 4½ miles astern of the 3rd Battle Cruiser Squadron. I can imagine no better or more valuable support.

5. If the enemy Battle Cruisers were supported by the High Sea Fleet, it would be necessary to retire, but even in this case the presence of the 5th Battle Squadron, with their speed greater than enemy forces, except Battle Cruisers, would enable us to fight a rear guard action with great chances of causing considerable damage to the enemy and in any case the speed of our force would enable us to extricate ourselves from a position in which a slower force might be seriously involved.

6. If on the other hand the enemy were supported as suggested in your paragraph 5, by their 3rd Battle Squadron, it is possible that our retirement might be prudent, depending upon considerations at the time, i.e., time of day, geographical position, distance of the Grand Fleet, visibility, etc. But here again support would make an immense difference.

7. We may finish a successful action before the German support arrives, and have two or three of our ships reduced in speed. The presence of the 5th Battle Squadron at this juncture would be invaluable, and if necessary enable us, with our 14 or 15 heavy ships, to take on with a light heart the 14 enemy ships. At all events the chance of our Battle Cruisers fighting a successful action and then being destroyed by enemy supports would be reduced to a minimum. It is a contingency such as this that I feel to be at present unprovided for.

8. The support organisation I suggest is similar to that ordered on the 16th December, 1914, when, as now, the German *fast* Battle Cruisers were superior to ours. This was an affair such as outlined in your paragraph 8,

<sup>1</sup> C.-in-C.'s letter of February 24th, 1916 (in H.S.A. 100) states that he is of opinion that speed of 5th B.S. does not greatly exceed 23½ knots, and is doubtful if it could afford material support to battle-cruisers in an offensive operation. T.S.D.D.

and on that occasion we were within an ace of being successful. Instead, however, of using a slow support squadron which the enemy might overtake with battleships, I suggest the use of a Battle Squadron which in point of speed is no less immune than the Battle Cruiser itself, from interference by enemy battleships.

9. In view of these points, which I venture to think are urgent, I trust you will favourably consider the strategic re-arrangement I have submitted to you.

10. I have discussed this matter at length with the flag officers under my command, and their opinions coincide with my own.

I have the honour to be, Sir,  
Your obedient Servant,

(Signed) David Beatty,  
Vice-Admiral.

The Commander-in-Chief,  
Grand Fleet.

## APPENDIX C1.—CAP. I, SECTION 5.

*Remarks by Chief of Staff, Grand Fleet,<sup>1</sup> March 1916.*

*C.-in-C.*

The demand for the 5th B.S. to reinforce B.C.F. probably arises from the fact that no definite instructions have been given V.A., B.C.F. for his guidance when ordered to sea, and the G.F. also puts to sea but is 150 miles north of him.

He has had two experiences of raids, 16th December, when he was supported by 2nd B.S., and 24th January, when he was unsupported, but met and chased a portion of the 1st Scouting Group.

On the first occasion it is possible or even probable that the British detachment had an escape because the H.S. Fleet was certainly at sea, how near the Dogger Bank we do not know. The Grand Fleet was out of support.

The second raid will not be repeated, the absence of support from the H.S. Fleet on that occasion probably led to the C.-in-C. von Ingenohl being superseded.

R. A. Pakenham's paper and V.A. Beatty's two letters<sup>2</sup> evidently have more raids in view, in which the Battle Cruiser Fleets of the two nations will meet and fight an action, prior to the main Fleet action, although R. A. Pakenham points out in paragraph 3 the improbability of this occurring.

The German Higher Command will never again risk the 1st Scouting Group near our shores unless adequately supported and the support is sure to be a more powerful force than is the 5th B.S. If this view is correct, its addition to B.C.F. will be a source of weakness not strength, without them the V.A.'s force is fast and handy and sufficient to locate and keep touch of the enemy Fleet, brushing aside Light Cruisers and Cruisers, but either with or without the 5th B.S. he is quite unable to attack the 1st Scouting Group in the presence of support of the H.S. Fleet.

<sup>1</sup> Four sheets fcap., pencil, undated, apparently between 6th and 10th March. H.S.A. 100/100, February 19, 1916.

<sup>2</sup> V.A., B.C.F. remarks on R.A. Pakenham's letter, 21st February, 1916, and V.A., B.C.F. letter 3rd March, 1916.

I think V.A., B.C.F. should realise this and if he does, he will of course ask for as many more Battleships as can be got into Rosyth, and the Grand Fleet will be in two portions, each inferior to the H.S. Fleet when concentrated.

There is much to be said for moving the B.C.F. to Humber, and the best of the G.F. to Rosyth above the Bridge, but the tides, fogs and navigational difficulties render the Humber very unsuitable as a base for heavy ships, and the mine danger is certainly greater than in the Forth.

An alternative is to make the military authorities move the inner defences of the Forth to the Inch Garvie line, and to occupy the anchorages both above and below the bridge with B.C.F. and 24 best ships of G.F. concentrating the remainder in the Humber. We should then have all our valuable eggs in one basket, but energetic defence measures by the Military, and the great concentration of Sweepers, Trawlers, Destroyers, etc., that would ensue would give reasonable safety, 3rd and 7th C.S. to stiffen 10th C.S. from Scapa or Lerwick.

It would take about 5 hours to get the whole force to sea giving a net saving of 7 hours for a Southerly concentration.

The chief gain would be the support afforded to B.C.F. which could not be defeated before the Battle Fleet arrived on the scene, and the greatly reduced opportunities for raids or invasion.

(Signed) C.E.M.<sup>1</sup>

#### APPENDIX C2.—CAP I, SECTION 5.

*Extracts C.-in-C. to Admiralty, Iron Duke, March 19, 1916. (M.02315/16.)*  
(Portions in brackets are summaries, in same wording.)

3. . . . . The Vice Admiral's arguments in favour of adding the 5th Battle Squadron to the Battle Cruiser Fleet have weight only under two conditions.

- (a) That the Battle Cruiser Fleet is weaker than the 1st Scouting Group.
- (b) That the 1st Scouting Group is supported by one Battle Squadron only.

4. The condition at (a) has not yet been reached . . . . The condition at (b) may arise, but is more probable that the 1st Scouting Group would be supported by the High Sea Fleet as a whole or by the 1st and 2nd Squadrons.

5. If the High Sea Fleet is in support, it would be wrong for our Battle Cruiser Fleet to become seriously engaged either with or without the support of the 5th Battle Squadron. The Vice-Admiral must keep touch, but fall back on the main battle fleet. If the 2nd or 3rd Squadron only is supporting, it is the case that the presence of the 5th Battle Squadron might be of value in either permitting withdrawal or enabling the Vice-Admiral to continue action with prospect of success, but I do not consider that this contingency should be provided for in view of the objections that exist to dividing the fleet. . . . .

6. (The C.-in-C. discusses the probable conditions under which the B.C.F. and 1st S.G. may meet, viz., a raid on our patrols, a bombardment of our coast towns or a trap designed to intercept the B.C.F. In the first two cases the 5th B.S. would arrive too late to help, in the last the 5th B.S. would not save the B.C.F., but would hamper it by its lack of speed.)

<sup>1</sup> Vice-Admiral Sir Charles E. Madden.

7. The whole truth of the matter seems to me to be that the 5th B.S. has not the speed necessary to work with the B.C.F. . . . .

8. (Fully realise disadvantages of having battle fleet so far north, but nothing short of a move of whole fleet to Rosyth "will cure the evil without departing from the principle of concentration.")

9. . . . . I hold a strong opinion that concentration of the Battle Fleet is very necessary.

10. . . . . (If the 1st S.G. becomes stronger than or equal in strength to the B.C.F. it may be necessary to reconsider the question. "The proper remedy which I recognise is impracticable is of course the addition of battle cruisers of equal strength and superior speed to those of the enemy.")

#### APPENDIX D.—CAP. 2, SECTION 14.

##### REORGANISATION.

##### GRAND FLEET,<sup>1</sup> JUNE 1916.

(G.F. Memo., 29th May.)

C.-in-C., Adml. Sir John Jellicoe. Chief of Staff, V.A. (Act.) Sir Charles Madden.

Captain of Fleet, Cmdre. (1st class) Lionel Halsey.

##### Fleet Flagship and Attached Ships.

*Iron Duke.*  
Destroyer *Oak*; flotilla leader (minelaying) *Abdiel*.  
Seaplane carrier *Campania*; kite balloon ship *Menelaus*.

##### 1st Battle Squadron.

Adml. Sir Cecil Burney (2nd in command Grand Fleet), R.A. A. L. Duff.  
*Marlborough*, *Revenge*, *Royal Oak* (flag), *Royal Sovereign*, *Emperor of India* (2nd flag), *Benbow*, *Canada*, *Agincourt*, light cruiser *Bellona*.

##### 2nd Battle Squadron.

V.A. Sir Thos. Jerram, R.A. Arthur Leveson.  
*King George V* (flag), *Orion* (2nd flag), *Centurion*, *Conqueror*, *Erin*, *Thunderer*, *Monarch*, *Ajax*. Light cruiser *Boadicea*.

##### 4th Battle Squadron.

V.A. Sir Frederick Doveton Sturdee, R.A. Ernest Gaunt.  
*Hercules* (flag), *Neptune*, *Colossus* (2nd flag), *St. Vincent*, *Collingwood*, *Vanguard*, *Bellerophon*, *Temeraire*, *Superb*, light cruisers *Blanche*, *Blonde*.

##### 5th Battle Squadron.

R.A. Hugh Evan-Thomas.  
*Barham*, *Malaya*, *Queen Elizabeth* (flag), *Valiant*, *Warspite*.

##### BATTLE CRUISER FLEET.

(G.F. Memo., 4th June 1916.)

V.A. (Act.) Sir David Beatty. Chief of Staff, Captain R. W. Bentinck.  
Battle cruiser flagship *Lion*.

<sup>1</sup> Sequence of ships in squadrons is as in G.F. Memo., 29th May 1916, H.S.A. 100.

**1st Battle Cruiser Squadron.**

R.A. Osmond de B. Brock.  
*Princess Royal* (flag), *Tiger*,<sup>1</sup> *New Zealand*.<sup>2</sup>

**2nd Battle Cruiser Squadron.**

R.A. W. C. Pakenham.  
*Australia* (flag), *Indomitable*, *Inflexible*.

**1st Light Cruiser Squadron.**

Cmdre. E. S. Alexander-Sinclair.  
*Cordelia*, *Galatea* (pendant), *Inconstant*, *Phaeton*.

**2nd Light Cruiser Squadron.**

R.A. W. E. Goodenough.<sup>3</sup>  
*Birmingham*, *Dublin*, *Nottingham*, *Southampton* (flag).

**3rd Light Cruiser Squadron.**

R.A. T. D. W. Napier.  
*Birkenhead*, *Chatham*, *Chester*, *Falmouth* (flag), *Gloucester* (temporarily), *Yarmouth*.

*Note.*—After the loss of the *Nottingham* and *Falmouth* on 19th August, it was approved that *Weymouth* should replace *Nottingham*. It had already been arranged (1st August 1916) that *Sydney* and *Melbourne* should return from the North America and West Indies station and join Grand Fleet. H.S.A. 100/178, 193.

**CRUISER SQUADRONS.**

(G.F. Memo., 30th May and 4th June.)

**2nd Cruiser Squadron.**

R.A. Herbert L. Heath.  
*Minotaur* (flag), *Duke of Edinburgh*, *Cochrane*, *Shannon*, *Achilles*.

**3rd Cruiser Squadron.<sup>4</sup>**

R.A. Montague Browning.  
*Antrim* (flag), *Devonshire*, *Roxburgh*.

**4th Light Cruiser Squadron.**

(With battlefleet.)

Cmdre. C. E. le Mesurier.  
*Calliope* (pendant), *Caroline*, *Comus*, *Constance*, *Royalist*.

*Note.*—Approval had been given on 3rd May for the 3rd B.S. and 3rd C.S. to be detached from Grand Fleet on 3rd May and to become a separate command on same basis as Commodore (T), Harwich Force, sending copies of reports to C-in-C. X. 8404, 1916.

<sup>1</sup> Temporarily flagship of V.A., B.C.F.

<sup>2</sup> Temporarily to 2nd B.C.S.

<sup>3</sup> Promoted to R.A., 10th June.

<sup>4</sup> *Hampshire* was in 3rd C.S. in Memo., 4th June. The 3rd C.S. ceased to exist 15th August 1916. M. 07041/1916.

## APPENDIX D1.—CAP. 2, SECTION 14.

FLEET REPAIRS<sup>1</sup> AFTER JUTLAND.

*Marlborough* (1st B.S.), Tyne, temporary, 3 weeks, then Devonport for permanent repair.  
*Warspite* (5th B.S.), Rosyth, 3 or 4 weeks.  
*Malaya* (5th B.S.), Invergordon, 24th June.  
*Barham* (5th B.S.), Devonport, 29th June.  
*Princess Royal* (1st B.C.S.), Rosyth, 5 days, then Portsmouth.  
*Tiger* (1st B.C.S.), Rosyth, 3 weeks.  
*Southampton* (2nd L.C.S.), Rosyth, 14 days.  
*Chester* (3rd L.C.S.), Hull, about 10 to 12 weeks.  
*Dublin* (2nd L.C.S.), Tyne, 17th June.  
*Broke* (4th Flotilla), Tyne, 2 to 3 months.  
*Porpoise* (4th), Tyne, about 17th June.  
*Contest* (4th), Tyne, 19th June.  
*Spitfire* (4th), Tyne, 2 months.  
*Acasta* (4th), Aberdeen, 18th July.  
*Onslaught* (12th Flotilla), Leith, 23rd June.  
*Petard* (13th Flotilla), Leith, 27th June.  
*Onslow* (13th), Aberdeen, 4th July.  
*Defender* (1st), not yet fixed.

## APPENDIX E.—CAP. 3, SECTION 19.

## THE "HAMPSHIRE'S" ORDERS.

H.F.S.O. 105.

*Sailing Orders.*

H.M.S. "Hampshire."

"Iron Duke,"

4th June 1916.

H.M.S. *Hampshire* is to be ready to leave this base on the evening of Monday, 5th June, at such time as is convenient to Field Marshal the Earl Kitchener and proceed to Archangel. A mission consisting of Earl Kitchener and the following gentlemen, will probably arrive at Scapa at about 1 p.m. and is to be embarked before sailing:—

Brigadier-General Ellershaw.

Sir F. Donaldson.

Mr. O'Beirne, of the Foreign Office.

One junior officer; also six servants.

(2) *Hampshire* is to maintain a speed of 18 knots until reaching the latitude of 62° 0' N, after which a speed of at least 16 knots is to be maintained.

(3) The commerce raider *Moewe* and one other raider of the same type or a cruiser may possibly be operating on the route followed by merchant vessels to and from Archangel, and sharp look-out is to be kept for them during the passage, which is not, however, to be delayed for this purpose.

(4) *Hampshire* is to proceed by the route laid down in Confidential Order 710/1916 for merchant vessels from east coast ports.

She is to communicate by wireless as early as possible with the Senior Naval Officer, White Sea, who is on board *Iphigenia* or *Albemarle* at Yukanski (near Svyatoi Nos, lat. 68° 3' N, long. 39° 35' E).

He is to be asked for the latest information as regards the approaches to the White Sea.

<sup>1</sup> Tel. Adty., 8th June. H.S. 240/1006.

(5) After disembarking the mission, the *Hampshire* is to proceed to Yukanski to embark sufficient coal from a collier which will be sent there for the purpose. Should the latter not have arrived, coal can be obtained from local stock, which should not be depleted more than necessary.

After coaling and failing orders to the contrary, *Hampshire* is to return to Scapa at 17 knots speed taking broad zig-zags across the route laid down in C.I.O. 710/1916 for vessels proceeding between Archangel and the North Irish Channel, as far south as lat.  $65^{\circ} 0' N$ , whence course is to be shaped direct to Scapa. Should any ships be boarded, strict attention is to be paid to the orders in Memorandum H.F. 0020/323 of 13th March 1916.

(6) Weather permitting, two destroyers are to screen *Hampshire* from this base en route to Archangel as far as lat.  $62^{\circ} 0' N$ , whence they are to be detached to return to Scapa.

(7) On the return passage *Hampshire* is to report her position, course and speed to Senior Naval Officer Afloat, Scapa, in time to allow a screen to meet her in lat.  $61^{\circ} 0' N$ .

(8) Every precaution is to be taken against enemy submarines. They have recently been reported to be off Stadlandet in lat.  $62^{\circ} 0' N$ ; no information has been received that they are operating further north.

(Signed) J. R. JELICOE,  
Admiral.

The Commanding Officer,  
H.M.S. *Hampshire*.

(Copy to the Rear-Admiral Commanding, 2nd Cruiser Squadron.)

#### Signals modifying "Hampshire's" Sailing Orders.

C.-in-C., H.F., to *Hampshire*. 5th June.

Acknowledge. Unless I order you to the contrary, cancel para. 5 of Home Fleet Sailing Order No. 105 of 4th June 1916, and substitute, *Hampshire* is to remain at Archangel after disembarking the Mission and will re-embark Lord Kitchener at that port. Arrangements will be made to coal *Hampshire* at Archangel. 1645.

C.-in-C. to *Hampshire*. 5th June.  
Sent 2.55 p.m.

*Hampshire* will probably pass the Hoxa Gate at 5.30 p.m. G.M.T. to-day, Monday. Gate will be ordered by flagship. *Unity* and *Victor* are ordered to be off Tor Ness at 5.45 p.m. G.M.T., and are to escort *Hampshire* until dark. You may find it necessary to send them back when past Noup Head unless the weather moderates. Use your discretion and report the time the destroyers are detached. Acknowledge. 1450.

Reply.

Your 1450 received and understood. 1457.

#### APPENDIX F.—CAP. III, SECTION 19–27.

"HAMPSHIRE"—JUNE 5—12.10 P.M. TO 6.38 P.M.

Note.—Times are given in G.M.T.

1. Longhope to S.O., Minesweepers. (27866.) Recd. 12.10 p.m.  
From C.-in-C. A submarine reported 9.15 a.m. G.M.T. NE of Cape Wrath steering west. May have laid mines. 1144.

Note.—It is now known from German sources that no mine laying submarine was anywhere in the vicinity. T.S.D.D.

2. *Brilliant* to C.-in-C. 12.51 p.m.  
Weather report. Barometer falling. Direction of wind NNE, force of wind 7, state of sea 6, rain falling. Barometer 29.30.

3. *Brutus*<sup>1</sup> to *Cyclops*. 4.44 p.m.  
Swept Area 3, northern portion of Noss Head section of Area 6. Further sweeping impracticable. Very heavy seas. Scouted over southern portion of area. Nothing to report. Sweepers anchored at Wick. 1600.

4. *Hampshire* to Flag. Recd. 4.58 p.m.  
Permission to proceed in execution of previous orders. Reply, approved.

5. P.W.S.S. to *Cyclops* and Flag. Recd. 5.34 p.m.  
*Hampshire* leaving Hoxa. 1727.

6. *Hampshire* to *Unity*, and *Victor*.  
5.42 p.m. Form submarine screen.  
5.47 p.m. Speed 18 knots.  
5.49 p.m. Course NNW.

7. *Unity* to *Hampshire*. 6.7 p.m.  
*Victor* reports she can only proceed at 15 knots.

8. *Hampshire* to *Unity*. 6.13 p.m.  
I am only going 15 knots. Can you keep up. Reply No.

9. *Unity* to *Hampshire*. 6.18 p.m.  
I can only proceed at 10 knots without risk of damage.

10. *Hampshire* to *Unity*. 6.20 p.m.  
Destroyers return to base.

11. *Hampshire* to *Victor*. 6.21 p.m., repeated 6.22 p.m.  
Remain with me.

12. *Victor* to *Hampshire*. (26567.) 6.25 p.m.  
Maximum speed I can maintain without risk of injury is 12 knots.

13. *Hampshire* to *Victor*. 6.34 p.m.  
Return to base. 1830.

14. *Hampshire* to C.-in-C. (24013.) Recd. 6.38 p.m.  
Destroyers returning to base 1835.

<sup>1</sup> *Brutus* Minesweeping Trawler, Leader Unit 140, Orkneys Southern Patrol; Area 3 included Pentland Firth; Area 6 included Wick.



15. S.O., Minesweepers to *Benbow*. 7.22 p.m.

To C.-in-C. Search completed but weather too bad for accuracy. Your 1144,<sup>1</sup> it is possible these mines if laid have not yet taken depth. *Larkspur* and *Dahlia* proceeding on eastern patrol. *Carnation* Noss Head, remainder anchoring Longhope. 1900. From *Hollyhock* (s) (27866).

16. Birsay to Artillery, Kirkwall for Adl. Longhope. Recd. 8.10 p.m.

Battle cruiser seems in distress between Marwick Head and the Brough of Birsay.—Corporal Drever.

Note 1. In Vice-Admiral O. and S. Pack. On Naval Signal form, date-stamped "Distributing Office, 5 June 1916, Longhope."

Note 2. The message was sent to O.C. Western Patrol (Captain F. M. Walker) and to Artillery, Kirkwall (Col. G. N. Harris, R.M.A.). Capt. Walker rang up Vice-Admiral, Longhope, and reported it at 8 p.m.

17. Orkney Artillery to N.C.O., Artillery Patrol. Sent 8.30 p.m.  
K.173 Reference wire battle cruiser in distress, reply instantly if guns are visible. How many funnels and masts? What led you to consider her in distress? Also state what her present conditions are.

18. Birsay to Western Patrol. Recd. 8.31. Stromness.  
Vessel down. Corporal Drever.

Note.—This message is in V.A., O. and S. Pack, attached to reference sheet, from Capt. F. M. Walker to Secretary, Long Hope, 11th June, 1916. It is on a post office form. It is not included in the copies of messages supplied by G.P.O. The time is 9.31 p.m. B.S.T., i.e. 8.31 G.M.T. It was telephoned to Vice-Admiral Longhope by Capt. Walker at 8.35 p.m.—Capt. F. M. Walker's report of 7th June, 1916.

19. Capt., D., to *Unity* and 1st Sub. (27872.) Recd. 8.40 p.m.  
Raise steam for full speed with all despatch and report when ready to proceed.

20. Palace Birsay to Artillery Kirkwall, and Western Patrol, Stromness. Sent 8.35 p.m.  
Recd. 8.50 p.m.

Four-funnelled cruiser sank 20 minutes ago, no assistance arrived yet. Send ship to pick up bodies. Gunner Norn, Palace, Birsay.  
(From V.A., O. and S. Pack.)

21. Longhope to *Zaza*. 8.55.  
Proceed immediately to Brough of Birsay to look for disabled ship. 2037.

22. Capt. D.4 to *Unity*, *Owl*, *Midge*, *Victor*. Recd. 9.0 p.m.  
When ready proceed at utmost despatch to the assistance of *Hampshire* off Birsay. 2040.

23. Capt. D.4 to *Unity*, *Owl*, *Midge*, *Victor*. Recd. 9.2 p.m.  
Despatch is necessary.  
(From *Midge* (s). (27872.))

24. Birsay to Comdr., Western Patrol, Stromness. Sent 8.50 p.m.  
Recd. 9.8 p.m.

Four boats load men off Marwick Head. Reported by Robertson, Quock-quoy, Birsay, Corporal Drever.  
(From V.A., O. and S. Pack.)

<sup>1</sup> See F.1 supra.

25. V.A., O. and S. to Lookout, Birsay. Sent 9.11 p.m.  
How far was ship from shore. Was any explosion seen. Assistance is being sent by sea. Colonel Harris coming in motor from Kirkwall. 2102.

26. Commodore F. to Flag. Recd. 9.23 p.m.  
*Unity*, *Victor*, *Owl* and *Midge* sailed. 2115.

27. Gunner Norn, Birsay, to Admiral Longhope. Recd. 9.25 p.m.  
Ship 1½ miles from shore. Two explosions observed.  
Handed in 10.20 B.S.T.

27a. Birsay to O.C., Western Patrol, Stromness. Sent 10.7.  
Recd. 10.9.

Wind NNW along the shore. Boats could land Bay of Skail or Stromness. Sea rough. Gunner Norn, Birsay.  
(V.A., O. and S. Pack.)

28. *Owl* to *Unity*, *Midge* and *Victor*. Recd. 10.30 p.m.  
Search off Marwick.

29. *Hecla* to Vice-Admiral. 11.57 p.m.  
Following from *Owl*. Much wreckage off Marwick Head. Destroyers sweeping to the southward.  
*Reply* from *Iron Duke*. Use searchlights freely. Send one destroyer north of wreckage.

30. Birsay to O.C.W.P., Stromness. Sent 6th June, 1.58 a.m.  
Recd. 2.10 a.m.

Cruiser about 1½ miles off Marwick Head explosion occurred about 7.45, cruiser sank at 8. Four boats heavily laden seen going south of Marwick at 8.50. Two ships arrived where cruiser sunk at 11.10 p.m.

J. A. Cumloquoy.

31. C.-in-C., H.F., to Adty. Recd. June 6th, 4.28 p.m.  
All hope of mission having been saved must be abandoned; 13 survivors of ship's company washed ashore on raft, 1 since died. Fear everyone else is lost. Some bodies recovered, amongst them that of 2nd Lieut. MacPherson of Cameron Highlanders, on Staff as Russian interpreter.

32. Flag Capt. Longhope to Comdr. Best, *Iron Duke*. June 8th, 11.31 a.m.  
Trawler *City of Selby* passed position *Hampshire* sank at 8 a.m. on that day going north. Trawler *Cambodia* passed this position 1 p.m. going south.

33. *Caesar II* to R.A., *Cyclops*. Recd. 8th June, 11.39 p.m.  
Three mines exploded in sweep in lat. 59° 9' N, long. 3° 26' W, and lat. 59° 5½' N, long. 3° 26' W, and lat. 59° 5½' N, long. 3° 25' W. 1115.

Note.—This was first discovery of mines. T.S.D.D.

## APPENDIX G.

AUGUST 19, 1916—FORCES, BRITISH.

## GRAND FLEET.

*Iron Duke* (Grand Fleet flagship) (Scapa).

## 1st Battle Squadron (Scapa).

*Marlborough* (flag), *Emperor of India* (flag 2), *Royal Oak*, *Canada*, *Revenge*, *Benbow*, *Royal Sovereign*, *Agincourt*, light cruiser *Bellona*.

## 2nd Battle Squadron (Scapa).

*King George V* (flag), *Orion* (flag 2), *Ajax* (*Centurion*<sup>1</sup>), *Erin*, *Monarch*, *Conqueror*, *Thunderer*, light cruiser *Boadicea*.3rd Battle Squadron<sup>2</sup> (Sheerness).*Dreadnought* (flag), *Hibernia* (flag 2), *Britannia*, *Africa*, *Commonwealth*, *Dominion*, *Hindustan*, *Zealandia*, light cruiser *Diamond*.

## 4th Battle Squadron (Scapa).

*Hercules* (flag), *Colossus* (flag 2), *Collingwood*, *Bellerophon*, *Neptune*, *St. Vincent*, *Vanguard*, *Temeraire* (*Superb*),<sup>1</sup> light cruisers *Blonde*, *Blanche*.

## 5th Battle Squadron (Scapa).

*Barham* (flag), *Queen Elizabeth*, *Warspite*, *Malaya*, *Valiant*.

## Battle Cruiser Fleet (Rosyth).

*Lion* (fleet flagship).

## 1st Battle Cruiser Squadron.

*Princess Royal* (flag), *Tiger*, *New Zealand*.

## 1st Light Cruiser Squadron.

*Galatea* (broad pendant), *Phaeton*, *Cordelia*, *Inconstant*.

## 2nd Battle Cruiser Squadron.

*Australia* (flag), *Inflexible*, (*Indomitable*<sup>1</sup>).

## 2nd Light Cruiser Squadron.

*Southampton* (flag), *Birmingham*, *Nottingham*, *Dublin*.

## 3rd Light Cruiser Squadron.

*Chatham* (flag), *Falmouth*, (*Yarmouth*<sup>1</sup>), *Birkenhead*, *Chester*.

## CRUISER SQUADRONS (SCAPA).

## 2nd Cruiser Squadron.

*Minotaur* (flag), *Shannon*, *Achilles*, *Cochrane*, *Duke of Edinburgh*.

## 4th Light Cruiser Squadron.

*Calliope* (broad pendant), *Caroline*,<sup>1</sup> *Comus*, *Constance*, *Royalist*, *Cambrian*.<sup>3</sup>SHIPS FOR SPECIAL SERVICE UNDER COMMANDER-IN-CHIEF,  
HOME FLEET.*Campania* (aircraft carrier), *Oak*, *Sappho*, *Abdiel* (minelaying).<sup>1</sup> Refitting.<sup>2</sup> In the Swin. Did not put to sea.<sup>3</sup> Left Pembroke 17th August.

## HOME FLEETS DESTROYER FLOTILLAS.

## 1st Destroyer Flotilla (Rosyth).

*Acheron*, *Archer*, *Ariel*, *Attack*, *Badger*, *Goshawk*, *Hydra*, *Jackal*, *Lapwing*, *Lizard*, *Phoenix*.

## 11th Destroyer Flotilla (Scapa).

*Castor* (Comm. (F.)), *Kempfenfelt* (flotilla leader), *Magic*, *Mandate*, (*Manners*<sup>1</sup>), *Marmion*, *Marne*, *Mons*, *Martial*, *Michael*, *Milbrook*, *Minion*, (*Moon*<sup>2</sup>), *Morning Star*, *Mounsey*, *Musketeer*, (*Mystic*<sup>2</sup>), *Ossory*, (*Romola*<sup>4</sup>).

## 12th Destroyer Flotilla (Scapa).

*Faulknor* (Capt. (D.)), (*Marksman*<sup>1</sup>) (flotilla leader), (*Maenad*<sup>1</sup>), *Mametuke*, *Marvel*, *Mary Rose*, *Menace*, *Mindful*, (*Mischief*<sup>1</sup>), (*Munster*<sup>1</sup>), *Napier*, *Narwhal*, *Nessus*, *Nonsuch*, *Obedient*, *Onslaught*, *Opal*.

## 13th Destroyer Flotilla (Rosyth).

*Champion* (Capt. (D.)), *Gabriel* (flotilla leader), *Medway*, (*Moresby*<sup>1</sup>), *Narborough*, *Negro*, *Nepean*, *Nereus*, *Nerissa*, (*Nicator*<sup>1</sup>), (*Obdurate*<sup>1</sup>), *Oracle*, *Onslow*, *Paladin*, *Pasley*, (*Patrician*<sup>4</sup>), *Pelican*, *Penn*, *Petard*, *Pigeon*.

## 14th Destroyer Flotilla (Scapa).

*Botha* (Capt. (D.)), *Ithuriel* (flotilla leader), *Medina*, *Nizam*, *Nonpareil*, *Norman*, *Observer*, *Offa*, *Ophelia*, *Opportune*, *Orestes*, *Partridge*, *Patriot*, *Pellew*, *Peregrine*, *Peyton*, *Plover*, *Plucky*, *Relentless*.

## HARWICH FORCE.

## 5th Light Cruiser Squadron.

*Carysfort* (Comm. (T.)), (*Cleopatra*<sup>5</sup>), *Conquest*, *Canterbury*, (*Penelope*<sup>5</sup>), *Vindex* (aircraft carrier).

## 9th Destroyer Flotilla.

*Undaunted* (Capt. (D.)), *Lightfoot* (flotilla leader), *Laertes*, *Lance*, *Landrail*, *Laverock*, *Lennox*, *Liberty*, *Linnet*, *Llewellyn*, *Lochinvar*, *Lookout*, *Loyal*, *Lucifer*, *Lydiard*, *Lysander*, (*Laforey*<sup>6</sup>), (*Lawford*<sup>7</sup>), (*Laurel*<sup>8</sup>), (*Lark*<sup>6</sup>), (*Leonidas*<sup>6</sup>), (*Legion*<sup>6</sup>).

## 10th Destroyer Flotilla.

*Aurora* (Capt. (D.)), (*Nimrod*<sup>8</sup>), (*Manly*<sup>9</sup>), *Mansfield*, *Mastiff*, (*Matchless*<sup>9</sup>), (*Medea*<sup>10</sup>), *Melpomene*, *Mentor*, (*Milne*<sup>11</sup>), *Minos*, *Miranda*, (*Moorson*<sup>11</sup>), *Morris*, (*Murray*<sup>11</sup>), *Myngs*, *Termagant*<sup>11</sup>.1st Destroyer Flotilla,<sup>12</sup> Harwich.*Beaver*<sup>13</sup>, (*Defender*<sup>13</sup>), (*Druid*<sup>13</sup>), *Ferret*, *Forester*, *Hind*, (*Hornet*<sup>13</sup>), (*Sandfly*<sup>6</sup>).

## HUMBER.

4th Destroyer Flotilla.<sup>17</sup>*Active* (Capt. (D.)), *Acasta*, *Achates*, *Ambuscade*, (*Christopher*<sup>7</sup>), *Cockatrice*, (*Contes*<sup>6</sup>), (*Garland*<sup>15</sup>), (*Hardy*<sup>9</sup>), *Midge*, *Owl*, (*Paragon*<sup>16</sup>), *Porpoise*, *Spitfire*, *Unity*, *Victor*.<sup>1</sup> Refitting.<sup>2</sup> In Clyde.<sup>3</sup> Left Clyde, 18th August.<sup>4</sup> Leith, 17th August.<sup>5</sup> Repairing.<sup>6</sup> Refitting.<sup>7</sup> At Chatham.<sup>8</sup> At Sheerness.<sup>9</sup> Repairing.<sup>10</sup> At Chatham, paid off.<sup>11</sup> Detached, Dover.<sup>12</sup> For service with 3rd Battle Squadron, Thames.<sup>13</sup> Detached, Devonport.<sup>14</sup> Barrow, paid off.<sup>15</sup> At Hull.<sup>16</sup> At Cromarty.<sup>17</sup> Went down to Immingham end of July, 1916.

## SUBMARINE FLOTILLAS.

## 8th Flotilla, Yarmouth.

Depot ship *Alecto*.

(F.1), (F.3), H.5, H.7, (H.8), H.9, H.10, V.1, V.2, V.3, V.4.

## 9th Flotilla, Harwich.

Depot ship *Maidstone*.E.16, E.23, E.29, E.30, E.31, (E.35), E.37, E.38, E.42, E.43, (E.45),  
E.53, E.54, E.55, (E.56).

## 10th Flotilla.

Depot ship *Lucia*.

(E.44), (G.8), G.10, (G.11), G.12.

## 11th Flotilla.

Depot ship *Titania*.

(G.1, G.2, G.3, G.4, G.5, G.6), J.1, (J.2), J.3, (J.4), J.5, J.6.

Submarines in brackets did not take part in operations, see Section 78.

## APPENDIX G1.

## ORGANISATION OF THE GERMAN FLEET, AUGUST 19, 1916.

Fleet Flagship	.. ..	<i>Friedrich der Grosse</i> .
1st Squadron	.. ..	<i>Ostfriesland, Thuringen, Helgoland, Oldenburg, Posen, Rheinland, Nassau, Westfalen</i> .
3rd Squadron	.. ..	<i>König, Kronprinz, Kaiser, König Albert, Prinzregent, Luitpold, Kaiserin</i> .
4th Scouting Group	.. ..	<i>Stettin, München, Berlin, Danzig, Stuttgart, Hamburg</i> .
1st Destroyer Flotilla	.. ..	S.32, G.39, G.40, G.38, V.190, G.197, G.192, G.195, G.196, G.193.
5th Destroyer Flotilla	.. ..	G.11, V.6, V.2, V.3, V.1, S.116, G.8, G.7, V.5, G.9, G.10.
7th Destroyer Flotilla	.. ..	V.69, V.44, S.49, G.41, G.86, V.45, V.43, V.46, S.50, G.37.
9th Destroyer Flotilla	.. ..	V.80, V.79, S.36, S.51, S.52, V.30, V.28, V.26, S.34, S.33.
1st Scouting Group	.. ..	<i>Moltke, Von der Tann</i> . And attached <i>Bayern, Grosser Kurfürst, Markgraf</i> .
2nd Scouting Group	.. ..	<i>Stralsund, Pillau, Frankfurt, Brummer, Regensburg</i> .
2nd Flotilla	.. ..	B.98, G.101, B.112, B.97, B.109, B.110, B.111, G.103, G.104.
3rd Flotilla	.. ..	S.53, V.71, V.73, G.88, G.85, V.70, S.55, S.54, G.42.

## Submarines.

1st Line (Blyth)	.. ..	U.44, 45, 49, 52, 53.
3rd Line (Flamborough Head)	.. ..	U.63, 64, 65, 66, 67.
2nd Line (Bight)	.. ..	U.48, 55, 56, 69, U.B.35 (to be in position, 20th August).
Flanders Line I.	Submarines,	U.B.18, 23, 29, 39.
Line II	.. ..	U.B.6, 12, 16, 19, 37.

<sup>1</sup> Supplied by German Archiv. der Marine.

## Airships.

L.22, L.24, L.30, L.32	.. ..	Between Scotland and Norway.
L.31	.. ..	Firth of Forth.
L.11	.. ..	Tyne.
L.21	.. ..	Humber
L.13	.. ..	Hoofden.

## APPENDIX H.—SIGNALS.

## 18th August, 1916.

- Adty. to Capt. (S). Sent 10.32 a.m.  
Report number of submarines cruising at present East of long. 4° E.  
Reply received 12.37 a.m.  
476. Your 482. Three at present. Another proceeding this afternoon, Friday.
- Adty. to *Royalist*<sup>1</sup> (Dundee). 10.35 a.m.  
Raise steam.
- C.-in-C. H.F. (Admiral, Second-in-command) to *Titania* and *Active*. Sent 2.45 p.m.  
Repeated to V.A., B.C.F. for C.-in-C. in *Royalist* and Adty.  
765. Keep steam at immediate notice. *Trident* six submarines and 4th Destroyer Flotilla under Capt. (D) *Active* to rendezvous at 5 a.m. G.M.T. Saturday 19th August in lat. 54° 40' N long. 0° 20' E to cover approaches to Tyne, Whitby District. not to be spread far apart, be ready to join battlefleet. Battlefleet will be in 56° 30' N 0° 20' E 5 a.m. G.M.T. Saturday 19th August steering 175 deg. (1350.)
- C.-in-C. to Adty. 3.30 p.m.  
767. Your 326. Battlefleet leaving Scapa 4 p.m. G.M.T. rendezvous 56° 30' N 0° 20' E at 5 a.m. G.M.T. 19th August thence steer 175 deg. 17 knots. *Monarch, Minotaur, Benbow* from Invergordon rendezvous with fleet 5 a.m. G.M.T. 19th August B.C.F. to be at 5 a.m. G.M.T. 56° N 0° 20' E steering 175 deg. 17 knots C.-in-C. has proceeded to Rosyth.
- S.N.O. Dundee to Adty. 2.30 p.m.  
*Royalist*<sup>2</sup> sailed.
- S.N.O. Harwich to Adty. Recd. 2.48 p.m.  
*Forrester, Ferret*, s/m E.16<sup>3</sup>, s/m E.38<sup>3</sup> sailed.
- Comm. T. to Light Cruisers and Destroyers. Sent 4.36 p.m.  
Negative *Vindex*.  
Raise steam by 8 p.m. G.M.T.
- Adty. to R.A. East Coast. 5.50 p.m.  
Submarines should be outside ports before daylight tomorrow ready for emergencies.

<sup>1</sup> Waiting for C.-in-C.<sup>2</sup> With C.-in-C. on board.<sup>3</sup> For the Bight. T.S.D.D.

9. Adty. to R.A. East Coast,  
Commodore Lowestoft,  
Harwich,  
C.-in-C. The Nore. 5.53 p.m.

All available seaplanes and aeroplanes should be ready for service by dawn tomorrow. Submarines should not be bombed to prevent accidents.

10. Adty. 6.20 p.m.

Customs authorities between Ramsgate and Hull inclusive have been instructed to stop all sailings of merchant vessels from their ports.

11. Flag (*Lion*) to 1st B.C.S. Sent 6.20 p.m.

Weigh.  
Form single line ahead in sequence of fleet numbers. Speed 12 knots.  
(Sent 6.24 p.m.)  
Speed 15 knots. (Sent 7.54 p.m.)

12. Note in *Carysfort* (s). 7.55 p.m.  
Slipped.

13. *Iron Duke* to Stranger. Sent 7.55 p.m.  
Challenge, reply *Royalist*.

14. *Iron Duke* to *Marlborough* and *Royalist*. Sent 8.8 p.m.  
Urgent. Submarine in the vicinity 58° 30' N 1° 16' W. (2004.)

15. *Royalist* to flag. Recd. 8.15 p.m.  
Keep on at 21 knots. Warn Admiral Commanding 1st B.S. (2010.)

16. Adty. to Comm. (T) repeated to V.A., 3rd B.S. Sent 10.10 p.m.  
I. method. Group submarines with destroyer ordered to lat. 52° 15' N long. 3° 5' E. Second Group with destroyer ordered to Corton light vessel Capt. (S) will report names of destroyers.

17. C.-in-C. to Adty. (Cypher B. and X.). Recd. midnight.  
770. Have rejoined *Iron Duke*, change cypher. (2145.)

18. Capt. (S) to Adty. Recd. midnight.  
Urgent 479. *Firedrake* proceeding to lat. 52° 15' N. long. 3° 5' E. *Hind* with Capt. (S) on board to Corton Light Vessel. (2245.)

#### 19th August, 1916.

19. *Lion* to General. Sent 5.45 a.m.  
Reference position 6 a.m. 55° 45' N 0° 26' E.

- 19a. *Marlborough* to Flag (S.L.). 5.50 a.m.  
Propose L. Channel. If you approve, shall I inform Battle Cruiser Fleet.  
Reply 6.8 a.m. C.-in-C. to A.C., 1st B.S.  
Yes, please, informing in my name.

20. *Nottingham* to General<sup>1</sup> (flags). Sent 5.54 a.m.  
Have been struck by a mine.

21. C.-in-C. G.F. to S.O. B.C.F. Sent 5.55 a.m.  
Close to within visual signal distance of my cruisers. (Recd. *Lion* 6.4 a.m.)

22. S.O. 2nd L.C.S. to S.O. B.C.F.<sup>2</sup> Sent 5.55 a.m.  
*Nottingham* struck a mine or has been hit by a torpedo 26 RY 165.<sup>3</sup>

<sup>1</sup> *Southampton* (s).

<sup>2</sup> Recd. *Lion* (w) 6.12. Passed to C.-in-C. *Lion* (s).

<sup>3</sup> See No. 151.

23. Remarks, *Dublin* (s). 5.57 a.m.  
5.57 a.m. *Nottingham* hit by first torpedo.  
6.26 a.m. *Nottingham* hit by second torpedo.  
6.30 a.m. Torpedo fired at *Dublin*, passed astern.  
7.12 a.m. Lost sight of *Nottingham* in mist.

24. *Dublin* to *Southampton* (S.L.). Sent 5.58 a.m.  
From *Nottingham*, have struck a mine.

25. Adty. to C.-in-C. (Cleethorpes 655). Sent 6.15 a.m.  
At 0525 directionals placed battleships lat. 54° 19' N, long 4° 48' E.  
Received *Iron Duke* 7 a.m., *Lion* 6.28 a.m.

26. Flag (*Lion*) to General. Sent 6.17 a.m.  
Alter course 16 points to Port.<sup>1</sup> Leaders together, the rest in succession.

27. S.O., 2nd L.C.S. to S.O., B.C.F.<sup>2</sup> Sent 6.25 a.m.  
*Nottingham* struck by torpedo again 29 K. Y. 11 request destroyers.

28. Flag, *Lion* to *Penn*. Sent 6.30 a.m.  
*Penn* and *Oracle* proceed immediately to assistance of *Nottingham*. Struck a mine 55° 35' N, 0° 11' E.

29. Notes in *Lion's* (s). 6.35 a.m.  
6.35 a.m. *Minotaur* made Pts. *Lion* replied Pts.  
6.40 a.m. Challenged cruiser. Reply. *Duke of Edinburgh*.  
6.42 a.m. G.F. in sight.

30. Flag *Lion* to General. Sent 6.40 a.m.  
Alter course<sup>3</sup> leading ships together the rest in succession 16 points to port.  
Destroyers take up station for submarine screen.

31. C.-in-C. to *Lion*. Sent 6.45 a.m.  
My course at 7 a.m. Compass N 10 E, conform 0645.

32. *Iron Duke* to General. Sent 6.46 a.m.  
C.-in-C. has resumed command.

33. *Iron Duke* to *Marlborough*. Recd. 6.52 a.m.  
Postpone shifting Chief of Staff. 0650.

34. Flag (*Lion*) to L.C.S. Sent 6.50 a.m.  
S.Os. close your squadrons on centre and proceed down L. Channel.

35. *Iron Duke* to *Oak*. Sent 7 a.m.  
Proceed with shift of C.O.S.

36. Flag (*Iron Duke*) General. Sent 7.3 a.m.  
Alter course leading ships together remainder in succession 16 points to starboard.<sup>4</sup>

37. C.-in-C. to V.A., B.C.F. (S.L. via *Minotaur*). Sent 7.5 a.m.  
I am turning to Northward till situation *re Nottingham* is clear. Shall probably use M. Channel.

<sup>1</sup> i.e. to northward in order to close to visual distance.

<sup>2</sup> *Dublin* (s), recd. *Lion* 6.37 a.m. Passed S.O., B.C.F. to C.-in-C. (S wave); *Chatham* (s) 6.47, *Galatea* (w) 6.46, *Benbow* (s) 6.45, *Royal Sovereign*, recd. (s) 6.44, *Marlborough* (s) 6.44.

<sup>3</sup> i.e. to southward.

<sup>4</sup> i.e. to northward.

- 37a.** Flag to *Oak*. 7.12 a.m.  
Close *Marlborough* and proceed with shift of C.O.S.
- 38.** Flag *Lion* to General. Sent 7.28 a.m.  
Alter course, leading ships together rest in succession, 16 points to Port.<sup>1</sup>
- 39.** From Adty. to C.-in-C., H.F. (Cleethorpes 656). Sent 7.30 a.m.  
337 Submarine has torpedoed German battleship at 0505 lat. 54° 15' N, long. 4° 45' East.  
Recd. *Iron Duke* 8 a.m., *Lion* 7.40 a.m.
- 39a.** Flag to General. 7.40 a.m.  
V.A., K.G.V., take charge of Dreadnought Battle Fleet.
- 39b.** Remarks, *Ajax* (s). 7.40 a.m.  
*Iron Duke* and *Marlborough* hauled out of line.
- 39c.** Flag to General (Flags). 8.9 a.m.  
C.-in-C. has resumed command.
- 40.** C.-in-C. to General. Recd. 8.25 a.m.  
Reference position 8.15 a.m. 56° 12' N, 0° 20' E.
- 41.** *Dublin* to S.O., B.C.F. Sent 8.45 a.m.  
H.M.S. *Nottingham* sank in lat. 55° 28' N, 0° 13' E. I am rescuing survivors. 0845. Received *Lion* 8.56 a.m.
- 42.** V.A. to C.-in-C. (Sem. by *Minotaur* and *Shannon*). Sent 8.45 a.m.  
*Nottingham* sank at 7.12 a.m. *Penn* and *Oracle* have picked up survivors. Zeppelin in sight east from *Galatea* in position A.  
Passed by *Minotaur* via *Boadicea* S.L. 9.55, recd. 10.25 a.m.
- 43.** C.-in-C. to V.A., B.C.F. Sent 8.30 a.m.  
At 9 a.m. Battlefleet will steer for lat. 56° N, long 0° 40' E, arriving there 11 a.m. Course S. 8 E. Speed of advance 15 knots. Cruisers to form L.S.5 Speed of advance 16 knots. (0830.) Recd. *Lion* 10.15 a.m.
- 44.** *Minotaur* to C.-in-C. Sent 8.45 a.m.  
Am out of touch with S.O., B.C.F.
- 45.** Flag (C.-in-C.) to General. Sent 9.8 a.m.  
Alter course, leading ships together remainder in succession, to S.8 E. Speed 14 knots.
- 46.** E23 to all ships. See No. 53. Sent 9.16 a.m.
- 46a.** C.-in-C. to all cruisers. 9.20 a.m.  
Get in visual communication with Battle Cruiser Fleet and give them my 0830. (See No. 43.)
- 47.** Flag *Lion* to General. Sent 9.32 a.m.  
Alter course together 16 points to starboard.<sup>2</sup>
- 48.** Flag, *Lion* to *Princess Royal*. Sent 9.35 a.m.  
*Princess Royal* repeat signals between Grand Fleet and *Lion*. Inform cruisers of Grand Fleet.
- 49.** Flag, *Lion* to *Duke of Edinburgh*. 9.35 a.m.  
What course are you steering.  
Reply.  
S.10 W. *Shannon* is Senior Officer, Cruisers, on our port beam in position I in L.S.7.

<sup>1</sup> To northward to follow battlefleet. T.S.D.D.  
<sup>2</sup> i.e. to southward.

- 50.** Flag, *Lion* to *Shannon*. 9.40 a.m.  
It would be convenient if you could inform me when battlefleet alter course and speed.
- 51.** R.A. 2 C.S. to V.A., B.C.F. 9.55 a.m.  
Your 0945, R.A. 2 C.S. Flag in *Shannon*. Your 0940. I had no knowledge of battlefleet turning until 5th Battle Squadron were observed approaching. (Recd. *Lion*, 10.17 a.m.)
- 52.** V.A., B.C.F., to C-in-C. Sent 10 a.m.  
Four minesweepers in sight bearing S.15 E, sweeping L. Channel. (Recd. *Iron Duke* 10.40 a.m.)
- 53.** E.23<sup>1</sup> All ships W/T. Sent 9.16 a.m.  
Urgent. Enemy's battleships enemy's battle cruisers enemy's light cruisers steering west. 54° 20' N, 5° E, 4 a.m. claim one enemy battleship hit. (x) Note in *Canterbury* (w) (23828) "Jammed by Comm. (T) and forebridge buzzer."  
(y) *Miranda* (w) (27613) has "E.23 All ships 9.20 a.m. D. wave fragments only received, strength 3 to 4. Jammed by Comm. T. and *Cleopatra*. Enemy battle cruisers, light cruisers steering west, 54° 20' North, 5 East 4."  
(z) *Canterbury* (s) (23460) has "9.19 a.m. E.23 to all ships. Enemy battle ships, enemy battle cruisers, enemy light cruisers steering west 54.20 North 5 East four remainder jammed. Passed to Comm. T."
- 53a.** *Canterbury* to Comm. (T)<sup>2</sup> Sem. Recd. 9.45 a.m.  
Following by W/T.—E.23 to all ships 9.19 a.m. Enemy battleships, battle cruisers and light cruisers steering west 54° 20' N, 5° E. Remainder jammed.
- 54.** Flag, *Lion* to General. Sent 10.5 a.m.  
Alter course leading ships together, rest in succession to S.10 E.
- 54a.** Comm. (T) to all ships.<sup>3</sup> Sent 10.10 a.m.  
Urgent. Submarine E.23 reports enemy's battlefleet battle cruisers and light cruisers lat. 54° 20' N, long 5° E, steering west at 9.19 a.m.  
Recd. *Barham* 10.15, *Minotaur* 10.20, *Benbow* 10.18 a.m. all as above.  
Recd. *Iron Duke* 10.21 has "7° 24' E."  
Recd. *Lion* via P.R. 10.47 a.m. (See No. 64.)
- 55.** Comm. (T) to C.-in-C. Sent 10.15 a.m.  
Sighted and followed by Zeppelin off Brown Ridge. My position 10 a.m. G.M.T. 52° 50' N, 3° 38' E. Co. N 5 E 20 knts. (1015.)  
(Recd. *Iron Duke* 10.26 a.m.; *Lion* 10.32 a.m.)
- 56.** C.-in-C. to V.A., B.C.F. 10.15 a.m.  
My position course and speed at 11 a.m. will be 56° N, 0° 40' E, course S 8 E, 15 knots speed of advance. Cruisers are to form L.S. 5-20 knots. (Recd. 10.40 a.m.)
- 57.** Notes in *Minotaur* (s). 10.30 a.m.  
10.30. Passed 2 minesweeping sloops port beam steering N. 10.40. Sighted 2 minesweepers port steering N.
- 58.** *St. Vincent* to C.-in-C. 10.30 a.m.  
Five German coded messages intercepted, R. wave.

<sup>1</sup> Original message in H.S.A. 272.

<sup>2</sup> *Carysfort* (s) (25468).

<sup>3</sup> *Carysfort* (w) (35573).

59. Southampton to Flag. Sent 10.50 a.m.  
Submarine reported by Penn, position 55° 35' N, 0° 24' E. (Recd. *Iron Duke*, 11.12 a.m.)
60. Barham signal log. 11.15 a.m.  
Sighted Battle Cruiser Fleet.
61. C.-in-C. to S.O., 2nd C.S.  
S.O., B.C.F.  
S.O., 4th L.C.S.  
S.O., 5th B.S. Sent 11.30 a.m.  
Pass through 55° 32' N, 1° 4' E. Then steer SW by S. Cruisers on Eastern flank closing in to clear unswept part of mine area 4. (1126, repeated 1235.) (Recd. *Lion*, 12.45 and 1.50 p.m.) (See Nos. 69 and 84.)
62. C.-in-C. to General. 11.30 a.m.  
Station hands at action stations constantly throughout the day.
63. Adty. to Comm., Lowestoft. Sent 10.35 a.m.  
Urgent. 793. Transmit to *Hind* off Corton L.V. by visual or boat (begins). Send three submarines to area between 53° 45' N and 54° 30' N, and long. 5° E, and 5° 4' E. Return after two days. *Hind* not to go (ends).  
Note.—E.42 and E.29 went, T.S.D.D.
64. Barham to C.-in-C. Recd. 11.38.  
Signal 1010. Comm. T. to all ships. Urgent. Position given is 54° 20' N, 5° E.<sup>1</sup>
65. V.A., B.C.F. to C.-in-C. and S.O. of L.C.S. Sent 11.45 a.m.  
If we proceed down L. Channel, intend closing light cruisers. Screen is to be a front of ten miles.
66. Guides of Columns to Flag. Noon.  
Noon positions, *Iron Duke* 55° 42' N, 1° 4' E, *E. of India* 55° 42' N, 1° 4' E, *Marlborough* 55° 42' N, 0° 57' E.
67. Flag *Lion* to B.C.F. Sent 12.36 p.m.  
*Lion's* reference position, noon 55° 32' N, 1° 7' E.
68. Note in *Marlborough* signal log. 12.39 p.m.  
12.39 p.m. 3 English battle cruisers sighted off port bow.
69. V.A., B.C.F. to C.-in-C. Sent 12.41 p.m.  
Am turning down M. Channel. Assume this is what you require. (1240.)
70. Comm. (T.) to General. 12.45 p.m.  
We are not recalled but I have turned as it appears the enemy cannot have steered west and may be to the southward.
71. Comm. (T.) to General. 12.47 p.m.  
Alter course 16 points to starboard together. Reform.
72. C.-in-C. to S.O., B.C.F.  
At 2 p.m. battlefleet will alter course to S 15 W. Conform. 1240. (Recd. *Lion* 1.27 p.m.)
73. Flag *Lion* to B.C.F. Sent 12.56 p.m.  
Alter course leading ships together the rest in succession to WSW.<sup>2</sup>

<sup>1</sup> Refers to E.23 Comm. (T) signal of 10.10. (See No. 46.)

<sup>2</sup> To get into M. Channel. T.S.D.D.

74. C.-in-C. to Capt. (D.) IV. Sent 1 p.m.  
Priority. Meet me with 4th Flotilla at 3 p.m., lat. 54° 48' N, 0° 50' E. Submarines to spread in line 180 degrees from lat. 55° N, long. 0° 0'. (1218.)
75. Note in *Marlborough* (s.). 1.10 p.m.  
1.10 p.m. Battle cruisers on port bow—*Lion*, *P.R.*, *Tiger*, *Inflexible*, *N.Z.*, *Australia*.
76. Adty. C.-in-C., Cleethorpes (659). Sent 1.15 p.m.  
340. Directionals place fleet flagship at 12.33 p.m. in lat. 54° 32' N, long. 1° 42' E. (Recd. *Lion* (w) 1.25 p.m., *Iron Duke* 1.27 p.m.)
77. *Boadicea* to Flag. 1.25 p.m.  
Submarine bearing east on surface.
78. *Minotaur* to C.-in-C. 1.25 p.m.  
Submarine in sight W.N.W. 6 miles.
79. Flag (*Iron Duke*) to General. 1.27 p.m.  
Turn together four points to Port, speed 19 knots.
80. V.A., B.C.F., to C.-in-C. (via *P. Royal*). Sent 1.32 p.m.  
Request information as to what course you will steer after 3 p.m. in order that I may regain station 1330. (Recd. *Iron Duke*, 2 p.m.)
81. Flag (*Iron Duke*) to *King George V.* Sent 1.32 p.m.  
*Achilles* reports submarine in sight on her starboard beam 6 miles 1.23 p.m.
82. Adty. to C.-in-C., Cleethorpes (660). Sent 1.36 p.m.  
341. Enemy fleet turning starboard 12.30 G.M.T. (Recd. *Iron Duke*, 2 p.m.)
83. Comm. (T) to C.-in-C. Sent 1.40 p.m.  
My position at 0.45 p.m. G.M.T. was 53° 36' N, 3° 13' E. Am now course S 5 W, 20 knots, no sign of enemy. (Recd. *Lion* 1.53 p.m., *Iron Duke* 1.50 p.m.)
84. *Galatea* to *Phaeton*. Sent 2 p.m.  
Do you understand what is meant by unswept part of Area four. 1400. Reply 1415. No. We are clear according my chart X.74 which differs from area four page 5 H.F. memo. 005 of 15th January. (See No. 61.)
85. Flag *Lion* to B.C.F. Sent 2.5 p.m.  
Prepare for immediate action.
86. *Lion* to Barham. Sent 2.12 p.m.  
One enemy airship in sight bearing SSE, course WSW 1410.
87. Flag (C.-in-C.) to General. Sent 2 p.m.  
Raise steam for full speed and report when ready to proceed. Assume immediate readiness for action in every respect.
88. Flag (*Iron Duke*) to General. Recd. 2.15 p.m.  
Prepare for immediate action. H.S.F. may be sighted at any moment. Signal out to V.A., B.C.F., "continue present course pass on ahead." (1340.)
89. C.-in-C. to V.A., B.C.F. Recd. 2.13 p.m.  
Proceed down M. (1355.)
90. C.-in-C. to General. Sent 2.15 p.m.  
High Sea Fleet may be sighted at any moment. I look with entire confidence on the result. (1405.)

- 91.** Notes from *Lion* (s). 2.15 p.m.  
2.15 p.m. Zeppelin sighted on port bow. 2.22 p.m. Seaplane up from *Engadine*.
- 92.** C.-in-C. to S.O., B.C.F. Recd. 2.21 p.m.  
Immediate. Proceed down M. Channel. (1417.)
- 93.** S.O., 3rd L.C.S., to B.C.S. Recd. 2.32 p.m.  
Four enemy airships in sight bearing SSE unknown. (1405.)
- 94.** Flag *Lion*, Light Cruisers. Sent 2.30 p.m.  
Screen to alter course so that centre proceeds down "M" Channel, line of direction to be ENE and WSW. Centre of screen to bear SSE. (1420.)
- 95.** C.-in-C. to Comm. (T). 2.35 p.m.  
Priority—Steer for 54° N 5° E. (Recd. *Carysfort* 2.50 p.m.) (Cancelled 3.35 p.m.)
- 96.** *King George V* to Flag. 2.37 p.m.  
*Active* and flotilla West 8 miles from *Shannon*. (1415.)
- 97.** V.A., B.C.F., to B.C.F. Sent 2.50 p.m.  
Alter course leading ships together rest in succession to S 27 E.<sup>1</sup>
- 98.** Flag *Lion* to Light Cruiser Squadrons. Sent 3.0 p.m.  
Take up cruising disposition No. 5.
- 99.** V.A., *Lion* to L.C.S. Sent 3 p.m.  
High Sea Fleet may be expected to be met. 1500. (Recd. *Southampton* 3.24 p.m.)
- 100.** C.-in-C. to B.C.S. and 5th B.S. Sent 3.5 p.m.  
If nothing is sighted by 4 o'clock turn 16 points. 1501. (Recd. *Lion* 3.22 p.m.)
- 101.** Comm. (T) to C.-in-C. Interc. Adty. 3.10 p.m.  
On receipt of Cleethorpes message 659 I turned to N 5 E, 20 knots; my position was then 53° 6' N, 3° 20' East. (1430.) (Recd. *Lion* 3.9.) (See No. 76.)
- 102.** Flag (C.-in-C.) to General. Recd. 3.18 p.m.  
Alter course leading ships together remainder in succession to S 27 E.<sup>1</sup>
- 103.** Adty. to C.-in-C. (Cleethorpes 661). Sent 3.22 p.m.  
342. At 1445 German C.-in-C. Lat. 54° 14' N, long. 2° 2' E. (Recd. *Iron Duke* 3.46 p.m.)
- 104.** *Falmouth* to S.O., B.C.F. Recd. 3.25 p.m.  
Urgent. Have sighted smoke on the bearing approximately south. My position 50 K Y 122. (1515.)
- 105.** *Falmouth* to S.O., B.C.F., and *Chatham*. Recd. 3.31 p.m.  
Urgent. My message 1515. Smoke previously reported is a trawler. (1530.)
- 106.** C.-in-C. to S.O., B.C.F. Sent 3.38 p.m.  
Immediate. Acknowledge. Turn 16 points now. (1532.) (Acknowledged 3.40 p.m.)

<sup>1</sup> i.e., down M. Channel. T.S.D.D.

- 106a.** C.-in-C. to Comm. (T). Recd. 3.43 p.m.  
Your 1430 Cancel my 1435. (1535.) (See No. 95.)
- 107.** Flag (*Lion*) to General, S.L. 3.44 p.m.  
Alter course together 16 points to starboard. *Chatham* (s). (24259.)
- 107a.** *Dublin* to *Southampton*. 3.46 p.m.  
Submarine on surface W by S 3 miles. (Further 3.48 p.m. Submarine dived.)
- 108.** *Phaeton* to C.-in-C. Recd. 3.48 p.m.  
Urgent. 1 submarine bearing South, course unknown. Position of reporting ship 221 A.K. 38. (1510.)
- 109.** *Birkenhead* to *Lion*. 3.50 p.m.  
One Zeppelin bearing E.N.E. from *Birkenhead*.
- 110.** Flag (*Iron Duke*) to General. Sent 3.53 p.m.  
Alter course leading ships together, remainder in succession, 16 points to starboard.<sup>1</sup>
- 111.** V.A., B.C.F. to 1st Flotilla. Sent 3.52 p.m.  
Alter course together to N 27 W.
- 112.** V.A., B.C.F. to 2nd Division. Sent 3.58 p.m.  
Alter course 16 points to starboard.
- 113.** Notes from *Lion* (s). 4.8 p.m.  
4.8 p.m. 2 Zeppelins in sight on Starboard quarter.  
4.20 p.m. L.C. off Port Quarter opened fire.  
4.40. Commenced zigzag.  
4.52 p.m. Battlefleet in sight starboard bow.
- 114.** C.-in-C. to Comm. (T). Sent 4.3 p.m.  
130 Think that enemy altered course for base 0.30 p.m. perhaps via *Terschelling*. (1547.)
- 115.** C.-in-C. to S.O., B.C.F. Sent 4.16 p.m.  
My course and speed are N 27 W 15 knots. (1610.) (Recd. 4.26 p.m.)
- 116.** Comm. T. to C.-in-C. Recd. 4.28 p.m.  
Your 1535, have altered course to N 20 W, my position 4 p.m. was 53° 32' N 3° 45' E, 20 knots. (1615.)
- 117.** *Chatham* to *Lion*. Sent 4.30 p.m.  
Zeppelin following out of range about 10 miles astern. (1625.)  
*Reply.* V.A. *Lion* to R.A. *Chatham*.  
Endeavour to drive off Zeppelins. (Sent 4.42 p.m.)
- 118.** *Birmingham* to *Chatham*. 4.50 p.m.  
Am going back to get in touch with *Southampton* who is nearly out of sight.
- 119.** Flag *Lion* to B.C.F. Sent 4.54 p.m.  
Speed 18½ knots.
- 120.** S.O. 3rd L.C.S. to C.-in-C. and S.O., B.C.F. Sent 4.55 p.m.  
*Falmouth* has been struck by a torpedo 54° 23' N 1° 29' E. (1655.) (Recd. *Lion* 5.4 p.m.)
- 121.** V.A., B.C.F. to B.C.F. Sent 5.0 p.m.  
Two destroyers proceed to assistance of *Falmouth*.

<sup>1</sup> i.e. to northward.

- 122.** Adty. to C.-in-C. (via Cleethorpes, I method). Sent 5.5 p.m.  
43 Cipher "W" unsafe. Holders of W use "S" for present. (Recd. *Lion* 5.24 p.m.)
- 123.** C.-in-C. to S.O., B.C.F., S.O. 3rd L.C.S.  
and *Falmouth*. Recd. 5.22 p.m.  
*Falmouth* is to make for Flamborough Head with destroyer escort. (1716.)
- 124.** Flag *Lion* to L.C.S. Sent 5.25 p.m.  
Zigzag at high speed.
- 125.** *Galatea* to S.O. 2nd L.C.S. Recd. 5.30 p.m.  
Submarine close alongside. Position  $54^{\circ} 45' N 1^{\circ} 05' E$ . (1730.)
- 126.** *Lightfoot* to Comm. (T). Recd. 5.35 p.m.  
Smoke bearing N by W.
- 127.** Comm. (T) to General. Sent 5.36 p.m.  
Alter course together 8 points to port.<sup>1</sup>
- 128.** *Lightfoot* to Comm. (T). Recd. 5.38 p.m.  
Smoke on bearing appears to be a large squadron. (1730.) (See 126.)
- 129.** Adty. to R.A. East Coast. Sent 5.45 p.m.  
485 Urgent. Send tugs at once to assist *Falmouth* lat.  $54^{\circ} 25' N$  long.  $1^{\circ} 29' E$  at 1700.
- 130.** Adty. to C.-in-C. (Cleethorpes 663). Sent 5.45 p.m.  
344 German fleet returning to base through position  $54^{\circ} 12' N$  long.  $6^{\circ} 55' E$  by newly swept route speed 15 knots. Position at 1652 lat.  $54^{\circ} 16' N$  long.  $2^{\circ} 51' E$ . (Recd. *Iron Duke* 6.1 p.m.)
- 131.** *Lightfoot* to Comm. (T). Recd. 5.50 p.m.  
6 or 7 large vessels appear to be steering East. (1745.)
- 132.** S.O., B.C.F. to C.-in-C. 6 p.m.  
Urgent. There is a German submarine screen of several submarines extended NE 25 miles from position  $54^{\circ} 19' N 1^{\circ} 55' E$ .
- 133.** *Revenge* to Flag. Recd. 6.3 p.m.  
Submarine sighted N 30 E.
- 134.** *Australia* to *Lion*. Recd. 6.5 p.m.  
(177) Battlefleet altered course.
- 135.** Flag *Lion* to Light Cruisers. Sent 6.8 p.m.  
Alter course, leading ships together the rest in succession, to NE.
- 136.** Comm. (T) to C.-in-C., S.O., B.C.F. Recd. 6.9 p.m.  
W.T. Code Addenda II. Grand Fleet Code.  
Urgent. Course of enemy battlefleet East, bearing of centre enemy battlefleet North, Zeppelins not in sight. Am resuming my station. (1800.)
- 137.** Flag (*Iron Duke*) to General. (25633.) Recd. 6.10 p.m.  
Turn together 8 points to port.
- 138.** Comm. (T) to C.-in-C. Sent 6 p.m.  
Urgent. Enemy's force six or seven large ships steering east. Two Zeppelins in company. Am following. (1800.) (Recd. *Iron Duke* (w) 6.7; *Lion* (s) 6.7.)

<sup>1</sup> Enemy had been sighted by Commodore (T). T.S.D.D.

- 139.** From Adty. to C.-in-C. Nore,  
S.N.O., Lowestoft,  
Comm., Harwich,  
V.A., Dover (sent 6.25 p.m.).  
Resume normal conditions as regards auxiliary patrols and merchant ship traffic.
- 140.** C.-in-C. to V.A., B.C.F. Recd. 6.31 p.m.  
Submarine 7 miles NE from *Iron Duke*. Keep clear. (1817.)
- 141.** C.-in-C. to Comm. (T). Recd. 6.32 p.m.  
Immediate, your 1800. I am too far off to support you. (1825.) (See No. 136.)
- 142.** S.O., B.C.F. to Light Cruisers. Recd. 6.41 p.m.  
Submarine position 23 KY 59.<sup>1</sup> (1830.)
- 143.** Flag (*Marlborough*) to Flag (*Iron Duke*). Sent 6.43 p.m.  
Submarine in sight NE by E.
- 144.** *Royal Sovereign* to S.O., B.C.F. and C.-in-C. Recd. 6.55 p.m.  
Two submarines submerged NE. (1850.)
- 145.** Adty. to Comm. (T) "S" method. Sent 7.15 p.m.  
245 Return to base as convenient.
- 146.** Capt. (S) *Maidstone*. Recd. 7.18 p.m.  
480 Your 793 to Naval Base, Lowestoft. Submarines *E.42* and *E.29* were sent to cruise between lat.  $53^{\circ} 45' N$  and  $54^{\circ}$  North. S/m *E.37* had to return to Harwich with engine defects. S/m *E.23* is already cruising between lat.  $54^{\circ}$  and  $54^{\circ} 45' N$  and long.  $4^{\circ} 30' E$  and  $4^{\circ} 50' E$  until 6 p.m. 21st August.  
Are Yarmouth submarines to proceed to sea again tomorrow morning. Sunday?
- 147.** C.-in-C. to V.A., B.C.F. Recd. 7.25 p.m.  
Return to base. (1920.)
- 148.** *Inflexible* to *Australia*. Recd. 7.46 p.m.  
Tracks of two torpedoes passed close astern. (1945.)
- 149.** Comm. (T) to C.-in-C. Recd. 7.48 p.m.  
Have abandoned pursuit. Night attack conditions unfavourable. Shadowed by Zeppelins. Am proceeding to Brown Ridge. Have you any instructions? (1932.)
- 150.** *Barham* to C.-in-C. Recd. 8.45 p.m.  
*Inflexible* to C.-in-C. Two tracks torpedoes passed close astern. (1950.)
- 151.** Note on No. 22. The Grand Fleet Wireless Code for positions, in use on August 19, will be found in Wireless Memo. H.F. 0015/127 of June 12, 1916, in H.S. 342/58. 26 R Y 165 means 26 miles,  $165^{\circ}$  from a position R (lat.  $56^{\circ} N$ ), Y (long.  $0^{\circ}$ .)

<sup>1</sup> Position  $55^{\circ} 12' N 0^{\circ} 35' E$  from Appendix II in C.-in-C's. Narrative M.07632/16.



## APPENDIX J.—NOTES ON PLANS. CAP VII.

*August 19, 1916, British Fleet, Plan 5, Formation 6.30 a.m.*

5.42 a.m. The battlefleet had been ordered at 5.42 a.m. to assume 5th organisation. "Form divisions in line-ahead, columns disposed abeam to starboard, columns to be 8 cables apart." They remained in Organisation No. 5 till 8 p.m. At 10.5 a.m. columns were ordered to be 11 cables apart.<sup>1</sup>

6.2 a.m. Cruisers were ordered to spread in No. 1 Diagram (i.e., 20 miles ahead of battlefleet) to form L.S.5—20 miles between X (centre of light cruiser screen) and Y (battlefleet).

7.50 p.m. Aug. 18. B.C.F. The light cruisers had been ordered at 7.50 p.m., Aug. 18, to form L.S.6, i.e., 8 miles ahead of battle cruisers, in pairs 5 miles apart (covering a front of 25 miles).

See G.F.B.O., Cruiser Instructions, Dec. 1915, H.S. 289/84.

## APPENDIX J1.

*August 19, 1916, Plan 6, Formation at 2 p.m., Battlefleet.*

The battlefleet was still in Organisation No. 5, i.e. in six divisions—going to the southward (signal C.-in-C., 5.42 a.m.).

5th B.S. The 5th B.S. in L.S.5—20 would be 6½ miles ahead of *Iron Duke* but the *Barham* did not alter course to port at 1.25 p.m. which would place her to the westward. She had to alter course to eastward at 3.40 p.m. to get astern. At 1.55 p.m. the 5th B.S. was ordered to form sub-divisions in line-ahead, columns disposed abeam to port.

2nd C.S. At 8.15 a.m. *Shannon* ordered 2nd C.S. to spread, *Shannon* in position (I), *Duke of Edinburgh* in (K), *Cochrane* in (H), *Minotaur* in (L), *Achilles*, linking ship with 5th B.S.

Cruisers had been ordered (C.-in-C. at 10.39 a.m.) to form L.S.5—20 miles, i.e. 20 miles between X (centre of B.C.F. light cruiser screen) and Y (the battlefleet). This would place 2nd C.S. 10 miles ahead.

B.C.F. At 7 a.m. 2nd B.C.S. was ordered to take station N 44 W of 1st B.C.S. 2 miles.

2nd L.C.S. *Birmingham* took *Nottingham's* place when latter ship was torpedoed, and *Dublin* when she returned took station astern of *Southampton*. *Falmouth* was 5 miles from *Birmingham* at 3.5 p.m.

Note.—The battle cruisers were in sight from the *Marlborough* at 1 p.m. The difference in latitude (obs.) between battlefleet and battle cruisers was not more than 14 miles.

## APPENDIX J2.

*August 19, 1916. Formation at 7.45 p.m. previous to alteration of course.*

Battlefleet. The battlefleet was still in Organisation No. 5.

5th B.S. The 5th B.S. was ordered at 4.15 p.m. to take station 2 miles astern of Admiral. At 5.30 a.m., *Barham* ordered 5th B.S. to form sub-divisions in line-ahead, columns disposed abeam to port.

<sup>1</sup> For Organisation No. 5 see G.F.B.O., 10.6.16, in H.S. 289/160.

2nd C.S. 2nd C.S. was ordered at 4.18 p.m. (received 4.40) to take station astern of Admiral 6 miles and form divisions in line-ahead, columns disposed abeam to port.

Note.—*Shannon* at 5.40 a.m. gave the organisation as 1st Division *Shannon, Cochrane*; 2nd Division *Duke of Edinburgh, Achilles*, 3rd Division *Minotaur* (*Shannon's* signal log).

B.C.S. *Lion* at 7.36 p.m. ordered 1st B.C.S. to take station on starboard beam of 2nd Division 5 miles.

## APPENDIX K.—HARWICH FORCE.

GRAND FLEET MEMORANDUM, AUGUST 24 1916.

*See Cap. VIII, S.101. From H.S.A. 211/3514.*

1. In the event of the German Fleet being reported at sea and there being a probability of a Fleet action the following steps will be taken as regards the Commodore (T)'s force.

2. In the first instance the Admiralty will order the Commodore (T)'s force to proceed to one of five general rendezvous in the southern part of the North Sea, until sufficient information of the intentions of the enemy is available.

3. The rendezvous selected are areas of some extent in order to give the Commodore (T) sufficient freedom of movement in case of mines being laid or there being other reasons for avoiding fixed positions.

No. of Rendezvous.	Locality.
1	West of North Hinder. (Anywhere between North Hinder Light Vessel and Orfordness.)
2	East of North Hinder. (Anywhere between the North Hinder and Maas Light Vessels.)
3	The Brown Ridge. (Outside "K" Channel between long. 3° E and 4° E.)
4	Off Texel. (From 15 to 40 miles North-westward from Texel Island.)
5	Outer Silver Pit. (Off the entrance to "H" and "G" Channels.)

4. When the situation has developed sufficiently to render it improbable that enemy forces are going to operate south of lat. 53° N, the Admiralty will order the Commodore (T)'s forces to co-operate with the Grand Fleet. If it is undesirable at the time for the Commander-in-Chief, Grand Fleet, to use W/T, the Admiralty will give the Commodore (T) the necessary directions to enable him to close the Commander-in-Chief on a safe course; these directions can be modified if necessary by the Commander-in-Chief later.

5. In the event of the enemy having stronger flotillas than the Dover Patrol can account for, based on the Belgian Ports, it may be necessary to retain some part of the Commodore (T)'s force in southern waters.

(Admiralty letter of August 19 1916, M. 07005, addressed to the Commander-in-Chief, Home Fleets.)

"*Iron Duke*,"

August 24 1916.

## APPENDIX L.

## CONFERENCE, "IRON DUKE," SEPTEMBER 13, 1916.\*

See Chapter VIII, S.102.

\* Report of a meeting of C-in-C., Grand Fleet, Chief of the Staff, Grand Fleet, and Chief of the War Staff, H.M.S. *Iron Duke*, September 13 1916. In H.S.A. 141/143 (Grand Fleet Pack) and M.08218/16, C-in-C. to Admiralty, September 14.

The following subjects were discussed and the conclusions are submitted to the Lords Commissioners of the Admiralty for consideration.

(1)<sup>1</sup> *Future Naval Policy*.—Our future fleet policy is largely dependent upon whether the Government is prepared to face the fact that the fleet cannot prevent bombardments of coast towns on the East coast, or interfere with the early stages of a landing on the part of the enemy, particularly in southern waters. Another factor upon which our policy depends is whether the fleet should disregard submarine and mine risks and seek the enemy in any locality, whenever he is known to be at sea, or whether the policy should be one of avoiding localities, in which the enemy can lay submarine or mine traps with facility, and confine the operations of the main fleet to more northern latitudes, say north of lat. 55° 30' N. The C-in-C. stated that his view was that the main fleet should not go south of lat. 55° 30' N<sup>2</sup> in longitudes east of longitude 4° E, unless under exceptional conditions, the reason being that waters so far to the eastward cannot be watched by our cruisers or our submarines, and they, therefore, offer to the enemy facilities for preparing a trap of mines or submarines on a large scale. To the westward of long. 4° E our submarine patrols when fitted with efficient wireless installation<sup>3</sup> can report in all probability whether minefields may be expected and for this reason the C-in-C. stated his view was that in these waters we could afford to take the risks of mines, if a really good opportunity offered of bringing the High Sea Fleet to action in daylight. But as regards the submarine risk, it should be perfectly understood that the fleet should not go to the southward of the Dogger Bank<sup>4</sup> unless the number of destroyers is sufficient to furnish a thoroughly efficient screen for all ships. This is not the case at present. The Chief of the War Staff<sup>5</sup> stated that the Admiralty had informed the War Committee that the fleet could not be depended on to interfere with raids on the coast until a period of 28 hours had elapsed from the arrival of the raiding force. This view is concurred in by the Commander-in-Chief.

(2) The C-in-C. stated that in his view it was very desirable that we should assert a more constant patrol of the waters of the North Sea by cruisers for two reasons:

- (a) In order that the enemy should realise that there was a great risk of their being sighted and brought to action in the event of their proceeding to sea. This would act as a deterrent against raids.
- (b) Because it is very desirable that it should not appear to the Germans that the presence of our fleet in the North Sea always coincided with the departure of their own fleet from their home bases.

<sup>1</sup> These are the numbers of paragraphs in the original.

<sup>2</sup> About 8 miles south of Farn Islands.

<sup>3</sup> It had been arranged (June 26) that submarines of "G" class should be fitted immediately with Poulsen wireless sets. C-in-C. to Adty., June 29 1916, H.S.A. 141/120.

<sup>4</sup> About lat. 55° the latitude of the Tyne.

<sup>5</sup> Vice-Admiral Sir Henry Oliver.

To carry out this policy under the present conditions of considerable submarine activity on the part of the enemy it is essential that the cruisers or light cruisers employed in the sweeps should be well screened and the absence of destroyers on this duty will necessitate a recognition of the fact that if the fleet is required to go to sea, whilst a sweep is in progress, some ships must be left behind for want of screening destroyers. The C-in-C's. proposal is that the sweeps should take place both north and south of Mine Area P, the area to the south of lat. 54° 30' N<sup>2</sup> and west of long. 4° E to be patrolled by the Humber and Harwich forces, and that north of lat. 54° 30' N by the Rosyth and Scapa forces. One or two light cruisers and three or six destroyers generally should form the patrol. The Humber and Harwich patrols to be ordered by the Admiralty.

(3) *Basing of the Fleet*.—The deterrent to the Germans in the way of carrying out a raid or raiding bombardment would be greater if the main portion of the battlefleet were based on Rosyth, or even if it were occasionally based at Rosyth, so that they were not certain which base was being used, and this fact, combined with the advantage gained in having the destroyers further south and in smoother water, makes it most desirable that the new obstructions at Rosyth should be completed at the earliest possible moment.

(4) *Passive defences against raids*.—Wherever the fleet is based, however, it is not possible to ensure that raiding bombardments of coast towns or raids on the patrols and commerce of the east coast can be stopped. The C-in-C. therefore pointed out that, in his view, it was very necessary to adopt other defensive measures in these localities, which should consist of minefields and submarines. The question of the minefield to cover that portion of the coast between the Tyne and the Tees was discussed with the Chief of the War Staff.

The C-in-C. has forwarded a letter to the Admiralty on the subject, which was read by the Chief of the War Staff, who stated that the Rear-Admiral, East Coast of England, would be consulted on the subject.

(5) The question of the position that the Grand Fleet should take up on concentration was discussed. The present arrangement is that the Admiralty order should read either to concentrate in the Long Forties,<sup>3</sup> or to concentrate east of the Long Forties. It has usually been understood that the order to concentrate east of the Long Forties implied a concentration towards the Norwegian coast. The C-in-C. pointed out that he would like it to be understood that this order gave him discretion to concentrate anywhere east of the meridian of 2° E as he considered that a concentration on the meridian of 3° E<sup>4</sup> gave him a far freer hand either to move to the eastward of Mine Area I<sup>5</sup> or to pass down the area which is believed to be clear between the Dogger Bank and the Western side of Mine Area I.

In making dispositions it is necessary to remember that we do not propose to fight a fleet action at night. Therefore it is of no use placing the fleet so as to intercept the High Sea Fleet at or shortly before night, and we must also remember that the Germans, if they mean an insult bombardment, will carry it out either just after dawn or just before dark. This with the length of daylight and dark hours taken into consideration, gives the approximate position of the High Sea Fleet, when it can be met in daylight on the way home.

The First Sea Lord in his private letter of September 2<sup>6</sup> to the Commander-in-Chief, discussed the alternative of proceeding east of

<sup>1</sup> Dogger Bank Area.

<sup>2</sup> Lat. 54° 30' N is about the lat. of Whitby.

<sup>3</sup> Lat. 57° N, long 0° (approx.).

<sup>4</sup> The meridian of 3° E practically cuts the North Sea in half.

<sup>5</sup> Dogger Bank Area.

<sup>6</sup> This has not been seen. T.S.D.D.

Mine Area I to cut off the German Fleet in preference to proceeding to the westward of it as on August 19 to endeavour to meet the enemy. The considerations discussed in the foregoing paragraph affect the choice of routes. On August 19 the High Sea Fleet would not have been intercepted and brought to action before dark by the eastern route and the possibility of doing so will decrease as the days become shorter. The use of this route also controverts the rule that the C.-in-C. is to avoid action south of Horn Reefs<sup>1</sup> and east of long. 5° E which is laid down in the Memorandum agreed upon by the First Sea Lord and the C.-in-C., Grand Fleet. The extra distance will also tell on the destroyer's fuel. It may be stated that the eastern route<sup>2</sup> to intercept the High Sea Fleet is impracticable, even if advisable, except in long summer days or when Their Lordships have information which will enable the fleet to put to sea before the German fleet and it is then unobserved by Zeppelins.

(6) *The Fleet leaving its Bases.*—The C.-in-C. pointed out that the approaching winter will increase the difficulty of preventing minelaying off our bases and also of sweeping the exits. It would render the task of the C.-in-C. easier if Their Lordships when ordering the fleet to sea, could state in the order to leave whether time is available to sweep a channel before the fleet leaves. Sweepers require a start of 5 hours to get out to the 50 fathom line off Scapa.

It would also help the C.-in-C. if it were recognised that it is now unsafe to move the fleet south when the weather prevents the destroyers keeping up the speed of the fleet. On one occasion<sup>3</sup> the fleet was forced to come south without destroyers, owing to bad weather.

(7) *Fleet Exercises.*—The C.-in-C. pointed out that great anxiety was caused to him, whenever the fleet went out for necessary exercises, that the fleet might be suddenly ordered south whilst out, and whilst the destroyers and light cruisers were short of fuel, and this necessity had frequently caused him to curtail valuable exercises and return to port. Whenever possible on these occasions oilers are stationed in Shetlands during the exercises, but it is certain that some of the destroyers will be short of fuel and, in order to keep the flotillas fuelled up as far as possible, the C.-in-C. would be glad of an assurance that time would be given for the destroyers to complete with fuel before the fleet was brought into southern waters. . . . Ordinarily speaking he would only be away from his base for about 36 hours, which would mean probably 48 hours before the fleet was refuelled. He pointed out the absolute necessity of fleet exercises, particularly as new ships and captains were frequently joining the fleet.

(8) The question of the position which our submarine patrols should occupy was discussed. The C.-in-C. suggested that it was inadvisable to send our submarines into the Heligoland Bight except to lay mines, his reason being that he understood that it was exceedingly rare for German ships to pass through the waters of the Heligoland Bight except during dark hours. He therefore suggested that the position of the submarine patrols should be governed by the consideration that they should be in localities which would be in all probability traversed by the enemy's fleet during daylight hours.

(9) *Offensive Minelaying.*—The question of further offensive minelaying in the Heligoland Bight by the southern minelayers was discussed and the C.-in-C. suggested that as soon as the Operation "M.B." was carried out, offensive minelaying should be resumed to fill in the gaps between the northern and southern British minefields, and that if the operation "M.B." was abandoned, this offensive minelaying should be carried out now.

<sup>1</sup> Lat. 55° 32' N., practically 55° 30' N.

<sup>2</sup> i.e., East of the Dogger Bank minefield.

<sup>3</sup> Lowestoft Raid, April 25 1916.

(10) The paddle sweepers of the 3rd Fleet Sweeping Flotilla will probably be unable to work in the North Sea during the winter and their sweeping speed is low even in fine weather. Necessity for strengthening the mine-sweeping force in the Forth is, therefore, urgent. It is suggested for consideration that as the convoy sloops relieve the earlier sloops in the Queenstown Command, the latter should be drafted to the Forth.

(11) The desirability of preparing plans of campaign to meet the following eventualities was discussed:—

- (a) Attack on channel ports and patrol.
- (b) Attack on coast of Norfolk, patrols and coast towns.
- (c) Attacks on coast of Humber, patrols and coast towns.
- (d) Attack on coast of Tyne to Whitby district.
- (e) Attempts to get out fast commerce raiders to break the blockade.

The Chief of the War Staff stated that a plan to meet occasions (a), (b), (c), had been prepared and would be forwarded to the C.-in-C. for his information. Plans to meet (d) and (e) will be prepared by the C.-in-C.; plan (d) will depend on the decision on the minefield protection to be afforded to this area.

#### APPENDIX M.—CAP. VIII, SECTION 126.

##### *Admiralty Memorandum on Considerations regarding the Employment of the Grand Fleet in the North Sea.*

(M.00145/16, September 23, 1916.)

#### PART I.

(1) The present situation in the North Sea after two years of war involves considerably greater risk to large ships from mines and submarines than in the earlier stages of the war. The number of enemy submarines has increased, minelaying has developed and submarine minelaying has been invented and brought to a state of great efficiency. The large minefield in the North Sea known as Mine Area I, has also produced altered conditions by restricting the manœuvring area near the centre of the North Sea.

(2) Scouting by Zeppelins has proved of great value to the enemy, and in weather when aircraft can operate it seems almost impossible for our ships to close the enemy without being reported in amply sufficient time to enable him to avoid action and escape. In fact, unless the enemy desire to fight and seek action, the chances of bringing him to action are now lessened and seem problematical.

(3) In the event of the enemy raiding vulnerable towns on the east coast of England, it is impossible for our capital ships from the northern bases to bring the enemy to action for some 15 to 30 hours after his ships have been reported off our coast. The fleet in the northern bases cannot, therefore, be reckoned on to protect the ports on the east coast of England from short attacks such as the Scarborough and Lowestoft raids.<sup>1</sup> Local forces, especially submarines, may be able to inflict some damage on the enemy, but large forces would not, as a rule, be available to outnumber and effectually destroy him for some time.

(4) If the Grand Fleet proceeds south of the Forth, whenever the German fleet is suspected of being about to approach the East Coast, it is certain that it will incur great and increasing risks of losses from sub-

<sup>1</sup> Admiral of the Fleet Sir Arthur Wilson was, however, of opinion that such attacks, "if there was sufficient notice to get the fleet into a favourable position offered the best opportunity of intercepting him and, therefore, the fleet should make for the position where they would have the best chance of intercepting him by daylight during his return." T.S.D.D.

marine attack, and from mines while the chance of bringing the enemy to action is very small, unless he is unduly delayed near our coast by damage to some of his ships by the local forces. In fact, such a policy would afford the enemy good opportunities of reducing the preponderance of our fleet over his own until at last, if the plan were persisted in, the numbers would become equal and he could then risk a fleet action with some chance of success. It should, however, be remembered that the enemy cannot use the High Sea Fleet as a bait to tempt the Grand Fleet south, with impunity, owing to our submarines and to the risk of running into an unknown minefield.

(5) The British fleet is vital to the success of the Allied cause. The German fleet is of secondary importance; its loss would not vitally affect the cause of the Central Powers and it can, therefore, be risked to a much greater extent than the British fleet.

(6) The danger of reckless cruising in the North Sea by either fleet without any sufficient object in view is apparent. This policy is not likely to be adopted by the Germans and it is not one that should be encouraged by the Admiralty.

Periodical exercise cruises, however, to keep the fleet efficient are necessary, and some risks must be accepted in order to carry them out. Taking large risks with the capital ships of the Grand Fleet from mines and submarines in dangerous areas on occasions when there is only a very slender chance of bringing the German fleet to action in daylight is not sound strategy.

#### PART II. (Summary Only.)

##### *Orders for the Employment of the Grand Fleet in the North Sea.*

(1) In order to raise steam, the Admiralty will state whether sailing is urgent or can be delayed 12 hours for exit channels to be swept.

(2) and (3) The order to raise steam will be followed by orders to proceed to sea and concentrate either in the Long Forties or to eastward of the Long Forties, at a rendezvous which will be arranged by the C.-in-C. and communicated by him to his squadrons.<sup>1</sup> The Admiralty will inform the V.A., B.C.F. of the rendezvous to which the C.-in-C. and Commodore (T) will proceed and will inform them of orders given to the Yarmouth and Harwich submarines.

(4) Exercise cruises will only be approved when the situation seems quiet.

#### PART III.

##### *Operations at Sea.*

(1) It is fully recognised that the movement of the fleet south, when the weather is such that destroyers cannot accompany it, is attended with increased risk and the fleet will not be ordered south of the rendezvous arranged by the C.-in-C. in rough weather, except in case of exceptional circumstances.

(2) Exceptional circumstances<sup>2</sup> may be defined as an attempt at invasion or that a really good opportunity is foreseen of bringing the German fleet to action in daylight in an area which is not greatly to the disadvantage of the Grand Fleet. A suitable opportunity might be afforded if the German fleet attacked the Thames or Dover Strait defences.

(3) Unless these exceptional circumstances occur the capital ships of the Grand Fleet should keep to the northward of the parallel of Horns Reef and avoid the vicinity of the mined areas and should not pass between Mine

<sup>1</sup> Sir Arthur Wilson suggested that the rendezvous should be given by the Admiralty and that the C.-in-C. could then issue orders to the squadrons and lay down the position for the B.C.F. T.S.D.D.

<sup>2</sup> See Appendix L (I) with regard to not going south of lat. 55° 30' N, "unless under exceptional conditions."

Area I, the Dogger Bank and the Humber minefield,<sup>1</sup> unless the number of destroyers is sufficient for efficiently screening it.<sup>2</sup>

(4) If the southern part of the North Sea is hazardous for our large ships on account of German submarines, it can be made equally hazardous for German large ships by our submarines. The Harwich and Yarmouth submarines now maintain a constant patrol east of Long. 4° E, between the Texel and lat. 55° N. In the event of the German fleet coming west, all available Harwich and Yarmouth submarines, not already on patrol, assisted by submarines from the Humber, will be made use of to intercept the German fleet south of lat. 53° 45' N, and also to protect Yarmouth, Lowestoft, Harwich, and the Humber. These submarines will receive orders from the Admiralty.

(5) and (6) (Summary). In the event of the German fleet coming west, the available Blyth and Tees submarines should endeavour to intercept it to north of lat. 53° 50' N.

(7) (Summary). Cruiser sweeps are desirable and it is essential that they should be well screened by destroyers, which may necessitate some ships of the Grand Fleet being left behind if the Fleet is required to go to sea while a sweep is in progress.<sup>3</sup>

(8) The C.-in-C. should arrange for sweeps to be carried out northward of Mine Area I by cruisers or light cruisers. The area north of lat. 54° 15' N and west of long. 4° E should also be swept by light cruisers and destroyers from the Grand Fleet, information being first obtained from Rear-Admiral Commanding, East Coast of England, of the movements of the sloops and other minesweeping vessels in the vicinity of the Dogger Bank. The area south of lat. 54° 15' N and west of long. 4° E will be swept by vessels detailed from the Harwich Force or the 4th Destroyer Flotilla and will be arranged for by the Admiralty.

In a letter dated 30th October, H.F. 339/H.F. 0034, the C.-in-C. discussed the tactics contemplated, owing to the altered conditions produced by mines and submarines.

In Admiralty letter M. 03177 of November 7, 1914, Their Lordships approved the C.-in-C.'s views and expressed their full confidence in the measures he proposed. Later experience has shown no reason to modify the approval then expressed.<sup>4</sup>

Admiralty, September 23, 1916.

<sup>1</sup> This was the route on August 19, 1916. Mine Area I was the Dogger Bank area.

<sup>2</sup> Sir Arthur Wilson was averse to the definition of "exceptional circumstances" and suggested "Unless there is definite information of the position of the enemy fleet, and a chance of bringing it to action by daylight, the main fleet should not go inside a radius of 240 miles from the entrance of the Ems, unless they are ordered to do so to cover some special undertaking."

<sup>3</sup> Sir Arthur Wilson was of opinion that cruiser sweeps should only be carried out when there was some definite object to be attained.

<sup>4</sup> Jutland despatches, Appendix IV, p. 601 (which stated that the C.-in-C.'s object would be "to fight the fleet action in the northern portion of the North Sea").

## APPENDIX N.

*Channel Traffic, November 1916 (s. 196).*

For an estimate of the volume of traffic moving in the Channel the following figures are required :—

- (a) Cross Channel traffic to and from France.
- (b) Ocean traffic to and from Downs.
- (c) Ocean traffic from Southampton and western ports.
- (d) Neutral traffic crossing to France from Irish Sea, Bristol Channel and Channel ports. (Note.—Neutral traffic from and to North Sea in (b).)

For (a), Cross Channel traffic to France on Government service, returns were kept by Transport Department, and are available in Board of Trade, Transport and Shipping is included.

For (b) figures can be compiled from the Downs Boarding Flotilla returns (in Trade Division, Naval Staff, June 1927), including all neutrals.

For (c), number of ships on Government service, will be found in returns sent in from each port by Naval Transport Office (Board of Trade, Transport and Shipping).

(d) These figures would have to be sought in the records of the ports, but papers on Falmouth Coal Trade (e.g., M.0370/16, Admiralty, December 30, 1916) enable an estimate to be made.

The following is an approximate estimate.

*Cross Channel Traffic.*—From midnight, October 29/30, to midnight, November 26/27, from United Kingdom to France crossing Channel, 822 transports of 1,585,804 tons. Returns from France to United Kingdom have not been seen but it may be assumed that the same number returned.

*Oceanic Traffic.*—The number of British ocean-going ships passing the Downs, north-going and south-going, on September 1/14, was 177 or, say, 354 for the month. If the average tonnage be taken as 3,000 tons, this makes 1,062,000 tons, up and down Channel, for the month; therefore we have :—

*Estimate of Traffic in Channel.*

United Kingdom to France	.. ..	1,585,804 tons.
France to United Kingdom	.. ..	1,585,804 ..
Ocean traffic	.. ..	1,062,000 ..
		4,233,608 ..

This gives the minimum total of 4,233,608 tons moving in the Channel of which in November 21,483 tons were sunk, a percentage of .47 per cent.

These figures are only approximate and the volume of traffic moving was certainly larger, as neutral cross-Channel traffic is not included in above. No contemporary statistical return of total traffic has been seen and it does not appear that any was made.

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- Destroyer Flotillas (German).*
- 2nd Destroyer Flotilla.* Arrives at Zeebrugge, June, 33: captures the *Brussels*, June, 23, 36: encounters Harwich Force, 23 July, 48: returns to Germany 31 July, 49, 62.
- 3rd Destroyer Flotilla.* (5th and 6th Half Flotillas.) Raids Dover Straits, 26 Oct., 146: ordered to support 9th Flotilla, 1 Nov., 153.
- 9th Destroyer Flotilla.* (17th and 18th Half Flotillas.) Prevents H.5 from picking up survivors of U.51, 14 July, 51: raids Dover Straits, 26 Oct., 146: 3rd Flotilla ordered to support, 1 Nov., 153: raids the Downs, 23 Nov., 180: returns from Zeebrugge to the Bight, 30 Nov., 195.
- 4th Half Flotilla.* (Part of 2nd Flotilla.) Attempts to refloat U.20, 5 Nov., 156.
- 5th Half Flotilla.* (Part of 3rd Flotilla.) Raids Dover Straits, 26 Oct., 146.
- 6th Half Flotilla.* (Part of 3rd Flotilla.) Raids Dover Straits, 26 Oct., 146.
- 17th Half Flotilla.* (Part of 9th Flotilla.) Raids Dover Straits, 26 Oct., 146.
- 18th Half Flotilla.* (Part of 9th Flotilla.) Raids Dover Straits, 26 Oct., 145: 146.
- Devonshire* (cruiser). Sweeps off Stadlandet and on Archangel route, 21-27 June, 30: placed under orders of R.A., 2nd C.S., 9 Aug., 57.
- d'Eyncourt, E. H. Tennyson, C.B.* (Director of Naval Construction). His memorandum on penetration of German shells. 3.
- Dicto* (Nor. s.s.). Captured by U.49, 13 Nov., and recaptured by *Tigress*, 14 Nov., 160.
- Director of Naval Construction.* See under d'Eyncourt.
- Donaldson, Sir F.* Accompanies Lord Kitchener, 5 June, 19.
- Donegal* (cruiser). Ordered to support 10th Cruiser Squadron, 31 May, 28: sweeps for a raider, 9-12 July, 44: joins 9th Cruiser Squadron, Aug., 57.
- Dover Patrol.* Reinforced, 28 Oct., 148: dispositions, 23 Nov., 180.
- Draupner* (Nor. s.s.). Sunk by a submarine, 30 Nov., 192.
- Dresden* (Br. s.s.). Sunk by a submarine, 23 Sept., 114.
- Drever, Corporal, R.G.A.* His reports on *Hampshire's* distress and loss, 5 June, 21.
- Dreyer, Captain Frederic C., C.B.* (Flag Captain, *Iron Duke*), President, Gunnery Committee, 1: considered German delay action fuze superior to ours, 3.
- Dronning Maud* (Nor. s.s.). Mined, 1 Sept., 107.
- Dublin* (l.c.). In operations of 19 Aug., 80, sights submarine, 3.40 p.m., 19 Aug., 88: sweeps down "M" Channel, 21 Nov., 176.
- Ducat, Lieutenant-Commander G.* Commanding *Vindex*, attacks Zeppelin, 2 Aug., 66.
- Duff-Dunbar, Lieutenant-Commander Kenneth K., D.S.O.* Commanding E.16, lost 19 Aug., 95.
- Duke* (Br. s.s.). Sunk by U.B.18, 20 Oct., 139.
- Duke of Albany* (armed boarding steamer). Sunk, by U.B.27, 24 Aug., 71.
- Duke of Clarence* (armed boarding steamer). Attacks U.B.27, 24 Aug., 71.
- Duke of Cornwall* (armed boarding steamer). Attacked by submarine, 13 July, 45.
- Duke of Edinburgh* (cruiser). In operations of 19 Aug., f.n. 79.
- Dunstano* (Br. s.s.). Escapes from a submarine, 6 Sept., 106.
- Dutch Agricultural Association.* A provisional agreement concluded with, 30 June, 35.
- Dutch Patrol.* Started, 28 June, 36: develops into a routine, July, 37: first half of July, 47: British steamers on Hook of Holland route sail in convoy for the first time, 26 July, 49: in Sept., 109: in Nov., 171.

- E.4 (s/m). On anti-Zeppelin patrol off Horn Reefs, July, 52: lost in collision with E.41, 15 Aug., 60.
- E.16 (s/m). Sails for neighbourhood of Heligoland, 18 Aug., 78: fails to return, 19 Aug., 95.
- E.23 (s/m). Attacks *Karlsberg*, 23 June, 37: off Heligoland, July, 52: reports the High Sea Fleet, 19 Aug., 75, 83, 85, 95: in the Bight, 18 Aug., 76, 78: torpedoes a German battleship, 19 Aug., 82: battleship was the *Westfalen*, 86, 95.
- E.26 (s/m). Off Vyl Light Vessel, 1 June, 39: lost, about 3 July, 50.
- E.29 (s/m). Cruises off Vyl Light Vessel, 17 July, 46: in operations of 19 Aug., 78.
- E.30 (s/m). Attacked by *Minotaur*, 2 June, 39: attacks *Prunelle*, 3 July, 39: in operations of, 19 Aug., 78: lost, Nov., 173.
- E.31 (s/m). Off Schouwen Bank, July, 52.
- E.33 (s/m). Off Vyl Light Vessel, 1 June, 39.
- E.37 (s/m). Off Schouwen Bank, July, 52: in operations of, 19 Aug., 78: lost, Nov., 173, 195.
- E.38 (s/m). Sails for neighbourhood of Heligoland, 18 Aug., 78: torpedoes *München*, 19 Oct., 134.
- E.41 (Br. minelaying s/m). Lays mines off Amrum Light, 10 June, 38: lays mines in the Bight, 5 and 22 July, 53: lost in collision with E.4, 15 Aug., 60.
- E.42 (s/m). Cruises off Vyl Light Vessel, 17 July, 46: in operations of 19 Aug., 78.
- E.43 (s/m). Attacked by a raider, 12 Aug., 61: attacks a submarine, 4 Oct., 125.
- E.44. In operations of 19 Aug., 78.
- E.45 (minelaying s/m). Lays mines north east of Heligoland, 24-25 Nov., 182.
- E.53 (s/m). In operations of 19 Aug., 78: in track of High Sea Fleet, 21 Sept., 117, 120.
- E.54 (s/m). On patrol off Terschelling, 29 June-6 July, 50: sinks U.C.10, 21 Aug., 70, 96: patrol off Schouwen Light Vessel, 18-19 Aug., 78: forced down by German destroyers, 23 Sept., 120.
- E.55 (s/m). Attacks German submarine, 2 June, 39: on patrol off Terschelling, 29 June-6 July, 50: attacks German submarine, 29 July, 52: in operations of 19 Aug., 78.
- Earl of Forfar* (Br. s.s.). Destroyed by explosion at Archangel, 8 Nov., 154.
- Edwards, Captain John D., C.B.* Commanding *Falmouth*, torpedoed, 19 Aug., 89.
- Ellershaw, Brigadier-General.* Accompanies Lord Kitchener, 5 June, 18.
- Emlynverne* (Br. s.s.). Sunk by a submarine, 25 Nov., 188.
- Ems* (German s.s.). Sunk by G.4, 19 June, 39.
- Engadine* (seaplane carrier). Sends up a seaplane, 19 Aug., 84.
- Era* (armed tr.). Sunk by submarines, 11 July, 44.
- Errington Court* (Br. s.s.). Chased by U.47, 21 Nov., 185.
- Eskimo* (Br. s.s.). Captured, 26 July, 44, 56.
- Ethel Duncan* (Br. s.s.). Sunk by U.20, 18 Oct., 141.
- Eugenie* (Fr. ketch). Sunk by a submarine, 16 Nov., 185.
- Evening Star* (armed yacht). Leaves Kirkwall to sweep an area west of the Orkneys, 22 June, 27.
- Eysel, Oberleutnant Curst.* Killed in U.57, Oct. 25, f.n. 141.
- Fabian* (Br. s.s.). Engages U.20, 25 Oct., 141.
- Fair Island Channel.* Patrolled by destroyers, 11 July, 44: U.55 operating in, 29 Sept., 124.
- Fair Maid* (paddle sweeper). Mined, 9 Nov., 169.
- Falmouth* (l.c.). In operations of Aug. 19, 80: torpedoed by U.66, 4.52 p.m., 87, 88: attacked by U.63, 20 Aug., and sinks 8.10 a.m., 21 Aug., 89.
- Fane, Flight Sub-Lieutenant G. W. A.* Attacks L.21, 28 Nov. 28, 184.
- Farmatyr* (Dan. s.s.). Mined, 2 Sept., 107.
- Farnborough* (decoy ship Q.5). Encounters U.79, 20 Aug., 73.
- Faulknor* (flotilla leader). Sweep for U.20 and U.30, 3 Nov., 155.



*Faunus* (Swed. s.s.). Mined, 21 Nov., 193.  
*Fenja* (Dan. s.v.). Destroyed by *U.75*, 16 Nov., 165.  
*Finn* (Nor. s.s.). Sunk by a submarine, 19 Nov., 185.  
*Firedrake* (t.b.d.). Attached to 8th Submarine Flotilla, July, 50 : picks up survivors of *E.41*, 15 Aug., 60 : in operations of, 19 Aug., 78, 95.  
*Firth of Forth*. As a fleet base, 16.  
*Fitzgerald, Colonel*. (Lord Kitchener's secretary.) Accompanies Lord Kitchener, 5 June, 18 : his body picked up at sea, 5 June, 22, 23, 27.  
*Fleet Bases*. See under Bases.  
*3rd Fleet Sweeping Flotilla*.—Attacked by a submarine, 20 Aug., 70.  
*Flirt* (t.b.d.). Dover, 26 Oct., 145 : sunk, 26 Oct., 146.  
*Floreal* (Br. f.v.). Sunk by *U.57*, Oct., 141.  
*Florence* (tr.). Blown up by *U.B.18*, 13 July, 56.  
*Flying Kestrel* (tug). Sails for scene of *Hampshire* disaster, 5 June, 21, 22 : searches for *Hampshire* survivors, 5–6 June, 23 : sights derelict boat, 6 June, 27.  
*Framfield* (Br. s.s.). Mined off Sunk L.V., 24 Oct., 144.  
*Francoise d'Amboise* (Fr. s.v.). Sunk by *U.22*, 21 June, 40.  
*Frankfurt* (Ger. l.c.). Reports a submarine, 19 Aug., 86.  
*Fredavore* (Nor. s.s.). Sunk by a submarine, 11 Sept., 106.  
*Freeman, Flight-Lieutenant C. Teverill*. His attack on a Zeppelin, 2 Aug., 66, 67.  
*Freeman, Mr. Arthur*. See under Power.  
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*Fryatt, Captain*. Commanding *Brussels*, captured by the Germans, 23 June, 36.  
*Fulvio* (Nor. s.s.). Sunk by *U.B.18*, 21 Oct., 139.  
*Furu* (Nor. s.s.). Sunk by *U.B.18*, 10 Sept., 106.  
*Fusilier* (armed tr.). Attacks a submarine, 3 Oct., 123.  
*G.1* (s/m). Cruises off Horn Reefs, 17 July, 46.  
*G.3* (s/m). Sights German destroyers, 19 Oct., 134.  
*G.4* (s/m). Sinks *Ems*, 19 June, 39 ; cruises off Horn Reefs, 17 July, 46.  
*G.6* (s/m). In the Kattegat, 8–13 July, 52.  
*G.10* (s/m). Cruises off Norwegian coast, 26 May—2 June, 39 : cruises off Horn Reefs, 17 July, 46 : in operations of 19 Aug., 78.  
*G.12* (s/m). In operations 19 Aug., 78 : encounters a destroyer, 28 Sept., 120.  
*Gabion* (Fr. t.b.d.). Saves *Alice A. Leigh*, 2 Oct., 123.  
*Gabriel* (flotilla leader). Joins 13th Flotilla, 3 June, 15 : patrols in Fair Island Channel, 11 July, 44.  
*Galatea* (l.c.). Reports sighting a torpedo, 12 July, 44 : engages a Zeppelin, 19 Aug., 81.  
*Gamen* (Swed. s.s.). Sunk by a submarine, 8 Sept., 106.  
*Gavina* (armed tr.). Fires on submarine on 10 Nov., 162 : on 28 Nov., 190.  
*Genista* (sloop). Sunk by *U.57*, 23 Oct., 141.  
*Gladiolus* (sloop). In 10th Sloop Flotilla, July, 42.  
*Glenprosen* (tr. minesweeper). Mined, 3 Nov., 169.  
*Goissa* (armed yacht). Attacked by *U.B.22*, 12 Sept., 110.  
*Golconda* (Br. s.s.). Mined, 3 June, f.n. 40.  
*Gough-Calthorpe, Rear-Admiral the Hon. Sir Somerset A., K.C.B., C.V.O* (Acting Vice-Admiral). Appointed 2nd Sea Lord, May, 14.  
*Grace* (Br. s.v.). Sunk by a submarine, 29 Nov., 191.  
*Grand Fleet*, see under Jellicoe and Beatty. The defence of, against torpedo attack, dated 17 Oct., 4 : function of 5th Battle Squadron relative to discussed, June, 5 : 5th Battle Squadron fast wing division of, 6 : B.C.F. not to engage a superior force without support of, June, 7 : reorganised, June, 14 : destroyer flotillas of, May and July, 15 : its strength, Aug., 15 : its responsibility for Archangel route, 17 : light cruiser sweeps, June, 30 : H.M. the King's visit to, June 14, 32 : retains mastery of the sea, after Jutland, 41 : carries out an exercise cruise, 17 July, 46 : 13th and 14th Submarine Flotillas to form part of,

54 : in operations of 19 Aug., 77, turns north, 7 a.m. 19 Aug., 81 : turns south 9.0 a.m. 19 Aug., 82 : turns north 3.57 p.m. 19 Aug., 90 : strategy of, Sept., 99, 102 : memoranda on Harwich Force co-operation with, 101 : does not sail, 25 Sept., 117 : 19 Oct., 133, 135 : exercise cruise, 22 to 24 Nov., 178 : Admiral Beatty accepts command of, 22 Nov., 179 : change in command of, 28 Nov., 194.  
*Grenada* (Br. s.v.). Sunk by a submarine, 22 Nov., 196.  
*Grenfell, Commander F. H.* Commanding *Q.7*, attacks a submarine, 29 Nov., 191 : sinks *U.B.19*, 30 Nov., 192.  
*Grosser Kurfürst* (Ger. battleship). At Hamburg, June, 41 : reinforces 1st Scouting Group, 19 Aug., 75 : torpedoed, 5 Nov., 156, by *J.1*, 157.  
*Grozovoi* (Russ. t.b.d.). Hits *U.56*, 2 Nov., 154.  
*Gunner* (decoy tr.). Attacks a submarine, 20 Aug., 70.  
*H.5* (s/m). Sinks *U.51*, 14 July, 51 : in the Bight, 18–19 Aug., 76, 78.  
*H.7* (s/m). In operations of 19 Aug., 78.  
*H.9* (s/m). In the Bight, 18–19 Aug., 76, 78.  
*H.10* (s/m). On patrol off Terschelling, June, 37 : July, 50 : in operations of 19 Aug., 78.  
*Haag, Lieutenant George*. Commanding *U.C.7*, lost, 6 July, 56.  
*Halsey, Captain Lionel, C.B., C.M.G.* (Commodore, 1st Class). Appointed 4th Sea Lord, 28 Nov., 194.  
*Hampshire* (cruiser). Transferred from 7th to 2nd Cruiser Squadron, 30 May, and then to 3rd Cruiser Squadron, 5 June, 14 : selected to carry Lord Kitchener's mission to Russia, 28 May, 18 : her orders, 4 June, 19 : sinks off Marwick Head, 5 June, 20 : her loss reported, 5 June, 21 : rafts, one (small) at Nebbi Geo : one (large) at entrance to Skail Bay, one (small) at Skail Bay south side, 22 : vessels sent out to her assistance, 5 and 6 June, 23 : her loss reported to the Admiralty, 6 June, 24 : rumours regarding loss of, refuted, 27.  
*Harald* (Nor. s.s.). Sunk by a submarine, 30 Nov., 192.  
*Harris, Lieut.-Colonel Gerald Noel, R.M.A.* (Officer Commanding Troops, Kirkwall). Organises search on land for *Hampshire* survivors, 5–6 June, 22.  
*Harwich Force*. June, 1916, 33 : first half of July, 47 : in operations of 19 Aug., 78 : 3 p.m. to 7 p.m. 19 Aug., 92 : its function, Sept., 100 : memoranda, re co-operation with Grand Fleet, 101 : sails 19 Oct., 133, 135, 136 : supports air reconnaissance, 22 Oct., 137 : sails, 23 Oct., 138 : recaptures *Oldambt*, 2 Nov., 153 : sails, 30 Nov., 195.  
*Hatsuse* (Br. tr.). Sunk by *U.50*, 14 Nov., 175.  
*Heathdene* (Br. s.s.). Sunk by a submarine, 7 Sept., 106.  
*Hebe* (Danish s.s.). Sunk by a submarine, 22 Oct., f.n. 140.  
*Helgoland* (Ger. battleship). In dock, June, 41.  
*Helgoland* (decoy ship). Encounters a submarine, 7 Sept., 106.  
*Herbert, Lieutenant-Commander Godfrey, D.S.O.* Commanding *Q.4*, encounters a submarine, 9 Sept., 106.  
*Highlander* (armed tr.). Rescues crew of *Alaunia*, 19 Oct., 144.  
*High Sea Fleet*. Submarines, June, 40 : June a month of repair for, 41 : proceeds out to Horn Reefs, 16 July, 46 : proceeds to sea, 18 Aug., 76 : reported by *E.23*, 19 Aug., 83 : its movements 19 Aug., 86 : 25 Sept., 117 : sortie, 19 Oct., 132.  
*Hind* (t.b.d.). In operations of 19 Aug., with submarines, 78.  
*Hipper, Vice-Admiral*. Decorated, 5 June, 41 : goes out to rescue *U.20*, 4 Nov., 156.  
*Hivos* (minesweeping tr.). Mined, 29 June, 40.  
*Hogg, Lieutenant P. J., R.N.R.* Commanding *Offa II*, awarded *D.S.C.*, 29 Nov., 191.  
*Holkar* (armed smack). Engages a submarine, 28 Sept., 116.  
*Hollyhock* (sloop). Sweeps along north coast of Scotland, 5 June, f.n. 19.  
*Huguenot* (Br. s.s.). Mined off Sunk L.V., 20 Oct., 144.  
*Hydrophone*, see under Salmon.  
*Idaho* (Br. s.s.). Saved from *U.49*, 14 Nov., 160.

*India* (armed merchant cruiser). Torpedoed by *U.22* off West Fjord, 8 Aug., 1915, 29.

*Intail* (Br. s.s.). Defensively armed, engages a submarine, 17 Nov., 185.

*Invincible* (battle cruiser). Wreck of, sighted by *U.75*, 1 June, 26.

*lolaire* (armed yacht). Chases *U.22*, 16 June, 40.

*Ionie* (Fr. s.s.). Engages *U.57*, 24 Oct., 141.

*Irma* (Fr. s.v.). Sunk by a submarine, 30 Sept., 123.

*Iron Duke* (battleship). Alterations in, recommended after Jutland, 2: intercepts signal *re* raiders, 31 May, 28: attacked, probably by *U.B. 27*, 18 Aug., 79: in operations of 19 Aug., 81, 84: conferences on board, 13 Sept., 102, 121: 12 Oct., 131: strikes the flag of Admiral Jellicoe, 28 Nov., 194.

*Isle of Hastings* (Br. s.s.). Sunk by a submarine, 5 Oct., 123.

*Ionian* (armed tr.). Attacks *L.17* and *L.23* off Whitby, 8 Aug., 68.

*Ivanhoe* (Nor. s.s.). Sunk by *U.56*, 2 Nov., 154.

*Izaston* (Br. s.s.). Defensively armed, drives off a submarine, 24 Oct., 139.

*J.1* (s/m). Cruises off Horn Reefs, 17 July, 46: in operations of 19 Aug., 78: torpedoes *Grosser Kurfürst* and *Kronprinz*, 5 Nov., 157.

*J.3* (s/m). In operations of 19 Aug., 78.

*J.5* (s/m). In operations of 19 Aug., 78.

*J.6* (s/m). In operations of 19 Aug., 78.

*Jackson*, Admiral Sir Henry B., K.C.B., K.C.V.O., F.R.S. (1st Sea Lord). On dividing the Grand Fleet, 11, 12: at conference to discuss anti-submarine measures, 3 Nov., 152: at War Office Conference, 23 Nov., 181.

*Jason II* (yacht). Sails for scene of *Hampshire* disaster, 5 June, 21: searches for *Hampshire* survivors, 5-6 June, 23: sights a whaler, 5 June, 27.

*Jeanne* (Danish s.s.). Saved from a submarine by *Vera Grace*, 5 Sept., 106.

*Jellicoe*, Admiral Sir John Rushworth, G.C.B., O.M., G.C.V.O. (C.-in-C. Grand Fleet). Recommends further deck protection for *Repulse* and *Renown*, 3: at Admiralty Conference in June, 5: to suggest areas for mining, June 6: his view on post-Jutland strategy, 9: doubts whether 5th Battle Squadron could materially support battle cruisers in an offensive operation, 11: suggests possibility of basing Grand Fleet on Rosyth, 11: wishes 5th Battle Squadron to remain with the battlefleet, 13: his suggestions for reorganisation of battle squadrons approved, 21 May, 14: selects *Hampshire* for Lord Kitchener's mission, 28 May, 18: suggests postponing sailing of *Hampshire*, 5 June, 19: learns of sinking of *Hampshire*, 5 June, 21, 23: reports *Hampshire* disaster to Admiralty, 6 June, 24: his dispositions to intercept raiders, 1-12 June, 28: instructed to observe four-mile Norwegian territorial limit in practice, 30 July, 1915, 29: asks permission to search vessels in Norwegian territorial waters, Dec., 1915, 30: instructions to, *re* Dutch fishing vessels, 31: entertains the King, 14 June, 1916, 32: Blyth submarines under the orders of, June, 39, Aug., 55: instructed to observe three-mile Norwegian territorial limit, Sept., 39: his dispositions to intercept a raider, 8-12 July, 44: exercises the Grand Fleet, 17 July, 46: asks for *Sydney* and *Melbourne*, 25 July, 27: abolishes submarine patrols in Kattegat, Aug., 61: on leave, 18 Aug., 77: operations of 19 Aug., 81, 82: orders preparations for immediate action, 19 Aug., 84: his information of German movements, 19 Aug., 94: requires more destroyers after 19 Aug., 98: on Grand Fleet strategy, Sept., 99: confers with 3rd Sea Lord on board *Iron Duke*, 12 Oct., 131: German sortie, 19 Oct., 135: plans for intercepting raiders, 26 Oct., 149: question of Norway, 150: on merchant shipping and submarine warfare, 29 Oct., 151: at conference of the War Committee, 2 Nov., 152: at conference to discuss anti-submarine measures, 3 Nov., 152: sends *Caroline* to Lerwick to watch for *Brandenburg*, Nov., 172: postpones Fleet exercises on account of weather, 16 Nov., 174: takes the Grand Fleet to sea for the last time,

22 to 24 Nov., 178: accepts post of First Sea Lord, 22 Nov., 179: relieved by Admiral Beatty, 28 Nov., 194: asks for suggestions for dealing with enemy submarine menace, 9 Nov., 197: becomes 1st Sea Lord, 4 Dec., 200.

*Jerran*, Vice-Admiral Sir Thomas H. M., K.C.B., K.C.M.G. Commanding 2nd B.S., relieved by Admiral de Robeck, 28 Nov., 194.

*Jessie Nutten* (armed tr.). Mined, 4 Sept., 107.

*Jessop*, Lieutenant-Commander John de B. Commanding *E.38*, torpedoed *München*, 19 Oct., 134.

*Joachim Brinch Lund* (Nor. s.s.). Sunk by a submarine, 16 Nov., 185.

*Johan Siem* (Danish s.s.). Saved from a submarine by *T.B.5*, 3 Sept., 106.

*Johan V.L.2* (Dutch fishing vessel). Taken into Lerwick, 25 June, 30.

*John High* (armed tr.). Sunk by mine, 11 Aug., 73.

*John Lambert* (Fr. s.s.). Sunk by a submarine, 23 Nov., 186.

*Julia* (Fr. s.v.). Sunk by a submarine, 22 Oct., f.n. 140.

*Kaiser, H.I.M., the*. Visits High Sea Fleet, 5 June, 41: his view on the attack on German 3rd Squadron on 5 Nov., 158.

*Kaphreda* (armed tr.). Mined, 8 June, 40.

*Kandy* (Br. s.s.). Defensively armed, engages a submarine, on 23 Oct., 141: on 29 Nov., 191.

*Karlsberg* (Ger. outpost boat). Attacked by *E.23*, 23 June, 37.

*Kelvinia* (Br. s.s.). Sunk by mine in Carmarthen Bay, 2 Sept., 73.

*Kemp*, Captain Thomas Webster, C.I.E. (Commodore, 2nd class). British Senior Naval Officer at Archangel, June, 17.

*Kentish Knock* (armed tr.). Engages a submarine, Nov., 170.

*Killellan* (Br. s.s.). Sunk by a submarine, 8 Nov., 162.

*King George V.* (battleship). Visited by H.M. the King, 14 June, 32: in operations of 19 Aug., 79.

*King, H.M. the*. Visits the Fleet, 14 June, 32.

*King Orry* (armed boarding steamer). Ordered to support 10th Cruiser Squadron, 31 May, 28: captures *Britannic*, 17 Aug., 58.

*Kitchener of Khartoum*. Field Marshall Earl (Secretary of State for War). His mission to Russia; June, 17: at Scapa, 5 June, 18: sails in *Hampshire*, 5 June, 19: not seen again after *Hampshire* sinks, 5 June, 20, 22, 27: his death reported to the Admiralty, 6 June, 24: rumours regarding his death contradicted, 27.

*Kjell* (Nor. guard boat). Saves *Prunelle* from *E.30*, 3 July, 39.

*Kogrund Channel*. Mining of, 28 July, 59.

*König* (Ger. battleship). Speed compared with *Barham's*, 9: at Kiel, June, 41.

*Königen Wilhelmina* (Dutch s.s.). Mined, 31 July, f.n. 74.

*Königen Regentes* (Dutch s.s.). Taken into Zeebrugge, 10 Nov., 171.

*Kronprinz* (Ger. battleship). Torpedoed, 5 Nov., 156: by *J.1* (Commander N. F. Laurence), 157.

*Kupava* (Russ. auxiliary). Encounter *U.56*, 2 Nov., 154.

*L.9* (Ger. airship). Attacks *E.23*, 25 June, 37.

*L.11* (Ger. airship). In air raids, 28-29 July, 64: 31 July, 65: 2 Aug., 66: in operations of 19 Aug., 75.

*L.13* (Ger. airship). In air raids, 28-29 July, 64: 31 July, 65: 2 Aug., 66: 24 Aug., 69: in operations of 19 Aug., 75: reports Harwich Force, 19 Aug., 83: sends important signal, 12.23 p.m., 19 Aug., 87, 93: in air raid, 3 Sept., 105.

*L.14* (Ger. airship). In air raids, 31 July, 65: 8 Aug., 68: 24 Aug., 69.

*L.16* (Ger. airship). In air raids, 28-29 July, 64: 31 July, 65: 2 Aug., 66: 8 Aug., 68: 24 Aug., 69.

*L.17* (Ger. airship). In air raids, 28-29 July, 64: 31 July, 65: 2 Aug., 66: damaged, 2 Aug., 67: attacked off Whitby by *Ionian*, 8 Aug., 68: in air raid, 24 Aug., f.n. 69.

*L.21* (Ger. airship). In air raids, 31 July, 65: 2 Aug., 66: 24 Aug., 69: in operations of 19 Aug., 75: in air raids, 3 Sept., 105: 25 Sept., 118: 1 Oct., 122: destroyed off Yarmouth, 28 Nov., 184.

- L.22 (Ger. airship). In air raids, 31 July, 65 : 24 Aug., f.n. 69 : in operations of 19 Aug., 75 : in air raid, 25 Sept., 118.
- L.23 (Ger. airship). In air raids, 31 July, 65 : attacked off Whitby by *Itonian*, 8 Aug., 68 : in air raid, 24 Aug., f.n. 69.
- L.24 (Ger. airship). In air raids, 28-29 July, 64 : 8 Aug., 68 : 24 Aug., 69 : in operations of 19 Aug., 75 : in air raids, 1 Oct., 122 : 27-28 Nov., 184.
- L.30 (Ger. airship). In air raids, 31 July, 65 : damaged, 2 Aug., 67 : in operations of 19 Aug., 75.
- L.31 (Ger. airship). In air raids, 28-29 July, 64 : 31 July, 65 : 2 Aug., 66, 67 : attacks London, 24 Aug., 69 : in operations of 19 Aug., 75 : reports that the British Fleet had turned north, 4.10 p.m., 19 Aug., 93 : attacks London, 23 Sept., 113 : over Portsmouth, 26 Sept., 118 : shot down over Potters Bar, 1 Oct., 122.
- L.32 (Ger. airship). In air raid, 24 Aug., 69 : in operations of 19 Aug., 75 : in air raid, 3 Sept., 105 : destroyed, 23 Sept., 113.
- L.33 (Ger. airship). Lands in Essex, 24 Sept., 113.
- L.34 (Ger. airship). Destroyed off Hartlepool, 28 Nov., 184.
- L.35 (Ger. airship). In air raid, 27-28 Nov., 184.
- L.36 (Ger. airship). In air raid, 27-28 Nov., 184.
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