

That night, January 31, at 11 p.m., 70 miles further north, *U.43* captured in 46° 50' N., 9° 12' W.,¹ with the intention of taking her home, the Italian S.S. *Famiglia*, 1,799 tons, proceeding from Newcastle to Citta Vecchia. Nothing is known as to the route prescribed for her. She seems to have been in 9° 12' W., though the route in force for British ships proceeding to the Mediterranean instructed them to proceed to 10° W.²

U.43 went on towards home and her next appearance was off the S.W. of Ireland. She sank in January six ships of 10,588 tons.

93. "U.57," South-West Approach, January 9–February 7.—

U.57, Lieutenant-Commander Georg, left the Bight on January 9 and going north-about was off the north-west of Ireland on January 16. There, at 12.15 p.m., 25 miles from Eagle Island, in 54° 26' N., 10° 44' W., he stopped the Norwegian S.S. *Salamanca*, 1,713 tons, from Newcastle to Teneriffe, and let her go on. The next day she had reached the Skelligs and at 1.40 p.m. January 17, in 51° 52' N., 11° 22' W., met the Queenstown sloop, *Myosotis* and *Snowdrop*, escorting S.S. *Castalia*, 6,396 tons. The first thing seen by the *Myosotis* was the track of a torpedo on the port quarter. The helm was put hard-aport and it ran harmlessly past 20 yards from the ship's side. The conning-tower of the submarine appeared in sight astern but, on being received with a couple of shots from the after 4·7-in. disappeared, and the *Myosotis* took the *Castalia* on in safety till 7.15 p.m.³

U.57 turned eastward and on January 18, at 8.50 a.m., in 51° 36' N., 10° 56' W., met the British S.S. *Manchester Inventor*, 4,247 tons, homeward bound from Halifax to Manchester. The ship was unarmed, had no wireless, and no patrols were in sight. Two shells hit the ship and she was abandoned at 9.20 a.m.

The boats had barely left the ship when the sloop *Iris*, patrolling six miles to the south-westward, sighted her blowing off steam, and made for her at full speed. At 9.35 a.m. she sighted the submarine which was starting to submerge, and opened fire at 8,000 yards. *U.57* went down, sending a torpedo into the abandoned ship, which sank an hour later.⁴ *U.57* showed her conning tower again about 10 a.m. but was again driven down by gunfire from the *Iris* and went off to the southward. On January 19 at 8.10 a.m., in 50° 30' N., 10° 45' W., she met the British S.S. *Deseado*, 11,477 tons, going from Buenos Aires to Liverpool. The ship was steering N. 56° E., 10 knots,

¹ From I.D. chart, but position is doubtful. E.1. chart (No. 74) gives it in 50° 20' N., 11° 23' W., which is almost certainly wrong. Engineer Officer, *Famiglia*, gives it 16 miles west of Cape Villano (*i.e.*, in 43° 8' N. 9° 30' W. (H.S.A. 109/11). E.1 chart, Atlantic, gives it 46° 50' N. 9° 12' W.

² Telegram, January 26 1917, 0515; Route No. 22. For story of capture of *Famiglia*, see February.

³ Report, Lieutenant-Commander H. Coates. H.S. 533/70.

⁴ *Iris* report. H.S. 533/72.

when she sighted a submarine on the surface a couple of miles ahead. She at once turned to bring it astern, sent out an S.O.S., and opened fire with her 6-in. gun. The submarine went down and the *Deseado* got away. *U.57* went on to the southward and was cruising on January 20 between 48° N. and 49° N., and between 10° and 11° W.¹ On January 22 she committed one of those inhuman attacks which did so much to sully the good name of the German Navy. At 8.30 a.m., in 48° N., 12° 57' W., she met the Belgian relief S.S. *Euphrates*, 2,089 tons, proceeding from Rotterdam to Sandy Hook; the ship was in ballast, flying the Belgian ensign, and at the foremast was the flag of the Relief Commission and its distinctive ball.² The weather was clear and it is not possible to believe that these conspicuous marks were not distinctly seen.

In reckless disregard of them, *U.57* sent a torpedo into her and she went down in four minutes with the loss of the master and almost the whole crew. There remained one solitary survivor, who managed to cling to a hatch for some hours till picked up by one of the *Trevean's* boats.³ There is, however, a word to be said on the German side. The Germans had stated that they were prepared to issue safe conducts to Belgian Relief Ships, but insisted on the condition that they were not to call at any British port. The Admiralty was not prepared to accept this condition, and the Belgian Relief Ships had not been granted full immunity and suffered accordingly.⁴

U.57 then, January 22 at 9.15 a.m., in 48° N., 13° W., chased the British S.S. *Trevean*, 1,989 tons, which was some three miles off, going from Algeria to the Tyne with iron ore and, after sinking her with bombs at 1 p.m., proceeded to the Portuguese s.v. *Minho*, 200 tons, and set her on fire.⁵

A British S.S., *Bendoran*, 4,074 tons, outward bound to Hong Kong by the Cape, was next seen coming south; at 3.40 p.m., in 48° 10' N., 12° 40' W., *U.57* opened fire on her. She sent out an S.O.S. which the destroyer *Lyra*,⁶ some 30 miles north of her, took in at 5.25 p.m. The *Lyra* made for her at full speed and, coming up about 7 p.m., drove the submarine down; unfortunately, as she ran past in the dusk, the *Bendoran*, which was armed with a 12-pdr. gun,

¹ Intercept 20/0330, War Diary, January, 1917.

² Flag, white square, with Belgian Relief Commission in red letters. Ball, red and white stripes vertical.

³ The sinking of the *Euphrates* is not mentioned in any German report, but it is quite clear that it was the same submarine that sunk the *Trevean* and *Minho*. *Trevean's* report, M.61967/17.

⁴ See Admiralty letter, February 15 1917, M.01673/17, in Foreign Office, February 7 1917.

⁵ The Belgian S.S. *Egypte*, Bordeaux to Barry, which was also sunk without trace, was also thought to have been sunk in this area at this time. She was actually sunk by *U.C.17* on January 23. (Plan 16.)

⁶ Devonport, 2nd Flotilla, returning with the destroyer *Archer* from escorting transports to 49° N., 14° W.

opened fire on her by mistake and badly wounded an officer.¹ *U.57* went off to the westward and on January 23 at 8.40 a.m., in 48° 36' N., 13° 11' W., met the Italian S.S. *Bisagno*, 2,252 tons, going from Gibraltar to Barrow with ore. A prize crew was placed on board, but a gale rose on January 24, which blew heavily on January 25, smashing her boat and damaging her steering gear. Her condition was such that on January 26, at 5 a.m., the crew was transferred with difficulty to the Dutch S.S. *Gaasterland*, and she was sunk at 11.12 a.m., in 51° 20' N., 11° 40' W. *U.57* had no further fortune and, on January 31, at 11 p.m., was on her way home, which she reached on February 7. She had sunk 10,777 tons: four steamers and one sailing vessel.

94. "U.45," January 14-February 12, Ireland, S.W.—*U.45*, Lieutenant-Commander Sittenfeld, left for the Fastnet area on January 14. On January 21 at 8 a.m., off Ireland N.W., in 55° 51' N., 8° 21' W., she sank three British trawlers with gunfire.

On January 22, at 4 p.m., in 55° 28' N., 8° 33' W., she stopped the Dutch S.S. *Gaasterland*, which had been boarded that morning by H.M.S. *Otway* and was on the way to Lough Swilly with an armed guard. The midshipman of the guard, Mr. Prest, R.N.R., was taken prisoner, the guard put back on board and after a long and heated argument the ship was allowed to proceed to Falmouth. Three days elapsed before another ship was met. This was the British S.S. *Clumberhall*, 3,599 tons, from Benisaf to Middlesbrough with ore, equipped with a 15-pdr. gun but not with wireless. On January 25 at 1.35 p.m., in 51° 49' N., 11° 52' W., she was zig-zagging at 7½ knots in an easterly course when a submarine broke surface suddenly on the starboard quarter half a cable off. *U.45* seems to have received as big a surprise as the ship, for she dived at once before the gun could open fire and was not seen again. She went off to the southward and the next day, January 26, at 8.15 a.m., in 51° 50' N., 12° W., stopped the British S.S. *Tabasco*, 2,987 tons, on a voyage from Halifax to Liverpool. She had no gun, no wireless, and no patrols were visible, but another steamer hove in sight and *U.45* torpedoed the *Tabasco* and went off in pursuit. The second ship was the British S.S. *Liddesdale*, 4,403 tons, bound for London; she was equipped with wireless and a 12-pdr. gun, and a chase ensued. At 11.29 a.m., January 26, the *Liddesdale* was somewhere about 51° 36' N., 12° 30' W., and was on the point of abandoning ship when the sloop *Camellia* came in sight, drove the submarine down and escorted the ship in.²

Nothing more is known of *U.45* till January 31, when at 4 p.m., in 51° 8' N., 11° 5' W., she stopped a tanker, the U.S.A. S.S. *Westwego*, and took some barrels of lubricating oil out of her. *U.45*, having

¹ H.S. 352/105.

² H.S. 353/122, 309, 462.

sunk 2,987 tons in January, continued to cruise during the first week of February in the Fastnet approach in about 51° N., 12° W., and sank six more ships.¹ She was back on February 12.

95. "U.53" January 20 to February 10 1917, Channel and Bay.—*U.53*, Lieutenant-Commander Hans Rose, which in September 1916 had performed the famous trip to America, left the Bight on January 20 by the Channel to operate off Ushant and in the Bay. On January 22 at 2 p.m., in 48° 50' N., 5° 22' W., he seems to have been attacked by a French torpedo boat,² and that night at 11.15 p.m., in 49° 43' N., 5° 37' W., between the Lizard and Ushant, met the Dutch S.S. *Zeta*, 3,053 tons. She was going from New York to Amsterdam when, at 11.15 p.m., she was suddenly torpedoed without warning. Her name and colours were painted hugely on her side and about midnight the submarine rose and flared a searchlight on them. A trawler came up and made an effort to tow the ship to Falmouth, but she made little headway; at 8 a.m. a French torpedo boat came up and promised to signal for a tug,³ but the ship sank half an hour later.

U.53 went off to the westward and at 5.20 a.m., January 23, in 49° 23' N., 6° 24' W., sent a torpedo into the Dutch S.S. *Salland*, 3,657 tons, going from Cardiff to Dakar. This was possibly the ship she was looking for and the master complained that the coal heavers in Cardiff seemed to be aware of her destination.⁴ The *Salland*, contrary to advice, was carrying dimmed lights, and at Cardiff had been told to steer, from the Longships, S.W. (mag.) till 5 p.m., and then S.W. (true) though the route in force at the time for British and Allied unarmed ships to the South Atlantic was along the South of Ireland.⁵ The ship sank in eight minutes, but the *Hope*, a Devonport destroyer evidently patrolling in the vicinity, sighted the signals of distress and coming up within 20 minutes picked the crew up.

U.53 was next heard of in the Bay where, on January 28 at 5.30 p.m., in 47° 30' N., 5° 20' W., she sank with bombs and gunfire the Spanish S.S. *Nueva Montana*, 2,039 tons, going from Santander to the Tyne. The submarine took the crew on board, towed the boats towards land and left them. The next day, January 29 at 7 p.m., in 47° 56' N., 5° 35' W., she met another Spanish ore ship the *Algorta*, 2,117 tons, from Bilbao to Stockton, and sank her with bombs. It was snowing and a heavy sea⁶ was running with a strong

¹ One report says she sank eight steamships and two sailing vessels. Birch and Clarke, 2/207.

² Etudes et Mouvements, February 1917, p. 42, the *Gabion*.

³ M.61067/17.

⁴ M.0965/17.

⁵ Route 31, "routes in force," January 19, 2105. H.S. 350/933. She would probably have got clear out, had she been following it.

⁶ "Mer dure."

east wind. The submarine towed the boats towards land a little way, then left them. They were not picked up till the 31st after two men had died of cold.¹

U.53 went back to mid-Channel again and on January 31 at 2.30 p.m., in 49° 11' N., 6° 20' W., met the Norwegian S.S. *Hekla*, 524 tons, with pitprops from Oporto to Cardiff and set her on fire. The British S.S. *Foyle*, 4,702 tons, was coming up Channel from Portland, Maine, bound for London and *U.53* at 3.20 p.m.² tried to cut her off, but the *Foyle* was armed with a 4.7-in. gun, and though she had no wireless, turned at once to south to bring the submarine astern. She returned the German fire vigorously and after being hit twice, escaped.

U.53 continued to cruise between Scillies-Ushant and was back on February 10. During January she sank five steamers of 11,395 tons. (See S.143.)

96. "U.55," January 20-February 11, Channel Approach.—

U.55, Lieutenant-Commander W. Werner, left the Bight on January 20 and proceeded by the Channel to a cruising area in the approach of the Channel and on the route down the Cornish coast. She gave her position³ away off Terschelling on January 20 and must have passed Dover in the night of January 21.

On January 22 at 8.30 a.m. she was halfway down the Channel when in 50° 3' N., 2° 18' W., between Cherbourg and Portland she sank with bombs the small French s.v. *Anna*, 154 tons, with a load of macadam from Sables, Bay of Biscay, to Treport. At 3 p.m. off the Start she sank the British fishing smack *Ethel*. She had evidently been told to reconnoitre the Fastnets area, for on her return she reported that traffic from the west seemed to be making the Fastnet and that rendezvous W. and Y.⁴ were apparently not being used; that auxiliary cruisers were rendezvousing in 51° N., 12° W., and that large grain steamers were making the Longships along 150°. She then made towards the Bristol Channel and on January 27 at 8 a.m., in 51° 20' N., 7° W., met the British S.S. *Artist*, 3,570 tons, from Newport, Mon., to Alexandria, with a cargo of coal and railway waggons. A heavy easterly sea was running and the ship was lying hove to, when she was suddenly torpedoed. She had just time to send a signal for help which was taken in by Land's End. Only one boat was able to keep afloat and in it seven men died and five were badly frost-bitten. Out of a crew of 45, 35 and the Master

¹ I.D. Vol. 630, Home Waters Ships Attacked.

² 49° 27' N., 6° 24' W. in *Foyle's* report. I.D. Vol. 630.

³ 20/2030, 53° 27' N., 4° 45' E.

⁴ The Germans had located rendezvous Y in 51° 30' N., 14° W.; they thought at that time that rendezvous W was off the Scillies. See C.B. 01370, Submarine reports, p. 17, 60.

were lost.¹ It was neither *U.55*, nor *U.45*, who sank the British S.S. *Ava*, 5,076 tons, which sailed from Liverpool for Rangoon on January 26 and was never heard of again. Her route would pass along the South coast of Ireland where *U.55* was operating, but she was possibly torpedoed in the Mediterranean. The whole crew of 92 were lost. *U.55* turned up next off the Cornwall coast where on January 30, between 10 a.m. and noon in about 50° 50' N., 5° 15' W., she sank one Belgian and six British fishing vessels. In the case of one of them, the *Trevone*, two men were drowned while getting aboard the submarine without any apparent effort being made to save their lives. The others were put aboard the boats of the French s.v. *Saint Leon*, 325 tons, which was stopped at 9 a.m. the next day, January 31, in 50° 21' N., 5° 48' W., and sunk by gunfire. Another victim of *U.55* was the British S.S. *Lux*, 2,621 tons, on a voyage from New York to Calais, which was probably sunk without warning in the same vicinity. The whole crew of 28 were lost and not a trace of her was seen again except two bodies picked up on February 8 on the South coast of Ireland.² She remains a name on the list of "spurlos versenkt." A few hours later, January 31, *U.55* found another victim in the British S.S. *Dundee*, 2,290 tons, from London to Swansea. She, too, was torpedoed without warning at 1.55 p.m. The armed trawler *Sardius* was in sight and, after opening fire on the periscope, picked up the *Dundee's* boat. The airship *C.2* took in a signal reporting it and went off in pursuit. At 1600, seven miles west of St. Ives, she saw an oil track and dropped a bomb on it without effect.³ H.M.S. *Orford* and *Christopher* were also sent in pursuit, but their search was in vain. *U.55* continued operating on the Cornish coast and off the South of Ireland and was back on February 11. During January she sank two steamers and two sailing vessels of 6,339 tons, and six fishing vessels. (See S.142.)

97. "U.67," January 23-February 26, Bay.—*U.67*, Lieutenant-Commander Nieland, left the Bight on January 23 and proceeded by the Channel to the Finisterre area to relieve *U.43*. She arrived there on January 28 and at 3 p.m., in 42° 40' N., 9° 50' W., 30 miles from Cape Finisterre, met the Danish S.S. *Daisy*, 1,209 tons, and sank her with bombs and a torpedo. The next day at 8 a.m., in about 44° 12' N., 7° 54' W., she met the Spanish S.S. *Punta Teno*, 1,042 tons, from Teneriffe to Bordeaux, with 7,000 cases of bananas, and sent her, too, to the bottom. This was in the Bay, and there she remained during the early part of February, specially intent on stopping the iron ore trade from Bilbao.⁴ In January she sank two steamships of 2,251 tons. (See S.144.)

¹ M. 61835/17.

² M. 63603/17.

³ M. 01313/17.

⁴ C.B. 01370, November 1917, p. 18, *U.67's* report.

98. **Western Approach, Summary.**—The results of the above cruises may be summarised as follows. The Fastnet area¹ came strongly into prominence in the last part of the month, but up to January 17 not a single submarine was working in it, and only four passed through on passage. On January 17, *U.57* arrived in the area and was working there and in the Scillies Approach till the end of the month. On January 19, *U.57* was there when *U.48* and *U.43* were passing, the former homeward, the latter outward-bound. This was the period of greatest activity in the area, and between the 18th and 20th four ships² were sunk in the vicinity of Skelligs.

Briefly, in the Fastnet and Scillies area, some seven submarines passed in passage and four³ were cruising during the month. The total tonnage sunk by Bight boats in the Westward Approach was 141,717 tons.

The principal figures for the following areas were approximately:—

	<i>Fastnet Approach,</i> (50° N. to 52° N.)	<i>Scillies,</i> (48° N. to 50° N.)	<i>Bay.</i>	<i>Spain.</i>
Submarine days ..	24 ⁴	24	29	31
Ships sunk ..	7	9	17	24
Tonnage	21,822	18,894	41,930	50,017
Tonnage sunk per submarine day ..	910	780	1,470	1,600
Ships attacked that escaped	5	2	1	2

It will be seen that the results per submarine day were much higher in the Bay and Coast of Spain where there were no patrols, where the area was occupied more or less continuously, and where British routeing was more difficult to control. It was here that the Germans made their main effort in January.

The Irish South coast route was left almost in peace. It was visited by only two submarines, *U.84* on January 19 and *U.55* on January 26, which remained there only a day or two, and by the Flanders submarine *U.B. 38* which was only there for a day or two, on January 19.

The route by Ireland, North, enjoyed the same immunity and was attacked only by a minelayer.⁵

¹ By Fastnet area is here meant from 50° (Latitude of Scillies) to 52° N. and from 7° W. (limit of Flanders submarines) to the westward.

² 18th, *Manchester Inventor (U.57)*; 19th, *Nailsea Court (U.48)*; 20th, *Neuquen and Bulgarian (U.84)*.

³ *U.84* (January 10–17), *U.57* (January 17–31), *U.55* (January 22–25), *U.45* (January 25–28).

⁴ Of which submarines on passage 7, submarines cruising 17.

⁵ *U.80* laid mines in Lough Swilly, January 24.

99. **Measures, Queenstown.**—By January the system of routeing introduced in November¹ was in full swing and the results were distinctly satisfactory. Up to January 19 practically all the traffic to the westward was going out by the South coast of Ireland,² though the Clyde traffic had an alternative route by Rathlin Sound and the North coast.³ This traffic must have amounted to at least 25 ships a day,⁴ and for its protection in the early part of January Admiral Bayly could provide only half-a-dozen sloops and four *Q.* ships. Of the latter, two were working off the Fastnet, *Q.8* and *Q.12*, one on the South coast of Ireland, *Q.13*, and one between Ushant and Lundy Island, *Q.14*, as Admiral Bayly thought that the big flow of traffic must attract enemy submarines.⁵

It flowed past, however, for three weeks almost unattacked. Up to January 17, *not a single ship was sunk in the Fastnet area* and only one was attacked. And even in this case, the *Alexandrian*, January 9, (*see U.84*) a mistake had been made as to the rendezvous and the sloop *Myosotis* hurrying down was able to drive the submarine off and tow the ship into Berehaven. (*See U.84.*)

Intercepts and directionals were very helpful in locating submarines. Thus on January 1, at 7.25 p.m., Admiral Bayly was informed that an enemy submarine going south would pass 51° 30' N., on January 2.⁶ This was *U.48*, which had signalled her positions at 4 a.m., off the Hebrides. *Q.12* was sent out to meet her and in the morning twilight of January 3 met her, but unfortunately *U.48* would not come close enough to be sunk.⁷

These directionals also helped the ships of the 10th Cruiser Squadron. Thus on January 1, at 2 a.m., Admiral Tupper was told of a submarine in 58° 8' N., 10° W., at 8 p.m.⁸ This was *U.46* on her way home from the Bay and if the 10th Cruiser Squadron did not sight her, it was because they were able to keep out of her way.

On January 17 the lull in the S.W. Approach was broken. The *Myosotis* had a torpedo fired at her, (*U.57*), and in the next

¹ Western Trade Routes, M.09748, Case 508.

² Telegram, Routes in force, December 26, 1515.

³ Route 42.

⁴ A moderate estimate of ocean traffic per month, homeward and outward, would be North Atlantic, 500; South Atlantic, 100; Gibraltar and Mediterranean, 400, say 1,000 per month. Captain Bertram Smith's estimate, January 4 1917, M.0533; Director of Statistics, Downs figures in September 1916; Convoy Committee, 6 June 1917.

⁵ Admiral Bayly, January 10, H.S. 647/12. *See* Appendix H.

⁶ Special telegrams. H.S. 645/010.

⁷ H.S. 647/37. (*See U.48*, s.86.) Admiral Bayly in December had pointed out that in *Q.11* to *Q.14* the after deck house was too conspicuous.

⁸ *Alsatian Ciper Log* (31301), Admiralty to Senior Officer, 10th Cruiser Squadron, Monday, January 1, 0200.

three days, three ships¹ were sunk there. They were all transgressing Admiralty instructions. One of the most emphatic of these was that ships should approach the coast at dawn and leave it at dusk. The *Manchester Inventor*, 4,246 tons, when she was attacked at 8.50 a.m. by *U.57* was 30 miles from Berehaven, when she ought to have been about 10 miles off at 7 a.m. The other cases were much worse and were in fact a complete flouting of Admiralty instructions.

On January 19, the *Nailsea Court*, homeward bound from Algeria, was sunk by *U.48* at 2.45 p.m., only 25 miles from the Skelligs, which she would have made at dusk instead of at dawn. The case of the *Neuquen* was just as bad. On January 20, homeward bound from the Plate, she was sighted by *U.84* at 2.30 p.m., 25 miles from land which she would have made like the *Nailsea Court* at dusk. The fact that the submarines that sank these ships were on passage makes it the more probable that these ships would have escaped if they had been more attentive to their instructions.

On the strength of these attacks Trade Division thought the homeward bound Skelligs route² had been discovered and proposed to Admiral Bayly at Queenstown to alter it to the southward, viz., to cross 14° W., between 50° N., and 51° N., and make the Fastnet³.

The next day, January 19, Admiral Bayly pointed out that three submarines⁴ were operating S.W. of the Fastnet and suggested that traffic to the Channel should proceed direct.⁵

These considerations led on January 19⁶ to most of the traffic being switched off the South of Ireland route as follows:—

Traffic.	December 26.	January 19
English Channel to North Atlantic.	South of Ireland (13) ⁷	Scillies to 10° W., D.A.M.S., only (212).
English Channel to South Atlantic, Mediterranean.	South of Ireland (23).	Scillies to 10° W., D.A.M.S. only (222).
Clyde or Irish Sea to North Atlantic.	South of Ireland (41).	North of Ireland (42).

¹ *Manchester Inventor* (January 18); *Nailsea Court* (January 19); *Neuquen* (January 20). The loss of the *Bulgarian*, January 20, was not known at the time.

² Cross 14° W. between lat. 51° 30' and 52° 30' N. and make the Irish coast in the vicinity of the Skelligs.

³ Telegram, January 18 1917, 0200. H.S. 350/345.

⁴ These were *U.48* and *U.84* on passage home; *U.57* on way south.

⁵ H.S. 350/870; "direct" presumably means straight to the Scillies, cutting out the Fastnet and south coast of Ireland.

⁶ Telegram, January 19 1917, 2105. H.S. 350/933. Figures in brackets are route numbers.

⁷ Number in brackets is the designation number of the route.

Traffic.	December 26.	January 19.
Clyde or Irish Sea to South Atlantic and Mediterranean.	South of Ireland (51).	South of Ireland, D.A.M.S. only (251).
Bristol Channel to North Atlantic.	South of Ireland (71).	North of Ireland (74).
Bristol Channel to South Atlantic and Mediterranean.	South of Ireland (82).	South of Ireland D.A.M.S. only (282).

The Channel traffic was given a route due west from Scillies, while Bristol Channel, Clyde and Irish Sea traffic to North Atlantic ports was sent round by the North of Ireland. This left the South of Ireland route open only to defensively armed ships proceeding from the West Coast to the South Atlantic and Mediterranean.

On January 24, as there had been very few sinkings either on the South coast of Ireland or in the Scillies to West route, the restriction of sailing to defensively armed ships was withdrawn,¹ and on January 26, as no further sinkings had taken place on the South of Ireland route, it was opened again for west coast sailings, Clyde, Irish Sea and Bristol Channel, to North Atlantic ports.²

The success of the convoy system has thrown the patrol and routeing system into the shade, but it was, up to a point, distinctly effective. Off the Fastnet, 52° N. to 50° N., 13° W. to 7° W., in January, ten ships only, out of something like 600, were attacked. Seven, amounting to about 1.1 per cent., were sunk, two were saved by patrol vessels,³ and one by gunfire and speed.

Q ships were the principal antidote of the time. Four more of 1,200 to 1,500 tons were being fitted with one 4-in. and two 12-pdr. guns and the First Sea Lord proposed to send three to Queenstown and retain one in the Channel.⁴

100. Measures, Troop Ships.—These routes applied only to ordinary traffic. Troop ships and valuable ships were given special routes and destroyer escort and though they must have numbered over 80, not one was lost.⁵ Thus on January 20, the *Kent* sailed from Plymouth to escort four transports⁶ to Sierra Leone. Devonport had been ordered on January 17 to provide destroyers to take them

¹ Telegram, January 24 1917, 0030, *U.56* had been working between 10° W. and 13° W. but had been to southward of the Scillies route which ran out between 49° N. and 50° N.

² Telegram, January 26 1917, 0515.

³ *Alexandrian* by *Myosotis*, January 9 (see *U.84*) and *Liddesdale* by *Camellia*, January 26 (see *U.45*).

⁴ First Sea Lord to V.A., Queenstown, January 27, H.S. 353/458.

⁵ In December 1916 the number of these vessels given special routes from North Atlantic ports was 79. M.0533/17.

⁶ *Suffolk*, *Boorava*, *Seang Choon* and *Titan*.

out to 46° 30' N., 12° W.,¹ which was altered to 49° N., 14° W., probably to avoid 12° W. along which submarines were returning.² It was while returning from this escort on January 22 that the *Lyra* got an S.O.S. from the S.S. *Bendoran* and was able to drive *U.57* off (see *U.57*) and save the ship.

The *Almanzora*, Captain Wm. Church, was homeward bound in January with a convoy of eight ships from Australia. She had left Sierra Leone on January 14 and Devonport had been told to meet her at rendezvous V. Five destroyers³ sailed on January 25 to bring her in, but were forced into the Scillies by bad weather. Meanwhile the *Almanzora* arrived at rendezvous V on January 27 at 4.30 p.m. and found there the *Martin* and four destroyers which had brought out an outward bound convoy. Three fast ships were sent on to Devonport with the *Ariel* and the four slow ships came on with the remaining four.⁴ For three days then, ten of the Devonport destroyers were engaged with a single convoy.

Valuable ships also made a heavy demand on destroyer service. The *Calgarian* at Liverpool was taking a cargo of gold to Halifax and on January 28 the Commander-in-Chief, Devonport was asked to provide three destroyers to take her to 49° N., 15° W., some 400 miles from the Tuskar (Ireland, S.E.). Devonport sent off the destroyers and on January 31 the *Calgarian* sailed escorted by the *Brisk*, *Ruby* and *Goshawk*.⁵

The policy of the Admiralty was evidently to give a maximum amount of protection to men-of-war, troopships, and munition ships while the safety of ordinary trade was to be secured by a system of routing and patrols.

101. Measures, the Bay.—The principal German attack in January 1917 was directed against traffic in the Bay and off Finisterre. *U.82* had sunk a couple of ships, the *Omnium* and *Viking*, there on January 2, the reports of which came in on the 3rd and 4th. On the 5th a signal⁶ from *U.48* was intercepted locating her on the way down to Finisterre. She cruised there from January 6–15 and sank six ships. *U.43*, *U.59* and *U.67* were also working in the Bay during the month on the route between Finisterre and Brest. On January 13, Admiral Bayly was asked if he could send a *Q* ship to work 80 miles off Finisterre, and promised to send *Q.5* as soon as she had finished refitting on January 23.⁷ So far as British ships were concerned,

¹ M.0575/17 and telegram, Admiral, Devonport, January 20 1900. H.S. 351/228.

² *U.79* sank *Brookwood* in about 46° N. 12° W., January 10, report received January 15.

³ *Hydra*, *Tigress*, *Ruby*, *Brisk*, *Goshawk*.

⁴ M.01114/17, *Almanzora*, H.S. 353/256, 713.

⁵ H.S. 353/843, 354/814.

⁶ January 5, 0300, 46° 20' N., 10° 30' W. I.D., Vol. 606.

⁷ H.S. 349/159.

the routing system foiled the submarine in the Bay. *U.48* was working only out to 12° W. (about 100 miles from Finisterre) but a month before, orders had been issued for British and Allied shipping from Gibraltar to keep west of 14° W.¹

Only two British ships were sunk in this area, the S.S. *Brookwood*, 3,093 tons, by *U.79* (q.v.) on January 10, and the S.S. *Jevington* on January 23 by *U.43* (q.v.). The *Brookwood* was outward bound with coal from Cardiff to Port Said and had instructions from the Shipping Intelligence Officer there to keep west of 10° till south of 47° N. The report of her loss came in on January 15. As she was sunk in 45° 50' N., 11° 50' W., she was well within her instructions, which were in strict accordance with the Route in Force.² Presumably the difference of four degrees of longitude between homeward-bound and outward-bound instructions was an echo of the old policy of dispersion. The *Jevington*, 2,747 tons, was proceeding from Buenos Ayres to Rochefort, and was sunk on January 23. She had left Buenos Ayres on December 22; her instructions had enabled her to evade the *Moewe*, but she had no wireless, and ran into an area where submarines were specially active. Four days before, on January 19, in view of the activity of *U.48*, January 7–15, the route from Gibraltar homeward bound was pushed right out to 17° W.,³ that is over 200 miles to the westward of the Finisterre activity, but the *Jevington* knew nothing of the order.

The immunity, however, enjoyed by British ships did not extend to neutrals. The attack fell on them with special force in January, for they had not had time to adapt themselves to the system of obtaining advice from the Shipping Intelligence Officers,⁴ introduced only a fortnight before. On January 26, ships for the South Atlantic and Mediterranean, which had previously to keep west of 10° W., were ordered to keep west of 11° W.,⁵ a very moderate alteration compared with the big push-out of homeward-bound trade to 17° W. on January 19. At the same time, S.N.O. Gibraltar and Consul Bilbao were told to impress on neutral masters the necessity of hugging the Spanish coast,⁶ and instructions were issued, January 26, for all British and Allied vessels from Northern Spain to British ports to call at Bordeaux, which caused

¹ Telegram, December 11 1916, 0010, to S.N.O., Gibraltar.

² No. 82. Telegram, December 26 1916, 1515, and Western Trade Routes, December 26, 1916. (Case 504, Vol. I.)

³ Telegram to S.N.O., Gibraltar, January 19 1917, 0610: "Ships to be ordered to cross both the 40th and 45th parallels between longitudes 17° W. and 20° W." H.S. 350/720.

⁴ Telegram, December 24 1916, 0230. Memorandum on Routes and Advice for Neutral Vessels, December 29 1916.

⁵ Telegram, January 26 1917, 0515: "In routes 23, 24, 51, 62, 82, 83, 92 and 93, for long. 10° W., read long. 11° W." H.S. 353/47. Note, all these routes are to South Atlantic and Mediterranean.

⁶ January 26, 1917, 2345. H.S. 353/310.

Captain Kelly to telephone from Paris the next day pointing out that Bordeaux was 50 miles up a river,¹ a point which required consideration.

The presence of *U.48* off Finisterre, and of *U.43* and *U.59* cruising between Finisterre and Brest, seriously disturbed the passage of Portuguese transports and, as the delay was causing feeling between Paris and Lisbon, Devonport was called upon to send four destroyers of the Fourth Flotilla to Lisbon, while the Commander-in-Chief was asked to send four to Devonport to take their place. The *Cockatrice*, *Garland*, *Midge* and *Owl* went off accordingly, to arrive at Lisbon on January 27. Three transports left on January 30 under their escort, but though the Germans knew of their sailing they effected nothing against them.² The Portuguese troops all got safely to France, and presumably Lisbon and Paris were reconciled through the mediation of hardworked British destroyers.

102. Measures, Admiralty, January 18.—It was at the Admiralty that all these threads were gathered into a single skein, and the telegrams of a single day, January 18, will shed a ray of light on the work done there. At 12.48 a.m. came in a report from Captain (S), Tees. *G.8* and *G.9* were out on the Northern Patrol and *G.10* and *E.39* off Horns Reef. They were all due to return in a day or two. Just before 1 a.m. there went out instructions written in Admiral Oliver's own hand to the Commander-in-Chief to provide destroyers to escort the *Kildonan Castle*³ which was leaving by the Sound of Mull with the big Mission to Russia on January 20.

Five minutes later went instructions for a submarine sweep in the North Sea by six destroyers with paravanes and two light cruisers screened by another four. They were to leave Rosyth that afternoon,⁴ and sweep along the latitude of the Forth.⁵ At 1.20 a.m. the Director of Naval Intelligence sent out all over the world news of the Atlantic raider, the *Moewe*, last seen on January 12. At 2 a.m. the Chief of Staff suggested to Queenstown that ships should make the Fastnet instead of the Skelligs as enemy submarines seemed to have discovered the Skelligs route.⁶

Then came a lull of a few hours. At 7 a.m., January 18, Admiral Jellicoe, the First Sea Lord, asked Dover what mines he would require for the year, to which Admiral Bacon replied, in a couple of hours, that he would require 12,000 for the Belgian coast

¹ January 26 1917, 1630. H.S. 353/109.

² H.S. 351/450, 354/797. H.S. 645/32, 34. War Diary, Jan. 19.

³ H.S. 350/336.

⁴ H.S. 350/337.

⁵ See s. 67.

⁶ Attack on *Myosotis* by *U.57* at 1.15 p.m.

and 6,000 for the barrage.¹ During the forenoon the Vice-Admiral, Third Battle Squadron, asked if he might have four destroyers to escort the *Hibernia* to Plymouth on January 26. At 11 a.m. the daily War Warning went out reporting one submarine off Penmarch (Ushant) and one west of the Fastnet.²

A big conference was to meet at London on the protection of shipping in the Mediterranean. The names came in at 12.30 p.m., January 18, and the First Lord, Sir Edward Carson, expressed his great personal disappointment that the name of the Minister of Marine (Admiral Lacaze) was not among them.³ H.R.H. the Prince of Wales was crossing to France on January 23 and at 12.35 p.m. Dover was told to provide a destroyer for him. At 12.52 p.m. came in Commodore Tyrwhitt's daily report. He had eight light cruisers and thirteen destroyers; the *Grenville* and six others were on their way to Harwich from the Grand Fleet; ten were lent to Dover and six to the Commander-in-Chief, Portsmouth.⁴

At 1.50 p.m. came the news that the *Ferret*, a Portsmouth destroyer, had been mined in the Channel at 1 p.m.⁵ and her stern was blown off. The *Sandfly* went off to help her and she was brought safely in. At 2 p.m. came in a report of the Swedish barque, *Angelo*, being stopped the day before, January 17, 60 miles south of Cork,⁶ an important bit of news as heralding the first appearance of a submarine in that area for over a fortnight. Next came a message from Admiral Bayly at Queenstown, concerning the passage of troops to Dublin on January 19. This probably troubled nobody, for not a single submarine entered the Irish Sea during the month. At 2.45 p.m. came a report of a mine sighted off Hartlepool by a minesweeper.⁷ The dangerous area was announced by telegram at 8.25 p.m.

At 3 p.m. came the daily report from the Commander-in-Chief, Devonport (Admiral Bethell). Four destroyers were out searching; the *Hardy* and *Christopher* in square 14, area XV, 50 miles north-west of the Scillies, where the *Angelo* had been stopped the day before, and the *Acasta* and *Contest* between the Lizard and Ushant.⁸

At 3.20 p.m. came a report of a submarine sighted off Pembroke, in 51° 27' N., 5° 12' W., at 1.40 p.m., again important as the first sign of new activity there,⁹ and Devonport was told at 6.25 p.m. to send two destroyers to the area.

¹ H.S. 350/356, 383.

² *U.C. 18* and *U.57*.

³ H.S. 350/436, 525.

⁴ H.S. 350/449.

⁵ She was torpedoed by *U.C.21*, not mined, in 50° 18' N., 0° 29' W. H.S. 350/467, 480. See S. 113.

⁶ By *U.84*.

⁷ One of a batch laid by *U.C.43* on January 13.

⁸ H.S. 350/505. The squares are in Patrol Area Chart X.123.

⁹ Nothing came of it, but it may have been *U.84*.

At 3.30 p.m., January 18, came a message to say that the cruiser *Cochrane* had left Invergordon with her cargo of gold for Halifax at 9 a.m., January 18. It is enough to say that she got safely to her destination. Then, 3.38 p.m., came a report from *E.46* who was on her way back after laying 20 mines on January 16 off Nordeney.¹

At 4.40 p.m., came a report from the island of St. Kilda of a submarine lying ten miles² off it.

At 10 p.m., January 18, came from Maxse at Rotterdam the number of ships sailing from Holland, two that night and four on January 19. At 10.55 p.m., there went out to the whole world a description of the raider *Moewe*, which on December 11 had captured the *Yarrowdale* with a cargo of motor cars and munitions for France. The War Warning, A.B.M.V., for the night went out at the same time—a submarine off Penmarch, Brittany, another west of the Fastnets³ and another in the Bristol Channel.

Finally came the last signal—midnight had already struck—transports crossing to France that night, 34⁴; escorted by British destroyers they all got safely across, as they had done on every night during all the 366 days of 1916. So ended what Admiral Jellicoe, the First Sea Lord, and Admiral Oliver, Chief of the Staff, probably regarded as a specially quiet day in January 1917.

CHAPTER VI.

SUBMARINES, CHANNEL.

JANUARY. (Plan 16.)

103. **Channel, Flanders Submarines.**—In the Channel during January nine Flanders submarines were working, as follows:—

U.B.18, December 27–January 9, Scillies.

U.B.39, December 27–January 11, Ushant and France, West.

U.B.23, January 2–15, Channel Islands.

U.B.37, January 12 (?), Sunk, January 14.

U.B.38, January 11–24, Scillies to Ushant.

U.C.18, January 11–25, France, West, and mines, Brest.

U.C.16, January 16–February 1, Channel, E. (mines), Scillies, France, W.

U.C.17, January 18–February 1, Channel, W. (mines) and Ushant.

U.C.21, January 17–29, France, West, and mines, Loire.

¹ H.S. 350/521.

² H.S. 350/550. Rather doubtful, but possibly *U.44* going home or *U.45* on way out.

³ *U.C.18*, *U.57*; the one in the Bristol Channel may have been *U.B.38*.

⁴ H.S. 350/680, with subsequent corrections, 37.

104. “**U.B.18,**” December 27–January 9.—*U.B.18*, Lieutenant Lafrenz, left Zeebrugge on December 27 and sank her first ships, the Norwegian S.S. *Flora* and *Eva*, off the Scillies on December 31 (see s. 49). She was still there on New Year's Day, at noon, when the British S.S. *Crown of Aragon*, 4,500 tons, coming up Channel sighted her 13 miles south of the Wolf, 49° 49' N., 5° 47' W. The steamer turned to the north-west and as she cleared away her gun the submarine went down. *U.B.18* went off to the southward and about 3 p.m., January 1, in 49° 34' N., 5° 38' W., stopped the Swedish S.S. *Carrie*, 867 tons, bound from Glasgow to Nantes. But the armed trawler *Castor* had sighted *U.B.18* and her signal brought two others, the *Fusilier* and *Kinaldie*, up to help her. They arrived just in time. The *Carrie* had been abandoned, but when the armed trawlers came on the scene *U.B.18* discreetly disappeared. The crew refused to return and, after picking them up, the armed trawlers towed the ship into Falmouth, claiming salvage subsequently for their service.¹ *U.B.18* went off to the westward and the next day, January 2, at 12.10 p.m. in 49° 25' N., 6° 39' W., stopped the Norwegian S.S. *Ellik*, 602 tons, going from Villagarcia to Swansea with a cargo of pitprops, and sank her with bombs. That evening at 7.30 p.m. in the same vicinity² she stopped the Norwegian S.S. *Bestik*, 2,188 tons, on the way from Cardiff to Algeria with 2,651 tons of patent fuel, and sank her in the same way.

She went on to the eastward, but the next day, January 3, was not so fortunate. *Q.8*, the *Vala*, armed with four 12-pdrs. (Lieutenant-Commander A. A. Mellin, R.N.) had left Devonport on December 31 to cruise in the Channel. At 9.50 a.m. on January 3 she was 38 miles S. by W. of the Lizard, 49° 19' N., 5° 8' W., steering S. by W. $\frac{1}{2}$ W. for Ushant, when a submarine was sighted on the starboard bow. It bore S.W. by S. and was some three miles away steering N.N.W. The *Vala* altered course slowly to S.S.W. to close her. As the submarine presented a fair broadside target and the ship was steady, Lieutenant-Commander Mellin decided to engage and at 9.56 hoisted the white ensign and gave the order for action. The range was 2,500 yards deflection, 4 right. The two 12-pdrs. came into action in ten seconds, and the first two rounds fell slightly astern. The second two rounds were observed to strike the submarine and explode, before and abaft the conning tower. A third round was also observed as a direct hit. Five rounds had been fired when, at 9.57, the submarine disappeared “enveloped in fumes and smoke.”³ The evidence of sinking seemed

¹ X.23173/17; result is not stated. It was a question of prize salvage (recapture) as against ordinary salvage.

² 49° 23' N. 6° 27' W.

³ Lieutenant-Commander Mellin's report of January 3 in H.S. 647/54, M.0214/17 (printed in C.B. 01486a, Special Service Ship Actions), D.I.D. minute, January 22 1917, in H.S. 647/59. For award, see H.S. 647/65, 67.

conclusive and an award of £1,000 was made, though the I.D. was not prepared to regard it as more than a "possible."

This action probably made *U.B.18* doubly cautious, but there is no reason to think she was damaged, for the next day, January 4, at 2.30 p.m. off Guernsey, in 49° 26' N., 3° 26' W., she stopped the Danish S.S. *Naesborg*, 1,547 tons, going from Sunderland to Bayonne, and sank her with bombs. A heavy sea was running and it was only with difficulty the bombs were got on board. *U.B.18* refused to tow the boats, which were left in a howling gale to be picked up later by the Danish S.S. *Daisy*.¹

Another Danish ship fell to her the next day, January 5. This was the S.S. *Danevirke*, 1,431 tons, going from Newcastle to Gibraltar with coal. She was stopped at 4.30 p.m. in 49° 14' N., 4° 17' W., and sunk with bombs. The commander offered to tow the boats to a passing steamer but before they were ready the ship had passed out of sight in the falling night. She sank only one more vessel. This was the Norwegian S.S. *Asta*, 561 tons. The only report of the attack came from France, which gave her as sunk off Alderney in about 49° 48' N., 2° 13' W.² on January 6 at 9.45 a.m.

A couple of hours later came a signal of distress from the U.S. S.S. *Sacramento* which was stopped at 11.50 a.m., January 6, in 49° 47' N., 2° 25' W., but was evidently allowed to go on. On January 7 the armed trawler *Sitvel*, Lieutenant J. T. Rowe, R.N.R., a Portsmouth patrol vessel, was patrolling on the transport route ten miles N.N.E. of Cape Barfleur³ at 9.55 a.m. when she sighted a submarine five miles N.E. by N. The weather was fine and clear; the *Sitvel* made at once for her target and as it commenced to submerge opened fire with her 12-pdr. and 6-pdr. at a range which must have been nearly 8,000 yards. The submarine, which was probably *U.B.18*, disappeared, leaving the *Sitvel*, which reached the spot at 10.20 a.m., to drop a belated depth charge and a buoy. *U.B.18*, after a cruise sufficiently adventurous, got back safely on January 9, having sunk in January, five steamships of 6,329 tons and having been attacked twice—once by *Q.8* and once by the armed trawler *Sitvel*.

105. "U.B.39," December 27–January 11.—While *U.B.18* was working on the English side, *U.B.39*, Lieut. Küstner, was equally busy off Brittany and Ushant. On New Year's Day at 11 a.m. some 20 miles off the North Brittany coast, in 48° 59' N., 3° 56' W., she met the British S.S. *Hollybranch*, 3,400 tons, going from the Plate to Cherbourg with a cargo of grain. She was unarmed, had no wireless, and after receiving some seven hits which set her on fire, stopped and was sunk with bombs. The crew all made land in safety. A French

¹ I.D., Vol. 628.

² Three miles north-west of D'Aurigny, *Études* (I.D. 726).

³ 49° 52' N., 1° 15' W.

sailing vessel, the *Leon*, 653 tons, appeared to the eastward at 12.10 p.m. She was going from Treport to Brest and was sunk in 49° 6' N., 3° 27' W., at 2.15 p.m., January 1. *U.B.39* then went off to the Brest area and the next day, January 2, at 8 a.m. stopped a small British steamer, the *Carlyle*, 466 tons, going from Manchester to La Pallice, Ile de Ré, with a cargo of machinery, unarmed and without wireless. She had just passed Brest and was five miles W.S.W. of Ar Men, 47° 59' N., 5° 6' W., proceeding S.E. when *U.B.39* emerged on the starboard bow, quarter of a mile away and sent two shots into her. The ship stopped and was sunk with bombs. The route in force (No. 91) prescribed that ships should pass as close to Ushant as navigation permitted, but as she had just rounded the nasty shoals off the Ile de Sein¹ it was hardly possible for her to be closer in. Four hours later, noon January 2, 20 miles to the south-east, 47° 51' N., 4° 45' W., the Swedish S.S. *Ursa*, 957 tons, with a cargo of coal, sighted a submarine on the port bow five miles off and made at full speed for the Raz de Sein, 10 miles away. *U.B.39* followed, keeping up a steady fire, but a French torpedo boat came in sight, the submarine went down and the *Ursa* escaped.

A British S.S., *Luga*, 1,988 tons, Tyne to Bordeaux, was close by and, following the *Ursa*, escaped in the same way. It was probably the same patrol vessel that about 4.30 p.m., January 2, some 25 miles to the south-east, warned the British S.S. *Cromarty*, 2,742 tons, Newcastle to Pauillac, Gironde, of the presence of a submarine. She was armed with a 13-pdr. gun but had no wireless. At 5 p.m., in 47° 39' N., 4° 17' W., as dusk was falling, a submarine was seen to come to the surface 300 yards away. The two marines² at the gun opened fire at once. The submarine had to make a crash-dive and a column of fire seemed to rise from her.³ *U.B.39* was not sunk, but the promptitude of the master and the guns' crew saved not only their own ship but in all probability also a Japanese steamer which was close by at the time.⁴

U.B.39 evidently thought it time to move, and went off to the Gironde where, on January 3 and 4 she sank sixteen French fishing craft, 505 tons in all.⁵ That evening (January 3) at 8.15 p.m., the Norwegian S.S. *Helgoy*, 1,806 tons, on the way from Blaye, Gironde, to Barry, was in 46° N., 1° 40' W., about ten miles from land, when a shot was fired at her and a shell whistled over the foc'sle. She had hardly stopped when a torpedo struck her. The crew had barely time to get away before she sank. *U.B.39* then came up and gave the boats a tow towards land. These sinkings led to the suspension of navigation off the Ile de Ré⁶ and January 4 passed without any

¹ Chart 2643.

² R. McDonald and F. Ward.

³ Probably the steam rising from the exhaust pipe in a crash dive.

⁴ S.S. *Cromarty* in Home Waters, Ship Attacked, in I.D., Vol.628; M.0651/17.

⁵ Foreign Vessels, Sunk and Damaged, 1919, p. 35.

⁶ Telegram, January 4, 0120. H.S. 346/815.

losses. On Friday, January 5, *U.B.39* was again active. At 12.50 p.m., the British S.S. *Allie*, 1,127 tons, unarmed, no wireless, was about ten miles west of the Ile de Ré, 46°15' N., 1° 48' W., approaching land, when a submarine came up on the starboard bow, some two miles off. The ship was stopped and sunk with bombs. Then came in sight a Norwegian S.S., the *Markland*, 1,627 tons, with pitprops from Bayonne to Barry, which was stopped at 2.30 p.m., in 46° 13' N., 1° 41' W., and sunk in the same way. At 4 p.m. the British S.S., *Eastgate*, 4,276 tons, New York to La Pallice, unarmed and without wireless, was approaching land and was some six miles off the Ile de Ré, 46° 13' N., 1° 55' W., on a course south by east, when *U.B. 39* appeared to the north-east and opened fire at 2,000 yards, hitting the ship but doing no damage. The *Eastgate*, after an attempt to close the land, stopped and abandoned ship; but two French patrol boats, the *Poitou* and *Cigale*, on the horizon, came hurrying up, drove the submarine down and took the ship into La Pallice roads.¹

U.B.39 was evidently on her way home the next day for she was sighted by a French patrol, the *Ste. Jehanne*, on January 6 at 1 p.m., in 47° 34' N., 3° 50' W., off the Iles de Glenan. On January 7 she was in her old area, the north coast of Brittany. It was raining, with a nasty sea when, about 7.10 a.m., in 48° 51' N., 4° 48' W., she stopped the Norwegian S.S. *Hansi*, 1,143 tons, and sank her with bombs, putting the crew on board another Norwegian ship, the *Madeira*, which was allowed to go on. This business could scarcely have been over when *Q.10*, the *Begonia*, came on the scene. She had left Milford on January 3 and on January 6, at 2.30 p.m., off Start Point, had taken in an S.O.S. from the U.S. *Sacramento* and made for the Channel Islands. During the night she had been proceeding west along the French coast. At 8.25 a.m., (January 7), in 48° 49' N., 4° 34' W., she sighted the conning tower of a submarine 7,000 yards away on the port bow. The submarine opened fire, and after the tenth shot secured a hit. *Q.10* thereupon put her helm over and opened fire with 5,000 yards on the sight. The shot fell 1,000 yards short and the submarine went down.²

This was *U.B.39's* last encounter, and she was back at Zeebrugge on January 11. She had sunk in January six steamships and one sailing vessel of 10,222 tons, and 16 small French craft of 505 tons, and had been attacked by S.S. *Cromarty* on January 2 and by *Q.10* on January 7. She may have reported the attack, for on January 10

¹ According to French report the crew of the *Eastgate* refused to go back. British Consul, January 8, 1917.

² Lieutenant-Commander A. G. Leslie's report, H.S. 647/81. It is clear from Lieutenant-Commander Leslie's report that the action took place on January 7 ("at 7 a.m.") H.S. 647/83. Admiral Bayly gives position N. 12 E. 11 miles, Verge Lt. (i.e., Vierge Light), H.S. 647/12. But *Q.10's* report says nothing of the Nor. S.S. *Hansi*, which appears to have been sunk only eight miles off at 10 a.m.

Bruges and Nauen sent out an order that merchant ships seen to be armed could be attacked without warning, a practice hitherto confined to the Mediterranean. The time of unrestricted warfare was drawing near.

106. "**U.B.23,**" January 2-15.—*U.B.23*, Lieutenant Ziemer, left on January 2 for a cruise in the Channel, but all that is known of the early part of her cruise is that she sank nothing. The *Acasta* and *Christopher* were hunting submarines in the Portsmouth area,¹ and though they did not see any, their presence may have been effective in keeping *U.B.23* down. Attacks in the eastern portion of the Channel were, as usual, very few, though nine colliers were passing nightly from Portsmouth to Havre.² It was in this area that *U.B.23*, on January 7 at 11.25 a.m., in 50° 25' N., 0° 3' E., met a small British sailing vessel, the *Brenda*, 249 tons, going from London to Fowey, and sank her with gunfire.

On January 12, she narrowly escaped a like fate. *Q.13* the *Aubretia*, a sloop, armed with one 4-in. and two 12-pdr. under the command of Captain John L. Marx, R.N.R., Admiral retired, had left Milford Haven to cruise in the English Channel. On January 12, at 10.30 a.m., she was eight miles from the Casquets, in 49° 48' N., 2° 25' W., when a submarine was sighted two points before the beam, two and a half to three miles away. *Q.13* under the name of the *Kai* was flying the Danish flag, and at 10.38 a.m., was greeted with a shell. She went on till another shell was fired ahead, then stopped and blew off steam. *U.B.23* lay off at 2,500 yards waiting for the boat and fired a third shot to hasten it. There was considerable sea and when the boat appeared round the bows, *U.B.23* closed to 400 yards. It was 11.23 a.m.; Lieutenant Ziemer was looking at the boat through his glass when suddenly the planks round the gunhouse fell down and *Q.13* opened fire. The first shot fell short. As the boat went down a shell hit the conning tower and another shot went into the hull, holing the port forward compressed air tank. *Q.13* made for the spot and dropped two depth charges one for 40 and one for 80 ft., whose explosion was heard in the submarine. Though the eight shots fired had done considerable damage the injuries were not vital. The boat got down to 40 m., and zigzagging at 50 metres managed to escape, but her escape was a narrow one. The port foremost oil tank and pipeleads were destroyed and it was only the rough sea that prevented the track of escaping oil being followed. The port fore diving tank was also damaged, and the magnetic compass injured. The deck and the forepart of the conning tower were plastered with fragments of shell.³

¹ Portsmouth, January 3, 1926. H.S. 346/670.

² Telegram, January 15, 2146. H.S. 349/716

³ M.0638/17, printed in C.B. 01486; German extract from *U.B.23's* Kriegstagebuch (M.A. 175, 1929; Exchange, Q.05).

Lieutenant Ziemer decided to return, but his troubles were not over. About midnight on January 12-13, in dull weather, he grounded near the South Goodwin and remained fast till the rising tide took him off at 1.40 a.m. Losing his way in the fog he wandered into the Scheldt and had to run into Flushing, and only reached Zeebrugge on January 15. In January he had sunk only one ship of 249 tons and had narrowly escaped destruction from *Q.13*.

For this vigorous and well-timed attack Admiral John Marx was awarded a D.S.O. and temporary Lieutenant James S. Campbell, R.N.R., received a D.S.C. A wireless message from Berlin, however, complaining of the "shameless" use of a neutral flag indicated that the boat had returned and *Q.13* received only £200 instead of the £1,000 award.¹

107. "**U.B.37**" sunk by "**Q**" 7, January 14.—*U.B.37*, Lieutenant Paul Gunther, was not so fortunate. She had cruised in December off Portland, Guernsey and Ushant and made her appearance again on January 14, between Portland and Portsmouth. There at 10.20 a.m., in 50° 13' N., 2° W., she stopped the Danish S.S. *Norma*, 1,999 tons, going from Valencia to London with fruit, and sank her with bombs. The British S.S. *Ussa*, 2,066 tons, on her way from Cherbourg, sighted her and made off to the north. At 10.45 the armed yacht *Maid of Honour*, Lieutenant-Commander Philip D. Ridert, which was patrolling in the area, sighted the *Ussa* flying a large red ensign and took in her report. She at once made for the spot with two trawlers and about noon sighted the *Norma's* boats and shortly afterwards, some five miles off, two steamers stopped with the conning tower of a submarine between them. These were two Norwegian steamers, the *Livingstone*, 1,004 tons, from Cadiz to Christiansand via Blyth, and the *General Munthe*, which had been stopped at 11.45 a.m.² in about 50° 14' N., 2° 25' W. and were only waiting to be sunk. As the *Maid of Honour* came up *U.B.37* went down and made off apparently to the W.S.W.

Shortly afterwards two destroyers³ came on the scene and went off to hunt her. She was to fall, however, to a more insidious foe. The famous *Penshurst*, *Q.7*, Commander Francis Grenfell, R.N., retired, had left Devonport on January 13, to cruise in the Channel. He was off Guernsey in the forenoon of Sunday, January 14 and probably took in the *Maid of Honour's* signals. At 3.50 p.m., he was in 50° 9' N., 1° 46' W., between Portland and Cherbourg, some ten miles from where *U.B.37* had been driven down, when on the port beam heading towards the ship appeared a submarine which, at 3.55 p.m., fired a shot at 3,000 yards. Commander Grenfell

¹ H.S. 647/131.

² Ridert's report, Portsmouth. H.S. 595/44.

³ Nos. 35 and 47; they may have been the *Druid*, *Defender*, or *Ferret*, which were hunting submarines at the time between the Isle of Wight and Lyme Regis. H.S. 349/392.

stopped, went to "panic" stations and got the boats away. The ship fell off to port, lying with her head about W.N.W., bringing the submarine on the starboard bow. It closed rapidly, and when about 700 yards off turned as though to cross ahead. Thinking she was going round to the boats on the port quarter, Commander Grenfell held his fire, but the submarine stopped broadside-on ahead and quickened her fire, evidently with the intention of sinking the ship by gunfire.

She had fired fourteen shots; two of them hit the bridge; one broke an awning ridge pole; the other cut the engine room telegraph connections, smashed the hydraulic release gear of the starboard depth charge and, worst of all, killed two of the 6-pdr. gun's crew and wounded another and the signalman who was standing by to hoist the white ensign. Thereupon Commander Grenfell gave the order to open fire¹; down fell the screens; the first shot from the 12-pdr. hit the base of the conning tower and caused a large explosion as of ammunition which sent large pieces of the tower hurtling into the air with a cloud of black smoke. A second shot hit just abaft the conning tower and four shots from the starboard 3-pdr. got home on its lower part. The submarine sank by the stern with her bows rising out of the water. *Q.7* went ahead and dropped on the spot where she had gone down a "D" depth charge, which failed to explode, and two "C" type charges which exploded.²

U.B.37 was never seen again and nothing more was heard of her. An award of £1,000 was made to the *Penshurst*; Commander Grenfell received a bar to his D.S.O.; D.S.C.s were given to two officers and D.S.M.s to three men. This was the only submarine destroyed in Home Waters during the month,³ and the encounter was probably the chief cause of the immunity enjoyed in this part of the Channel for some days. *U.B.37* had sunk one steamship of 1,999 tons.

108. "**U.B.38**," January 11-24.—*U.B.38* left on January 11 to work in the Western Channel. She appeared off Ushant on January 15 and at 12.30 p.m., in 48° 36' N., 5° 35' W., stopped the French s.v. *Independant*, 154 tons, going from La Rochelle to Swansea, and sank her with bombs. The boats were taken in tow till the smoke of two British destroyers was seen on the horizon, when the submarine went down. She went off to the westward and on January 16 at noon, in 48° 53' N., 6° 47' W., stopped the Spanish S.S. *Manuel*, 2,419 tons, going from Bilbao to Glasgow, and sank her with bombs. A heavy sea was running, the boats were nearly 70 miles from land, and *U.B.38* towed them about ten

¹ One 12 pdr. 18 cwt.; two 6 pdr.; and two 3 pdr. Vickers.

² Commander Grenfell's report, January 14, in H.S. 647/177.

³ See section 122 for *U.76* off Hammerfest, Norway.

miles to the Swedish S.S. *Carl*, bound to Cape Verde, which landed the crew at Corunna. *U.B.38* had meanwhile gone off to the northward, and on January 18, at 9.45 a.m., in 50° 37' N., 6° 43' W., stopped the Norwegian S.S. *Asp*, 1,100 tons, going from Barry to Fayal with a cargo of coal, and sank her with bombs. The master admitted that he was not following the route given him by the S.I.O. at Cardiff. The boats were picked up by the Devonport destroyer *Hardy*. *U.B.38* then made a cast towards the Irish coast and on January 19 at 8.30 a.m., in 51° 24' N., 8° 21' W., stopped the British s.v. *Lilian H.*, 476 tons, going from Whitehaven, Cumberland, to Barbados, and, finding bombs ineffective, sent a torpedo into her. The ship, however, refused to sink and was towed finally to Queenstown. *U.B.38* did nothing more and was back on January 24, after sinking two steamships and one sailing vessel of 3,673 tons and having escaped any serious attack.

109. "U.C.18," January 11-25.—*U.C.18*, Lieutenant Kiel, left the same day as *U.B.38*, to lay mines off Brest and work off the west coast of France. On her way down Channel, on January 12 at 3.30 p.m., off the Owers, in 50° 30' N., 0° 40' W., she stopped the French s.v. *St. Michel*, 419 tons, from Havre, and sank her with bombs. It may have been she (or *U.B.38*) that was off the Channel Islands the next day, January 13, and at 11.40 a.m., in 49° 39' N., 3° 6' W., opened fire on a large Japanese steamship, the *Hakata Maru*, 6,241 tons, coming up Channel. The *Hakata Maru* turned to keep her astern and sent out a wireless. At 1.34 p.m. a British destroyer¹ appeared in sight; the submarine made one last effort and possibly fired a torpedo, for she was seen close on the port beam, then went down as the destroyer came up, and the *Hakata Maru* went on in safety.

The same afternoon, January 13 at 5.15 p.m., in 49° 15' N., 3° 43' W., *U.C.18* stopped the British S.S. *Toftwood*, 3,082 tons, from New York to Havre with 5,100 tons of general cargo; she was unarmed, had no wireless, and was sunk with a torpedo. *U.C.18* was off Ushant the next day, January 14 where at 10 a.m., in 48° 36' N., 5° 8' W., she sank the British collier transport *Martin*, 1,904 tons, proceeding from Bayonne to Barry. It was snowing heavily when the submarine was sighted one mile astern with A.B. (Abandon Ship) flying. The ship had no gun and no wireless, and was sunk by gunfire. She was evidently starting to cross the Channel in broad daylight directly contrary to Admiralty instructions, though the Captain maintained he had intended to wait in Brest. A French patrol appeared on the scene about an hour later and, sighting a periscope, dropped a depth charge on the spot.²

¹ Probably *Achates* for *Achates* reported a periscope off Alderney at 1.50 p.m. This could hardly have been *U.C.18*, unless the *Toftwood's* position is wrong, and was probably *U.B.38*.

² I.D. Vol. 629.

U.C.18 proceeded, January 14, to lay mines off Brest, six in the Chenal du Four and six in the Raz de Sein.¹ It was one of the latter that the French S.S. *Phoebe*, 3,956 tons, struck at 7 a.m. on January 20, but was got safely into harbour. On January 15 *U.C.18* was off Belle Ile and at 4 p.m., in 47° 32' N., 3° 41' W., stopped the Norwegian S.S. *Otto*, 401 tons, going from Middlesbrough to St. Nazaire, and sank her with bombs. The French s.v. *Bernadette*, 128 tons, going from Belle Ile to Cardiff, was stopped about the same time eight miles to the northward and sunk in the same way.

U.C.18 laid mines that morning or night, January 15, off Belle Ile,² which were found two days later.

On January 16 at 5.30 p.m., another Norwegian steamship the *City of Tampico*, 1,513 tons, was in 47° 42' N., 4° 20' W., when she, too, was stopped and sunk with bombs.

The next day, January 17, *U.C.18* was off Ushant and, at 1 p.m. stopped a small sailing vessel, the French s.v. *Jeune France*, 126 tons, which was sunk with bombs.

At 4.45 p.m., January 17, in 48° 20' N., 5° 10' W., she stopped the Spanish S.S. *Valle*, 2,365 tons, proceeding from Bilbao to Middlesbrough with iron ore, and sank her with bombs. The next day, January 18, she was back off Belle Ile where, at 11 a.m., in 47° 31' N., 4° 8' W., she sank a small French fishing vessel, the *Louise*, 100 tons, with bombs. The arrival of a French patrol, the *Fanion*, drove her down.

The route to the Bay via Ushant had been open since December 26³ and on January 18 the British S.S. *Caithness*, 3,500 tons, had rounded Ushant, taken a pilot on board at 2 p.m. and, after receiving instructions from a French gunboat, was making for St. Nazaire when, at 3.15 p.m., in 47° 37' N., 4° 04' W., a submarine about three points abaft the starboard beam opened fire on her. The ship was armed with a 12-pdr 12-cwt. gun and at once turned towards the land and returned the fire at 8,000 yards. The submarine fired some seven shots and, at the 11th round from the ship, disappeared and the ship escaped, saved by her gun and the prompt action of the master.⁴

U.C.18 had to rest content with another small French sailing vessel, the *Louis Joseph*, 197 tons, Rochelle to Port Talbot, which she sank at 5 p.m., January 18, in 47° 43' N., 4° 10' W. It was evidently on account of her activity that the French stopped traffic between Brest and St. Nazaire on the night of the 18th.⁵ The next day, January 19, at 9 a.m., in 47° 57' N., 4° 45' W., she was able to

¹ O.U. 6020 B, Field 275 (48° 29' N., 4° 51' W.) and 275a (48° 1' N., 4° 47' W.).

² Field 275B in 47° 25' N., 3° 12' W. (O.U. 6020 B.). H.S. 350/259.

³ Route 31, telegram, December 25, 1515.

⁴ I.D., Vol. 629, *Caithness*.

⁵ Telegram, January 18, 8.35 p.m. H.S. 350/636.

sink the Uruguayan S.S. *Parahyba*,¹ 2,537 tons, and the Danish S.S. *Klampenborg*, 1,785 tons, from Newcastle with 2,400 tons of coal. The two ships were proceeding south-east about four miles apart when a submarine to the westward sent a shot over them. The smoke of a possible patrol vessel appeared on the horizon and *U.C.18*, after sending a torpedo into the *Klampenborg*, went down. On January 22, she was on her way home and at 7.20 p.m. sank in the Channel in 49° 26' N., 3° 48' W., a small French sailing vessel the *Aurelie*,² 89 tons, on the way from Pontrieux to Cardiff.

She was back in Zeebrugge on January 25, having sunk seven steamers and six sailing vessels of 14,636 tons.³ Two ships had escaped her, one by speed and the appearance of a destroyer; the other by the use of a gun. She had not been seriously attacked.

110. "U.C.16," January 16-February 1.—*U.C.16*, Lieutenant von Werner, left Zeebrugge on January 16 to work off the French coast in the Bay. As she passed down Channel on January 17 she laid four mines off Hastings, eight off the Royal Sovereign and six off the Owers. The mines off the Owers were discovered the next day by the Portsmouth sweepers⁴ and the area was declared dangerous. The Dutch S.S. *Juno*, 2,345 tons, struck one of the mines off Hastings on January 22 at 3 p.m., but managed to make harbour.

On January 18, *U.C.16* was between Scillies and Ushant and there at 4.45 p.m., in 49° 22' N., 5° 17' W., she met the Italian S.S. *Taormin*, 2,457 tons, with ore from Genoa to Newport. She had no wireless, no patrols were in sight and she was sunk by gunfire. *U.C.16* went on to the south-west and on January 19, at 12.10 p.m., in 48° 28' N., 7° 9' W., stopped the Norwegian S.S. *Anna*, 1,237 tons, going from Almeira to Glasgow with a cargo of esparto grass, and sank her by gunfire.

U.C.16 went on to the westward and at 5.30 p.m., January 19, in 48° 29' N., 8° W., met another Norwegian ship, the *Theresedal*, 1,762 tons, from Bathurst to Liverpool, and sank her by bombs and a torpedo. An easterly gale had sprung up and the crew were 44 hours in the boats before they were picked up by the Dutch S.S. *Maasland*. The Captain, who was very ill, was taken on board the submarine and transferred to a Spanish ship.⁵

The day ended with another Norwegian ship with another cargo of esparto grass. This was the *Reinunga*, 1,147 tons, which was stopped at 8.45 p.m. in 48° 52' N., 7° 19' W., going from Algiers to Glasgow. She was sunk by gunfire and the crews were left to be

¹ No further details.

² Not in Foreign Vessels Sunk, but a detailed report in I.D., Vol. 630, and name is in "Etudes," (I.D., Vol. 726).

³ Gayer 4/73, gives 7 steamers, 6 sailing vessels, 14,640 tons.

⁴ O.U. 6020B., Field 286, telegram, January 18, 1917. H.S. 350/398.

⁵ Report, I.D., Vol. 629.

picked up on January 21 at 1.30 a.m. by the Spanish S.S. *Levida*. *U.C.16* then went off to the Gironde where *U.C.21* was working. There she caught only one ship.¹ On January 23 at 2.30 p.m., in 45° 29' N., 2° 43' W., she stopped the Norwegian S.S. *Ymer*, 1,123 tons, going from Santander to Middlesbrough with ore, and sank her with bombs 66 miles from land. After a terrible journey of 48 hours only one of the two boats managed to make land (Ile d'Yeu) with five of the ten men in it dead with cold. This was *U.C.16*'s last ship in this cruise and she was back at Zeebrugge on February 1, having sunk five steamships of 7,726 tons.

111. "U.C.17," January 18-February 1.—*U.C.17*, Lieutenant Wenninger, left Zeebrugge on January 18. As in December, the eastern portion of the Channel was left severely alone. On January 20 he was off Portland and at 3 p.m., some 25 miles from Portland Bill, in 50° 14' N., 1° 57' W., stopped a small Danish sailing vessel, the *Standard*, 217 tons, going from Fowey to Leith, and sank her with bombs. That night, January 20, he laid six mines off the Shambles, Portland, three of which were found on January 22² without doing any damage, and the remainder on January 26 and January 29. On January 21 he laid four mines off Dartmouth and four off the Eddystone;³ the former were found that day and the port was closed; those off the Eddystone were not found till January 31, when orders were given to close the port.⁴

U.C.17 seems to have gone on to the westward, where on the French side *U.C.18* at 3 p.m. on January 21, in 48° 50' N., 5° 36' W., stopped the Spanish S.S. *Rafael* on the way to Bilbao and let her go on. That night, January 21-22, *U.C.17* laid four mines off Falmouth,⁵ which found a victim in the Dutch S.S. *Epsilon*, 3,211 tons, with 4,768 tons of grain from Buenos Aires to Amsterdam. She had put into Falmouth for inspection on January 29 and sailed on January 31 at 2.40 p.m. As she passed St. Anthony's Point at the entrance, she struck a mine and sank, giving a rude shock to Dutch confidence in the former security of that port. On January 22, she was off Ushant where, at 4.15 p.m., 14 miles from land, in 48° 41' N., 5° 15' W., she stopped the Swedish S.S. *O. A. Brodin*, 1,798 tons, going from Newport to Cape de Verde Islands with 2,500 tons of coal, and sank her with bombs. Her master admitted that he had been told not to cross the Channel by daylight, but pointed out that he had also been told to go down the French coast in the dark. He expressed the gratuitous opinion that the English, and possibly

¹ In her list (Marine-Archiv) is given a French s.v. *Couronne*, but the name is not found in Foreign Vessels Sunk nor in "Etudes."

² O.U. 6020B., Field 282, telegram, Portland, January 22 1917, 2040. H.S. 351/909.

³ O.U. 6020B., Field 282a, 282b.

⁴ Devonport, January 31 1917, 1535. H.S. 354/983.

⁵ Field 282c.

the French, reserved their forces to protect their own ships which were given special routes while neutrals were used merely as decoys (appâts).¹ He concluded by complaining bitterly of a submarine being allowed to lie for two hours on the surface, 14 miles from the French coast, without a single patrol coming to his help.

On January 23, probably somewhere in the same vicinity, *U.C.17* sank the Belgian S.S. *Egypte*, 2,412 tons, sailing from Bordeaux to Barry with pitprops. She was sunk "without trace"—and not one of her crew was seen again. At 4 p.m. the same day, in 49° 8' N., 6° 12' W., she met the French s.v. *Ophelia*, 159 tons, going from Lisbon to St. Malo with salt and wine, and sank her with bombs. During the last week of her cruise she sank nothing and was back in Zeebrugge on February 1, having sunk two steamships and two sailing vessels of 4,586 tons. During her cruise of a fortnight she had not succeeded in sinking or even attacking a single British ship.

112. "**U.C.21,**" **January 17-29.**—*U.C.21*, leaving Zeebrugge on January 17 torpedoed H.M.S. *Ferret* on the 18th and appeared on the 19th off Guernsey, where at 9 a.m. she sank the French s.v. *Joseph Rosalie*,² 138 tons, and at 10.30 a.m., in 49° 35' N., 4° 16' W., stopped the Norwegian S.S. *Marietta di Giorgio*, 988 tons, carrying salt from Cadiz to Norway, and unfortunately a letter, too, ordering her to call for bunkers at Blyth, which supplied the grounds for her being sunk. *U.C.21* then made to the S.W. and at 5 p.m., January 19, in 49° 4' N., 4° 50' W., met the British S.S. *Tremeadow*, 3,653 tons, on the way from Buenos Aires, which she had left on December 8, to Hull. The ship had no wireless and no gun; her steering gear was disabled by the first shot and she was sunk by gunfire.

U.C.21 then rounded Ushant and, at 9.35 a.m., on January 20, close to the coast in 47° 45' N., 4° 22' W., attacked the French S.S. *St. Marc*, 2,249 tons. The *St. Marc* was armed and, turning away at once opened fire and escaped. The submarine then went after another French S.S. the *Charles Leborgne*, 1,020 tons, which was able to take refuge inshore. *U.C.21* went on to the south and at 12.20 p.m., January 20, in 47° 36' N., 4° 4' W., fell in with the Japanese S.S. *Kisagata Maru*, 2,587 tons, no wireless, no gun, going from Bordeaux to Barry, and sank her with bombs. The crew of 29 were picked up by a French patrol the *Souffleur* and landed on the Isle of Groix. At 3.20 p.m., January 20, some miles to the eastward in 47° 35' N., 3° 48' W., the Norwegian S.S. *Iotunfell*, 2,621 tons, laden with coal, from Cardiff to St. Nazaire, was going along at eight knots when *U.C.21* stopped her. She was about to sink her with bombs when the French gunboat *Espiegle* was

¹ I.D., Vol. 630.

² About 60 miles north-east of Pontusval Light (H.S. 351/567); this position is 49° 32' N., 3° 38' W., which is 26 miles from position of *Marietta di Giorgio*, at 10.30 a.m. *Joseph Rosalie's* position has been taken, therefore, as 49° 32' N., 4° W.

sighted, and *U.C.21* sending a torpedo into the ship, went down. The ship was badly damaged but was towed successfully into harbour. That night *U.C.21* laid six mines off the Loire¹ and then went on to the Gironde, where at 10 p.m., January 21, she sank two small French sailing vessels the *Leontine*, 124 tons, and *St. Pierre*, 277 tons. She also stopped at 9.45 p.m., a French sailing vessel the *Victoire* and placed bombs on board; they did not go off and the crew returned and brought her into the Gironde. *U.C.21* laid nine mines that night in the mouth of the river; which were found the next day, January 22, but in spite of the closure² of the port, the French S.S. *Quebec*, 3,346 tons, struck one of them on January 23, at 9.30 p.m., and sank.

U.C.21 remained on the Biscay coast till January 25. On January 22 at 7.20 a.m., in 45° 36' N., 1° 34' W., she sank the small French s.v. *Precurseur*, 364 tons, with gunfire and bombs. At 10.45 a.m., January 22, in 45° 33' N., 1° 24' W., she attacked another French s.v. the *Bearnais*, 149 tons laden with pitprops, which, in spite of the ravage of bombs and gunfire kept her afloat. At 3 p.m., January 22, in 45° 36' N., 1° 40' W., the Greek S.S. *Stenimachos*, 1,175 tons, laden with wine, came in sight and was sunk with bombs. The Gironde had been closed on January 22 and a whole day passed without a sink. *U.C.21* was by that time homeward bound. On January 24 at 10.20 a.m., in 46° 29' N., 3° 5' W.,³ she met the Danish s.v. *Vega*, 195 tons, laden with pitch-pine from Liverpool to St. Nazaire, and sank her with bombs. At 1.45 p.m., in 47° 7' N., 2° 46' W., she met another Danish ship, the S.S. *Dan*, 1,869 tons, proceeding from Sfax to Nantes with 2,892 tons of phosphates, and sent her to the bottom the same way. She was then off Belle Ile, where in the evening of January 24, she sank two French pilot boats, the *Marie*, 20 tons, and *Loire*, 27 tons. She was attacking another at 7.15 p.m., when two patrol vessels, the *Sauterelle* and *Cobra*, came up and drove her down. On January 25, she was close in to the nasty bit of coast off Penmarch, when at 9.45 a.m. in 47° 42' N., 4° 13' W., she stopped the Norwegian S.S. *Myrdal*, 2,631 tons, going from Cardiff to Genoa with coal, and sank her with bombs.

This was the last ship she sank on this cruise and she was back on January 29, having sunk six steamers and eight sailing vessels of 14,197 tons. She does not seem to have been seriously attacked.

113. H.M.S. "**Ferret**" **hit, January 18.**—An attack on the destroyer *Ferret*, Lieutenant Williamson Napier, on January 18, in the Channel was made by *U.C.21*. The *Ferret*, belonging to

¹ Field 281, O.U. 6020 B.

² Field 281a, O.U. 6020 B. H.S. 351/812.

³ Etudes, I.D. Vol. 726; position long. 7° 40' W.) in report in I.D. Vol. 630 is manifestly wrong.

the First Flotilla, which was stationed at Harwich for service with the 3rd Battle Squadron, had been lent to Portsmouth with three others to hunt submarines and on January 18 at 12.38 p.m. was in 50° 15' N., 0° 43' W.,¹ on the Portsmouth-Havre route carrying out a sweep on a course E. by S. at 18 knots, when she was suddenly struck aft by what was thought at the time to be a mine, for no track of a torpedo was seen, nor was any subsequent attack made. The turbines would not move, but by 4 p.m., four Portsmouth destroyers, the *Druid*, *Hind*, *Sandfly* and *Spiteful*, arrived on the scene and the *Druid* towed her safely into harbour where she arrived at 9 p.m. A fragment of metal found on board was identified in the *Vernon* as part of the body of a torpedo pistol.²

114. **Flanders Submarines, January, Figures.**—During January, there were operating in the Channel and to the westward of Flanders, submarines as follows:—

Flanders Submarines, January 1917.

	Days out.	Sunk.			Tonnage sunk.
		Steam Ships.	Sailing Vessels.	Ships.	
<i>U.B.18</i>	9	5	—	5	6,329
<i>U.B.39</i>	11	6	1	7	10,222
<i>U.B.23</i>	13	—	1	1	249
<i>U.B.37</i> (sunk) ..	1	1	—	1	1,999
<i>U.B.38</i>	14	2	1	3	3,673
<i>U.C.18</i>	15	7	6	13	14,636
<i>U.C.16</i>	16	5	—	5	7,726
<i>U.C.17</i>	14	2	2	4	4,586
<i>U.C.21</i>	13	6	8	14	14,197
	106	34	19	53	63,617

These nine Flanders submarines, three less than in December, were operating for 106 days and sank 53 vessels (34 steamers and 19 sailing vessels), of 63,617 tons, making an average per submarine per day of 600 tons. The figures for December were 89,521 tons and 695 tons per submarine per day, a decrease in January of 25,904 tons and 95 tons per submarine-day. Of these 53 ships,

¹ Position in *Ferret's* report, M.10265/17. Position made by signal at 1 p.m. was 15 S.O.I. (i.e., 50° 17' N., 0° 28' W., from Auxiliary Patrol Chart, X.123), telegram, St. Catherines to Admiralty. H.S. 350/467. *U.B.38* was in Bristol Channel approach; *U.C.18* off Ushant; *U.C.16* between Lizard and Ushant.

² *Ferret's* report, M.10265/17, titled A. 181/1917; Marine-Archiv in H.S./Q 24.

33 were sunk in the Channel or the entrance of the Channel; and 20, of 24,464 tons, on the Biscay coast by *U.B.39*, *U.C.18* and *U.C.21*. The nationality of the above ships was:—

	Ships.	Tons.	Per cent.
British	7	13,881	22
French	16 ¹	3,125	5
Italian	1	2,457	4
Belgian	1	2,412	4
Norwegian	15	19,829	31
Danish	7	9,043	14
Spanish	2	4,784	7
Greek	1	1,175	1
Swedish	1	1,798	3
Japanese	1	2,587	4
Uruguay	1	2,537	4
Total	53	63,628 ²	

Ships attacked.—The total number of ships attacked by Flanders submarines in the Channel was 69, of 96,516 tons, of which 16, of 34,499 tons, or 36 per cent., escaped or were salvaged.

The agency of escape was:—

Patrols, arrival of	8 of 18,581 tons.
Gunfire, defensive armament	3 ,, 12,060 ,,
Remained afloat	2 ,, 2,738 ,,
Made for land	1 ,, 1,020 ,,
Bombs did not explode	1 ,, 100 ,,
Total	16 ,, 34,499 ,,

The mines laid by Flanders submarines in the Channel and Bay were 69. Ships mined were five of 12,858 tons and a destroyer, torpedoed:—

January 18.—H.M.S. *Ferret* (reached harbour), Channel, *U.C.21*, on January 17 (see s. 113).

January 20.—French S.S. *Phoebe* (salved), 3,956 tons, Raz de Sein, Ushant, *U.C.16*, on January 14.

January 22.—Dutch S.S. *Juno* (reached harbour), 2,345 tons, Hastings, *U.C.16*, on January 17.

January 24.—French S.S. *Quebec*, 3,346 tons, Gironde, *U.C.21*, on January 21.

January 31.—Dutch S.S. *Epsilon*, 3,211 tons, Falmouth, *U.C.17*.

¹ All sailing vessels and not including 16 fishing craft of 505 tons sunk by *U.B.39* off Gironde, January 3 and 4.

² A difference of 11 tons from previous total has crept in.

Of the 12,858 tons mined in the Channel and Biscay in January, 6,301 tons, or 50 per cent., were salvaged.

The number of attacks made on the submarines in the Channel showed a decided decrease. There were only six of any importance, one of which resulted, fortunately, in the destruction of *U.B.37*.

January 3.—*Q.8* on *U.B.18* (Scillies).

January 3.—*Q.12* on *U.48* (Fastnets).

January 7.—Armoured trawler *Sitvel*, on *U.B.18* (Cherbourg).

January 12.—*Q.13* on *U.B.23* (Channel Islands).

January 14.—*Q.7* sank *U.B.37* (Portland).

January 30.—*Q.11* on submarine (Bristol Channel).

It will be seen that five out of six attacks were by *Q* ships, and six attacks in 106 submarine-days gives an average of one every 17 days, a figure indicating a much greater degree of caution on the part of submarines than in December.

115. Measures, Channel, January 1917.—On January 1 1917, there were only two submarines in the Channel—*U.B.18* off the Scillies and *U.B.39* off the north coast of Brittany. In consequence of a very vague report received from Lands End by an unknown ship at 11.15 a.m.¹ of a submarine off Trevoise Head, the *Cockatrice* and *Garland*, from Devonport, were sent off on a search there and returned the next day. The appearance of *U.B.39* on the north coast of Brittany led to the suspension of traffic between Brest and Cherbourg for a day. *U.B.18*'s presence, off the Scillies and the Wolf, where she had sunk two Norwegian ships, the *Ellik* and *Bestik*, was announced in the War Warning² of January 3 at 11.10 a.m. Her position was located by directionals³ at 1.47 a.m. and 6.30 a.m., and may have been passed to *Q.8*, the *Vala*, who, at 9.50 a.m. met and engaged her, sending in a message to say she had sunk a submarine.⁴

At 1.18 p.m. came in a message to the same effect from *Q.12* which had been in action off the Fastnets with another submarine (probably *U.48* on the way to Spain). Though neither of these submarines was destroyed nor even damaged, the encounters show the activity of the *Q*. ships at the time, and *U.B.18*, though she continued operating, was evidently careful to avoid the British side of the Channel.

At Portsmouth, the *Acasta* and *Christopher*, of the 4th Flotilla, went out that day hunting submarines and returned the next day, January 4. *U.B.23* had entered the Channel by then and the sight of destroyers may have had something to do with her poor "bag."

¹ H.S. 346/116, 248, 470.

² H.S. 346/611.

³ F delta, January 3, 1.47 a.m., 48° 24' N., 6° 24' W.; 6.30 a.m., 49° 5' N., 6° 3' W. Telegram, Admiralty, Devonport. H.S. 346/694.

⁴ H.S. 346/604.

Whether for this reason or some other the Portsmouth area enjoyed complete immunity for the first week of the month. *U.B.39* had gone off to the Biscay coast and her presence there led to a partial suspension of traffic to St. Nazaire during daylight hours.¹

The *Acasta* was at sea again on January 6 hunting between St. Alban's Head and the Owers and off the Channel Islands, and on January 7, the Commander-in-Chief, Devonport, was given six *P*. boats to perform the same task to the westward. *U.B.23* appeared in the Channel that day, January 7, between Beachy Head and Havre, and *U.B.18* on her way home was sighted at 9.55 a.m. on the French side off Cape Barfleur by the Portsmouth armed trawler *Sitvel*, which opened fire on her at a range of nearly 8,000 yards. Commodore (T) was thereupon told at 12.7 p.m., January 7, to send all available destroyers of the 1st Flotilla to Portsmouth to operate against submarines, and sent off six of them within an hour. They were working in the eastern part of the Channel for the remainder of the month, during which time only one ship was sunk there—a small French s.v. the *St. Michel*, of 419 tons. In the west there was a considerable diminution of activity between January 5–12. The arrival of *U.B.37* gave rise to a burst of activity on January 14 off Portland which was brought to a sudden conclusion at 4 p.m. by *Q.7*, who sent her to the bottom.

The Admiralty were busy considering the protection of the French coal trade at this time and on January 16 proposed that colliers to Havre should cross the Channel at night by one of the patrolled routes from Portsmouth to Havre, but the Commander-in-Chief thought that sailing without lights they would endanger transports, and suggested that they should make a port east of Cape Barfleur and then follow the coast.² It was probably on the same account that the Commander-in-Chief, Devonport, was told, January 16, to arrange for a destroyer patrol of two destroyers to ply to the westward of Start Point and Casquets.³

On January 18 a trawler thought she saw the periscope of a submarine in the Bristol Channel,⁴ and the Commander-in-Chief, Devonport, was told to send two destroyers to patrol there; and the same day, January 18, he received further orders to send four good destroyers of the 4th Flotilla to Lisbon on January 23 to escort transports to Brest. Three days later, on January 21, orders went out for the new patrolled lane⁵ (from Trevoise Head to the Royal Sovereign) to come into force, and the arrangements for the French coal trade to be convoyed were approved the next day, January 22.

¹ H.S. 346/815.

² H.S. 349/893.

³ H.S. 349/828.

⁴ 1.40 p.m. in 51° 27' N., 5° 12' W. HS. 350/512, 596. It is just possible that it may have been *U.B.38*.

⁵ M.0543/17, for details see S. 27.

Both of these important measures,¹ were to prove their efficacy later on. The month began with two submarines in the Channel and ended with the same number—*U.C. 16* and *U.C. 17*. Mid-Channel air patrols were being organised, too, with seaplanes of the Portsmouth Group Air Station and were doing useful work. In January 1917 this group comprised an Air Station at Calshot and sub-stations at Bembridge and Portland. In May a station was added at Newhaven.

It is unfortunate for the due recognition of the work done by the Auxiliary Patrol that the list of ships that passed in safety is too long to set side by side with the long list of losses. The following figures, however, give some idea of it. From the midnight, December 31–January 1, to midnight January 28–29 there crossed in complete safety to France 909 transports, making 1,621,186 tons of shipping. Not one ship was lost. Within twelve miles of the British coast, not a single ship was lost during the month. Only seven British ships, of 13,881 tons, were lost in the Channel during January. Later on in the war, convoy became necessary, but so far as the protection of British shipping in the Channel was concerned, the measures in force in January were remarkably effective, and were handicapped only by the lack of destroyers and *P.* boats.

116. North Sea, Submarines and Submarine Minelaying.—In the North Sea, as in December, the comparatively small losses were chiefly due to mines. No British merchant ship was sunk in the North Sea by submarine, though north-west of the Orkneys on January 9, at 3.45 p.m., the British S.S. *Excellent*, 1,944 tons, an Admiralty collier on the way from Cardiff to Swarback Minns, was stopped by *U.70*, on her way home, in 59° 40' N., 4° W., sunk by gunfire, and had her master taken prisoner. Some thirteen Scandinavian ships were stopped in the North Sea during the month and allowed to proceed. One, the Norwegian S.S. *Nanna*, was captured on January 24, by *U.79* and made to tow her to the Bight, where she was detained till May 10 1917.²

Only one British ship was attacked. This was the S.S. *Baron Garioch*, which on January 31 at noon off Hartlepool in 54° 36' N., 0° 43' W., had a torpedo fired at her by *U.C.32*, which passed under the ship. Twenty-two ships³ struck mines in the North Sea, of which 21 were lost with a tonnage of 32,133 tons.

In the Flanders Flotilla⁴ six submarines made fourteen trips from Zeebrugge laying in the North Sea 23 fields of 199 mines.

¹ See S. 27, S. 29, December 1916.

² Bergens Tidende of May 25 1917, in I.D. Vol. 630.

³ British, 9; armed trawlers or drifters, 3; Norwegian, 6; Danish, 1; Swedish, 2; Russian, 1.

⁴ Total mines laid by the Flanders Flotilla in January were: England, East Coast, 155; Calais, 44; England, South Coast, 36; France, West Coast, 36; total, 271.

Working north of Flamborough Head, seven High Sea Fleet mine-layers laid 124 mines, of which 106¹ were laid in the North Sea.

The total mines² laid by German submarines in the month were:—

	<i>Mines.</i>
By Flanders Flotilla:—	
England, east	155
Calais	44
England, south	36
France, west	36
By High Sea Fleet:—	
Shetlands, Orkneys and Scotland, east ..	68
England, east	54
Scotland, west, and Ireland, north ..	18
Total mines	411

The number of ships mined was 27, of which five³ struck mines laid before January, making 22 for January, or one for every 18 mines.

The total losses by mines in the various areas were:—

	<i>Mines.</i>	<i>Ships.</i>	<i>Tonnage.</i>	<i>Tonnage per Mine.</i>
North Sea ..	321	21	32,133	100
Channel ..	36	1	3,211	89
France, west	36	1	3,346	93
Scotland west and Ireland.	18	1	14,892	827
		(Laurentic)		
		—		
		24	50,236	

The first ship mined in the New Year was saved. This was the British S.S. *Sussex*, 5,686 tons, with 4,800 tons of meat from Australia. She had made the Downs on December 30 1916, and was there given directions for Dunkirk, viz., to pass from the Varne close south of Gravelines Light Buoy. She mistook the green light on the Ridens de la Rade, about two miles north of Calais, for Calais harbour light, though it was on the charts

¹ To the westward, 18 by *U.80*; viz. Cape Wrath, January 22, 4; Stornoway, January 22, 4; the Minch, January 23, 4; Lough Swilly, January 24, 6.

² From O.U. 6020 A. and O.U. 6020 B. with dates furnished by Marine-Archiv.

³ Note.—The Swedish S.S. *Fernebo*, 1,326 tons, January 9, and Norwegian S.S. *Ole Bull*, January 11, 1,835 tons ran on mines laid off Cromer by *U.C.18* in October 1916; British S.S. *Sussex*, 5,686 tons ran on mines, January 1, West Dyck, laid by *U.C.1*, December 8 1916; also British *Lonclava*, 1,294 tons, January 4, Sunderland, ran on mine laid by *U.C.31* on December 30; also H.M.D. *Cape Colony*, 82 tons, mines laid by *U.C.6*, December 28. Therefore five ships of 10,223 tons must be debited to previous months.

of December 1914. This brought her on a course to northward of her route and she duplicated her error by mistaking Buoy 20A, white occulting, of Dover Barrage, which was not on her chart and of which she had no information, for Gravelines Light Buoy. This landed her on the West Dyck where at 11.5 p.m., on December 31 in $51^{\circ} 4\frac{1}{2}'$ N., $2^{\circ} 1\frac{1}{2}'$ E., she struck a mine, laid by U.C.1 on December 7-8.¹

Fortunately she remained afloat; tugs arrived and she was finally beached at Dunkirk. The light on Buoy 20A, whose position had not been reported to the Hydrographer, was altered after this mishap to a red flashing light.²

At the other end of the North Sea the Shetlands and Orkneys received a New Year baptism of mines. On January 2, U.C.33 laid six mines off Lerwick and six the next day, January 3, off Shapinsay Sound in the entrance to Kirkwall, the blockade examination port for neutral vessels in the north. The field was betrayed by a mine on the surface on January 4, which showed that the Germans had the same difficulty as ourselves in getting mines to keep their depth; two more were found in the nets of net drifters and on January 5 and 6 two more by a sweeping force of sloops.

U.C.41 was busy in the night of January 7 laying mines off the Tay (5), Firth of Forth (9) and Aberdeen (4). One was found the same day in the Tay channel, and two more on January 9, but though the channel was swept on January 17, 18 and 19, the British S.S. *Clan Shaw*, 2,502 tons, from Chittagong to Dundee, struck another on January 23 and sank with her cargo of 1,900 tons of jute.

The last mine of the field was found drifting about on January 28 and was sunk by gunfire.

Of the nine mines laid by her off May Island and in the Forth, January 7, one was found by the armed yacht *Agatha* that day, seven were swept up on January 22 and one was washed ashore near Pittenweem, a small harbour on the north side of the Forth.

The mines laid off Aberdeen were found the next day, January 8, and resulted in the closure of the port for two days.³

In the south, the Flanders submarines were equally active, and on January 6, four of them laid four cargoes of mines round the Shipwash, the Elbow, off the Flanders coast and on the Sizewell Bank off Orford. (Plan 14.)

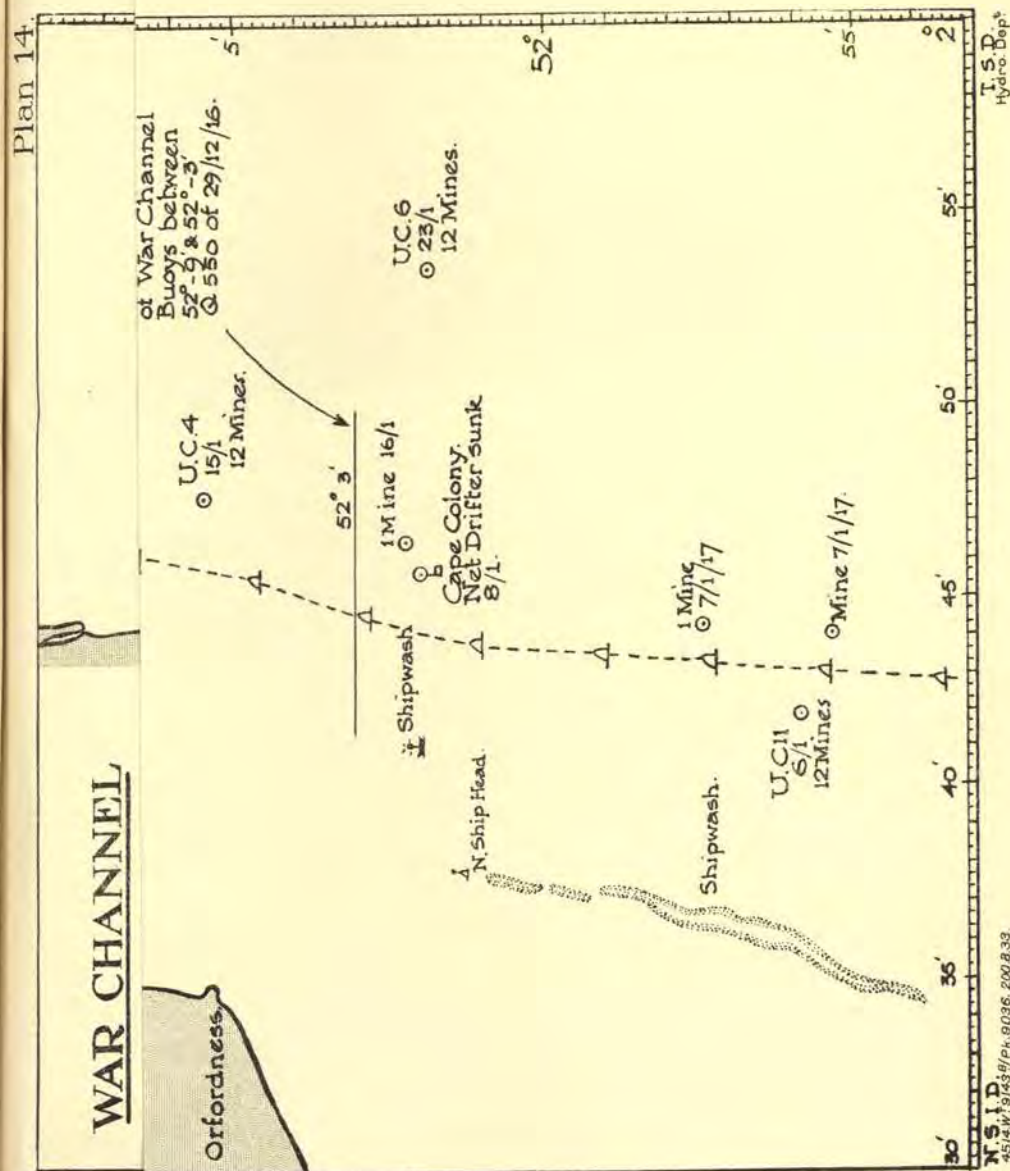
A Lowestoft minesweeper, the *Donside*, was sunk the next day, January 7, at 4 p.m. off Southwold⁴ by one of U.C.4's mines. She went down in two minutes with a loss of five men. A net drifter, the *Cape Colony*, suffered the same fate off the Shipwash. The latter

¹ Field 253, O.U. 6020 B., $51^{\circ} 3' N.$, $2^{\circ} 2' E.$

² M.0473/17 in X.10768/1917.

³ Q. telegram 589.

⁴ Lat. $52^{\circ} 17' N.$, long. $1^{\circ} 44' E.$, about four miles north of position of U.C.4's mines, in O.U.6020 B. Papers X.477/1917.

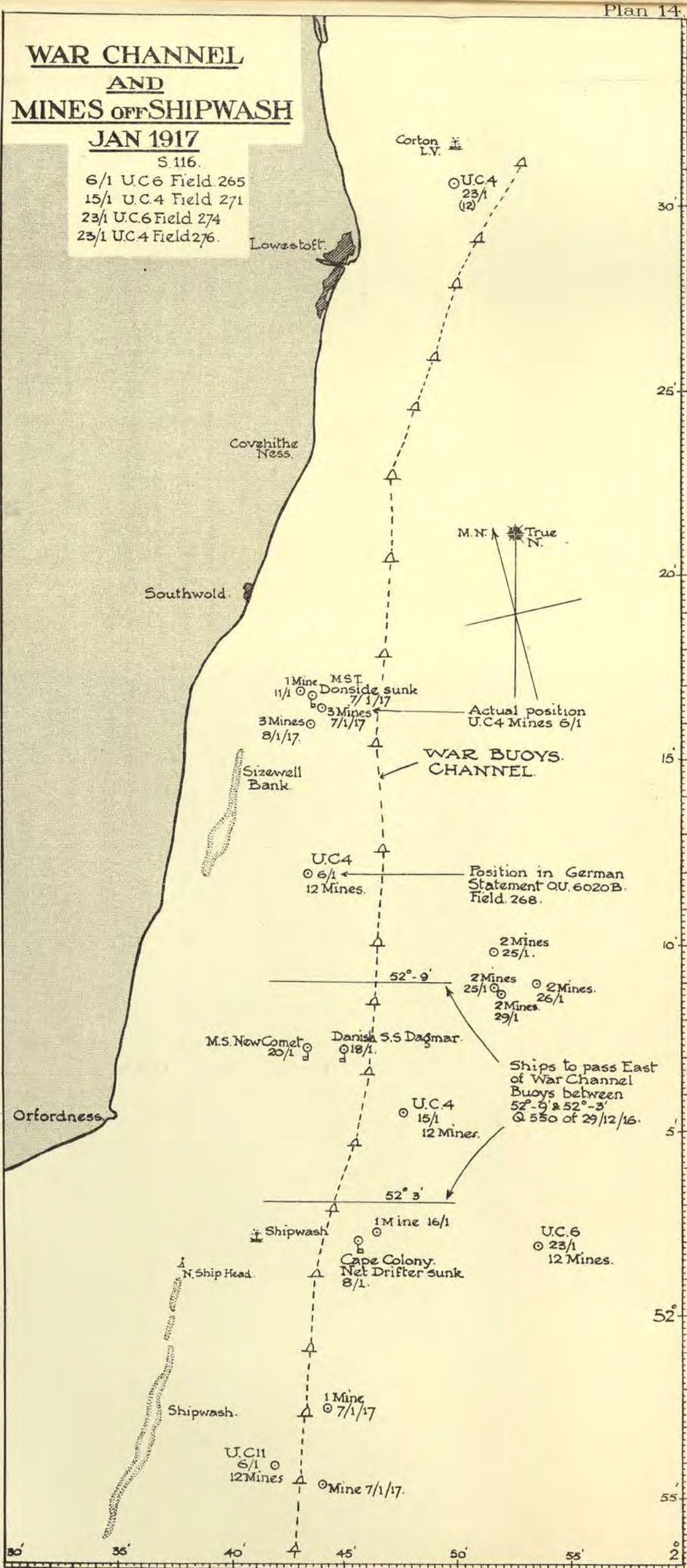


WAR CHANNEL AND MINES OFF SHIPWASH

JAN 1917

S. 116.

- 6/1 U.C.6 Field 265
- 15/1 U.C.4 Field 271
- 23/1 U.C.6 Field 274
- 23/1 U.C.4 Field 276.



was at anchor during the night watching her nets, but instead of catching a submarine, on weighing at daylight on January 8 her anchor caught a German mine which exploded and blew her up.¹

Farther up the coast off Cromer, a day or two later, two other ships struck mines. One was the Swedish S.S. *Fernebo*, 1,326 tons, with timber from Sweden to London. She had come over from the Skaw to Whitby and was coming down the coast channel on January 9. Possibly on account of an easterly gale she passed to westward of Sheringham Shoal, and at 2.30 p.m., January 9, was three miles north-west of Cromer in 53° N., 1° 20' E., when she struck a mine, settled down and broke in half.²

The news reached the Admiralty at 3.32 p.m. and though on January 10 at 9.20 p.m. an area within three miles of Cromer was declared dangerous,³ the minefield was to find another victim. This was the Norwegian S.S. *Ole Bull*, 1,147 tons, bound from Hartlepool to Rouen with 2,480 tons of coal. At Hartlepool, which she left on January 10 at 4 p.m., she had been told that the Customs had no special instructions but she might apply to the Commander at Newcastle. This the Master had no time or possibly no inclination to do.

Off Sheringham Bank he met a patrol boat which told him to pass three miles off Cromer.⁴

He had passed Cromer and was off Haisborough (or Happisburgh) in 52° 52' N., 1° 35' E., on the coast of Norfolk at 3.15 p.m., January 11, when a terrific explosion occurred and the vessel went down in two minutes.

Both these ships apparently ran into a minefield laid in 1916,⁵ and were both some three miles inside the swept War Channel,⁶ evidently trying to take a short cut along the coast between the Race Bank (the Wash), and the Cockle Light Vessel off Yarmouth.⁷

117. **German Submarine Minelaying** (*Continued*).—U.C.43, High Sea Fleet, made an excursion the same day laying packets of mines off Whitby (8) on January 11, off Flamborough Head (4) on January 12, and on January 13 off Hartlepool (3), and the Tees (3). The Whitby field was found by the British S.S. *Brentwood*, 1,192 tons, on her way from London to the Tyne in ballast. She was in the

¹ Lat. 52° 2' N., long. 1° 46' E.

² Field 204. O.U. 6020 B. in lat. 52° 59' N., long. 1° 21' E., laid in October 1916 by U.C.18.

³ H.S. 348/280 and telegram 594 Q. H.S. 348/441.

⁴ Evidently repeating 594 Q. of January 10, Master's deposition in M.60560/17.

⁵ Field 238b in O.U. 6020 B. laid by U.C.13, November 15–21, 1916.

⁶ Admiral Fitzherbert pointed this out in M.60560/17 (Norwegian S.S. *Ole Bull*). The area between Cromer and Happisburgh was declared dangerous on January 12 (Q. 599).

⁷ See chart of War Channel, X.136.

War Channel off Whitby going N.W. by N. at 1.55 a.m. on January 12 when an explosion occurred and the ship foundered in four minutes. Between January 15 and 18 four moored mines were swept up in this field and destroyed.

The four mines off Flamborough Head found two victims three days later. The first was the Norwegian S.S. *Brabant*, 1,494 tons, carrying 800 tons of wood pulp from Christiania to London. On January 15 at 2.55 p.m. she was some two miles south-east of Flamborough Head ($3\frac{1}{2}$ miles inside the War Channel), in $54^{\circ} 7' N.$, $0^{\circ} 2' W.$, when a heavy explosion took place under the fore-castle. The ship began to sink and, in lowering the starboard boat, the tackle gave way and three stewardesses were thrown overboard and drowned. The Danish S.S. *Paegel* picked up the 18 survivors.¹

Barely an hour later the Norwegian S.S. *Graafjeld*, 388 tons, came along on her way from Haugesund to Hull with 688 tons of herrings. At 4 p.m., January 15, she was three miles east of Flamborough Head, about one mile inside the War Channel Buoy, in $54^{\circ} 7' N.$, $0^{\circ} 1' W.$, when she was struck² and began to sink at once.

The two remaining mines were swept up by Grimsby sweepers on January 16 and 17 and the area was declared clear on January 21.

In the south, *U.C.4* on January 15 dropped another cargo of 12 mines close to the War Channel abreast of Orfordness. It was probably one of these that the Danish S.S. *Dagmar*, 467 tons, struck on January 18 at 3.15 p.m. on her way from Trouville to Methil in ballast. She was in $52^{\circ} 7\frac{1}{2}' N.$, $1^{\circ} 45\frac{1}{2}' E.$, a mile to westward of the War Channel, and the Admiral, Minesweeping, pointed out that she was in waters forbidden by *Q.550* of December 29.³ Two days later, January 20, the armed trawler, *New Comet*, was sunk a mile or so to the westward ($52^{\circ} 07\frac{1}{2}' N.$, $1^{\circ} 43\frac{1}{2}' E.$).

U.C.43's mines were probably responsible, too, for the loss of the British S.S. *Planudes*, 562 tons, which left the Tyne for Trouville on January 18 and was never seen again. She was last seen off Whitby at dusk on January 18.⁴

Meanwhile, *U.C.40*, of the High Sea Fleet, laid six mines off Blyth on January 17, one of which, on January 22 sank the

¹ M.60984/17, Board of Trade, January 22 1917.

² The master said by a torpedo, and that he saw the periscope, but it was more probably one of *U.C.43's* mines. M.60984/17. O.U. 6020 A., Field 19.

³ M.61066/17, *Q. 550* of December 29 1916, 1538. Area within $1\frac{1}{2}$ miles of lat. $52^{\circ} 6' 30'' N.$, long. $1^{\circ} 44' E.$, is to be avoided. Ships are to pass east of War Channel between lat. $52^{\circ} 3' N.$ and lat. $52^{\circ} 9' N.$ Issued to Customs as Traffic Instruction W.61, December 29 1916.

⁴ M.63853/17. O.U. 6020 A., Field 17.

Swedish S.S. *Kamma*, 1,1515 tons, carrying 621 tons of timber from Sweden to Rouen. She had arrived the day before and, on account of heavy weather, was waiting outside the harbour for a pilot when, at 10.40 a.m., the ship was blown in two and went down with a loss of four men. The minelaying on the Durham coast, which had only begun in December, was becoming, in January, so serious a menace that Admiral Fitzherbert stated it would not be possible, without reinforcement, to ensure even moderate safety for passing ships, or to carry out a regular search of the approaches to Blyth, Tyne, Hartlepool and Tees.¹

Six of the Tyne trawlers were accordingly fitted with mine-sweeping gear for emergencies; and Blyth and the Tees were each given two more to sweep the channel daily for the 10th Submarine Flotilla.

On January 27 *U.C.31* laid four mines off the entrance of the Tyne, four off Seaham and six off Sunderland,² then turned for home. On January 28 at 8 a.m., in $55^{\circ} 44' N.$, $0^{\circ} 53' E.$, she sank the British trawler *Alexandra* and was proceeding to sink three more when she was rudely disturbed. Warrant Officer Bernhard Haack was actually rowing on board the *Mayfly* when at 9.45 a.m. the armed trawler *Speedwell II*, disguised as a small coaster, came on the scene. *U.C.31* dropped a shot near her, but getting a sudden and forcible reply from her two 12-pdrs. at 3,500 yards, made a crash dive, leaving Herr Haack very much alone and a prisoner. A depth charge was dropped, but *U.C. 31* got safely home.³

On January 27, *U.C.26*, of the Flanders Flotilla, laid her cargo of 18 mines in the Humber area off the Inner Dowsing.⁴

Four vessels, including the Norwegian S.S. *Heimland I*, the Norwegian S.S. *Argo*, and the Russian S.S. *Egret*, were anchored that evening south of the Inner Dowsing Light vessel with their anchor lights burning brightly. *U.C.26* evidently saw them and laid her mines across their track. They had barely got under way at 7.45 a.m., January 28, the next morning, when the *Heimland*, 269 tons, on the way from Newcastle to St. Nazaire with 600 tons of coal, suddenly sighted a mine on the starboard bow but, before she could answer her helm, she struck it at 8 a.m. and went down like a stone ($53^{\circ} 17\frac{3}{4}' N.$, $0^{\circ} 36\frac{1}{2}' E.$). A bare quarter of an hour elapsed before the *Argo*, 746 tons, also going south with 1,400 tons of coal from Hull to Rouen, struck another, which blew her forepart completely up, killing eight men, and sank. ($53^{\circ} 19' E.$, $0^{\circ} 37' E.$).

¹ M.0704/17.

² Fields 22-26, O.U. 6020 A.

³ I.D., Vol. 611, C.B. 01289, Interrogation of Haack. Haack referred to *U.C. 31* as *U.C. 32*.

⁴ Field 279, lat. $53^{\circ} 17' N.$, long. $0^{\circ} 40' E.$ They seem to have been laid about two miles S.E. by S. of the light vessel, *i.e.*, about two miles westward of position in O.U. 6020 B.

The Russian S.S. *Egret*, 2,598 tons, with 1,100 tons of timber for London came next. A small coaster, the *Hornsund*, had the signal for "mines" flying, and the *Egret* sighted one but struck it about 8.10 a.m.¹ before she could get out of the way and sank, after remaining afloat for about an hour. The Channel had not been swept; the position was about 24 miles from Grimsby, or at least four hours for trawler minesweepers, and a heavy sea was running. The *Egret* had taken a pilot at Leith, who was asked why he was 1½ miles inside the War Channel, and replied that it was exceedingly hard to judge the strength of the cross-tide, that the pilots had no War Channel charts and were not always allowed to see them by the Masters, and that there were no lights to verify their position. His explanation was accepted, but in the case of the *Argo*, mined almost in the same spot, the Pilot's licence was suspended till the end of the war.² Of the 18 mines, eight had been swept up by February 12.

U.C.17 laid mines off Dartmouth (6) and Plymouth (4) on January 21. In the Channel four more were dropped off Falmouth on January 22, which found a victim in the Dutch S.S. *Epsilon*, 3,211 tons, with 4,768 tons of grain from Buenos Aires to Amsterdam. She had put into Falmouth for inspection on January 29 and sailed on January 31 at 2.40 p.m. Five minutes later she was passing the entrance about three-quarters of a mile from St. Anthony's Lighthouse, when she struck a mine and sank.³

There were no casualties, but she was the first ship to be blown up in Falmouth⁴ and her loss shook Dutch confidence in the supposed security of the harbour as an inspection port for neutral ships. Plymouth was also closed by mines, and ships for Falmouth and Plymouth were ordered to St. Helens and Portland for a time.

The largest merchant ship mined in the month was the British S.S. *Port Nicholson*, which on January 15 struck one of the mines laid by *U.C.1* off Calais the night before. She was a ship of 8,418 tons carrying 4,500 tons of meat and wool from Sydney for the Board of Trade. By arrangement with the War Office she was directed to Dunkirk and left Devonport on January 13 for that port. On January 14, at 4.42 a.m., she was ordered by a patrol to anchor off Dungeness, and at 1 p.m. was allowed to proceed for Dunkirk. She passed Cape Gris Nez at 3.55 p.m., bound north, but the master thought it too late to enter

¹ Light vessel keeper gave times as 8 a.m., 8.20 a.m. and 8.50 a.m., and positions as S.E. by S., 2½ miles; S.E. ½ S., 1½ miles; S.E. ¼ E., one mile, from Inner Dowsing Light. This makes them all about 1½ miles to westward of War Channel. Positions in text are from Minesweeping Statement, H.S.B. 170, Inner Dowsing Light was then in lat. 53° 19' 35" N., long. 0° 34' 52" E.

² Trinity House, Hull, April 13 1917, in M.61381/17, Board of Trade, February 1 1917, and also M.61317/17 and *Heimland*, M.61432/17.

³ M.61517/17.

⁴ This was the second minefield laid off Falmouth.

Calais Roads so turned back to Ambleteuse Roads. While he lay there that night, *U.C.1* was busy laying mines off Dunkirk.¹ The next morning, January 15, the *Port Nicholson* got under way: she anchored in Calais Roads and passed on to Dunkirk at 1.45 p.m. At 2.40 p.m., half way to Gravelines,² a heavy explosion occurred which totally wrecked the engine room and the ship began to settle down. Two paddle steamers got hawsers on board and towed her some three miles towards the Haut Fond Bank, but the wires parted, and at 3.40 p.m. she heeled over and capsized. All the crew, except two men killed in the explosion, were saved.³

118. **Loss of "Laurentic," January 25 1917.**—The most serious loss by mines in the month was the armed merchant cruiser *Laurentic*, 14,892 tons, Acting-Captain Reginald A. Norton, R.N. Large shipments of gold were going to Canada at this time. The cruiser *Cochrane* sailed with one from Invergordon, on January 18,⁴ and the *Laurentic* left Liverpool, January 24, with another. Her original orders directed her to proceed by the North Channel, Rathlin Sound, and from 55° 24' N., 6° 55' W., to steer 268° to 15° W.⁵ Had she followed them she would not have been mined. But on January 23,⁶ possibly because of the report of a submarine having attacked a trawler on January 21, about 40 miles N.W. by W. of Innishtrahull, she was ordered by the Admiralty to make Lough Swilly at daybreak, anchor there during daylight hours and leave at dark.

She sailed at 3 p.m., January 24, proceeding at about 16½ knots, and showing no lights, with destroyers escorting her till dark. It was snowing and blowing a south easterly gale. She arrived at Lough Swilly before daylight and passing about half a mile from Dunaff Head, the easterly entrance, entered the boom at Dunree Head and anchored off Bunrana.

That same night *U.80*, a large minelayer which had dropped mines off Swarbacks Minn in the Shetlands, Hoy Sound in the Orkneys, and Stornoway in the Minch, arrived off Lough Swilly. She seems to have missed the harbour at first, and dropped only three mines in the entrance.⁷ The *Laurentic*, hugging the eastern

¹ Field 272 in O.U. 6020B.

² Two and a half miles past Walde in lat. 51° 2' N., long. 1° 58' E. It is not stated whether the channel had been swept that morning.

³ V. A. Dover, January 22 1917, in M.61034/17 in X.753/1917.

⁴ H.S. 349/669, H.S. 350/377.

⁵ *i.e.* Passing two miles south of Innishtrahull Light, steer almost due west. A.L.M. 0710/17 of January 20 1917 in Case 437, p. 29.

⁶ Telegram, January 23 1917, 11.30, to S.N.O., Liverpool.

⁷ One mine was found four miles north-east of Fanad Head on January 29. (Minute, A.M.S., Case 437). No more were found till April 15–19, when five were found round about 7° 45' W., some five miles to westward. These, however, may have been part of a second cargo laid by *U.78* on April 10.

side of the Lough, missed them on the way in. She was not told of the swept channel,¹ and left at 5 p.m. that evening, January 25, at dusk. At 5.55 p.m., she was just in the entrance between Fanad Point and Dunaff Head when a violent explosion occurred abreast of the foremast the port side. Another followed 15 seconds later abreast of the engine room. All lights went out; no reply came from the engine room; the secondary lighting system failed and the ship was practically in darkness; the wireless was apparently disabled and only the *Laurentic's* call sign reached Malin Head; no S.O.S. position went out;² the signalman trying to call up Fanad Point station with a flashing lamp could get no reply. At 6.45 p.m., the ship was sinking and the last boat pushed off. She was mined in the swept channel, two miles, 70° from Fanad Head and sank a mile to the northward.³ Seven boats got away but a heavy sea was running; they were driven to seaward; it was bitterly cold and many died from exposure.⁴ Only 121 survived.

A court-martial⁵ was held on the survivors at Devonport on February 26.

Admiral Frank Finnis, serving as Captain, R.N.R., S.N.O. at Buncrana, stated in evidence that the first he heard of the *Laurentic's* coming was a message from her on the night of January 24 that she was entering at daylight. He did not give her any instructions as to the swept channel. No mines⁶ had been laid in Lough Swilly since he came, June 1916. Under Admiralty Orders the channel should be swept once a week though this was not always possible, as the minesweepers were frequently employed by Admiralty orders in other areas;⁷ the entrance channel (P. Channel) was last swept on January 22; he had seven minesweepers;⁸ they were in Lough Foyle on January 25 waiting for the weather to moderate, and found a mine on January 27 or 28; on the night of January 25 he received at 6.10 p.m. a report from Fanad Head of a white rocket, E. by N., four miles; at 6.39 p.m. came a report of a vessel E.N.E. two miles, showing red lights, and four further reports up to 7.27 of red lights

¹ It would not have helped her, for the mine which blew her up was in the swept channel itself.

² The operator gave as his reason that according to the wireless instructions he had to await orders, Q. 736, in Case 437.

³ *i.e.*, In lat. 55° 18' 20" N., long. 7° 35' 20" W. See chart of track on Chart 2697 in Case 437 (Court-martial). Wreck was located on February 9.

⁴ Seven boats got away apparently with 225 men out of about 470; 121 were saved and 104 died of exposure. In boat No. 16 (the boatswain's—Mr. Newing) all 29 were saved; in No. 14 boat 40 died out of 44 (Q. 605); in No. 6 boat all 27 were picked up dead; in No. 7 boat 30 died out of 35.

⁵ Captain Charles Corbett, president.

⁶ These were the first mines laid in Lough Swilly.

⁷ They had been sweeping off Skerryvore.

⁸ P. & M. Auxiliaries, January 24, p. 152, gives Area XVIII, Lough Swilly Unit 143, seven minesweepers; also seven armed trawlers fitted with sweeps.

and distress signals. Three trawlers left about 6.42 p.m. to search four miles north-east of Fanad Head; four more followed and a telegram was sent to the sweepers in Lough Foyle. The night was very misty and very cold.¹

The Court acquitted the Captain and survivors of all blame; it considered the explosion due to a mine; it pointed out that Instructions for the Entry of H.M. Ships, C.B. 0173 of July 1916 amended by Addenda 16 December 1916, stated that there was no swept channel at Lough Swilly. It found the behaviour of officers and men very creditable.² Long after the war was over, salvage operations were started and 3,186 bars of gold recovered, valued at about £1,500 a bar, or a total of £4,779,000.

119. **Merchant Ship Losses in January.**—The total losses by submarine and submarine mines in the principal areas may be seen in the following table:—

(A)—MERCHANT SHIP LOSSES.

Submarines and Submarines' Mines, January 1917.

S=Ships, T=Tonnage (Gross).

Nation.	Channel.		Atlantic.		Bay.		North Sea.		Mediterranean.		Total.	
	S.	T.	S.	T.	S.	T.	S.	T.	S.	T.	S.	T.
British ..	9	23,940	15	42,648	2	1,593	7	16,724	9	41,573	42	126,478
French ..	10	2,246	3	550	34	29,036	—	—	2	8,157	49	39,989
Japanese ..	—	—	1	2,592	1	2,588	—	—	—	—	2	5,180
Belgian ..	1	219	2	5,221	—	—	—	—	—	—	3	5,440
Italian ..	2	4,382	4	11,327	—	—	—	—	3	8,990	9	24,699
Russian ..	1	949	1	209	—	—	1	4,055	—	—	3	5,213
Norwegian	13	18,118	—	—	19	35,857	8	8,609	—	—	40	62,584
					*							
Danish ..	6	9,033	—	—	—	—	5	6,441	2	2,250	13	17,724
Swedish ..	2	3,684	—	—	—	—	3	3,368	—	—	5	7,052
Dutch ..	3	9,921	—	—	—	—	—	—	—	—	3	9,921
Greek ..	—	—	4	13,400	—	—	—	—	—	—	4	13,400
Portuguese..	—	—	3	2,001	—	—	—	—	—	—	3	2,001
Spanish ..	5	11,477	1	1,042	1	1,616	—	—	—	—	7	14,135
Totals..	52	83,969	34	78,990	57	70,690	24	39,197	16	60,970	183	333,816

* Includes S.S. *Markland*, 1,627 tons, in Biscay, January 5. See Appendix E.

¹ Q. 824-898

² Case 437. Loss of H.M.S. *Laurentic*. Note that in Navy Losses Return, August 1919, p. 5, date of loss is given as January 23: it should be January 25.

A very considerable reduction had been effected in the British tonnage sunk since October, the figures being as follows:—

(B)—BRITISH MERCHANT SHIP LOSSES.

Submarine and Mine.

	By Submarine.		By Mine.	
	Ships.	Tons.	Ships.	Tons.
	October 1916	41	146,891	7	27,681
November 1916	42	96,672	7	72,137**
December 1916	36	109,945	12	20,197
January 1917	33	109,754	7*	16,724

* Not including S.S. *Matheran*, 7,654 tons, sunk January 26, off Cape of Good Hope by one of *Wolf's* mines. Figures in (B) are taken from Merchant Ships, Captured and Destroyed, and differ by 1,026 tons from (A).

** *Britannic*, 48,158 tons, mined, Mediterranean, Nov. 21. by *U.73*.

The principal reduction had been effected in the Mediterranean where losses fell by 31 per cent.

(C)—BRITISH LOSSES, JANUARY 1917 AND DECEMBER 1916.

	January 1917.				December 1916.			
	Submarine.		Mine.		Submarine.		Mine.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
North Sea ..	—	—	7	16,724	—	—	8	13,606
Channel ..	9	23,940	—	—	16	35,247	2	5,306
Irish Sea ..	—	—	—	—	—	—	2	1,285
Atlantic ..	15	42,648	—	—	7	11,927	—	—
Bay ..	2	1,593	—	—	1	2,560	—	—
Mediterranean	9	41,573	—	—	12	60,200	—	—
Totals ..	35	109,754	7	16,724	36	109,934	12	20,197

The Norwegians again suffered severely and were heavily stricken in the Bay. They lost altogether 62,584 tons against 45,348 tons in December 1916.

(D)—NORWEGIAN LOSSES.

	January 1917.				December 1916.			
	Submarine.		Mine.		Submarine.		Mine.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
North Sea ..	3	3,139	6	7,097	9	7,231	2	1,811
Channel ..	13	18,118	—	—	13	21,544	—	—
Bay ..	18	34,230	—	—	3	3,372	—	—
Atlantic ..	—	—	—	—	5	6,213	—	—
Mediterranean	—	—	—	—	2	5,177	—	—
Totals ..	34	55,487	6	7,097	32	43,537	2	1,811

An effort was being made to give better information to neutrals. On January 12 Trade Division asked the Secretary of Customs to instruct all Custom House Officers to inform Masters of merchant vessels that they should apply to the Shipping Intelligence Officer before sailing if they wanted instructions.¹ This, however, meant a journey, say from Blyth to Newcastle, which Masters apparently were not always disposed to take. The instructions they received, too, were of the most general kind; they were to be careful to hug the coast, to cross the Channel in the dark and make their port of arrival at dawn. They were not given any special information as to submarines.² Nor was it always easy to arrange ports of call for instructions. When the sinkings in the Bay were going up, Trade Division asked Captain Kelly,³ the Naval attaché at Paris, if there would be any objection to vessels with ore from Bilbao calling at Bordeaux, which caused Captain Kelly to point out on January 27 that Bordeaux was 50 miles up a river. British losses remained heavy in the Mediterranean, being 35 per cent. of the whole, though they showed a big drop from November 1916, when they figured at 116,801 tons and 68·2 per cent. of the whole.

In the Channel, January was marked by a special effort to "hunt submarines" by destroyers.⁴

This was regarded as an "offensive" use of destroyers, but the submarines were careful to keep out of their way and in January, at least, succeeded in doing so. It was a month of beginnings

¹ D.T.D. to Secretary, Customs, January 10 1917, in T.D. records.

² It may be doubted whether the Shipping Intelligence Officers had any, except when they were near a Commander-in-Chief, as at Devonport.

³ Telegram, January 22 1917.

⁴ H.S. 348/141, 349/722. On January 9, *Hardy*, *Druid*, *Ferret*, *Defender* and *Hind* were all "hunting." On January 7, six P Class were placed under Admiral, Devonport, for "hunting" submarines.

and of hope that improvements in routeing and organisation, a redistribution of patrols and development of technical appliances, would be sufficient to overcome the submarine menace.

120. Loss of "Cornwallis," January 9.—A short account may be given here of two other losses during the month.

The *Cornwallis*, Captain Alexander P. Davidson, was a pre-dreadnought battleship, four 12-in., 12 6-in., belonging to the considerable force¹ under the command of the Vice-Admiral, Eastern Mediterranean.

She was on her way from Mudros to Malta, escorted by the destroyer *Beagle*.

Four "Allos" (reports of submarines) had been received on January 7 and 8, and one of them reported a submarine at 8.8 a.m. on January 8 in 35° 20' N., 15° 20' E., near the rendezvous for which she was making, but as 24 hours elapsed without any further report the Captain did not think it necessary to deviate from the route given him.

On January 9 at 7.58 a.m. the ship was some 62 miles² south-eastward of Malta, with the *Beagle* some four to five cables ahead zigzagging with her,³ when she was struck by a torpedo on the starboard side in the after boiler room.

A moderate sea was running; by 8.30 a.m. it was necessary for the *Beagle*, Lieutenant-Commander Henry M. Coombes, to take off most of the crew, and at 9.15, when she pushed off, a torpedo passed ahead of her and struck the ship again the starboard side.

The *Beagle* steamed up the track and dropped a depth charge, but nothing more was seen. The ship sank at 9.45 a.m. with a loss of about 13 men. A court martial⁴ held at Malta on January 11 acquitted the Captain and survivors of all blame. The submarine that sank her was *U.32*, von Peckelsheim, which left Cattaro on January 2 and returned on January 18.

121. Loss of "K.13," January 29.—*K.13* sank under very different circumstances. She was one of the class of steam-driven, fast-surface-speed submarines built for working with a fleet, and proceeded to the Gareloch for her trials on January 29 under Lieutenant-Commander Godfrey Herbert, with Commander Francis Herbert Goodhart.

The boat went down in the forenoon to 80 ft., and as Engineer-Lieutenant Lane reported a small leak in the boiler rooms, it was arranged to dive again to test it.

¹ Including five old battleships, ten cruisers, two minelayers, twenty-nine destroyers, six torpedo boats, six submarines, thirteen monitors, eight sloops.

² Lat. 35° 11' N., long. 15° 29' E.

³ No speed nor course was mentioned in the court martial.

⁴ M.5044/17. Court Martial (S.N.O., Malta), January 16 1917.

During the dinner hour the boiler room vents were opened to clear it of steam so as to locate the leaks. About 3 p.m. Lieutenant-Commander Herbert went to diving stations. He received a report from the First Lieutenant, Lieutenant Paris G. Singer, that the engine room* was shut off, and heading up the Gareloch dived to 20 ft. As the bows went under, there came a message that the engine room was flooding. The Captain gave the order "Surface. Blow two and three"; a rush of air coming from aft indicated a large inrush of water, and he gave the order "Close W.T. doors." The depth gauge showed 35 ft. Every tank was blown without effect. The boat was fast on the bottom. Quantities of water were pouring through the voice pipes; the main fuzes blew and no word came from abaft the torpedo room.

During the night (29-30) a grapnel could be heard locating them and about 6 or 7 a.m. a diver was tapping outside, but no sense could be got with the Morse code. After "thinking things out," Commander Goodhart and Lieutenant-Commander Herbert decided to "try for it." Commander Goodhart was to try and escape through the conning tower at low water at 12.30 p.m. to carry the necessary information to those above, while Lieutenant-Commander Herbert was to try and close the door; Lieutenant Singer was then to drain the conning tower.

They worked hard all the forenoon getting the compass out of the way and testing the bottom door and glands. All was ready; Commander Goodhart strapped on a tin cylinder with instructions. "If I don't get up," he said, "the cylinder will." He and Herbert stepped into the conning tower, and opened the flooding valves. The water rose to their waists and Herbert turned on the H.P. air. Goodhart knocked off the clips and the conning tower lid was soon wide open. He stood up, took a deep breath and was carried upwards.

Lieutenant-Commander Herbert put up his hands to feel for the lid, but found himself swept through it by the H.P. air, shot through the square hatch in the top of the wheelhouse and came up right between two craft who hauled him on board. Commander Goodhart lost his life in his heroic attempt, but Lieutenant-Commander Herbert was able to direct a diver to go down and remove the cap of the foremost ammunition hand-up; a 4-in. flexible steam pipe was fitted to it by the Chief Engineer of the salvage ship *Thrush*, but it was not till 9 a.m. on Wednesday, January 31, that communication was effected. Assisted by the *Thrush* and two hoppers, the bows were raised seven feet out of water; a plate was cut out with oxyacetylene in the flooding space, which was then pumped out and a hole cut in the main hull through which 43 men were saved by 10 p.m., January 31.

Lieutenant Paris Singer was in a precarious condition and Mr. Fred. William Searle, Admiralty Overseer, had taken charge of

* Lieutenant-Commander Herbert's report, February 3.

the boat. Thirty-one lives were lost including Engineer-Lieutenant Lane who was in the boiler room when the boat dived. A Court of Enquiry¹ held at Glasgow on February 19, with Commodore Sydney Hall present, found that the foundering was due to the boiler intakes being open, when the boat dived. Such was the heroic end of Commander Francis Goodhart, who had commanded *E.8* in the Baltic.

122. "**U.76," Sunk off Hammerfest, January 26.**—The only other German submarine lost in January, besides *U.B.37*, found her end far away in the north. This was *U.76*, one of the clumsy old minelayers. She had sailed on January 9 for the Norwegian route to Russia. On January 27 Skipper Zachariassen, making for the island of Soro in his motor cutter, observed distress signals off Skibsholmen.² He closed and found a German submarine beginning to sink. The conning tower was still above water but the crew had abandoned hope and put on their lifebelts. She had been in action on January 26 with some vessel, but the encounter had been in the dark and remains something of a mystery. Some Russian trawler patrol vessels which arrived a few days later at Vardo stated they had seen a submarine close to the coast and had opened fire and hit her badly. The Germans, however, said that they had been in action with a cargo steamer, that a shell had disabled the engines and wounded mortally the Chief Engineer. The Norwegian Skipper lowered his small jolly and picked them up, and, telephoning to Hammerfest, some thirty miles off, was instructed to take them thither, though he was offered a large sum to go instead to Tromsø where a German vessel was lying. After suffering a day's nominal internment at Hammerfest they were released.³ The exact spot of the encounter is uncertain but was probably somewhere about 70° 50' N., 23° 40' E., near Hammerfest. This was the second of the two German submarines sunk in January. It was a month in which the measures taken in November and December were beginning to take effect. But soon a darker cloud rose on the horizon.

¹ Captain. H. 125/1917.

² This must be the Skibsholmen, in position lat. 70° 50' N., long. 23° 40' E., in Norway Pilot III, p. 553 not the Skibsholmen in *Idem*, p. 675.

³ M.03014/17 in I.D. Vol. 840. British Consul, Vardo, February 12 1917.

CHAPTER VII.

UNRESTRICTED SUBMARINE WARFARE AND FLEET OPERATIONS.

FEBRUARY, 1917.

123. **Unrestricted Submarine Warfare, February 1917.**—For two years the question of unrestricted submarine warfare had been a source of acute controversy between the Admiral Staff and the Chancellor. As early as November 1914 the attack of merchant shipping had been suggested to the Chief of the Admiral Staff, Admiral von Pohl, by the Commander-in-Chief of the High Sea Fleet and on February 2 1915 an important conference on the subject was attended by the Chancellor, at which it was decided to issue the declaration of a war zone.¹

The decision received Imperial consent on February 4 and the declaration of the War Zone was made that day. From February 18 1915 every hostile merchant ship in the War Zone was to be destroyed. Though the proclamation spoke merely of risks to neutrals and not of any policy of attacking them, the United States at once made a vigorous protest (February 12). The Chancellor, greatly perturbed by it, used all his influence with the Kaiser to postpone its execution, and on February 15 an order went out that the submarines were to wait for special orders before beginning operations.

On February 19 came orders to spare American and Italian ships and to begin operations on February 22,² but a month had barely passed when further restrictions were imposed. On April 2 1915 submarines were forbidden to come to the surface to identify the nationality of ships, which made it difficult to distinguish friend from foe, and on April 18 1915, in consequence of the sinking of the Dutch S.S. *Katwijk*³ (April 14), an order was issued to spare all neutral ships. These orders constituted nothing less than a partial paralysis of submarine warfare. But more was to follow. The sinking of the *Lusitania* on May 7 1915 elicited a demand from the States for the entire cessation of the submarine campaign, which led to another order on June 5 1915 sparing large passenger steamers, even if hostile. Even under this limitation sinkings rose in August to 168,283 tons. Then came another crisis. On August 19 the

¹ The waters round Great Britain and Ireland including all the English Channel are hereby declared a War Zone (Kriegsgebiet). See Home Waters IV/11.

² Scheer's High Sea Fleet (trans.) 230, 231; Michelsen's U.Boat Krieg, 15.

³ The third neutral ship to be torpedoed. The Norwegian s.s. *Belridge* (February 19) and the Swedish s.s. *Hanna* (March 13) had already been torpedoed.

Arabic was sunk by *U.24*. Of the eight persons drowned three were American. A deluge of further protests followed and Graf Bernstoff, the German Ambassador in Washington, uttered some caustic remarks on submarine commanders. The controversy became acute. Tirpitz and Bachmann, the Chief of the Staff, proceeded to Pless, and left the Kaiser congratulating themselves that they had persuaded him not to concede another inch, only to hear the next day that a dispatch had gone to Bernstoff approving of further concessions. Tirpitz's desperate importunities had been in vain. No passenger steamers were to be sunk.¹ Tirpitz, Bachmann and the Commander-in-Chief, High Sea Fleet, all asked to be relieved² and Bachmann was appointed to the Baltic. This broke the back of submarine warfare in British Waters. On September 18 it was abandoned in the English Channel and Western waters and after October 1915 it was practically confined to the Mediterranean.

And yet the year 1915 was far from barren. Sinkings for the year, of allied and neutral merchant ships by submarines alone, totalled 1,068,496 tons and in August alone 168,283 tons went down, a total not exceeded till September 1916. By January 1916 freights in England had risen tenfold and in that month, in the course of important conferences, the new Chief of the German Admiral Staff presented a memo declaring the Navy's ability to bring the war to an end in six months by closing the English Channel. It was hoped to start the campaign on February 1 1916, but on February 11 it had only reached the stage of an order (to come into force on February 29) to treat all armed merchantmen as warships.³ On March 4 1916 a decisive session was held at Great Headquarters. Unrestricted warfare was to begin on April 1, but meanwhile the Chancellor was to do his best to influence American opinion.⁴

April 1 passed. The campaign had not started. Its inception had received another severe shock. On March 24 the French packet boat *Sussex* on its way from Folkestone to Dieppe was torpedoed without warning by *U.B.29*. She reached harbour but some 25 Americans lost their lives. On 20 April came a critical note from America threatening to break off relations. The Chancellor gave way and Scheer as he came back from the Lowestoft Raid on April 25 received a signal ordering submarines to follow the prize court procedure of visit and search. Scheer, furious at the surrender, recalled all the submarines of the High Sea Fleet and Falkenhayn, Chief of the General Staff, resigned. Five months passed during which submarine warfare in Home Waters, except for minelaying, practically ceased.

¹ This order did not apply to the Mediterranean till December 1915. Michelsen, 23.

² Michelsen's account (Michelsen, 22) is somewhat different from Scheer's (Scheer, 233).

³ Michelsen, 24.

⁴ Scheer, 239.

In vain the Admiral Staff tried to persuade Admiral Scheer to continue restricted submarine warfare or as Admiral Muller phrased it "to bring about a compromise in his harsh professional conception of the submarine." He would have unrestricted warfare or nothing. Suggestions (June 30 and August 6) to resume unrestricted warfare against transports in the Channel were wrecked by the Chancellor.

The summer passed. Hindenburg became Chief of the Staff, and again a general conference assembled at Pless (September 3 1916) to discuss the submarine question. Again the Chief of the Admiral Staff (Admiral von Holtzendorff) faced the Chancellor and Von Jagow. Again the question was postponed and the decision as to the date of its commencement was left to Hindenburg. But conferences were going on between the naval command and Army Headquarters. If Germany was to win, the war must end by 1917 and unrestricted warfare was the only means to that end. In the autumn¹ the restricted campaign was resumed in Home Waters with marked success, and by the end of the year 1,912,633 tons had been sunk by submarines. On October 7 1916 the great Centre Party, which had hitherto stood stoutly by the Chancellor in the Reichstag, declared itself on the side of unrestricted warfare. The Chancellor countered at once by obtaining the Kaiser's consent to put forward proposals for peace which were made by the Central Powers on December 12. On December 22, 1916, the Admiral Staff presented its famous memorandum² in which, with a long array of figures, it promised to sink 600,000 tons of British shipping per month and to bring England to her knees in five months.

It was based on the idea that a decision must be reached by August, 1917. England's back must be broken. She still had 20 million tons in gross tonnage. Of this 8.6 millions were required for military purposes; half a million for coastal traffic; one million under repair; about two millions with the Allies, leaving for her own supplies³ about eight million tons at most. From a computation of statistics of traffic in English harbours this figure appeared to be no more than 6½ million tons. Some three million tons of neutral, and 900,000 tons of allied, shipping were helping her. In round figures she had still 10½ million tons for her own supplies. It was hoped to sink 600,000 tons a month. Two-fifths of the neutral shipping would be terrorised into stoppage. The bad harvests of the whole world would demand an extra 720,000 tons of shipping for grain transport. It was estimated that in five months tonnage would be reduced by about 39 per cent. and England would be forced to her knees.

¹ Flanders boats on August 20; High Sea Fleet boats on October 7.

² Scheer, Germany's High Sea Fleet (translation), 248; there is a misprint in the figures, for 3.6 millions read 8.6 millions. See Hochseeflotte, 351.

³ Presumably civilian supplies.

There came the last decisive conference at Pless on January 9, 1917. The Kaiser had veered round to the military and naval view. The Chancellor had to give way. The fateful decree went out. All Highest Order—unrestricted warfare to start on February 1—"with the utmost vigour."¹ The die was cast. To a densely packed house listening in hushed silence the Chancellor announced the momentous decision. On January 31 at 5 p.m. Count Bernstorff communicated it to Mr. Lansing, Secretary of State, who listened with unruffled calm. On February 3, the President in his memorable address told Congress that he had severed diplomatic relations with Germany. That evening Count Bernstorff received his passports.² The "last card" was to be played.

124. **German Submarine Strength.**—Germany had started the war with 28 submarines built³ and six completing.

In spite of a long building pause in the autumn of 1915, 177 boats had been built by January, 1917. Of these 50 had been lost and others were no longer utilisable for operations at sea. According to Michelsen there were actually available, in February, 1917, 111 German boats⁴ distributed in the four areas of the Bight, Flanders, Baltic, and the Mediterranean, as follows:—

	Available. ⁵	Operating February.
High Sea Fleet	49	23
Flanders	33	12
Mediterranean	27	6
Baltic	2	0
	111	41 (or 38%)

¹ "Mit voller Energie."

² For the history of the controversy, Scheer's *Hochsee Flotte* (Chapter VIII); Michelsen's *U.Boot Krieg*; Bethmann-Hollweg, *Betrachtungen zum Weltkrieg*; Helfferich, *Der Weltkrieg*; Von Tirpitz, *Erinnerungen*; Verhandlungen des Untersuchungsausschusses. See Newbolt's *Naval Operations* Vol. IV, Chap. VII, p. 229.

³ *U.28* was the last submarine completed before the war at Danzig in June 1914. Michelsen gives 20 as available in August 1914. *U.1, U.2, U.3, U.4* were attached to the submarine school at Kiel. Ten submarines of 1st Half Flotilla left Heligoland on August 6 to look for the British Fleet. *U.20* and *U.21* left Heligoland to look for the British Fleet on August 15, 1914. *U.24* went to sea on August 17. (*Nordsee* 1/149, 239.) *U.30, 32, 33, 35, 38, 39* were completed in 1914 (I.D. Quarterly Return, January 1917.)

⁴ Michelsen, 182. Michelsen says 48 lost; he is omitting *U.B.1* and *U.B.15* which had been sold to Austria. The numbers in the three types were—*U* boats, built 85, sunk 27, available 48; *U.B.* built 47, sunk 12, available 23; *U.C.* built 55, sunk 11, available 40.

⁵ Michelsen, 182, but his figures must be accepted with caution. They are the numbers for the 10th of each month.

The Bight or High Sea Fleet submarines were under Captain Bauer whose headquarters were in the *Hamburg* at Wilhelmshaven, under the Admiral Commanding Scouting Forces.¹

His flotillas² were organised as follows:—

I Flotilla at Wilhelmshaven, all minelayers.

U.71, 75, 78, 79, 80; U.C.29, 30, 31, 32*, 33**
40, 41*, 42*, 43*, 44*, 76* = 16

II Flotilla at Heligoland.

U.53, U.54*, U.55*, U.57*, U.58*, U.59*, U.60*,*
U.61; U.B.21, U.B.22, U.B.35, U.B.27,
U.B.34, U.B.41 = 14

III Flotilla at Emden.

*U.21** (from Cattaro to Bight March 5), *U.22,*
U.24, U.23, U.43, U.44, U.45*, U.46, U.48,*
U.49, U.50* = 11*

IV *Flotilla at Emden.

U.28, U.30, U.66, U.67*, U.69, U.70*, U.81*,*
U.82, U.83, U.84*, U.85*, U.86 = 12*

The Flanders submarines were under Captain Bartenbach with headquarters at Bruges, under Admiral Schröder, commanding naval forces in Flanders. He had 33³ boats apparently constituted as follows:—

Flanders Flotilla.

U.B. 6, 10, 12, 16, 17, 18, 23*, 30, 31, 32, 36, 38*, 39*,*
40; U.C.1, 4, 6, 11, 14, 16, 17*, 18*, 21*, 26*,*
36, 39*, 46*, 47*, 48*, 61, 65*, 66*, 68 = 33*

The other large group was in the Mediterranean, organised in two half flotillas, one in the Adriatic with headquarters at Pola and Cattaro, the other at Constantinople.

At Pola, where an old Austrian cruiser and a hulk, the *Adria*, were used as depôt ships, there were some 18 German boats—

U.32, 34, 35, 38, 39, 47, 52, 63, 64, 65, 72, 73;
U.C.20, 22, 34, 35, 37, 38 = 18

and about a dozen Austrian.

¹ Corresponding to Vice Admiral, Battle Cruiser Force.

² Asterisks were actually operating in February 1917 according to Marine-Archiv papers. The constitution of the flotillas according to the I.D. History Sheets (Birch & Clark, Vol. 2) gives a considerably higher figure than Michelsen's. Michelsen is apparently not counting the Vth Flotilla which came round from the Baltic in winter 1916-17.

³ Michelsen, 182; according to Birch & Clark, 2/158, Flanders by the end of February 1917, had 35 boats, viz.: *U.C.70, U.C.72* in addition.

At Constantinople, where the Ambassador's old yacht, the *Loveley*, was the depôt ship, there seem to have been only three German boats with two or three which had been sold to Bulgaria.

Constantinople Half Flotilla—

U.33; *U.B.42*, *U.C.23* = 3

The numbers then were approximately:—

I Flotilla Wilhelmshaven	.. .. .	16
II „ Heligoland	.. .. .	14
III „ Emden	.. .. .	11
IV „ Emden	.. .. .	12
Baltic Flotilla	.. .. .	2
Flanders Flotilla	.. .. .	33
Adriatic (18) and Austrian (say 12)	.. .. .	30
Constantinople	.. .. .	3

121

It was with these 121 boats that Germany and her Allies commenced unrestricted warfare.

On January 16, Zimmermann had sent to Bernstoff the details of the Blockade Zone.

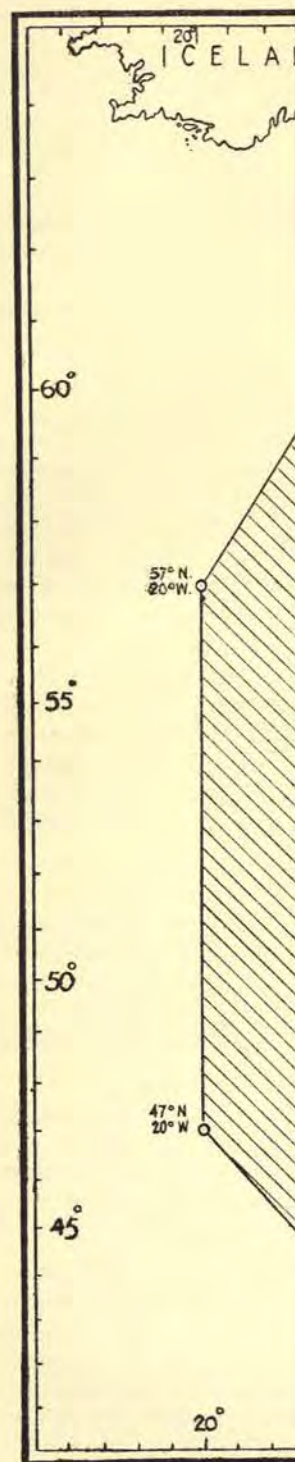
“From the 1st of February onwards, all steamer traffic from and to England and France, including that of neutrals, will be effectually prevented in the area surrounding Great Britain and France; neutral steamers also met in the blockade area will be sunk.”

On January 31 the order went out to all submarines that all armed merchant ships, including armed passenger steamers, were to be attacked without warning.

On February 1 the German Government announced the Blockade. The waters round Great Britain were declared closed to traffic and neutral ships navigating therein would do so at their own risk. The prohibited area (Sperrgebiet) ran 20 miles from the Dutch coast to Terschelling Light vessel, thence north to Udsire on the Norwegian coast ($59^{\circ} 18' N.$, $4^{\circ} 52' E.$); thence to $62^{\circ} N.$, $0^{\circ} W.$ to $62^{\circ} N.$, $5^{\circ} W.$; thence to a point 3 miles south of the Faroes; thence to $62^{\circ} N.$, $15^{\circ} W.$; thence to $57^{\circ} N.$, $20^{\circ} W.$; due south to $47^{\circ} N.$, $20^{\circ} W.$; thence to $42^{\circ} N.$, $15^{\circ} W.$; then along $43^{\circ} N.$ to a point 20 miles from Cape Finisterre and along the North coast of Spain at 20 miles distance from it.* (Plan 17.)

125. **German Staff Orders, January 12.**—Detailed orders had already been issued on January 12 by Admiral von Holtzendorff, Chief of the Staff, with reference to the Imperial Decree of January 9. From February 1, 1917, onwards, every merchant vessel encountered within the barred area was to be attacked without delay. Hospital

* *The Times*, February 2, 1917.



N.S. I. D. Dec 1931.
4513.W.191431/Pk.9036.200.8.33.

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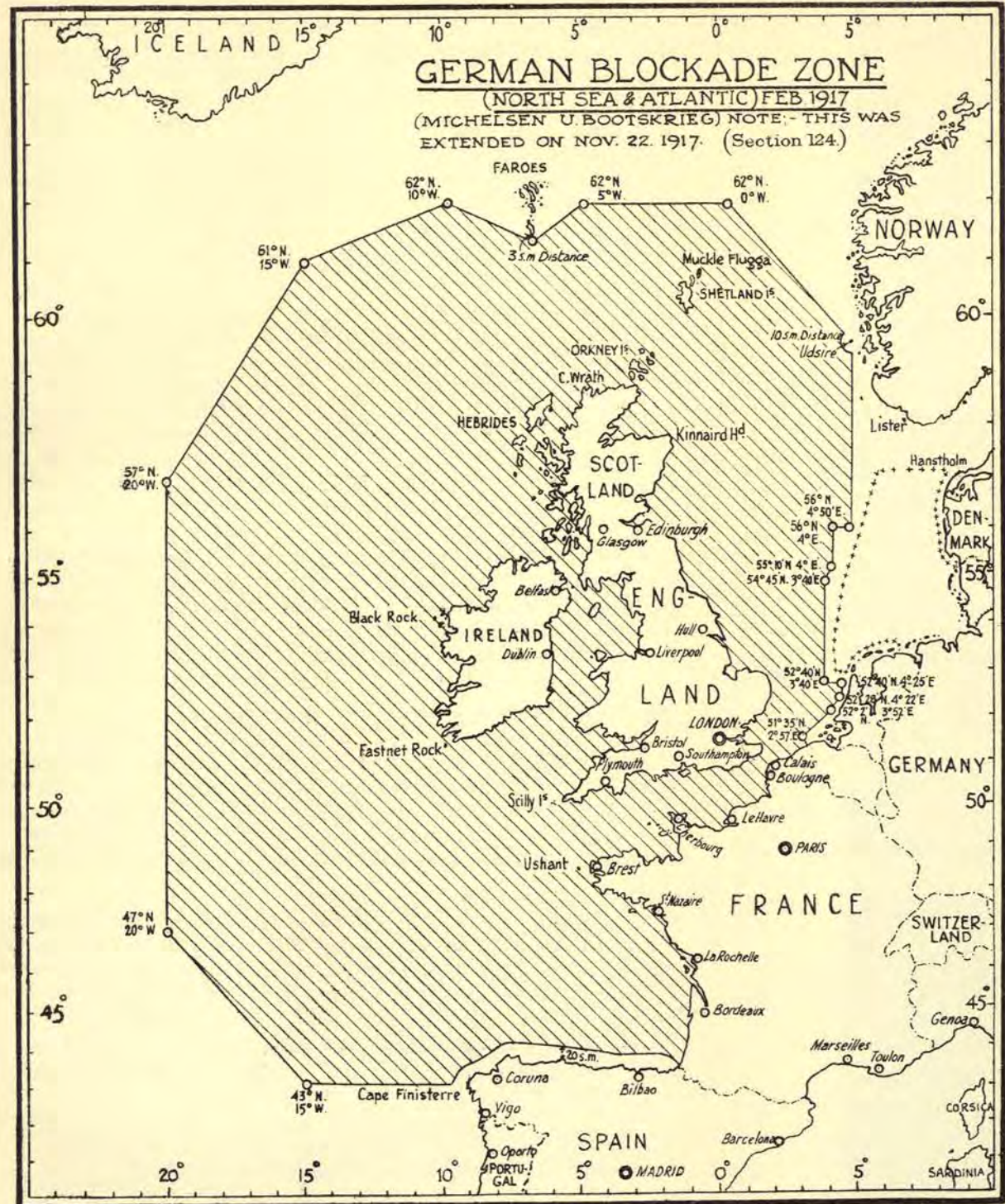
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* *The Times*, February 2, 1917.



N. 6. I. D. Dec 1931.
4513.W.91.43/Pk.9036.200.8.33.

H.S./T.S.D.
Hydro. Dep.

ships were to be excepted if met outside the area bounded by the lines "Ushant to Lands End," and "Flamborough Head to Terschelling"; also hospital ships within that area up to midnight of February 3 to 4.

Neutral ships, Belgian Relief ships and unarmed enemy passenger steamers were to be dealt with according to Prize Regulations¹ within the barred area in the North Sea up to midnight, February 6 to 7, and in the rest of the barred area up to February 12 to 13; from then onwards to be treated as enemy ships within the whole of the barred area.

The operational area of the Flanders submarines was to be bounded in the North Sea by the line Flamborough Head to Terschelling. A concession was made to neutral passenger steamers. One American passenger steamer was to be allowed to run weekly from the U.S.A. to Falmouth, with hull painted with red and white vertical stripes and a large red and white check flag at each masthead; and one Dutch paddle steamer with the same marks of recognition could sail daily from Flushing to Harwich. These were the only concessions allowed.²

126. Paralysis of Neutral Shipping.—Meanwhile in England great efforts were in progress to cope with the situation. A Shipping Controller had been appointed in December, 1916, to control and regulate all the multifarious demands for shipping. An Inter-Allied Chartering Committee held its first meeting on January 15, and Greek shipping was requisitioned.

The American harvest was not so bad as experts had predicted, and it was possible to dispense with Australian wheat. On the other hand, heavy demands for tonnage had come from Italy, and in December the Requisitioning Branch had come to the end of their resources and were still faced with a big demand from Archangel, where the Russians were asking for shipping for 1,800,000 tons of goods, which meant something like 245 ships, in summer.

The German hope of terrorising neutral shipping was at first fulfilled, for neutral shipping in the North Sea and the Channel came to a sudden standstill on the announcement of the Blockade and remained almost completely paralysed for most of the month. The ports were crowded with neutral vessels whose owners had wired them not to sail.

On February 23, in United Kingdom ports there were 44 Scandinavian vessels which refused to sail and over 250 vessels in ports

¹ That is by stoppage and search.

² Order by Chief-of-Staff, January 12, 1917. Instructions of January 17 and 18, in German Orders for Submarine Warfare (I.D. translation, October, 1917) C.B. 01360.

abroad.¹ The congestion increased the difficulties of the situation and was aggravated by British action, for in order to ensure the continuance of traffic it was decided that no neutral ship should be allowed to sail till a similar ship arrived in a British port.

Another and equally serious difficulty had to be faced, closely affecting the British blockade. Neutrals, even if they consented to continue running, would not consent to risk their ships by calling for examination at British ports in the German war zone.

Supposing they endeavoured to avoid the war zone and evade the blockade, what percentage of them could be intercepted by the 10th Cruiser Squadron? This was the point that Lord Robert Cecil (Minister of Blockade) put to the Admiralty on February 7, 1917—an important question, for if vessels could to any considerable extent evade examination, the "blockade" must break down. On the other hand, if one could still rely on the interception of all vessels and the maintenance of the blockade, German prestige must suffer a heavy blow.

The Commander-in-Chief was asked for his views and for those of the Vice-Admiral 10th Cruiser Squadron (Vice-Admiral Reginald G. O. Tupper). The Vice-Admiral replied that his 12 cruisers should be able to intercept at least 50 per cent., and in summer 75 per cent., of the traffic, but much better results could be obtained if he could be given the 24 large trawlers he had already asked for.²

There were, however, grave objections to the use of examination ports within the German war zone. The crews of intercepted ships were refusing to work ships to United Kingdom ports and the Vice-Admiral, 10th Cruiser Squadron, thought it would be necessary to establish a system of escort through the war zone.³ No escorts were available and it was decided to shift the ports of examination⁴ to areas outside the war zone.

A draft scheme for this purpose had already been drawn up at the Foreign Office at an inter-departmental meeting held on February 7, and the ports finally selected were Halifax, Kingston, Jamaica and Freetown (Sierra Leone). Halifax was to deal with Scandinavian and Dutch traffic from North American ports; Kingston with ships from Central America and the Panama canal; Sierra Leone with ships from South America; Alexandria and Gibraltar with ships from the Far East and Mediterranean.

Halifax, Gibraltar and Alexandria were to be ready by March 19; Kingstown (Jamaica) and Sierra Leone by April 1. In a few weeks

¹ Telegram, February 22, 1917. H.S. 361/328. For the paralysis of neutral shipping, see Fayle, *Sea-borne Trade*, III, Chap. 2, 3, 4.

² M.01506/17 in Admiralty, February 7. Telegram, C.-in-C., February 11, 1917, in H.S. 358/202.

³ Telegram, February 21, 1917. H.S. 360/1114, 361/142.

⁴ *i.e.*, Kirkwall in the north, the Downs and Falmouth in the south.

the whole system of examination¹ was shifted across the ocean. It had just started working when the United States entered the war, so that its utility was never actually tested, but there can be little doubt that the great distance of the examination ports from the intercepting squadrons and from the Contraband Committee would have placed a severe handicap on the work.²

126A. Anti-Submarine Minelaying Measures.—One of the first conferences of the month was held on February 3 at the Admiralty to consider proposals for dealing with the Flanders minelaying submarines. The Director of the Anti-Submarine Division (Admiral Duff) presided and Commodore (T) (Reginald Tyrwhitt), Captain (S) (Arthur Waistell) and Commodore, Harwich (George Cayley) were there.

Commodore Cayley thought that minelaying took place on nights when it was high or low water at 10 p.m. This meant a pause in minelaying every five or six days,³ and he proposed that the Dutch traffic should be arranged accordingly.

D.A.S.D. wished to establish a patrol of five "C" Class submarines patrolling for a day at a time four miles apart, but Captain (S) did not favour the idea, for in the position to be taken up, off the North Hinder or Outer Gabbard, tides were strong and variable, and it would be difficult for submarines to keep their position.

Eight "C" Class submarines⁴ were, however, allotted to Captain (S) for this purpose, to be used as he might see fit, and were fully to justify their use.

Dummy lightships were also suggested, and two lightships lying at Harwich were taken up for the purpose and seem to have remained in use till October 1918.⁵

It was decided also to lay a deep minefield, but the *Paris* was busily employed at the time laying one in Dover Strait, and three months elapsed before this task could be done; a field was laid on May 8, 1917, about 18 miles east of Orfordness and a mile north of the Outer Gabbard,⁶ by the *Princess Margaret*, *Angora*, and *Wahine*, consisting of 250 British Elia and 166 Service mines (the former being laid at 48 feet and the latter at 60 feet), but there is nothing to show that any enemy submarine ever came to grief in it.

¹ The term given at the Admiralty was "Naval Control." Orders for Naval Controls, February 26, 1917, N.L. 1/32112 in Case 591.

² Case 591, Examination of Neutral Vessels at Overseas Ports. Foreign Office, February 5, 1917.

³ In January, mines were laid in the Thames and Harwich areas on January 6, 14, 15, 19, 23 and February 1.

⁴ C2, C3, C4, C7, C16, C17, C21, C22. For proposals, see M.01319/17.

⁵ See M.02008/17, M.024512/18, M.024085/18.

⁶ Running almost due north from 52° 0' 30" N, 2° 4' 30" E. Leith, 65, Cap. iv, Independent Minefields, Chart Cutting vi.

127. **French Coal Trade (F.C.T.).**—It is in the French coal trade that the beginnings of the convoy system must be sought. The proposals¹ made by Commandant Vandier, which came before the conference on January 2, had been hammered into shape² by the middle of the month, and the arrangements were explained in orders issued on January 23,³ 1917.

The Admiralty had decided to adopt a "modified form of convoy⁴ sailing to be called controlled sailing."

All sailings of colliers were to be controlled; ships from east coast ports were to feed French ports east of Havre; ships from west coast ports were to go to the western ports of France. They were to sail in groups, and on moonlight nights the groups would be escorted by two trawlers. Four ports of assembly were instituted with four prescribed crossings. These were:—

Crossing "A."⁵ From Falmouth to Brest controlled by the S.N.O., Falmouth (Commodore John Denison, R.N.R.), and the Chef de Divisions de Patrouilles de l'Océan, Brest.

Crossing "B." From Portland to Cherbourg controlled by the S.N.O., Portland (Commodore Richard Harbord), and the Préfet Maritime, Cherbourg.

Crossing "C." Portsmouth to Havre, controlled by Commander-in-Chief, Portsmouth, and the Préfet Maritime, Havre.

Crossing "D." Dover to Dieppe, controlled by Vice-Admiral, Dover.

As the German submarines on the east coast confined themselves largely to minelaying, the Dover passage dealt only with smaller neutral vessels, averaging some seven a day, which collected in the Downs and crossed at night, under the general cover of the Dover patrol, to Dieppe, whence each proceeded singly to its port along the French coast.

¹ Papers, Admiralty, December 30, 1916. See S. 28, 29.

² Commander Reginald Henderson for D.A.S.D. and Captain Herbert MacIvor Edwards for D.O.D.

³ M.0729 of January 23, 1917, in A.2415/1917. Most of the papers on the F.C.T. are in French Coal Trade volumes or Case 437 (French Coal Trade).

⁴ There were objections in international law to the use of the word convoy in conjunction with neutral ships. It was not desired "to institute a regular convoy system in the true sense of the word, but merely to arrange that ships were more or less together where the patrols were weak. Consequently it was advisable that the terms convoy or escort should not be used."

⁵ There were also subsidiary routes in the different crossings. Thus at Falmouth, Z route went from Mounts Bay to 8 miles N. of Ushant; Y route from 3 miles S. of Wolf Rock to French rendezvous. Commodore, Falmouth, February 16, 1917, in X.13175, 1917.

The "C" crossing, Portsmouth to Havre, was already fairly secured by patrols and by escorts to troop transports,¹ and an average of 15 large colliers began to make the passage every night, assembling at Spithead and arriving eight miles north of Caen light at daylight.

"B" crossing, Portland to Cherbourg, assembled at Portland, where some five small vessels crossed nightly to a point five miles north of Cherbourg.

"A" crossing, from Falmouth to Brest, comprised the colliers from western ports; it assembled in Mounts Bay,² whence it had to go 100 miles to Le Four or Le Helle Channel and 15 miles more if going to Bertheaume Bay (Brest).

These arrangements were almost complete when the Germans launched their unrestricted campaign, and on February 6 orders went to the Channel commands and the Shipping Intelligence Officers at the big coaling ports to put Controlled Sailing into force.³ The first southbound convoy of the French coal trade left Mounts Bay at sunset on February 10. It was a insignificant group, consisting only of four small vessels⁴ in single line ahead with two armed trawlers steaming on each bow, the *Isabella Fowlie* (one 12-pdr., one 6-pdr.) and the *Duster* (one 6-pdr.), old, small and slow, and unable to go more than eight knots. French patrols were supposed to meet the convoy,⁵ but they became unreliable and later on seem to have been discontinued, though for some months in 1917 French trawlers and American yachts escorted northbound convoys for 20 or 30 miles on their way. It was soon realised that the vessels provided were too small and old, and they were gradually replaced by better sea boats which could go 9½ to 10 knots.

The staff was as unpretentious as the convoy. At Falmouth the S.N.O. (Commander D. Blair, R.N.R) was assisted by a staff of three with a writer and boy scout, with three lieutenants R.N.R. and a chief skipper to take charge of convoys.

The total number of vessels escorted during the war was:—

	Number.	Cargo.
From Mounts Bay—		
F.C.T. vessels	4,864	10,885,776 tons.
Other vessels	299	768,607 tons.
From Brest	5,422	Unknown.
Total vessels escorted ..	10,585	

¹ The transport routes lay some 10 to 30 miles eastward of the F.C.T. route. See chart sent by C.-in-C., Portsmouth, February 14, 1917, in M.0729.

² Within the boom defence which ran from St. Clement Island on west side of Bay to Cudden Point.

³ Telegram, February 6, 1830. H.S.356/740, 857.

⁴ They had been sent with five others from Granton—*Ben Lawers*, *Pintail* (1 12-pdr., 1 6-pdr.), *Reeve*, *Elk* (1 6-pdr.), *Ophir III* (1 3-pdr.).

⁵ Eight miles north true of Stiff Light, Ushant, if passing through Le Four; when passing west of Ushant, 10 miles south of Ushant main light. From Cdr. Blair's account. See Chart 2643.

The losses due to enemy action¹ were :—

From Mounts Bay	21
From Brest	14

—
35 or 3·3 per cent.

These ships were at first marshalled and escorted by eleven trawlers mounting nothing larger than a 12-pdr. gun, and the figures constitute an eloquent testimony to the value of the new system of protection. But the French coal trade did something much more than its own work, for out of it there sprang a strong conviction of the value of convoy which helped to launch a general system of convoy when the United States entered the war.

128. Scandinavian Convoy.—In the north the necessity for better protection had become equally urgent. Early in the New Year (January 6) the agreement that the British Government should take over from the Norwegian War Insurance Club the re-insurance² of all Norwegian steamers carrying contraband to British or Allied ports in the war zone had been signed. The difficulties of the situation had not yet, however, been overcome³ and the proposals for escort still hung fire.

The threat of unrestricted submarine warfare was becoming imminent, and on January 15,⁴ Sir M. Findlay (British Minister at Christiania) reported that the Norwegian Ship Owners' Association had heard from Danish War Insurance that the latter had been warned by Germans not to cover war risks after January 23 when Germany would issue a fortnight's notice of an absolute blockade of the United Kingdom with 300 submarines.

Trade Division remarked on this, that arrangements had been made to give masters of neutral vessels advice as to routes,⁵ but nothing was said of the system of escort proposed by the Commander-in-Chief and approved on December 15, 1916, which was still waiting to be put into execution.⁶

129. First Protected Sailings to Norway, January 29 and February 10.—The German threat of blockade dealt a heavy blow at neutral traffic with the United Kingdom, and at the neutral shipping which had previously called at Kirkwall to be searched. Norwegian crews flatly refused to sail to Kirkwall, which was regarded as particularly dangerous of approach,⁷ and though the ships calling

¹ Also three due to wreck. These figures are from Cdr. Blair's account.

² For text of agreement, see B. of T., September 25, 1916, 287.

³ M.61025/17 in B. of T., September 25, 1916.

⁴ Sir M. Findlay, No. 242, January 15.

⁵ Minute, January 20, 1917.

⁶ See S.54.

⁷ Findlay, February 20, 1917.

there included the largest Scandinavian liners to America, the Admiralty were not inclined to supply them with instructions.¹

Curiously enough it was the severity of the German proclamation which solved the difficulty. Not a single vessel in the Scandinavian trade had been escorted when, with the opening of the unrestricted submarine campaign on February 1, 1917, the German Government declared the waters round Great Britain closed to traffic, and stated that all ships navigating in them would be subject to attack. Neutral vessels, therefore, passing between Great Britain and Scandinavia, ceased to enjoy the small measure of protection which their neutral status had hitherto given them, and the Norwegian masters, losing all fear of compromising the neutral status which Germany now openly ignored, hesitated no longer to accept whatever protection the British Government could afford to give.

On January 25, the Commander-in-Chief asked when the arrangements for an escort were coming into operation as the matter was urgent,² and the same day the Consuls at Narvik, Trondjem and Bergen, were told to instruct all British and Allied Masters to proceed to Bergen and obtain further instructions from the Consul there. The Vice-Admiral, Orkneys and Shetlands, had already started to escort ships sailing for Bergen. The first British steamer to be escorted was the *Smolensk*, bound for Norway, which left Lerwick on January 29 under escort, until dark, of an armed trawler, the *Warter Priory*.³ Twelve days later an escort was given for the first time to a Norwegian vessel bound for Norway. This was the S.S. *Os*, which sailed from Lerwick on February 10, escorted for 50 miles, until dark, by the armed trawler *Bega*.⁴ Finally, on February 13 (H.S. 102/39, Adlty. to Afloat, Aberdeen, 0325) the Admiralty informed Admiral Beatty that his system of escort (December 3, 1916) was to be brought into force forthwith, except that portion of it which referred to notification being sent to H.B.M. Consul at Bergen.⁵ The system to be brought into force consisted in giving neutral vessels a trawler escort through the "daylight stretch" of 50 miles from the Shetland coast, and on February 18, 1917, the Commander-in-Chief issued orders to the S.N.O., Lerwick, to escort as far as possible all traffic, eastbound and westbound, with two whalers and two armed trawlers, passing through a position 60° 30' N., 1° 30' E.⁶ The arrangements at the Bergen end, however, were not complete, and it was not till a week later that the first Norwegian convoy put to sea.⁷

¹ Admiralty to British Minister, Christiania, February 7, 1917.

² H.S. 363/235.

³ H.S. 522/64, 74. Commander H. G. Alston, R.N., S.N.O., Lerwick.

⁴ H.S. 522/78.

⁵ H.S. 358/790 and M. 010677/16 in H.S. 102/39.

⁶ Eighty miles east of Lerwick. C.-in-C., to Admiralty, March 26, 1917, in H.S.A.102/45.

⁷ Telegram, Admiralty to C.-in-C., February 13, 1917, 0325 in H.S. 358/790.

130. **The First Norwegian Convoy, February 24.**—February 24, 1917, may be regarded as a date of no small importance in the history of the war. On it sailed the first convoy from Lerwick to Bergen. It consisted of the British S.S. *Destro* and 8 Norwegians¹ which were escorted as far as 50 miles east (true) from Bard Head (off Lerwick) by the destroyer *Leopard*, the whaler *Pilotwhale*, and the two armed trawlers *Warter Priory* and *Commander Nasmith*.² This seems to have been only a temporary measure, for during the rest of February and March, vessels were being escorted singly or in pairs. On February 28 the destroyers *Leopard* and *Locust* met and brought in the Norwegian S.S. *Ragnhild*, the first Norwegian vessel to be met at a rendezvous.³ This system continued in force till April, when it was placed on a better and wider footing.

131. **East Coast War Channel.**—Standing in a category by itself and in somewhat singular contrast to the new methods of convoy, was the old buoyed War Channel on the East Coast, a measure originally devised as a protection against submarine minelaying. Its merits were now to come under consideration. In the first fortnight of February (1–16) seven ships had been torpedoed or mined in it,⁴ and on February 19, the D.A.S.D. who was evidently doubtful of its utility, proposed a conference⁵ on the existing system for the regulations and protection of traffic on the East Coast. In this system traffic passed down a buoyed War Channel, moving only in day time and anchoring at night, and being held up on the discovery of mines.

The discussion turned very much round the advantages and disadvantages of the War Channel. The larger proportion of sinkings were outside it, and the arguments in favour of it prevailed. It was decided that it was of value as a defence from submarine attack during daylight, and that, when sufficient minesweeping trawlers were available, it should be extended to the Tyne.⁶

132. **South-West Approach.**—The unrestricted campaign fell with special severity on the South-West Approach, where some six German submarines⁷ were operating in the first week of February. To meet it, Admiral Bayly at Queenstown was given four destroyers⁸

¹ *Cometa, Union, Gaupen, Bard, Consul Persson, E. Sundt, Laly and Eldrid.*

² H.S. 522/105.

³ H.S. 522/121, 200.

⁴ All on Yorkshire coast.

⁵ Present were Chief of Staff; Rear Admiral, East Coast; D.A.S.D., D.T.M., D.T.D., Captain Preston (C.M.S.); Commodore, Harwich; Commodore, Lowestoft; S.N.O., Tyne; Staff Officer from C.-in-C., Nore.

⁶ M. 02250/17 in X. 8298/1917, East Coast of England Trade Route.

⁷ *U.45* (left January 14); *U.43* (left January 11); *U.81* (left January 29); *U.54* (left January 29); *U.60* (left January 31); *U.55* (left January 20).

⁸ *Magic*, 11th Flotilla; *Peyton*, 14th; *Parthian*, 15th; *Narwhal*, 12th; H.S.356/1048, 1197; H.S.357/99.

from the Grand Fleet for anti-submarine work, and the 10th Sloop Flotilla¹ from the Humber was also sent to him, but its vessels were all quickly swept into escort work which, by its urgency, took precedence of hunting submarines.

The Admiralty still preserved a strong faith in the efficacy of routing for merchant vessels and the new campaign was met on February 5 by issuing a revised Table of Routes for the Western Trade,² in which a number of new routes appeared.

On January 26, the Scillies, Ushant and Fastnet were all in use as departure points, while the South Atlantic Trade was passing along the South Coast of Ireland.³ Nine ships were lost in the Fastnet approach up to February 5, when the North of Ireland route (via Rathlin Sound and Innistrahull) was opened for North Atlantic ports, while on the South Atlantic route, via the South Coast of Ireland, ships were instructed to steer some 150 miles further west (viz., to 14° W. instead of 10° W.) before turning south.⁴

The sinking of three ships on February 5 led, on February 7, to the closing of the South Coast of Ireland route,⁵ though the "lag" in the system is clearly shown by the loss of no less than four large ships on the very day the order went out. When it was opened again on February 10, ships were told to take their departure from the Blaskets,⁶ some 60 miles to the northward.

This was a new departure point which had appeared in the new Western Trade Routes edition of February 5, but it had barely been issued when it was thought to be compromised by the capture of the British s.s. *Saxonian*, an oiler with 6,000 tons of paraffin from New Orleans which had been stopped and sunk by *U.54* on February 7. A boat load of survivors was picked up by *Q.15*, 260 miles from the Fastnet, but the Master had been taken prisoner and no one knew what had happened to his secret instructions. From the Consul at Newport News, however, came information that she had been given the rendezvous off the Fastnet, and it was clear that the new Blaskets landfall was not compromised. This change in the route evidently had a beneficial effect for only two ships were lost up to February 24 when *U.50* found the traffic again and sank four large ships on February 24 and 25.⁷

These routes, however, were only for ordinary British shipping, and were quite distinct from the special lettered rendezvous⁸ for

¹ *Alyssum, Buttercup, Gladiolus, Mignonette, Poppy, Rosemary*, all of them *Azalea* class, 17 knots, 1,350 tons, 2 4-in. guns.

² A.L. February 5, 1917, M.09748/16 in Case 504.

³ January 26, 0515.

⁴ H.S.356/580, February 5, 2123.

⁵ February 7, 1145, H.S.356/1056.

⁶ H.S.357/987, February 10, 1645.

⁷ February 24, *Falcon*; February 25, *Laconia, Aries* and *Huntsman*.

⁸ For instance on H.S.357/1086, February 10, 2140, Rendezvous P. 52° N. 13° W.; Q.50° 30' N. 13° W.; X.40° N. 9° W.; "B" 49° N. 10° W.

valuable ships and transports which continued to be met and brought in by Queenstown and Devonport escorts.

The losses in February led to a review of the routing system and on February 26 the First Sea Lord suggested to Admiral Bayly at Queenstown the adoption of a wider angle of approach, with the idea of relying more upon the use of routes widely divergent from one another.¹

For this purpose it was proposed to institute three routes of approach from the West, viz.: (a) towards Tory Island, (b) towards the Blaskets and Fastnet, and (c) towards the Scillies. (Plan 18.)

(a) to cross 14° W. between 52° N., and $55^{\circ} 33'$ N., making the coast of Ireland at dawn between Eagle Island and Tory Island.

(b) to cross 14° W. between 50° N., and 53° N., making the coast at dawn between the Blaskets and Fastnet.

(c) to cross 10° W. between 48° N., and $49^{\circ} 30'$ N., making the Scillies at dawn.

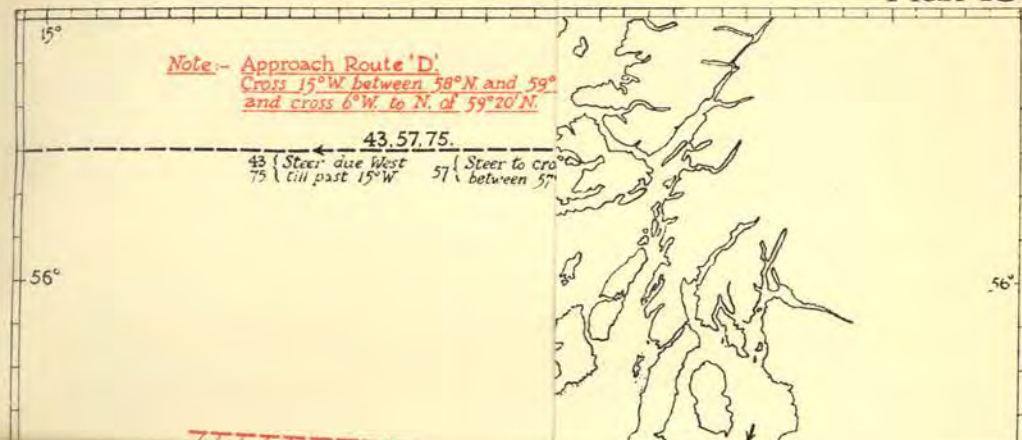
It was also proposed to do away with lettered rendezvous.

Admiral Bayly was in favour of the proposal and of the abolition of lettered rendezvous.² This was the beginning for homeward bound ships of the new Approach Routes of March 1917, which held the field till they were merged later into the Convoy system.

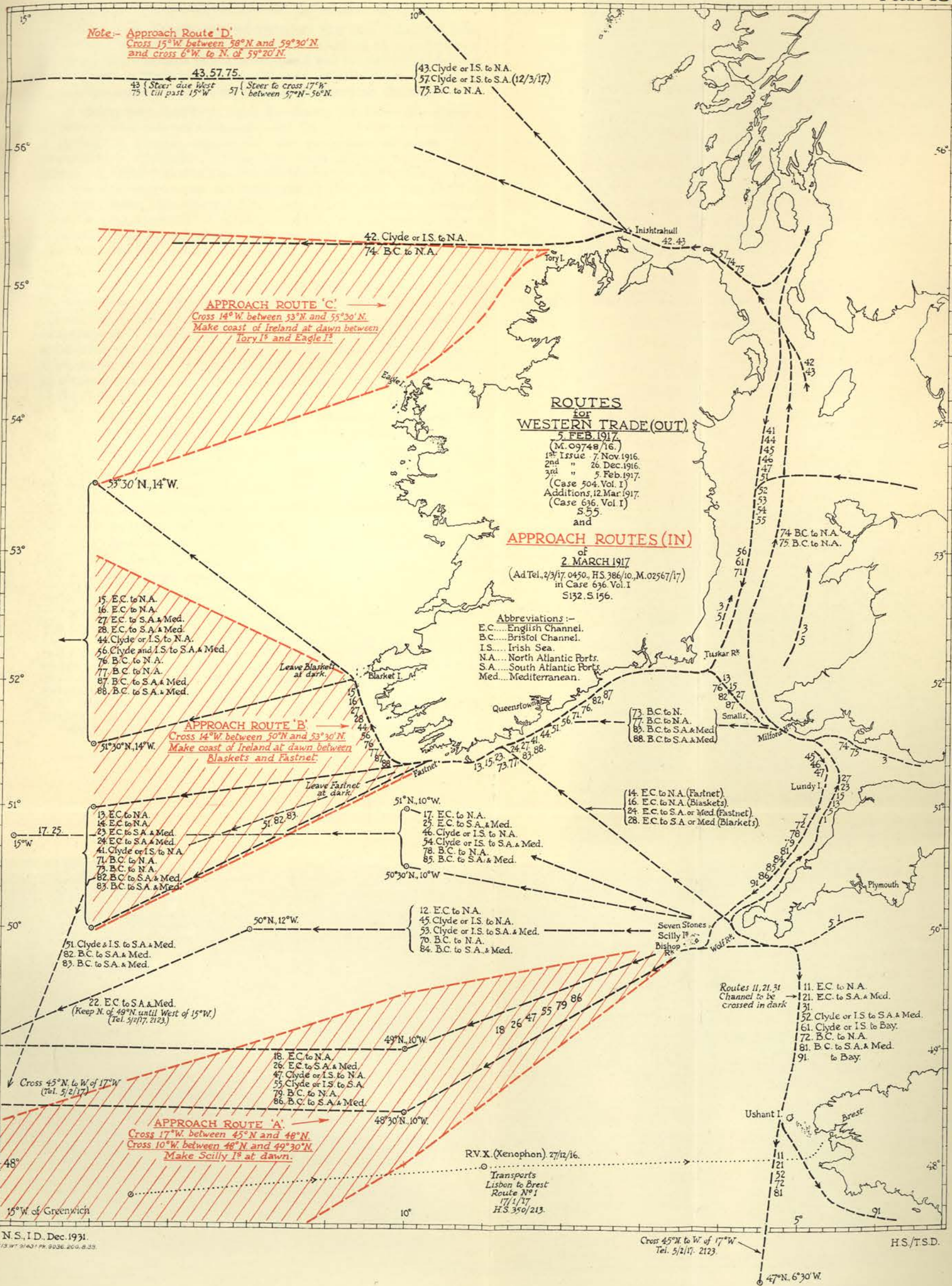
133. General Convoy.—A strong current of opinion was beginning to flow in favour of the general convoy of trade, but the idea did not at first find favour at the Admiralty. In the case of British ships, routing and the patrol system were proving effective—in Home Waters up to February 1917—and in the case of neutral ships, till America entered the war, there were big difficulties in the way of convoys. The idea had been mooted as early as November 1916 in the War Committee (November 2, 1916) but the First Sea Lord (Admiral Sir Henry Jackson), and the Chief of the War Staff (Admiral Sir Henry Oliver) both pronounced against it, on the grounds that convoys had only been successful when it was possible to allot a separate escort to each vessel; that they offered too big a target; that they would not be able to keep merchant ships together; and that the most effective means of protection was defensive armament. This latter measure in conjunction with route dispersion had long been the standard remedy of the Trade Division, whose Director stated in December that the question of convoy had frequently been gone into, but experience had not justified its existence outside the Mediterranean. Briefly, at the

¹ February 26, 2250, H.S.362/639.

² H.S.362/84.



Note: Approach Route 'D'
Cross 15°W between 56°N and 59°30'N
and cross 6°W to N. of 59°20'N.



end of 1916, convoy was considered by the Admiralty to be impracticable as a protection against the submarine.¹

Behind this attitude can be discerned the idea, inherited from 1914 and still earlier² that the primary function of warships was to attack the warships of the enemy and not to convoy trade, and further that, if trade was to be convoyed, priority must be given to troopships, colliers and traffic directly ancillary to the war.

A distinction, however, may be drawn between the efficacy of convoy as a defensive measure, and the possibility of instituting a system of general convoy for the protection of trade. It is impossible to maintain that the War Staff did not believe in the efficacy of convoy and escort, for all troopships and valuable ships had been convoyed from the beginning of the war. The Chief of the War Staff (Vice-Admiral Sir Henry Oliver) did not, however, consider that methods of convoy could be applied to the whole maritime trade of the world. The medicine might be efficacious, but there was not enough to go round.

The opinion against general convoy seems to have hardened in January, 1917, and was embodied in a paper issued by the War Staff.³ It stated "Whenever possible vessels should sail singly escorted as considered necessary. The system of several ships sailing in company as a convoy is not recommended in any area where submarine attack is a possibility. It is evident that the larger the number of ships forming the convoy, the greater is the chance of a submarine being enabled to attack successfully and the greater is the difficulty of the escort in preventing such an attack."

The question was again considered at the end of the month, and the objections to the system were marshalled as follows⁴ :—

- (a) Number of escorting vessels required would be impracticable.
- (b) Difficulties of meeting at a rendezvous.
- (c) Danger of attack while assembling.
- (d) Limitation of numbers or sacrifice of zigzagging.
- (e) Difficulty of forming convoys of equal speed.
- (f) Congestion at ports, reacting in form of diminution of tonnage.
- (g) Danger from mines.

¹ M.010987/16 in Admiralty, December 29, 1916; precis of meeting of War Committee, November 2, 1916, in H.S./C.I.D.

² Admiral of the Fleet Sir Arthur Wilson, in 1905, had regarded convoys as inadmissible on account of the gigantic size of our foreign trade. He was referring of course to cruiser convoy against surface raiders, but the argument remained applicable to destroyer convoy against submarines. See History of Naval Staff, p. 44, C.B.3913.

³ "Remarks on Submarine Warfare" quoted by Paymaster Captain Manisty in Atlantic Convoy System (T.H.14), p. 3.

⁴ See Atlantic Convoy System (T.H.14), p. 3, for full text.

Again, so far as the experience of January went, it could be said that there was no urgent need for the convoy of British shipping. Only 13 British vessels had been lost in the Channel, while the Atlantic trade route-ed out along the South Coast of Ireland had gone on its way up to January 19, almost immune from attack.

The Admiralty view found expression at the Allied Naval Conference of January 23-24, 1917,¹ where the First Sea Lord discussing the protection of ships in the Mediterranean stated to Admiral Lacaze that "their proposal was to disperse the trade and not to convoy any ship except troopships."

The validity of this view in January has not perhaps been sufficiently emphasised.² In the case of British ships up to February, 1917, patrols and routeing were proving effective. In the case of neutrals, convoy was being provided for the French Coal Trade and an escort, part of the way, for Scandinavian Trade.

The Commander-in-Chief had asked the Admiralty on January 19 for information as to the anti-submarine policy and was sent a reply on February 13. The Admiralty measures included the developments of all appliance (bomb howitzers, hydrophones and smoke); the arming of merchant ships; the protection of trade routes along the coast (Patrolled Lane); the organisation of air patrols and hunting patrols; mining in enemy waters; deep minefields; improvements in Dover barrage and a system of diversion of trade and rapid alteration of routes.³ The letter contained no mention of convoy.

Outside the Admiralty, the idea of convoy was gaining ground. On February 12, 1917, Sir Maurice Hankey presented a paper on it to the Prime Minister, suggesting a system of organised convoys and "the concentration on this service of the whole of the anti-submarine craft allotted to the protection of our trade routes." "The bulk of the best naval opinion was unquestionably against it, on the score of the immense target, varying speeds, difficulties in station keeping, congestion at ports, loss of time and waste of effort. But the closure of ports involved just as much delay, and far more complicated things than station keeping has been taught on a gigantic scale." Its advantages were that "safe routes could be selected and the enemy could never know the day, nor the hour, nor the route."⁴

¹ Prime Minister, Sir Edward Carson (First Lord), Admiral Jellicoe (First Sea Lord), Vice-Admiral Oliver, Rear-Admiral Lacaze, Capt. de Villarey, Vice-Admiral Corsi in Allied Naval Council papers, January, 1917 (C.I.D.), Admiralty M.00160 (printed).

² The chapter in the Official History, Vol. V, deals rather with the position in April, 1917.

³ M.0747/17 to Commander-in-Chief, February 13, 1917, in H.S.1273/364; also Summary of Measures by D.A.S.D. to 1 S.L. *idem*, 527 (probably about February 5). See Appendix F.

⁴ For full text, see Official History, Vol. 5/11.

It was this latter consideration that was to outweigh every disadvantage, for the great defect of routeing lay in its powerlessness to control traffic in the light of an immediate situation.

The paper was read by the Prime Minister at a conference at the Admiralty on February 13. On or about February 18 a paper was prepared for the War Cabinet on the "General Principles adopted by the Admiralty for the Safe Conduct of Trade." The position was stated to be "exceedingly grave," and the only immediate remedy consisted in largely increasing the number of patrol craft used for the protection of trade routes. New destroyers as they became available were all being "absorbed in providing escorts for the additional transports and munition ships which the constant increase of the Army in France, and elsewhere, necessitated."¹ On February 19 the War Cabinet was informed that the Admiralty was going into the question. On February 23 a conference was called at the Admiralty of ten Masters of tramp steamers, who were unanimous in expressing a strong opinion against convoy on the grounds of difficulties of station keeping, especially at night.² They considered, too, that not more than two ships could usefully sail in company. This view was presented to the War Cabinet on March 7,³ and the matter seems to have remained in abeyance during the remainder of the month. Meanwhile the French coal convoys had started and were passing regularly to and fro.

134. **The Grand Fleet.**—The Admiralty was possibly largely influenced in its view by the scarcity of destroyers.

The endeavour to find destroyers for escort work had led to a constant drain on the Grand Fleet flotillas, and on February 15 the First Lord, Sir Edward Carson, visited the Commander-in-Chief to discuss this and other points. The First Lord pointed out that the submarine menace made it necessary to put forward every effort to obtain ships which were able to "help in convoying⁴ and protecting against submarines." In the natural anxiety to cope with the submarine menace there may be discerned early in 1917 a tendency on the part of the more ardent advocates of convoy to overlook the fact that the necessity of fighting the submarine had not dispensed with the necessity of being ready to fight the High Sea Fleet. The Commander-in-Chief expressed the decided opinion to the First Lord that the whole fleet should be kept together. It was a mistake to keep the battle cruisers at Rosyth if it involved their being sent south unsupported by the battlefleet.⁵

¹ Copy (typescript) in H.S.500/440-446, marked "1 S.L.'s paper, 18.2.17" (in Admiral Oliver's handwriting).

² No mention, however, seems to have been made of the big Australian convoys early in the war. No record of the names of the Masters has been seen.

³ Or March 8th.

⁴ No general convoy system proper was in existence at the time. The reference was probably to fleet auxiliaries and valuable ships.

⁵ See policy decided on in September, 1916, Home Waters, 7/129.

On a recent occasion (January 23) when Commodore Tyrwhitt was in action with German destroyers, the battle cruisers had been ordered to stand by. This policy the Commander-in-Chief thought dangerous. In the first place it deprived the Grand Fleet of their assistance if operations became necessary in their absence; secondly, he did not see how they could perform any useful service, for they could never get south in time to help Commodore (T). There was the danger too of their being cut off and overwhelmed by enemy battleships before the Grand Fleet could come to their support.

The Commander-in-Chief was concerned too about his light cruiser position, and it was the weakness of the Fleet Light Cruiser screen that constituted his principal anxiety.

Admiral Beatty pointed out that according to recent information eight new light cruisers would be joining the High Sea Fleet, giving the Germans a superiority of 14 (or even 20) to 11. The new British cruisers *Glorious*, *Furious* and *Courageous* he did not regard as sufficiently reliable to be included in the light cruiser class, and in any case they would not all be with the Fleet till July. He suggested that the *Weymouth*, from the West Indies, and the *Dartmouth*, *Brisbane* and *Lowestoft*, from the Mediterranean, should be brought home to join the Grand Fleet.

He considered too that he was not furnished with sufficient information on many points which he ought to know, such as international policy where the Navy was affected, the proposed naval programme for the year or the arming of merchant ships, and he suggested that he should be given information as to the proposed military operations in the spring campaign so far as they would require support from the Navy.¹

It was a month before the Admiralty replied. Their Lordships took a more favourable view of the cruiser situation. The total number of German light cruisers in the Scouting Groups was 14, and in the British 1st, 2nd and 3rd Light Cruiser Squadrons 12, not reckoning the *Courageous* and *Glorious*. The Commander-in-Chief had not taken into account the 4th Light Cruiser Squadron nor the *Castor* and *Champion* nor the light cruisers attached to the battle squadrons. They could not bring home any light cruisers from the Mediterranean, where we were committed by a convention with Italy to keep one in the Adriatic and another was required to counter the *Breslau* in the Aegean.²

135. Grand Fleet Operations, February 1917.—The month was not a busy one for the Grand Fleet. Its work at sea was confined almost entirely to light cruiser sweeps of which some seven were

¹ Memorandum of conversations with the C.-in-C. on board the *Iron Duke* on February 15 and 16 1917, in H.S.A.139/83.

² A.L.M.02267/17, March 10, 1917.

carried out during the month directed mainly towards the interception of iron ore on the Norwegian coast. The Fleet itself was absent from Scapa only once, when it proceeded for exercises north of the Shetlands from February 23 to 25, the first occasion on which the *Queen Elizabeth* put to sea as Fleet flagship.

The Light Cruiser sweeps in Norwegian waters were attended with no success. One may be regarded as typical of all. The *Calliope* and *Comus* and four destroyers left Scapa on February 6 and arrived off Kraakenes Light (62° 2N. 5° E.) in the evening of the 7th. Here one destroyer was stationed inshore and another five miles out to sea, while the remainder of the force patrolled parallel to the coast some ten miles out. The inshore destroyer was to intercept any vessel not having Norwegian colours painted on its side and direct it to proceed straight out to sea, where the second destroyer was to submit it to a careful examination. The conception was new, for light cruisers engaged in these operations had hitherto merely swept along the coast. The force, however, had scarcely taken up its positions when a southerly gale developed which forced it to return home the next day at 1 p.m., having seen nothing but a small Norwegian steamer.¹

The work of laying mines in the Heligoland Bight continued steadily during February. Altogether nine separate fields containing 1,464 mines were laid—319 by the *Abdiel*, 543 by the *Princess Margaret*, 360 by the *Wahine*, 182 by the *Angora*, and 60 by submarines.²

136. Harwich Force, February 1917.—In the south, the Harwich Force had been enjoying a month of exceptional quiet. Except for the protection of Dutch traffic and the provision of escorts for the *Copenhagen*, which had become matters of routine, it took part in no operations, and the Commodore sailed from Harwich only once during the month. This was on February 12, when the Commodore in the *Centaur*, with the *Conquest* and four destroyers, proceeded to Rosyth to attend the Conference with the First Lord.³

On February 21 the Force was at short notice on account of German destroyer activity, but did not sail.⁴ Four days later (February 25) it was again at short notice. An enemy destroyer force appeared that night off the Foreland, Broadstairs and Margate and, after a brief bombardment, in which one woman and two

¹ H.S.A.225, February 6; H.S.A.342/402. For other Light Cruiser Sweeps in February 1917 see H.S.A.356/265, 542, 972 (February 5-7); H.S.A.341/375 (February 10); H.S.A.358 (February 14); H.S.A.242/406, (February 17); H.S.360/176, 250, 252.

² Fields 148, 57, 41, 40, 45, 155, 23, 154 and 124. For details and positions see Leith, 223-226, 431-32.

³ H.S.347, February 13-15.

⁴ H.S.645/108, H.S.247/67.

children were killed, but no material damage was done, disappeared before the Harwich Force could put to sea. The main force of the blow fell on Dover.

137. Destroyer Raid, Dover, February 25.—Although no one after the raid on Dover of October 25 1916¹ had raised the crucial point as to whether the barrage and its drifters were really effective, the disposition of the forces had been considerably altered. Under the new disposition the drifters were withdrawn entirely from the barrage at night and their place taken by four or five destroyers patrolling singly on lines running south-west five miles from the barrage light buoy, viz., buoys 5A, 7A, 9A, 11A and 13A.

On the night of February 25 the destroyers patrolling off these buoys were the *Lance*, *Landrail*, *Lochinvar*, *Laverock* and *Laurel*. Anchored off Deal were the light cruisers *Conquest* (Captain J. C. W. Henley) and *Active*, and with them the destroyers *Porpoise*, *Paragon*, *Unity* and *Ambuscade*. The monitors *Erebus* and *Terror* guarded the northern and southern entrances to the Downs while the leaders *Broke* and *Faulknor*, with nine destroyers, were lying in reserve at Dover. (Plan 19.)

Four months had elapsed since the previous attack. This time the German forces consisted of the 6th Flotilla (S.49, leader; V.46, V.45, G.37, V.44, G.86) under Commander Tillessen, the 1st Zeebrugge Half Flotilla (Commander Konrad Albrecht, G.95, G.96, V.67, V.68, V.47) and the 2nd Zeebrugge Half Flotilla.

The German objectives were three:—The 6th Flotilla was to make for the Straits, break through the barrage and destroy all patrol craft and, if occasion offered, bombard Dover; the 1st Zeebrugge Half Flotilla was to push towards the North Foreland, attack any patrol craft or merchant vessels; the 2nd Zeebrugge Half Flotilla was to attack Dutch traffic off the Maas.²

Between 6 and 7 p.m., the German forces stole silently out of Zeebrugge and made for their objectives. It was a fine night, but a thick curtain of cloud hung over the sky and the young moon, only four days old, did little to lessen the almost impenetrable darkness.

Some four hours later (three hours before high water), the *Laverock* (Lieutenant Henry A. Binmore), patrolling off 11.A Buoy, had reached the southern end of his beat (3½ miles southwestward of the buoy). It was 10.30 p.m. and she was just turning round to the north-east when a destroyer loomed up apparently some 2,000 yards off on the port bow steering south-west. Almost instantly the stranger,³ who was the leader of the 6th Flotilla, burned a red

¹ See H.W.VII, S.147.

² Vorstoss, 25/26 Februar, 1917. Operationsbefehl, 16 Februar (von Schroder); Operationsbefehl der VI Flotille, 23 Februar. H.S./Q11.

³ The *Laverock* makes no mention of challenging in her report H.S.A.308/430 (Dover Patrol papers).

flare, opened fire and let go a torpedo. The officer of the watch, Sub-Lieut. Hibbard, turned hard a-starboard to avoid it and it passed 50 yards astern. The Germans, going 14 knots, had sighted the *Laverock* about the same time but had held their fire to close to 400 yards. A heavy fire¹ was opened on both sides and the Germans fired five more torpedoes, all of which missed. Lieutenant Binmore steadied on a south-west course to engage, and, altering to S.E., broke through the rear of the enemy. He must have made an exceptionally good fight, for Tillessen was apparently under the impression that he was engaging several destroyers and turned to north-east at 10.41 p.m. The *Laverock* saw the turn and followed to the north-west, but the enemy disappeared in the darkness and, giving up the search, Lieutenant Binmore resumed his patrol at 10.55 p.m. Meanwhile he had signalled to Dover reporting the engagement; the signal had been taken in by Tillessen who, realising that a surprise attack on Dover was no longer feasible, recrossed the barrage about 11 p.m. and made for home. They had done nothing. The *Laverock* had no casualties and inflicted none, for the enemy were firing shell with time fuze which burst with "a most blinding effect." (Plan 19.)

Lieutenant Binmore's signal reached Admiral Bacon about 11 p.m., and he at once ordered out the "stand by" destroyers at Dover. But Tillessen was then on his way home, and before the Dover force could get away Albrecht had struck his blow at the Downs.

138. Attack on Downs, February 25, 1917.—It was equally ineffective. Every night a line of armed drifters spread across the northern entrance of the Downs from the North Foreland to the North Goodwin Light Vessel. Commander Albrecht, as he came up, was sighted at 11 p.m. by the armed drifter *John Lincoln* at the inshore end of the line near the North Foreland. When Albrecht opened fire two minutes later the drifter immediately fired a green rocket.² For some ten minutes the Germans maintained a futile fire towards the North Foreland and Margate. About 11.10 p.m.³ they ceased firing and retired eastward. They had fired about 40 rounds; one shell had narrowly missed the North Foreland wireless station, and bursting on a house half a mile beyond it, had killed a woman and two children.

At Margate, there were no casualties and little damage. While Commander Albrecht was bombarding the coast, two of his destroyers V.47 and V.67, were patrolling between the Gull and Elbow, where they remained for over an hour, and must have been at times close

¹ The mean of positions observed by other destroyers is 51° 6' 15" N., 1° 47' 20" E.

² Signal for "Enemy in sight." German report gives 11.8 p.m. (G.M.T.) as time of opening fire.

³ German report gives 11.47 p.m. (G.M.T.) as time of retirement.

to the *Conquest* and *Active* and the *Porpoise's* division from Deal which, on seeing the green rocket sent up by the *John Lincoln* and the flashes of the German guns, had slipped their cables at 11.12 p.m., passed the Gull at 11.17 p.m., and arrived some twenty minutes later off the Elbow Buoy.

The "stand-by" destroyers¹ at Dover under Captain Percy Withers, in the *Viking*, had also got underway about 11.20 p.m. with orders to spread in a special patrol line between the South Foreland and Calais. Quarter of an hour later, Captain Withers received orders to make for Ramsgate with one destroyer division. He saw nothing of the Germans and at 6.30 a.m. returned to Dover.

The third German detachment cruising off the Maas saw nothing. The Dutch traffic had crossed on February 23, but was not moving on February 25.

There was practically no counter to those sudden ten-minute raids. Admiral Bacon pointed out that it was impossible to keep sufficient destroyers at all points to prevent them. He was convinced that the only method of inflicting damage on the enemy in these attacks on the coast was to keep fast flotilla leaders two or three miles east of the Elbow Light Buoy to intercept them.²

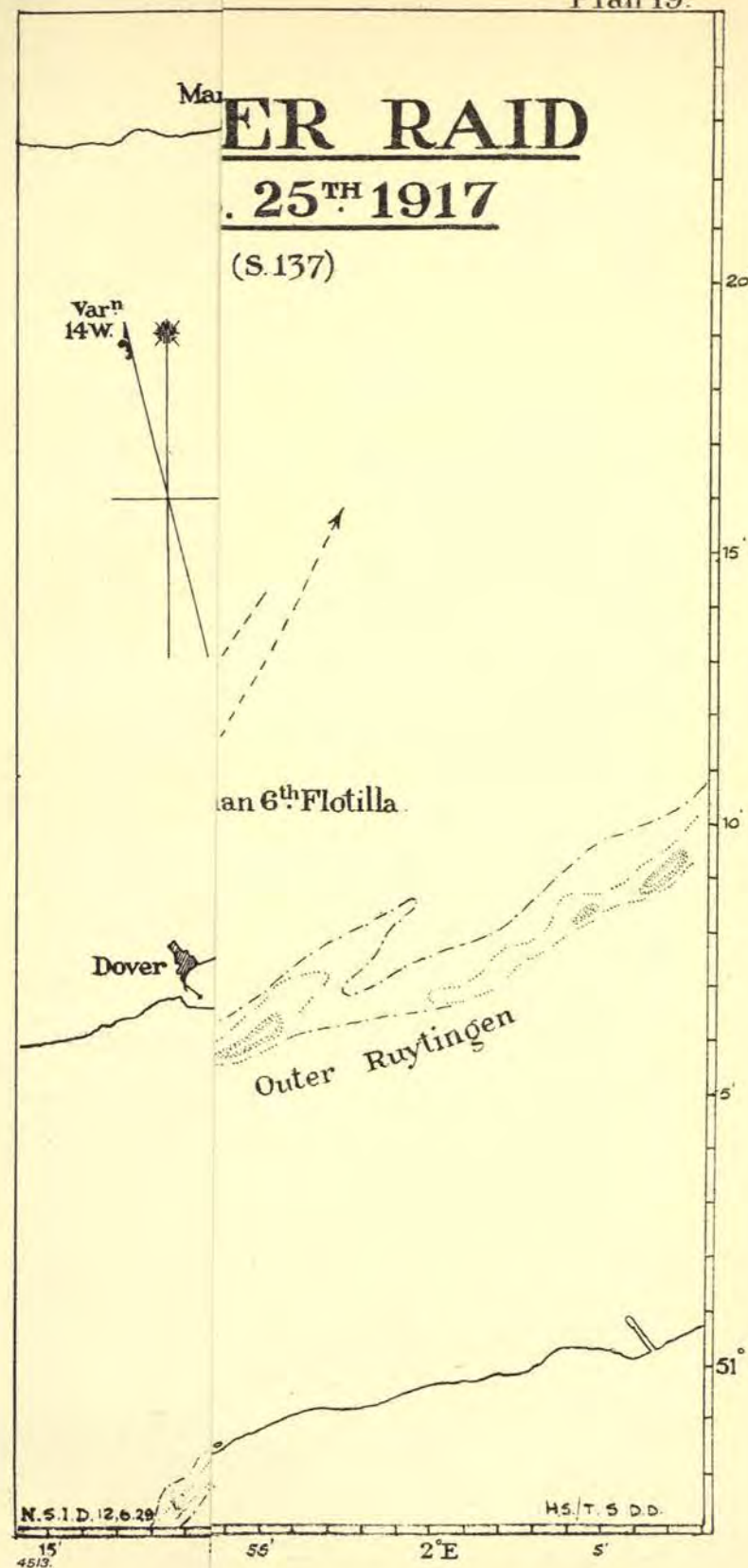
On the German side the raid had accomplished nothing. But though the *Laverock* had suffered no more than a backstay broken by the German fire, she had narrowly escaped destruction. The day after the action the fresh water was found to be salty and a slight leak discovered a nasty dent in the starboard side some 3 inches deep. She had been hit by a torpedo which did not explode.³

The Germans were not discouraged by these meagre results, for three weeks later they repeated their attack. But meanwhile the submarines, whose passage they were fighting for, had been carrying out an exceptionally strenuous campaign in the south-west approach.

¹ *Broke, Faulknor, Lapwing, Laertes, Lawford, Lark, Llewellyn, Laforey, Lucifer, Liberty.*

² Vice Admiral, Dover, March 1, 1917, in H.S.A.308/416a.

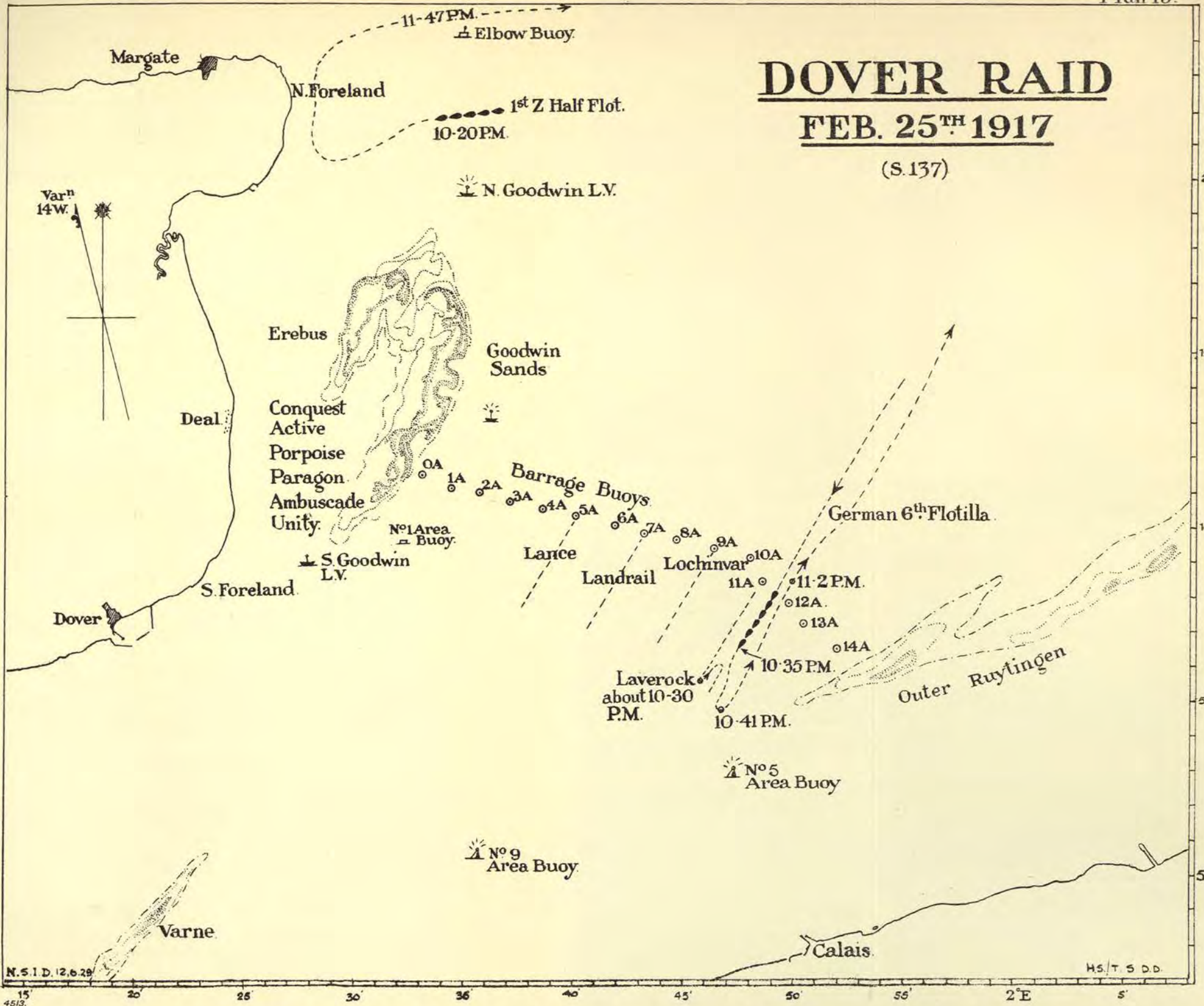
³ M.3653/17; M.02474/17. *Note.*—Tillessen and Albrecht were Korvettenkapitane, equivalent to the rank of Commander.



DOVER RAID

FEB. 25TH 1917

(S.137)



N. S. I. D. 12,629

H. S. / T. S. D. D.

15' 20' 25' 30' 35' 40' 45' 50' 55' 2° E 5'

CHAPTER VIII.

SUBMARINES, SOUTH-WESTERN APPROACH AND
HIGH SEA FLEET SUBMARINES. (Plan 22.)

FEBRUARY 1917.

139. **German Submarines (H.S.F.) February 1917.**—When unrestricted submarine warfare began in full force at the beginning of February, there were nine High Sea Fleet submarines operating in the Approach and the Bay, or on their way there. They were:—

U.43.—January 11¹ to February 13.

U.45.—January 14 to February 12.

U.55.—January 20 to February 11.

U.53.—January 20 to February 10.

U.67.—January 23 to February 26.

U.54.—January 29 to February 13.

U.81.—January 29 to February 16.

U.60.—January 31 to February 28.

U.83.—January 31 to February 17.

During the month six other submarines operated in the West, viz.:—

U.21.—February 17 to March 4 (from Mediterranean).

U.85.—February 1 to February 16.

U.78.—February 2 to February 22.

U.C.33.—February 7 to February 21.

U.50.—February 12 to March 7.

U.84.—February 15 to February 28.

U.49.—February 15 to March 14.

140. "**U.43.**"—*U.43*, on her way home from the Bay with the Italian S.S. *Famiglia*, appeared in the Southwest Approach on February 3, where she sank four ships. The first was the British S.S. *Hollinside*, 2,682 tons, armed with a 13-pdr., and bound from Sunderland to Marseilles with coal. She was in 50° 8' N., 11° 53' W.² at 2 a.m., going west at 8½ knots when she was struck by a torpedo without warning. The weather was calm and clear and the crew were transferred to the *Famiglia*. *U.43* continued northward, and a few hours later, at 9.30 a.m. (February 3) in 50° 20' N., 11° 56' W., she met and sank with bombs the Norwegian S.S. *Wasdale*, 1,856 tons, going from Buenos Aires to Dublin with grain. The crew were put aboard the Dutch S.S. *Samarinda*, which was passing at the time,

¹ Day of departure from Bight. It took some six days North-about, to arrive off the S.W. of Ireland.

² Evidently on Route 22. Pass North of Wolf steering due West to Long. 10° W.

and arrived in Vigo a few days later. *U.43* then cruised to the south-eastward, and at 2 p.m. (February 3) in 50° 3' N. 11° 15' W., stopped another Norwegian S.S. *Songelv*, 2,063 tons, going from Buenos Aires to Queenstown with grain, and sank her with bombs. This was the most successful day in her cruise. She then made a cast to the westward with the *Famiglia*, and in the morning (February 4) sighted five large steamers¹ convoyed by British men of war. One more victim was to fall to her. This was the British S.S. *Turino*, 4,241 tons, armed with a 12-pdr., on the way from Norfolk, Virginia, to Liverpool. She was some 200 miles from the Fastnet at 7 a.m. February 4, when she received a wireless from a ship to the northward that she was being chased by a submarine. This was the British S.S. *Floridian* being chased by *U.54*. At 8.50 a.m. the *Floridian* came in sight on the port beam and the *Turino* made to the southward, but turned to E.S.E. on sighting another submarine. This was *U.43*, who followed close. Her periscope was seen 50 yards on the port bow at 2.45 p.m.; then followed the explosion of her torpedo; one of the *Turino's* boilers blew up, and after remaining afloat for some four hours she sank. Her crew was put on board the *Famiglia*, which went off with *U.43* to the westward. The latter seems to have narrowly escaped being run down that evening by the British S.S. *Kerry Range*. At 8.50 p.m. (February 4), the *Kerry Range*, 5,856 tons, was in 50° 24' N., 14° W., when a conning tower began to rise just on the starboard bow, going the same way. The *Kerry Range* ported her helm and seemed for a time to be "shoving" the submarine ahead. *U.43* could not have suffered much damage for the next day (February 5) she fired torpedoes at two steamers which both missed. It was she, or possibly *U.83*, who at 10.30 p.m. stopped the British S.V. *Ainsdale*, 1,825 tons, from Buenos Aires to Queenstown in 50° N., 13° 50' W.; the submarine opened fire, but though abandoned the ship did not sink and was subsequently towed into harbour. This was *U.43's* last effort, and she then made for home. Her tender, the *Famiglia*, was not so fortunate. She went off intending to meet *U.43* off Tralee, on the west coast of Ireland. There she waited for a time, getting rid of the captured British and Norwegian crews by putting them aboard a small British S.S. the *Penmount*. *U.43* had not appeared by February 6; the *Famiglia* had no wireless, and set off to the northward in fear and perturbation. On February 9, the *Moldavia* (Captain Adrian Smyth) of the 10th Cruiser Squadron was ploughing a lonely furrow on C. patrol² north-west of Ireland. A heavy gale had been blowing that night. At 9.10 a.m. a vessel was sighted to the eastward; at 10.17 a.m. she was brought to and hoisted the numbers and colours of the Italian S.S. *Famiglia*. While the *Moldavia* was lowering a boat in the heavy sea, the ship began

¹ H.S.A.109/99, *Famiglia's* report, not identified. The *Amiral Aube* sailed with a convoy from America on January 27, 1917, H.S.583/422.

² 360° from 58° 45' N., 10° 30' W. (February 5).

suddenly to lower her own boats, and before she could be boarded was seen to be sinking¹ and finally disappeared beneath the waves, leaving her prize crew of five under Sub-Lieutenant Emil Lehmann in the Atlantic, to become prisoners of war. With 67 other men from allied and neutral ships they were taken aboard and landed at Loch Ewe.² This ended *U.43's* attempt to get her prize home. She herself went home round the Shetlands and got safely back to Heligoland on February 13, 1917. She had sunk in February five steamers of 13,784 tons.³

141. "U.45," to February 12.—*U.45*, Lieut.-Commander Sittenfeld, was some 60 miles west of the Fastnet on January 31, when she stopped the U.S. tanker *Westwego* and took some oil out of her. She must then have proceeded west, for on February 2 at 11.40 a.m. in 51° 10' N. 11° 40' W. she stopped the Russian S.V. *Garnet Hill*, 2,272 tons, bound from Tocopila, in Chile, to Liverpool and sank her with bombs. The next day, February 3, at 9.50 a.m. in 50° 58' N., 12° 7' W. she met the British S.S. *Saturnia*, 8,611 tons, homeward bound from Halifax to Liverpool and fired a torpedo at her. The track was seen on the starboard quarter, the helm was put hard on starboard and the torpedo passed eight yards astern. *U.45* rose and opened fire; the *Saturnia* had sent out a distress call but no patrol was in sight; with her 4.7 gun she engaged the submarine, and going some 14 knots gradually left it astern.

Disappointed of her prey, *U.45* at 11 a.m. stopped a Norwegian barque *Ragna*, 997 tons, bound for Esbjerg with maize. Her master pleaded that she was leaking and he was making port to repair damages, and after warning him to proceed to 12° W. and go north-about, was allowed to proceed. The crew, however, refused to go on and the ship was picked up the next day, February 4, at 4 p.m. in 51° N. 12° 41' W. by the sloop *Jessamine*, who took the crew on board, the barque being subsequently towed to Berehaven by *Q.5*.⁴ Meanwhile *U.45* had sighted the British S.S. *Eavestone*, 1,858 tons, bound from Barry to Gibraltar with coal and stopping her at 11.45 a.m. (February 3) in 51° N. 12° W., sank her by gunfire. A heavy sea was running and the crew were taken later aboard the S.S. *Ragna* after five men had been killed or wounded in the boats by gunfire. She then went after the British S.V. *Belford*, 1,905 tons, bound from San Francisco to Queenstown, and sank her at 3.45 p.m. (February 3) in about 50° 45' N. 11° 55' W.⁵ *U.45* went on to the

¹ 50° 38' N., 10° 8' W.

² *Moldavia's* report, February 9 in H.S.A.109/108.

³ Altogether in January and February, 8 steamers and 4 sailing vessels of 28,362 tons. She reported sinking 22,000 tons (I.D.3025, War Diary, February 11, 2136).

⁴ M.61706/17.

⁵ Position given by *Belford* is 50° 34' N., 12° 15' W., but as she was in sight of the *Eavestone* when the latter was sunk, she has been plotted further north.

south and on February 4 at 11 a.m. in 50° 15' N. 11° 30' W. met the Italian S.S. *Eridania*, 3,171 tons, bound from Cardiff to Genoa with coal for the Italian Government and sank her in a heavy sea with gunfire. The crew of twenty-eight were labouring at their oars when at 3.40 p.m. (February 4) in 50° 22' N., 11° 31' W. the British S.S. *Tresillian*, 3,585 tons, bound from Alexandria to Hull, came up. The submarine lurking close by fired a torpedo which missed her stern by six feet. The *Tresillian* turned away and opening fire with her 12-pdr. gun drove her down, then picked up the *Eridania's* crew. *U.45*, however, almost immediately in 50° 21' N. 11° 35' W. fell in with the Norwegian S.V. *Thor II*, 1,995 tons, bound for Queenstown and sank her at 3.45 p.m. (February 4) with a torpedo, taking on board the master, his wife and little daughter, a child of five.

It was probably she that the sloop *Camellia* sighted that evening at 5.30 p.m., but *U.60* or *U.43* that at 6.30 a.m. (February 5th) in 51° 10' N., 11° 3' W. opened fire on the British S.S. *Kaffir Prince*, 2,228 tons. The *Kaffir Prince* replied with her 12 pdr. gun at 3,000 yards and got away. At 11 a.m. (February 5th) in 51° 18' N., 10° 45' W., *U.60* met the British S.S. *Warley Pickering*,¹ 4,196 tons, homeward bound from Gibraltar, and torpedoed her without warning. *U.45*, *U.83* and *U.43*, were all in the vicinity. *U.45* must then have been on her way home north-about, for on February 10 she is stated to have sunk the British trawler *Ostrich*, 148 tons,² in the North Sea.

U.45 reached Heligoland safely on February 12 with Captain Jacobsen and his family still on board after eight memorable days in her at sea. She had sunk in February six ships of 15,545 tons, and two ships, defensively armed, which she had missed with torpedoes, had escaped her.

142. "U.55," to February 11.—*U.55* (Lieut.-Commdr. Wilhelm Werner) had been working off the Cornish coast in January, and on February 1 at 1.10 p.m., two miles N.N.W. of Trevoze Head, in 50° 35' N., 5° 4' W., torpedoed without warning the British S.S. *Essonite*, a small ship of 589 tons, bound from Carnarvon Bay to the Thames. The ship sank in two minutes, and of the crew of thirteen, ten were drowned. Patrols, however, were on the alert. The trawler *Cuckoo* had reported a periscope in the vicinity at 11.30 a.m. The destroyers *Orford* and *Christopher*, too, were on their way there. At 3.20 p.m. (February 1) in 50° 41' N. 4° 59' W., the *Orford* (Lieutenant-Commander John Landon) sighted a submarine some five miles to the N.N.W. She was just too late to save the small trawler *Violet*, which was sunk by gunfire at 3.30 p.m., but in

¹ British S.S. *Ambassador* was attacked in this area at 5/0820, probably by *U.45*, and also French S.S. *Voltaire* at 5/1150 (see Chart), possibly by *U.83* (see S. 147).

² Position given is 135 miles N.E. of Longstone, i.e., 57° 40' N., 0° 30' E.

time to save the Norwegian S.S. *Ramsholm*, 2,172 tons, which was lying already abandoned. The *Orford* opened fire at 8,000 yards and racing up drove *U.55* down and dropped four depth charges round about the spot.¹

U.55 was apparently unharmed, for at 6 p.m. she sank another smack, the *Ada*, in 51° 3' N., 5° 43' W. She then went off to the westward, and was sighted at 2.20 a.m. (February 2) by *Q.11*, and at 3 p.m. in 50° 36' N., 9° 10' W. met and sank a small Russian S.V. the *Pomotchnick*, 167 tons, whose crew was picked up by *Q.11* the next day off Galley Head. On February 6 she sank the British S.S. *Saxon Briton* (see S.147), but it was probably *U.C.46* that sank the *Crown Point*, 5,218 tons, going from London to Philadelphia. This ship was in 50° 6' N., 7° 46' W. at 4.15 p.m. (February 6), proceeding west at 9 knots, when she was struck in the engine-room by a torpedo, which killed four men, and sank in about half an hour. The master was taken prisoner and was never seen again. *U.55* claimed, too, the British S.S. *California*² sunk on February 7 at 9.20 a.m. in 51° 7' N., 10° 26' W., and having lived up to her reputation for callousness, reached Heligoland apparently by the Channel³ on February 11. She had sunk in February two S.S. and three S.Vs. of 2,176 tons and had been attacked once by destroyers.

143. "U.53," February 1-10.—*U.53* (Lieut.-Commdr. Rose), which had been working off Ushant in the end of January, remained there for a day or two. On January 31 at 3 p.m., in 49° 11' N., 6° 20' W., she had sunk the Norwegian S.S. *Hekla*, 524 tons, going from Oporto to Cardiff with pitprops. (See S. 95).

On February 2 at 4 a.m., the Norwegian S.S. *Odin*, 1,045 tons, laden with coal from Barry to Lisbon, was approaching Ushant when in 48° 38' N., 5° 34' W. she was suddenly torpedoed in a heavy sea and went down. This was the work of *U.53*, which went off to the north, and at 2 p.m., off the Bishop in 49° 42' N., 6° 10' W., stopped the French S.V. *Anna Maria* and ordered the crew out, but as her boats were in a bad state, allowed her to proceed.

The next day (February 3), still in the Scillies area, at 6 a.m. in 49° 38' N. 6° 41' W., she stopped the Norwegian S.S. *Rio de Janeiro*, 2,827 tons, laden with grain from Buenos Aires to Copenhagen. Having sailed on January 6, she was ordered by *U.53* to proceed at once outside the Blockade Zone, with a subsequent reluctant permission to call at Ardrossan for bunkers.

At 12.30 p.m. (February 3), in 49° 33' N., 6° 17' W., *U.53* stopped the American S.S. *Housatonic*, 3,143 tons, going from Newport News to London with grain, opened her seacocks and sank her with a torpedo, towing her boats towards the Scillies till the armed yacht

¹ M.01427/17, C.-in-C., Plymouth.

² More probably *U.85* (q.v. S.150) but *U.55* may have been there, too.

³ Radiogonic, 9/1530.

Salvator from Falmouth hove in sight at 2.40 p.m., when she went down. The *Salvator*, picking up the boats, saw another submarine¹ proceeding south with the first.

At 10.45 p.m. (February 3), in 49° 27' N. 6° 40' W., *U.53* stopped the French S.V. *Aimée Maria*, 327 tons, going from Lisbon to St. Servan with salt and wine and sank her with gunfire. She then moved eastward and the next day (February 4th) at 9 a.m. in 49° 35' N., 6° 25' W.² stopped the Russian S.V. *Bangpuhtis*, 259 tons, going from St. Nazaire to Newport, and sank her with bombs. Half an hour later, at 9.30 a.m. (February 4th) in 49° 44' N., 6° 34' W. she stopped the U.S. S.S. *City of Memphis*, 5,252 tons, with cotton from New York to Havre, and let her go on.

Two sailing vessels were in sight and she went after them. One was the Danish S.V. *Maren*, 223 tons, which she seems to have stopped about 10 a.m. in 49° 42' N., 6° 22' W., but a patrol vessel came in sight and the submarine went down.³ At 2.30 p.m. (February 4th) in 49° 2' N., 7° W. she stopped the Norwegian S.V. *Manicia*,⁴ 1,868 tons, which had left Buenos Aires in December 1916 for Rotterdam, and allowed her to go on after informing her captain of the blockade.

At 11.30 p.m. that night, in 49° 11' N., 6° 56' W., she stopped the Swedish S.S. *Bravalla*, 879 tons, Rufisque to Liverpool, and made her follow towards the Scillies.

At 1.10 p.m., the A.T. *City of Carlisle*, on her way back from escorting the oiler *Palmleaf* (vide *U.54*), sighted the *Bravalla* blowing off steam and opened fire on the submarine at 3,000 yards. *U.53* sent a torpedo into the ship and went down. The *Bravalla* sank at 2.40 p.m. (February 5th) in 49° 36' N., 6° 37' W. The *City of Carlisle* cruised round waiting for the submarine, and then picked up the crew of 17 men and 2 women from two small boats which were on the point of sinking.

U.53 seems to have done little more, and returning by the Channel, passed Dover on the night of February 7-8, and on February 9 at noon stopped the Dutch fishing vessel, the *Marian*, 259 tons, in 53° 1' N., 3° E., and sank her after trying ineffectually to take her in tow. She reached Heligoland on February 10, having sunk in February 3 S.S. and 2 S.Vs. of 5,903 tons.

144. "U.67," to February 26.—*U.67*, Lieut.-Commdr. Nieland, which had been working in January in the Bay, was still there in February and on the 1st at 11.30 a.m. in 44° 55' N., 3° 45' W. sank

¹ Possibly *U.83* which was off Ushant at 9.30 p.m. or *U.60* which was located off the Scillies by wireless at 9 p.m.

² More probably in same position as *City of Memphis* 49° 44' N, 6° 34' W.

³ *Études* (I.D.726) February 1917, p. 47 (no details), where it is attributed to *U.83*.

⁴ The *Manicia* was stopped again at 5 p.m. about 12 miles to eastward by a smaller submarine which may have been *U.C.46* or *U.B.18*.

two ships, the Spanish S.S. *Bruton*, 2,434 tons, bound to Cardiff from Bilbao, and somewhere in the same area the Greek S.S. *Elikon*, 1,166 tons. Four days passed before she found another victim, close to the Spanish Coast. This was the Peruvian S.V. *Lorton*, 1,419 tons, bound from Callao via Colon to Pasajes¹ in Spain. She was sunk by bombs on February 5 at 4 p.m. in 43° 29' N., 4° 5' W., enjoying the enviable distinction of being the only Peruvian ship sunk by a German submarine. The question whether she was in Spanish territorial waters was disputed at the time. *U.67* patrolled repeatedly along the north coast of Spain but met nothing but coastal shipping. From February 6-10² she was cruising on the Finisterre-Ushant line and also on the Fastnets to Scillies line with no further success. She seems to have returned by the Channel for she mentioned that she observed no traffic of any sort there, and reached Emden safely on February 26. She had sunk 5,019 tons in February.

145. "U.54," January 29 to February 13.—*U.54*, Lieut.-Commdr. Freiherr von Bothmer, coming via Dover, arrived in the S.W. Approach about February 3 and was some 15 miles North West of *U.43* when, at 9.30 a.m. (February 3), in 50° 26' N., 12° 15' W., she met the Norwegian S.V. *Tamara*, 453 tons, bound from Jamaica to Fleetwood and sank her with gunfire, towing the boats to N.N.E. for three hours. She then went on to the westward and, at 7.10 a.m. (February 4), in 50° 42' N., 14° 39' W., chased the British S.S. *Floridian*, 4,777 tons, going from Halifax to Cherbourg. The *Floridian* brought her astern and went on to full speed, but at 10.20 a.m. in 50° 25' N., 15° W., a shot hit the main steam pipe, bringing her to a stop, and the ship was abandoned and was sunk by a torpedo, the master being taken prisoner.³ At 4.50 p.m., in 50° N., 15° W., the British S.S. *Palmleaf*, an oiler of 5,489 tons, armed with a 4.7 inch gun going from Plymouth to Port Arthur, was torpedoed without warning and sunk. She had been escorted out to Long. 12° W. by armed trawlers who had left her at 8.30 that morning.⁴ The next morning (February 5) at 7 a.m., the British S.S. *Argyll*, 3,547 tons, in 50° 5' N., 14° 40' W., while picking up the boats of the *Palmleaf*, sighted a large submarine 5½ miles to the N.W. *U.54*, if it were she, seems to have gone after the British S.S. *Manchester Hero*, 5,738 tons, going from Baltimore to Manchester, which was in 50° 20' N., 15° W., at 6.30 a.m. (February 5) when she sighted a submarine to the southward. She was unarmed, but bringing the submarine astern managed to escape. At 9.45 p.m. (February 5) in 50° 2' N., 14° 7' W., *U.54* (or *U.83*) met the British S.S. *Azul*, 3,074 tons, going from Buenos Aires to Cherbourg and

¹ 43° 20' N, 1° 55' W.

² C.B.01370 (captured documents) War against Commerce, p. 19.

³ Master's account November 22, 1919, in I.D., Vol. 631.

⁴ A.T. *City of Carlisle* report, M.01533/17.

sent a torpedo into her without warning. A gale was blowing; one boat capsized, drowning six men, and five more died of exposure. *U.54* proceeded north-west again and at 8 a.m. (February 7) in 50° 30' N., 15° 5' W., opened fire on the British S.S. *Wallace*, 3,930 tons, bound for Havre from New York. The first shot at 3½ miles, struck the ship and killed the boatswain. The ship had been abandoned at 10.5 a.m. when *Q.15*¹ (Lieutenant-Commander Wybrants Olpherts) got within range, forced the submarine to go under, and ordered the crew to return. At 11.23 the conning tower of a submarine was seen and later appeared 500 yards ahead steering directly for *Q.15*. At 11.28 a.m. *Q.15* passed directly over it and dropped the port depth charge followed by a second at 11.33 a.m., which damaged the fore deck and set her leaking a little.² She went off to the westward and at 5.15 p.m. (February 7) in 50° 26' N., 16° 26' W., met the British S.S. *Saxonian*, 4,855 tons, going from Newport News to Queenstown and sank her with gunfire. This seems to have been her last ship. Proceeding north-about she was back in Heligoland on February 13 having sunk in February 4 S.S. and 1 S.V. of 18,648 tons. She had been attacked once by *Q.15* (the *Salvia*) on February 7 with depth charges and slightly damaged.

146. "**U.81,**" January 29 to February 16.—*U.81* (Lieut.-Comdr. Raimund Weissbach) left Heligoland on January 29 and proceeding by the Channel was off the Fastnet on February 1. It was probably she that on February 1 at 5.20 p.m. in 51° 23' N., 9° 20' W., opened fire on *Q.16* (the *Heather*) which returned the fire and gave chase when the submarine refused to close.³ At noon on February 2 in 51° 20' N., 9° 40' W. a large submarine suddenly emerged on the starboard bow of the British S.S. *Malta*,⁴ 1,856 tons, Malta to Devonport, and fired a torpedo at 250 yards which missed astern. The *Malta's* 12-pdr. missed fire, and the submarine went down and did not reappear. On February 2 at 5 p.m. in 50° 10' N., 10° 15' W. she stopped the Norwegian S.V. *Songdal*, 2,089 tons, carrying maize from Buenos Aires to Queenstown, and sank her with bombs, towing the boats for an hour and a half till they sighted the lights of a steamer which turned out to be the *Famiglia*, *U.43's* capture; *U.81* went down to the south west and the next day (February 3) at 4 p.m. in 48° 49' N., 11° 40' W., torpedoed without warning the British S.S. *Port Adelaide*, 8,181 tons, going from London to Australia. This ship seems to have been proceeding on route 22 (Wolf Rock, then due West to 10° West) and it may have been in consequence of her loss, news of which arrived on February 7⁵ at 12.45 a.m., that this route was closed that day

¹ H.S. 647 226. *Q.15* gives position as 50° 29' N., 15° 18' W.

² *Floridian*, Master's account, I.D.631.

³ H.S.647/223.

⁴ I.D., Vol. 631.

⁵ February 7, 0045, H.S.356/973. Route closed February 7, 1145, H.S.356/1057.

at noon. *U.81* took her master prisoner and, going north again, on February 4 at noon in 49° 40' N., 11° 5' W., met the Italian S.V. *Maria*, 926 tons, bound from Santos to Bristol with coffee and sank her by gunfire. *U.81* went on to the north west and on February 5 at 7.15 a.m. in 50° 10' N., 11° 59' W. met the British S.S. *Wartenfels*, 4,511 tons, going from Barry to Alexandria with electrical and refrigerating plant for the hospitals in Mesopotamia. The War Office had asked for all steps to be taken to ensure her safety, but her gun was regarded as sufficient protection and she sailed without an escort; torpedoed without warning, she had no time to use her 12-pdr. gun and sank in 20 minutes.

U.81 went on to the north and on February 7 at 0700 in 51° 3' N., 11° 30' W. met the British S.S. *Gravina*, 1,242 tons, proceeding from Seville to London with oranges, and sent a torpedo into her, killing seven men. She went down within a minute, leaving the crew who had no time even to get a boat out, clinging to wreckage in a rough sea, to be picked up and taken prisoners to Germany.¹

At 11.50 a.m. she came up a few miles to the westward and going south again the next day (February 8) at 2.35 p.m. in 49° 50' N., 12° 20' W., met the British S.S. *Mantola*, 8,253 tons (British India) going from London to Calcutta via Capetown, and torpedoed her before she could use her 4.7 inch gun. The sloop *Laburnum* came up about 5 p.m. driving the submarine down and rescuing the passengers and crew. As the ship remained afloat the Master reboarded her with volunteers and a gallant effort was made to take her in tow the next morning, but the towline parting in the rough sea, the attempt failed.² *Q.10* came up to help her, but the ship sank at 6.45 p.m. (February 9). *U.81* was evidently on her way north on February 11, when at 7 p.m. in 50° 44' N., 11° 45' W., she met the British S.S. *Netherlee*, 4,227 tons, going from Philadelphia to Dunkirk, and torpedoed her without warning. Nothing was seen of the submarine. The next day (February 12) going home north-about she sank the Swedish S.V. *Hugo Hamilton*, 2,584 tons, on its way to Kirkwall.³ *U.81* was back in Heligoland on February 16, having sunk in February, 5 S.S. and 3 S.Vs. of 32,013 tons.

147. "**U.60,**" January 31 to February 28.—*U.60* Lieut.-Comdr. Schuster) left Heligoland on January 31, two days after *U.81*, and proceeded through the Channel, being located by wireless on February 3 at 2100, 35 miles west of the Scillies. She proceeded to the South Coast of Ireland and there on February 4 at 1640 off Galley Head, in 51° 30' N., 8° 55' W., sent a torpedo into the British

¹ I.D., Vol. 632.

² Master's statement in I.D., Vol. 632.

³ No details nor time. Position in "Etudes et Mouvements" is 54° 51' N., 11° 40' W. I.D., Vol. 632, "Home Waters, Ships Attacked," gives 1° 40' W., presumably for 11° 40' W.

S.S. *Ghazee*, 5,084 tons, proceeding from Cardiff to Port Soudan, which managed to beach herself¹ about 1½ miles north of Galley Head.

She went on to the westward, where on February 5 she sank the *Warley Pickering* at 11 a.m. (S.141). At 8.20 a.m. in 50° 26' N., 11° 40' W., the British S.S. *Ambassador*, 2,578 tons, on her way home from Buenos Aires was shelled and had been stopped by a submarine when the sloop *Camellia* came in sight and opening fire drove the submarine down. This was probably *U.45*.² Five miles to the westward in 50° 24' N., 11° 44' W., at 11.45 a.m., a submarine opened fire on the French S.S. *Voltaire*, 2,651 tons, going from Cardiff to Bizerta with coal, chasing her for nearly an hour. The *Voltaire* was armed and replied with a vigorous fire and the submarine abandoned the chase. This was probably *U.83*.

It was not *U.60*, but *U.55* that on February 6 at 10.30 a.m. off Gurnard Head in 50° 15' N., 5° 36' W., met the British S.S. *Saxon Briton*, an Admiralty transport of 1,337 tons, going from Portishead to Calais with petrol and oils. An armed drifter was a mile ahead of her and three armed trawlers were in sight astern. She was torpedoed without warning and sank in a quarter of an hour. (See S.142).

U.60 seems to have remained to the westward, for on February 7 at 10 a.m. in 50° 25' N., 11° 10' W., she stopped the Norwegian S.V. *Storskog*, 2,129 tons, going from Buenos Aires to Queenstown and sank her with gunfire, taking the crew on board. About 11.30 p.m. she collided with the derelict of a burnt out sailing vessel and about 1 a.m. (February 8) on sighting a patrol boat, dived. Then came a long blank of nine days, possibly due to the fact that the routes along the South Coast of Ireland and Scillies Westward had been closed on February 7.

On February 11, the British S.S. *Cyclops*, 9,033 tons, in 51° N., 10° W., made an S.O.S. at 9 a.m., but evidently escaped.³ On February 13 in the same area at 4 p.m., in 51° 22' N., 9° 8' W., the British S.S. *Antar*, 3,580 tons, armed with a 13 pdr., was attacked and escaped.⁴ On February 17, *U.60* was to the south west again and at 8.30 a.m. in 50° 45' N., 9° 35' W. (approx.) stopped the Norwegian S.S. *Dalbeattie*, 1,327 tons, going from Glasgow to Gibraltar and sank her with gunfire. That afternoon (February 17)

¹ M.61664/17. She is included in the table of ships sunk, so it may be presumed she was not salvaged.

² It was a submarine with two guns—therefore *U.45* or *U.60*. According to German lists, *U.45* sank the *Warley Pickering* at 5/1100, 60 miles from this position, which, if correct, leaves *U.60*, or possibly *U.83*.

³ No further details.

⁴ On February 16, at 4.18 p.m., *U.60* fired a torpedo at the S.S. *Delphic* which missed astern. (H.S./Q.28, see S. 148.)

at 2.30 p.m. in 50° 43' N., 9° 30' W., she met the British S.S. *Iolo*, 3,840 tons, from Cardiff to Spezzia, armed with a 12 pdr., and torpedoed her without warning.

It was time for her to return and she shaped course for the Scillies intending to go by Dover. She (or possibly *U.C.66*) was sighted by the armed yacht *Salvator*, on February 18 at 4.55 p.m. in 49° 20' N., 6° 30' W. The next day (February 19) at 5.57 p.m., in 49° 9' N., 6° 29' W., she met the British S.S. *Headley*, 4,953 tons, from Portland, Maine, to London, under escort of the destroyer *Martin* and sent a torpedo into her. It was a misty day, and nothing was seen of the submarine, but the *Martin* steaming along the track of the torpedo dropped a depth charge which exploded. This seems to have been *U.60*¹ for, according to one of the sailors of the *Storskog* on board her, she was in action with a cruiser and was hit thrice by shells (actually the depth charge), which damaged the deck and the freshwater tanks, leaving the main structure unhurt, a piece of information confirmed by a signal from *U.60* on February 21.

U.60's next appearance was off Portland, where on February 21 at 3.30 p.m. in 50° 11' N., 2° 19' W., she stopped the British M.S. *Tecwyn*, 132 tons, from St. Valery and sank her by gunfire. On account of the fog and haze, *U.60* then abandoned her intention of proceeding by Dover and decided to go north-about. Her wireless was heard in the entrance of the Channel that night (February 21) and she was back on February 28. She had sunk 4 S.S. and 2 S.Vs. of 17,463 tons,² had attacked 5 ships unsuccessfully, and been once attacked by H.M.S. *Martin*, without being seriously damaged.

148. "U.83," January 31–February 17 (Sunk).—*U.83* (Kaptlt. Bruno Hoppe) left Heligoland on January 31, and proceeding by the Channel³ was located on February 3 at 8.30 p.m. in 48° 14' N., 5° 54' W. off Ushant. It is difficult to trace her movements, but she seems to have been in the Bristol Channel on February 7⁴ where at 8.30 a.m. in 51° 23' N., 5° 12' W. the A.T. *Lombard* fired a shot at her. It may have been she (or *U.C.47*) that on February 8 at 2.30 p.m. N.E. by N. of the Scillies in 50° 11' N., 6° 18' W. stopped the Danish S.S. *Johannes Maersk*, Lisbon to Odense with phosphates, and allowed her to go on. It may have been she⁵ again that on February 11 at 2.10 p.m. in 49° 37' N., 6° 18' W. fired a torpedo at *Q.10* (*Begonia*)

¹ *Storskog* in M.69446/17 in I.D.632. *U.60*'s signal, February 21, 2300, in I.D.606. This damage corresponds exactly to the *Storskog* account and must have been caused by the *Martin*'s d.c.

² Her Captain claimed 6 S.S. and 2 S.Vs. 27,300 tons.

³ Sub Lt. Ferdinand Boenicke (survivor) said she went north-about by Fair Is. (I.D., Vol. 594/156). If this was correct, then the location by wireless is incorrect.

⁴ H.S.647/269. *U.83* may have on February 5, to the westward, attacked the *Ambassador* (S. 147) and sunk the *Azul* and *Ainsdale* (S. 145, 140).

⁵ *U.C.47* (an alternative) has been taken to be north of Scilly Is.

which missed.¹ The submarine reappeared on the starboard quarter but submerged again on the approach of some armed trawlers. These were the A.T. *Whitefriars* and *Cambria* of the Scillies Patrol, who saw the red flag signal flying. The *Cambria* opened fire at 3.40 p.m. (February 11), but the shot fell a "long way short," and the submarine went down. The *Whitefriars* dropped a depth charge which exploded.

The armed yacht *Salvator*, which had received a message from Lands End, came down to help, and joining in the chase to the north-east saw the conning tower of a submarine 4,000 yards off at 3.45 p.m. and opened fire driving it down. At 4.20 p.m. the *Cambria* was pulled up short by striking a submerged object which seemed to scrape along the vessel² and the *Whitefriars* dropped another depth charge at the spot. No damage seems to have been done, but their timely attack saved a Dutch steamer *Triton*.³ On February 12 at 2 a.m. *U.83* was still off the Scillies for she made her position in 49° 9' N., 6° 25' W. and reported hardly any traffic moving in the mouth of the Channel. It was probably on this account that she went off to the Fastnet area. There, on February 14 at 11.40 a.m., in 51° 58' N., 11° W., she stopped the British S.S. *Hopemoor*,⁴ 3,740 tons, from Baltimore to Hull, and sank her by gunfire and torpedo.

At 6.15 p.m. that evening (February 14) in 52° 7' N., 11° 12' W., the sloop *Delphinium* opened fire at long range on a submarine which submerged. Two days later, on February 16 at 4.18 p.m., some 30 miles to the S.W. in 51° 45' N., 11° 30' W., the White Star S.S. *Delphic*, 8,273 tons, proceeding to London from Capetown, armed with a 4.7-in. gun, sighted a periscope and saw a torpedo pass 100 feet astern. This was *U.60* and not *U.83*, whose end was close at hand.

On February 17, at 9.45 a.m., in 51° 34' N., 11° 23' W. Commander Gordon Campbell, in *Q.5*, the *Farnborough* (3,207 tons, 5-12 pdr., 2-6 pdr.), was steering east (true) flying a Norwegian flag when a torpedo was seen approaching the starboard side. The helm was put hard a port, but the torpedo hit. The alarm had been sounded and the "panic" party were busy lowering the boats, while *U.83* lay watching the proceedings through her periscope on the starboard quarter 200 yards away. Her periscope came slowly past the ship only ten yards off, while Commander Campbell could hardly repress the temptation to open fire. He held his hand, however, and *U.83* passed across the bow, broke surface 300 yards on the port bow, and came slowly down the port side. Commander Campbell waited till all the guns were bearing, then gave the order

¹ H.S.647/256.

² Commander Oliver, February 12, 1917. On examination two scores about $\frac{1}{2}$ in. wide were found running along the hull for a length of 12 ft. 6 in.

³ *Salvator's* report in X.13106/1917; M.01786/17 in B.1842/1917.

⁴ Attributed by Marine-Archiv to *U.C.46* but the latter was sunk by the *Liberty* in Dover Straits on February 8. See S.166.

to open fire. The submarine was taken completely by surprise. The first shot hit the conning tower and is said to have taken off the captain's head. *U.83* remained motionless on the surface while the *Farnborough* riddled her with shell, firing altogether some 45 rounds at point blank range. She sank with the conning tower shattered and the crew trying to escape. As she disappeared, the *Farnborough* ceased fire. There were some eight men in the water, and the *Farnborough's* boat was able to pick up one officer (Sub-Lieut. Ferdinand Boenicke) and one man.

As the *Farnborough* was sinking, too, with her engine and boiler rooms rapidly filling, Commander Campbell signalled for help. The *Narwhal* arrived before noon and took the crew off. The *Buttercup* and *Laburnum* came up and an attempt was made to tow at 5 p.m. At 3.30 a.m., February 18, the ship listed over badly and had to be abandoned, and the explosion of a depth charge did not help matters. With Berehaven in sight, the ship was listing 20° with her stern 8 feet under water, but with indomitable exertion and splendid seamanship she was beached at Mill Cove at 9.20 p.m. on February 18. Their Lordships expressed "keen appreciation of the skill, nerve and gallantry" displayed by Commander Campbell and the crew of H.M.S. *Q.5*.¹

Commander Gordon Campbell was awarded the Victoria Cross "in recognition of conspicuous gallantry, consummate coolness and skill in command of one of H.M. Ships," and the D.S.O. was given to Engineer-Lieutenant Leonard S. Loveless, R.N.R., and to Lieut. Ronald Stuart, R.N.R. Three other officers received the D.S.C., seven petty officers and men the D.S.M., Chief Petty Officer George Truscott, R.F.R., a bar to the D.S.M., and twenty-five others received a Mention.

This was one of the actions of the famous *Farnborough*,² memorable for the scrupulous attention given to details in her disguise. *U.83* inspected her closely at a score of yards, and then being "quite satisfied"³ that she had only to deal with an unnamed Norwegian steamer, rose to the surface and to her destruction. This was the end of *U.83*. She had been out 17 days, had sunk one S.S. of 3,740 tons, and had been twice attacked, once by an armed trawler (February 11), once by a sloop (February 16), and had finally succumbed to the *Farnborough*.

149. "**U.21," February 5 (from Mediterranean).**—*U.21* (Lieut.-Commander Hersing), which had gone out to the Dardanelles in May 1915, where she sank the *Triumph* and *Majestic*, was by this time on her way home shadowed by the good fortune which attended her

¹ Telegram to Admiral, Devonport and V.A., Queenstown, February 26, 1917, 1724, in H.S.647/272.

² Commander Campbell's report of February 21, 1917, in M.02271/17 in H.S.647/265.

³ I.D., Vol. 594/153.

commander. Off the coast of Spain, on February 16 at 2 p.m. in 36° 50' N., 8° 25' W., he sank by bombs two small British, S.V. the *Rose Dorothea*, 147 tons, and the S.V. *Marjola*, 146 tons, both going from Newfoundland to Gibraltar. The next day, February 17, a small Portuguese S.V., the *Emilia*, 25 tons, was sunk a mile off Cape Espichel. On February 20, in the mouth of the Bay at 2 p.m. in 46° 49' N., 8° 20' W., he met the French S.S. *Cacique*, 2,917 tons, on the way to New York. A heavy sea was running and after the ship had been abandoned, *U.21* came up and sank her with gunfire.

By February 22, *U.21* was off the Scillies. There, at 11 a.m., in 49° 44' N., 7° 12' W., she met the Norwegian S.S. *Normanna*, 2,000 tons, bound for Stavanger via Falmouth with a cargo of phosphates, and sank her by gunfire, leaving the crew to be picked up by *Q.11* (*Tamarisk*), which had left Devonport that day to cruise in the mouth of the Channel.¹

Meanwhile seven Dutch ships—the *Eemland*, 3,770 tons, and *Gaasterland*, 3,917 tons, for New York; *Zaandyk*, 4,189 tons, for Philadelphia; the *Bandoeng*, 5,851 tons, *Noorderdijk*, 7,166 tons, *Jacatra*, 5,373 tons, *Menado*, 5,874 tons for Rotterdam—which had been waiting for a safe conduct from the German Government, had sailed from Falmouth that morning, February 22, with orders from the Dutch Government to proceed due west to 20° W., where they were to disperse and whence the four ships bound for Holland were to proceed north-about. On the 18th orders² had gone out from Nauen that they were not to be attacked, but apparently these orders did not reach *U.21*, who was off Spain at the time. At 5.15 p.m., February 22, she was still some 30 miles due west of the Scillies³ when in the falling dusk she met this concourse of seven Dutch steamers sailing together⁴ and brilliantly lit up. It was a calm clear evening. They had slowed down to four knots to pick up two lifeboats,⁵ and *U.21* after ordering them to abandon ship, and firing torpedoes at the *Eemland* and *Jacatra*, both of which missed, proceeded to sink them, one by one, by bombs and gunfire.⁶ Only the *Menado* escaped destruction. The bombs placed on board her did not do their work, and a torpedo fired at her missed astern. She was picked up and eventually towed into Falmouth.

Having completed this wholesale piece of work, which must have opened up a considerable file of correspondence in Dutch archives, *U.21* proceeded up Channel and reached home safely on March 3.

¹ H.S.647/313.

² War Diary, I.D. 3025/82. According to a Berlin communiqué of February 25, the Dutch ships had been promised only relative security from February 22, full security only after March 17, H.S.362/280.

³ Lat. 49° 52' N., 7° 15' W.

⁴ They were in a rough sort of double quarter line. Plan in X.1625/1917 from S.N.O., Scilly Isles.

⁵ Possibly from S.S. *Normanna* whose survivors were picked up by *Q.11*.

⁶ Reports in S.N.O., Scilly Isles, X.1625/17.

Otto Hersing had sunk 35,501 tons on the way home, but if he was awarded another order, it was not for the accuracy of his torpedo fire on this occasion.

150. “**U.85**” (February 1–16).—*U.85* (Lieut.-Commander Willy Petz) left Emden on February 1 and proceeded by the Straits of Dover, which he probably passed on the morning of February 2. A clear moon made the passage difficult.¹ He touched a net and his propeller fouled a “new lever” mine. He had to come to the surface and was five hours clearing it. It was possibly she that the *Liffey* saw and fired at on February 2 at 9.20 a.m. in 50° 8' N., 0° 28' W.

By February 4 she was out of the Channel and on February 5 at 11.25 a.m. in 50° 52' N., 10° W., was sighted by *Q.11* (*Tamarisk*) steering north. As the submarine went off to the East at high speed, *Q.11* gave chase, but when he cleared away his foremost gun “to try a few ranging shots,” *U.85* went down.² The next day was a fortunate one for her. She was off the Fastnets on February 6 and making up the coast, torpedoed, without warning, a steamer at 11 a.m. This must have been the British S.S. *Cliftonian*,³ 4,303 tons, an Admiralty collier proceeding to Marseilles with 6,000 tons of coal, which was torpedoed at 11 a.m. in 51° 28' N., 8° 55' W. There were two sloops and two armed trawlers in sight and *U.85* was not able to come up again. The *Cliftonian* sank in 20 minutes. The ship had not been carrying out the instructions given at Cardiff to zigzag during daylight hours and the master was excluded from Admiralty employment⁴ for six months. *U.85* went on and that evening (February 6) at 5.10 p.m. met in 51° 25' N., 9° 25' W., the British S.S. *Explorer*, 7,608 tons, proceeding to Calcutta and torpedoed her at 5.10 p.m.⁵ The torpedo hit the port bow and exploded, but the ship continued to float and was got into Queenstown with the help of tugs.

U.85 went on to the westward and on February 7 at 6 a.m., in bright moonlight, saw a large steamer which she torpedoed without warning. This was probably the British S.S. *Vedamore*, 6,330 tons,

¹ C.B.01370 (German Submarine Reports), p. 9.

² *Q.11*'s report, H.S.647/222.

³ It is claimed also by *U.60* in M.A.251, but extracts from *U.85* Kriegstagebuch (H.S./Q.21) identify it with *U.85*. In cases of ships sunk without warning and where the submarine could not rise, the name of the vessel remained doubtful in Germany.

⁴ M.70741/17 in Pro J. 154/1917. There is an element of ambiguity in the orders—“You are warned of the activity of submarines in the Irish Sea and should keep a good look out during passage . . . and zigzag at irregular intervals during daylight.” (Italics not in original.)

⁵ *U.85*'s report says 6.35 M.E.T. = 5.35 G.M.T. (H.S./Q.21).

from Baltimore to Liverpool, in 51° 17' N., 10° 3' W.; she was armed with a 13-pdr. gun, but saw nothing and sank in 10 minutes, with a loss of 24 out of a crew of 60.

U.85 proceeded S.W., and at 9.20 a.m. (February 7) in 51° 7' N., 10° 26' W., met the Anchor liner *California*,¹ 8,669 tons, going from New York to Glasgow. She was armed with a 4.7-in. gun but had no time to use it for two torpedoes were fired at her; one missed, the other hit. She sank in ten minutes, but had time to send out an S.O.S.; it was taken in by the sloop *Delphinium*, which came up at full speed just in time to see the steamer go down in a cloud of smoke and to pick up 203 survivors out of 242.

U.85 came up for a moment at 10.20 a.m., but seeing a "Foxglove" on the spot went down.²

She seems to have made to the north-eastward and may have been the submarine that on February 8 at 11 a.m. was seen five miles off Mizen Head in about 51° 24' N., 9° 50' W., by the A.T. *Lucida*, which fired five rounds at her at long range. It is not known why she returned so early, but possibly after her experience in the Straits of Dover, she preferred to return north-about. She was back on February 16. She had sunk three S.S. of 19,302 tons; she had been chased once and fired at possibly twice, but had suffered no serious attack, though she had just escaped striking a mine in Dover Straits. This was the last time, however, that she was to see Emden Lighthouse bearing south.

151. „ *U.78.*—February 2-22. *U.78* (Kaptlt. Otto Droescher) left Heligoland on February 2 to reconnoitre the North Channel and lay mines off the West of Scotland. She seems to have been delayed by the discovery of British mines in the Bight, but was off by February 3. On February 7, at 7.45 a.m., off Noup Head (Orkneys N.W.) she met the Swedish S.S. *Varing*, 2,107 tons, going from Savannah to Helsingborg with cotton seed and oilcake, and sank her by gun fire; the crew landed in their boats at North Ronaldshay. *U.78* then went round the West of Scotland and was sighted off St. Kilda on February 10, 3.10 p.m., in 57° 52' N., 8° 50' W., by the A.T. *Robert Smith*; on February 11 she laid 14 mines East of Mull in the Firth of Lorn.³

¹ *California* was also claimed by *U.55*. From *U.85's* War Diary, it seems clear that it was *U.85*, but as *U.85* only fired one torpedo, it is possible that *U.55* was trying to cut her off and fired another (H.S./Q.21). *U.85's* time of firing is 10.2 G.M.T. S.A. return gives 9.30 a.m. But another report gives about 10.30 a.m., and the S.O.S. is "submarine in sight 10 a.m." (E.1 Log, F.7/12.)

² *Delphinium* reported "at 10.25 saw a submarine." *U.85* reported "at 10.20 came up, a Foxglove on the spot."

³ 56° 23' N., 5° 37' W. and 56° 13' N., 5° 49' W. Fields 81 and 82 in. O.U.6020A.

The next day she laid 8 on the East coast of the Island of Coll, between Coll and Mull, 6 off Ardnamurchan, North of Mull, and 6 East of the small island of Rum.¹

She was evidently cruising on the North of Ireland route, and on February 13, about 12.30 p.m. sank by bombs a British trawler, the *Barnsley*, 144 tons, 13 miles north of Inishtrahull in 55° 42' N., 7° 15' W. The A.T. *Ceresia* (Larne), one 6 pdr., 28 miles north of Malin Head received at 1.36 p.m. a wireless of gunfire heard, and came down at once with two other A.T's.—*Warlord* (one 6 pdr.) and *Fishtoft* (one 6 pdr.).

At 2.18 p.m. (February 13) a submarine was sighted on the surface, bearing south 8,000 yards. Unfortunately, two of the A.T's. opened fire with their 6 pdrs. at the excessive range of 6,000 yards and *U.78* went down at 2.35 p.m.²

She was 15 miles south of St. Kilda on February 15 at 3.20 p.m., where she sank a Norwegian S.S. *Stralsund*, 510 tons, going to Troon for coal, and then on to Genoa. On February 16 at 4 p.m., off the Butt of Lewis, she stopped the Norwegian S.S. *Ingrid II*, 1,145 tons in 58° 44' N., 6° 19' W., but went down on the approach of the A.Y. *Yarta* (two 3 pdrs.)³ of the Stornaway Patrol. She was back in Heligoland on February 22, having sunk 2,761 tons.

151A. "U.C.33," February 7-21.—*U.C.33* (Lieut.-Commander Schelle) left Heligoland on February 7, proceeding by the Channel, to lay mines off Queenstown. She saw only one destroyer in Dover Strait and met no patrols between Beachy Head and Havre or between Portland and Cherbourg.⁴ She laid ten mines off Queenstown on February 12, in about 51° 42' N., 8° 17' W., and four off the Old Head of Kinsale, on February 13, in about 51° 34' N., 8° 30' W.,⁵ the last three exploding as soon as they were laid. The Queenstown field was discovered on February 15, and the A.T. *Clifton* was blown up on it on February 18.

U.C.33 went on to the westward, and on February 14, at 9.45 a.m. in 50° 55' N., 9° 40' W., met the British S.V. *Eudora*, 1,970 tons, going from the Plate to London, and sank her by gunfire. *U.C.33* seems then to have started home. She was off Norway on February 20 where at 1.15 a.m. she reported she had come by the Shetlands as she could not dive properly and was leaving a broad oil streak behind.

She had sunk one sailing vessel of 1,970 tons.

¹ These channels were little used and the first indication of mines seems to have been on March 4 (823Q). See, too, closure of Sound of Mull, April 2, H.S.405/579, 582, 716, 793 (loss of *Jason*).

² M.02132/17. See also H.S.571/69 (Stornaway).

³ I.D., E.1 Log 13/4; H.S.571/70.

⁴ C.B.01370/14.

⁵ Fields 58 to 61 (1917) O.U.6020A. War Diary, February 20, 0115. in I.D.3025.

152. "U.50," February 12.—U.50 (Kaptlt. Gerhard Berger) left Heligoland on February 12, proceeding by the Channel. She apparently had orders to work in the Bay where, on February 18 at 5.45 p.m., in 45° 43' N., 3° 25' W., she met the French S.V. *Jean Pierre*, 449 tons, from St. Lucia to Bordeaux and sank her with bombs. As U.67 had reported little traffic in Area B (the Bay), U.50 had been told on February 17 to proceed to Area A, off the Fastnet. There, on February 22, at 9 a.m., in 51° N., 10° 10' W., some 30 miles from the Fastnet, she met the Norwegian S.V. *Blenheim*, 1,143 tons, and, after giving her half an hour to abandon ship, sunk her with bombs and towed her boats to within 18 miles of land. She then took a long cast to the Westward, and on February 24, at 4.15 p.m., in 51° 30' N., 14° 45' W., met the British S.S. *Falcon*, 2,244 tons, from Newport to Marseilles. U.50's periscope was seen close under the stern, and the submarine then came up and opened fire. The ship was armed with a 13 pdr. which fired four rounds before the crew took to the boats, and the ship was last seen on fire and pouring out smoke fore and aft, at 7 p.m. The crew were picked up by the S.S. *St. George* at 6 a.m. the next day, and transferred to the *Laburnum*. U.50 went off to the north-east and on February 25 at 4.45 a.m. in 52° 4' N., 14° 2' W., met the British S.S. *Huntsman* (7,466 tons) going from Liverpool to Calcutta, steering west true at 12 knots, and torpedoed her without warning; she went down with a loud explosion at 5.25 a.m. The boats were picked up a few hours later by the S.S. *Anselm*. U.50 proceeded to the westward and at 3 p.m. (February 25) in 51° 58' N., 14° 26' W., met the British S.S. *Aries*, 3,071 tons, proceeding from Melilla in Morocco to Glasgow with 4,500 tons of iron ore. The day was fine and the *Aries*, sighting the conning tower of the submarine some miles right ahead, brought it astern. U.50 chased at a speed of about 14 knots, and as the *Aries* could only go 8½, overhauled her rapidly. The *Aries* had an old 12 pdr. 12 cwt. gun out of H.M.S. *Africa*, and opened fire, but, after a ricochet had struck the gun platform and put the gun out of action, the ship was abandoned and was sunk by gunfire. U.50 turned to the eastward again and that night (February 25) was fortunate enough in 52° N., 13° 40' W., to meet the Cunarder *Laconia*, 18,099 tons, on her way to Liverpool. The sea was smooth with a slight swell and the night was dark, and the ship was zigzagging when at 9.30 p.m. a torpedo hit her on the starboard side. All watertight doors were closed and the ship did not sink till she was torpedoed a second time at 11.40 p.m. She had sent out an S.O.S. which was received by the sloop *Laburnum*. She was the largest merchant vessel sunk in home waters since the destruction of the *Lusitania* in May 1915,* and the Admiralty asked for further information.

* *Britannic*, 48,158 tons, mined in Mediterranean, November 1916; *Lusitania*, 30,396 tons, torpedoed in home waters, May 1915; *Franconia*, 18,150 tons, torpedoed in Mediterranean, October 1916.

It appeared that there should have been three sloops at the time in a patrol stretching out from the Blaskets—the *Laburnum*, the *Crocus* and the *Bluebell*; the *Bluebell*, however, which was escorting the S.S. *Tuscania*, had been ordered to Berehaven owing to the illness of her Captain and the *Laburnum* had been closed in towards land and ordered to look out for the *Laconia*. According to the *Laburnum*, she had received the signal at 8.37 p.m. and had asked the *Laconia* her position at 9.23 p.m. The *Laconia* had taken an hour to reply (10.20 p.m.) and had then given her longitude as 14° 30' W., at 9.30 p.m. At 10.55 p.m. came an S.O.S. from *Laconia* in 13° 40' W., and another, five minutes later, giving her position as 13° 30' W., and the *Laburnum* had to ask which position was correct. It was possible, the *Laburnum* stated, that but for these delays, the *Laconia* would have been under escort much earlier. The *Laburnum* only arrived on the spot about 11.30 p.m., in time to pick up 292 passengers and crew, 12 having been killed in the explosion.¹ This was the "overt act" which led to the American declaration of war.

U.50 went off to the north and on February 26, at 11.55 a.m., in 52° 34' N., 13° 30', met the Anchor liner *Cameronia*, 10,963 tons, and opened fire on her, which the *Cameronia* returned with her 6 in. gun. The *Narwhal*, one of four destroyers lent to Queenstown for escort work, came up and U.50 went down.² She sent a signal that night at 9.30 p.m., reporting brisk traffic at rendezvous Y³ West of the Fastnet. She was seen off St. Kilda on March 1 at 12.30 p.m. and got back safely on March 8, having sunk four S.S. and two S.V. of 32,472 tons.

153. "U.84," February 15–28.—On February 15, the last two High Sea Fleet submarines to operate in the month, sailed from Heligoland—U.84 and U.49. U.84 (Kaptlt. Walter Roehr) made her way down Channel, passing Dover at nightfall on February 16 on the Goodwins side of the barrage.⁴ On February 17, at 4.30 p.m., between Portland and the Start, in 50° 12' N., 2° 56' W., she met a French S.V., the *Bayonne*, 2,589 tons, from New York, with 3,300 tons of barley and maize and sank her with bombs. U.84 may have sighted the British S.S. *Romsdalen*, 2,548 tons, going from Cardiff to Calais, for she proceeded east and torpedoed her at 9.45 p.m., 10 miles S.W. of Portland in 50° 22' N., 2° 35' W.; the ship was hit by the foremast and sank in 20 minutes. She probably sighted the British S.S. *Valdes*, 2,233 tons, an Admiralty transport, proceeding from Manchester to Cherbourg with flour and hay, for at

¹ M.63127/17; *Laburnum's* report in H.S.650/68.

² H.S. 362/44. The British S.S. *Cameron*, 3,044 tons, also reported an attack at 9.15 a.m., in 52° 10' N., 13° 25' W. I.D., Vol. 634.

³ i.e., British rendezvous Y, which indicates that the Germans were reading wireless at the time.

⁴ C.B.01370 (captured documents), p. 15.

11.15 p.m. (February 17) seven miles south of Portland Bill in 50° 24' N., 2° 25' W., she torpedoed her, too, without warning. The *Valdes* went down in about five minutes, six of the crew being drowned and two dying later of exposure and shock. The Commander-in-Chief, Portsmouth, pointed out that the *Valdes* apparently had her navigation lights burning and was not passing within five miles of Portland as ordered.¹ Not far off was another Admiralty transport, the British S.S. *Hunsworth*, 2,891 tons, armed with a 12 pdr. 8 cwt., on the way from Glasgow to Cherbourg; she, too, had her navigation lights burning, and got a similar sharp reminder of it when, without warning, a torpedo struck her forward on the starboard side at 12.6 a.m., February 18, 6½ miles south of Portland in 50° 23' N., 2° 25' W. It was a fine clear night and the boats of the *Valdes* heard the explosion. The *Hunsworth*, after firing a couple of rounds into the darkness, from her 12 pdr., was abandoned but did not sink, and was eventually towed into Portland by two tugs² who were unable to claim salvage as the ship was on Admiralty service.

U.84, continuing on her way down Channel, at 1.30 p.m., in 49° 59' N., 3° 41' W., met the Norwegian S.S. *Juno*, 2,416 tons, from New York to Hull and sank her with bombs. It was probably she that at 8 p.m. torpedoed the British S.S. *Berrima* (S.169); then on February 20 at 12.35 p.m., in 50° 15' N., 5° 33' W., she was seen by the British S.S. *Carperby*, 2,103 tons, going from Havre to Barry. A periscope rose 150 yards on the port beam crossing the *Carperby's* course, and the ship seemed to strike something a heavy blow—the effect of *U.84's* torpedo which exploded on the bottom.

Her next appearance was on the south coast of Ireland, where, on February 21, at 7.20 a.m., in 51° 40' N., 7° 54' W., she met the British S.S. *Nascent*, 3,720 tons, outward bound. The ship was armed with a 12 pdr. and, after firing three rounds at a range of about 2,000 yards, escaped. *U.84* probably then sighted the Norwegian S.S. *Dukat*, 1,452 tons, going from Barry to Fayal, with 1,830 tons of coal, which on February 21, at 8.30 a.m., was proceeding W.N.W. at 8 knots in 51° 44' N., 7° 53' W.,³ when she was stopped and sunk by gunfire.

The next day (February 22) brought her very near destruction. The day began at 7.45 a.m. when, in 51° 48' N., 7° W., she met the British S.V. *Invercauld*, 1,416 tons, bound from Mississippi to Fleetwood with a cargo of sleepers. After an attack by gunfire and a torpedo, the ship capsized at 9.30 a.m. Commander F. H. Grenfell in *Q.7*—the *Penshurst*—was some 24 miles to the eastward

¹ M.02118/17.

² Re enquiry into abandonment and alleged looting, see A.1179/1917.

³ In report, 7 miles S.S.E. of Ballycotton.

at the time and, hearing the gunfire, turned and shaped course west. At 11.34 a.m. in 51° 56' N., 6° 46' W.,¹ a submarine was sighted on the port bow which disappeared at 11.55 a.m. Some eight miles off towards land a ship (S.S. *Canadian*) was being escorted eastward by a sloop which Commander Grenfell took to be the *Delphinium*, but was actually the *Alyssum*.

At 12.18 p.m., a boat was seen ahead pulling painfully towards land, and a little later the *Invercauld* was sighted floating bottom up. At 12.35 p.m., a periscope suddenly emerged 400 yards away on the port quarter, and a moment later, a torpedo track came stretching towards them which was avoided by a rapid turn to port. It passed 15 feet astern. *Q.7* then steered to Eastward and at 1.13 p.m. the submarine emerged astern and opened fire. *Q.7* stopped in 51° 54½' N., 6° 53' W., and abandoned ship. *U.84* closed to 1,500 yards, submerged, and passed down the ship examining it closely and leisurely through her periscope. She was apparently satisfied, for about 1.50 p.m. she came to the surface on the port quarter² 600 yards off to examine the boats which were some 50 yards ahead.

Q.7 at once opened fire. The first two rounds were short, the third hit the after part of the conning tower, followed by another and another. The submarine's bows rose at a steep angle; she received at least one more hit and went down. *Q.7* had meanwhile sent an urgent signal, giving the bearing and distance of the submarine, to the sloop in sight which she addressed as the *Delphinium*. The *Alyssum* intercepted the signal at 1.20 p.m., but only later found that it was intended for her.³ Admiral Bayly, however, had already ordered the *Alyssum*⁴ to join in the attack, and leaving the *Canadian* she came down at full speed. The submarine was in a bad way for shortly after she went down she came up again at a fairly steep angle; fire was reopened and she may have been hit. *Q.7* ran across the spot and dropped two "G" depth charges, both of which exploded. She was cruising round when the bows of the submarine came tilting up again some 3,000 yards to the westward. She was evidently unable to keep down, and it was touch and go whether her speed would get her away before she was again hit, for as she came to the surface, men were climbing out of the conning tower and lining her decks. *Q.7* opened fire again and the *Alyssum* commenced firing, but *U.84*, putting on speed gradually drew away from *Q.7*, who was handicapped in the chase by the fact that her guns would not bear ahead and that she could only go 8 knots against *U.84's* 16. The *Alyssum* (Lieut.-Commander G. Cunningham Glen) had sighted the submarine on the port beam at 2.10 p.m., being

¹ Commander Grenfell's report of February 24, 1917, M.02496/17, in H.S.647/329, also in C.B.01486/25.

² *Q.7* had swung to westward.

³ *Alyssum's* report H.S.647/342.

⁴ Signal received 1.15 p.m.

engaged by *Q.7* and kept her on a steady closing bearing. Unfortunately at 2.45 p.m. she mistook the capsized hull of the *Invercauld* for a second submarine and shifted her foremost gun to it for five minutes before she discovered her mistake, which let *U.84* draw ahead of bearing for a time. Shortly after 3 p.m. *U.84* turned E.N.E. and opened fire on the *Alyssum*; then about 3.15 p.m., after firing a torpedo which passed 250 yards astern, turned south. There followed a long stern chase. By 5.30 p.m. the *Alyssum* (speed 17 knots) had gained only a little, and Commander Glen opened a slow and deliberate fire with the foremost gun, hoping to get a lucky hit, but was handicapped by having to steer a point off his course to get the foremost gun to bear. *U.84* replied, finding the range with the larger of her guns; but by 6.15 p.m. the light was failing and at 7 p.m. the submarine was lost to sight, leaving the *Alyssum* with only sixteen rounds a gun.¹ (Plan 23.)

U.84 went home north about. She had had a narrow escape; she had been hit seven times, her conning tower shot through, a petty officer killed, and her lifeboats damaged by the depth charges. Though she was able to dive "under certain² conditions" by the time she reached the North Sea, she probably could not do so on February 22, when darkness saved her. She reached Heligoland on February 28, having sunk six vessels of 12,654 tons (which she gave as 40,000) and having been once seriously attacked.

For his actions on February 20-22, Commander F. H. Grenfell was promoted to the rank of Captain (retired), one of his officers received a D.S.C., and three of them a bar.³ Lieut.-Commander Glen, of the *Alyssum*, received a Mention.

154. "U.49," February 15-March 14.—*U.49* (Kaptlt. Richard Hartmann) left Heligoland on February 15 with orders to reconnoitre the north coast of Ireland, remaining there if traffic was lively; if not, to go on to the S.W. He proceeded north about meeting off the Shetlands in 60° 25' N., 0° W. at 7.30 a.m. on February 19 the Russian S.S. *Sigrid* (2,194 tons) proceeding from Norway to Middlesbrough, which was sunk by gunfire, a bomb, and torpedo. On the north coast of Ireland she found nothing, for

¹ No ranges are given in the reports, but according to the track charts (Nos. 232, 233) the range at 3 p.m., when the *Alyssum's* shells were reported by *Q.7* to be falling 600 yards short, was about 7,200 yards. No details are known of *Alyssum's* 4.7-in. guns, but they were probably similar to the *Delphinium* which (according to Lt.-Comdr. J. Lloyd-Owen) were dated about 1889, were fitted with three-motion breechblocks with percussion locks, and had a maximum range of 5,500 to 6,000 yards—weapons not too hopeful for a long range encounter.

² Signal, February 26, 1927.

³ For names, see M.05019/17 in H.S.648/40.

sailings had been suspended. On February 26 she was coming down to the Skelligs when at 11.30 p.m. in 52° 13' N., 11° 26' W. she met the British S.S. *Tritonia* (4,444 tons) on the way from St. John's, N.B., to Liverpool with a general cargo and 233 horses. The ship was going 10½ knots and zigzagging; the night was clear; voices were heard in the darkness and then a torpedo hit her. She did not sink and was taken in tow the next morning by the sloop *Bluebell*, who towed her till 5.30 p.m., when the tow broke. She sank at 7.30 a.m. on February 28 for want of a powerful tug, demonstrating in her loss the necessity of rescue tugs as an essential part of the anti-submarine war.¹

U.49 was meanwhile making to the south-west, and on February 27 at 11.30 a.m.² in 51° 36' N., 12° 47' W., met the Italian S.S. *Luigino B* (1,971 tons), going from Almeria to the Tyne. She was stopped and sunk with bombs. *U.49* then proceeded south-east and at 4.45 p.m. in 51° 8' N., 12° W. met the British S.V. *Galgorm Castle* (1,596 tons), with a cargo of maize from Buenos Aires to Queenstown, and sank her with bombs. One boat with the master and eleven crew was picked up by the S.S. *Charing Cross* at 6 a.m. The mate's boat was lost in the darkness and upset by a squall. Four of its occupants were drowned and six perished from exposure and exhaustion, leaving a solitary survivor, the Russian carpenter, to be picked up on March 2, 70 miles to the northward by the S.S. *Mount Snowdon*.

U.49 continued to cruise in the longitude of 12° 30' W. but sank no more ships in February. She had sunk four vessels of 10,205 tons,³ and had not been seriously attacked.

155. Statistics, S.W. Approach, February, 1917.—In January, in the Fastnet area (from 50° to 52° N. and from 7° W. to westward), the High Sea Fleet submarines had sunk 21,822 tons, and to the westward (in the Bay and off Spain, off the Scillies, and the Fastnets) 132,663 tons. This figure rose steeply in February and the edge of the attack fell on the S.W. Approach.

There, in February, the High Sea Fleet boats sank approximately 163,000 tons out of a total of eighty ships of 236,815 tons sunk by them in the month. Compared with January, the increase in their sinkage was 80 per cent., and in the S.W. approach it increased sevenfold. Of this, 119,233⁴ tons (52 per cent.) was British, making 46.5 per cent. of the total British tonnage sunk by submarines in February (viz., 256,394 tons).

¹ See H.S.650/69.

² Ship's time G.M.T. about 12.18 p.m.

³ Of which 1 of 2,194 tons in North Sea.

⁴ Return August 1919, p. 162.

This was chiefly due to the increased number of submarines. The High Sea Fleet boats working to the westward¹ were fifteen in all during the month against four in January.

Name	Left.	Home.	Days in Feb.	Sinkage.		Number of times attacked. ²
				Vessels.	Tons (gross).	
U.43	Jan. 11 (N)	Feb. 13 (C)	13	5	13,784	0
U.45	Jan. 14 (N)	Feb. 12 (N)	12	6	15,545	0
U.55	Jan. 20 (C)	Feb. 11 (C)	11	5	2,176	1
U.53	Jan. 20 (C)	Feb. 10 (C)	10	3	5,019	(Orford) 0
U.67	Jan. 23 (C)	Feb. 26 (N)	26	6	5,903	0
U.54	Jan. 29 (C)	Feb. 13 (N)	13	5	18,648	1
U.81	Jan. 29 (C)	Feb. 16 (N)	16	8	32,013	(By Q.15) 0
U.60	Jan. 31 (C)	Feb. 28 (N)	28	6	17,463	1
U.83	Jan. 31 (C)	Sunk Feb. 17	17	1	3,740	(By Martin, damaged) 3
U.21	Medit., Feb. 17	Mar. 4 (C)	—	11	35,501	(Sunk by Q.5)
U.85	Feb. 1 (C)	Feb. 16 (N)	15	4	26,901	
U.78	Feb. 2 (N)	Feb. 22 (N)	20	3	2,761	
U.50	Feb. 12 (C)	Mar. 7 (N)	16	6	32,472	
U.84	Feb. 15 (C)	Feb. 28 (N)	13	6	12,654	1
U.C. 33	Feb. 7 (C)	Feb. 21 (N)	14	1	1,970	(By Q.7, damaged)
U.49	Feb. 15 (N)	Mar. 14 (N)	13	4	10,205	
			237	80	236,815	

The tonnage sunk per submarine day was 999 tons against an average of 1,220 tons in January. The number of submarines operating at a time to the westward varied from seven to three. On February 1 there were five submarines, on February 7 seven,³ on February 14 four, on February 21 five, on February 28 only three.⁴

¹ (N) = went North-about; (C) = went by Channel. Adding U.C.33 (February 7-21) makes a total of sixteen.

² By attack is meant an attack in which the submarine was apparently seriously endangered.

³ U.43, U.54, U.81, U.60, U.83, U.85, U.78; but note that U.78 was working north of Ireland.

⁴ U.50, U.84, U.49.

There were also attacked, but not sunk, 19 ships of 81,884 tons, of which 16 were British, of 77,965 tons. Of these there were saved:—

By patrol	6	By speed and position ..	4
By gun	4	Salved	3
By gun and patrol	2		

Two merchant ships, the *Delphic* (February 16, U.60) and *Saturnia* (February 13, U.45) were missed by the torpedoes fired at them, and Q.10 (February 8, U.83) enjoyed the same good fortune.

The efficiency coefficient of the system may, so far as British shipping was concerned, be roughly estimated at—

$$\frac{77,965}{119,233 + 77,965} = \frac{779}{1,971} = 39 \text{ per cent.}$$

Of the 80 ships sunk by High Sea Fleet boats, 22 were torpedoed without warning.

156. **Measures, South-west Approach.**¹—The measures taken in February differed little from those in January.

Up to February 5, ten British ships were sunk in the south-west approach by U.43, U.45 and U.54, and on that day on this account the south coast of Ireland was closed for traffic from the Clyde and Bristol Channel to North Atlantic² and ships were sent round by the north of Ireland. (Plan 20.)

Admiral Bayly had asked for six more Q. ships on January 15,³ and on February 7 on account of the activity of U.85 the Admiralty ordered the 10th Sloop Flotilla to be sent from the Humber and four destroyers from the Grand Fleet, which proved of great use to him.⁴

On February 7⁵ the south coast of Ireland route was closed to South Atlantic traffic as well, but on February 10 the position was eased by opening a new route along the south coast of Ireland in which ships left the coast at the Blaskets⁶ instead of the Fastnets.

The principal routes then remaining open were the North of Ireland and Scillies to Ushant.⁷

It is difficult to say how far the closure of the routes saved traffic. The principal sinkings in British ships occurred between February 3 and February 7 (19 ships out of 31) and again on February 24, 25 and 27 (six ships) so that presumably the changes in routeing proved effective, but probably equally helpful were the dark nights and

¹ See also S.132.

² Telegram, February 5, 2123, Route 41, 71 no longer in force.

³ M.05681/17 in H.S.1267.

⁴ H.S.650/31, 46.

⁵ Telegram, February 7, 1145.

⁶ Routes 56, 87. Telegram, February 10, 1645. Blaskets is on north side of Dingle Bay, some 60 miles to northward of Fastnets.

⁷ Scillies routes No. 31, No. 61, No. 91. See M.09748/16 in Case 504, Vol. I, A.L., February 5, 1917 (see Appendix J).

stormy weather which marked the middle of the month, and which may have partly accounted for only three British ships being sunk between February 12 and February 23.¹

The North of Ireland route for Clyde, Irish Channel and Bristol Channel traffic remained open till February 21, that is for sixteen days, and part of the immunity enjoyed during this period must be attributed to it.

On February 21 it was closed² on account of a German signal taken in on February 18 ordering *U.49* to reconnoitre the north coast of Ireland.³ Her search naturally proved fruitless and she spent four useless days there before she went off to the south-west. The north route was opened again on February 25.⁴

In consequence of a signal made by *U.60* in the Channel on February 21, 11 p.m., to say she was returning north about, instructions were sent to Queenstown on February 22 to be ready for her on February 23,⁵ but after her experience in the Channel she was evidently doubly wary and nothing was seen of her.

The activity of *U.50*, who had come up from the Bay, led Admiral Bayly on February 23 to state the necessity of retaining the four Grand Fleet destroyers (which he had been instructed to send to the Irish Sea) as his sloops were slower than submarines on the surface, and too slow to escort valuable vessels,⁶ but in view of the dearth of destroyers he was told that it was impossible to keep one area fully patrolled at the expense of another.⁷ Then came a distinct shock to the route system.

On February 24, at 8.17 p.m., *U.84* reported that homeward bound traffic was making 52° N. 12° 30' W. (*i.e.*, the latitude of the Blaskets).⁸ This meant that the new Blaskets route was compromised. Sailings by St. George's Channel seem to have been suspended and traffic from West Coast to North Atlantic was sent by the north of Ireland; Admiral Bayly was informed and, on being asked for his opinion, recommended a route some 180 miles to the southward through 49° 30' N. 13° W. Telegrams passed on the subject between the First Sea Lord and Admiral Bayly, and on February 26 Admiral Jellicoe recommended three incoming routes which developed into the Approach Routes⁹ (*see* S. 247). (Plan 18.)

¹ H.S.650/31.

² Telegram, February 21, 1703, Suspend sailings British and Allied shipping through Rathlin Sound, H.S.361/188.

³ I.D.3025, p. 82, February 18, H.S.645/103.

⁴ Telegram, February 25, 1336.

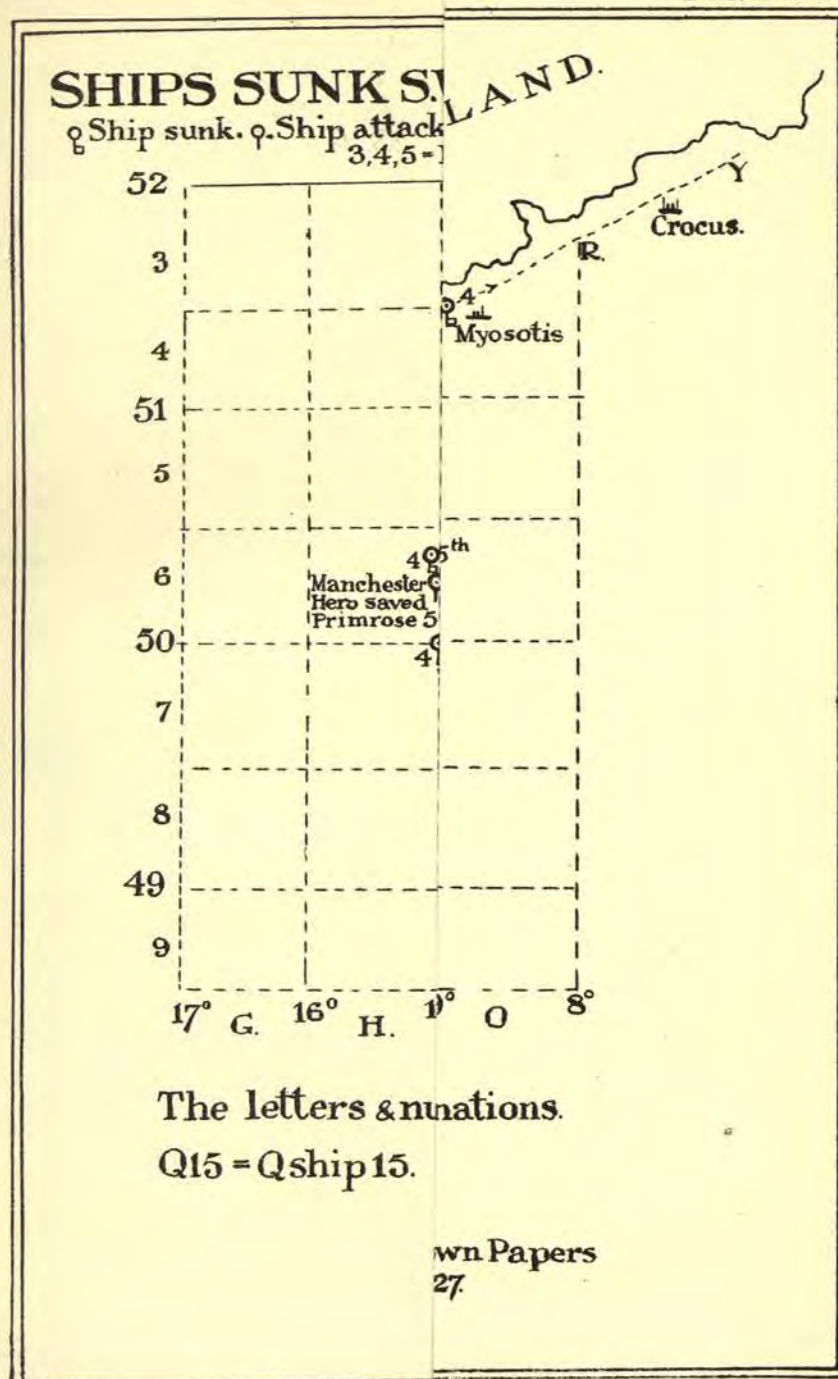
⁵ H.S.645/110.

⁶ H.S.361/865.

⁷ H.S.361/1072.

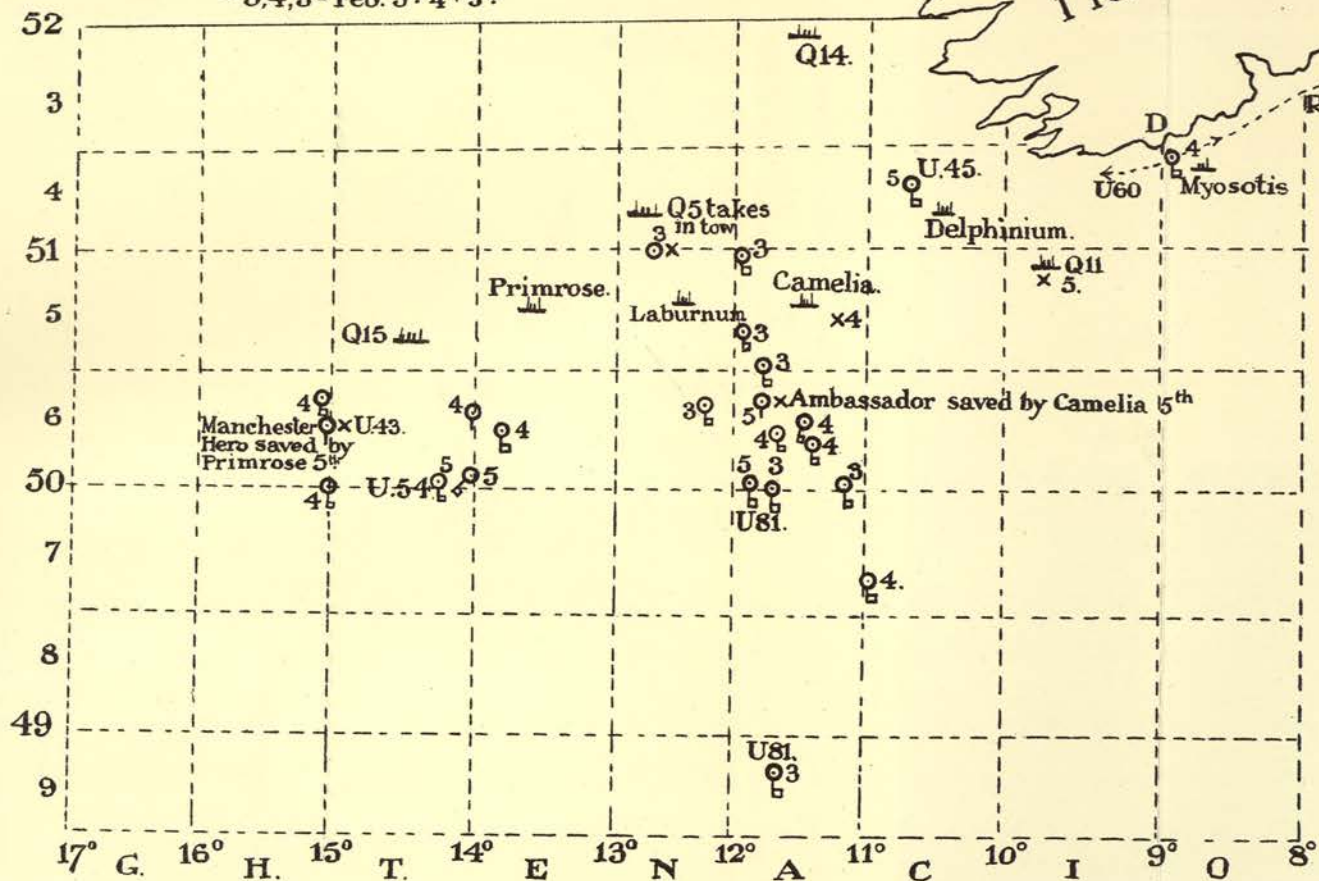
⁸ I.D., Vol. 3025; H.S.645/117. Telegram to suspend sailings by St. George's Channel is in T.D. Papers with Captain Webb's stamp, but is apparently not in Telegram Series.

⁹ Telegram, 26/2250, H.S.362/318, 639; H.S.645/118.



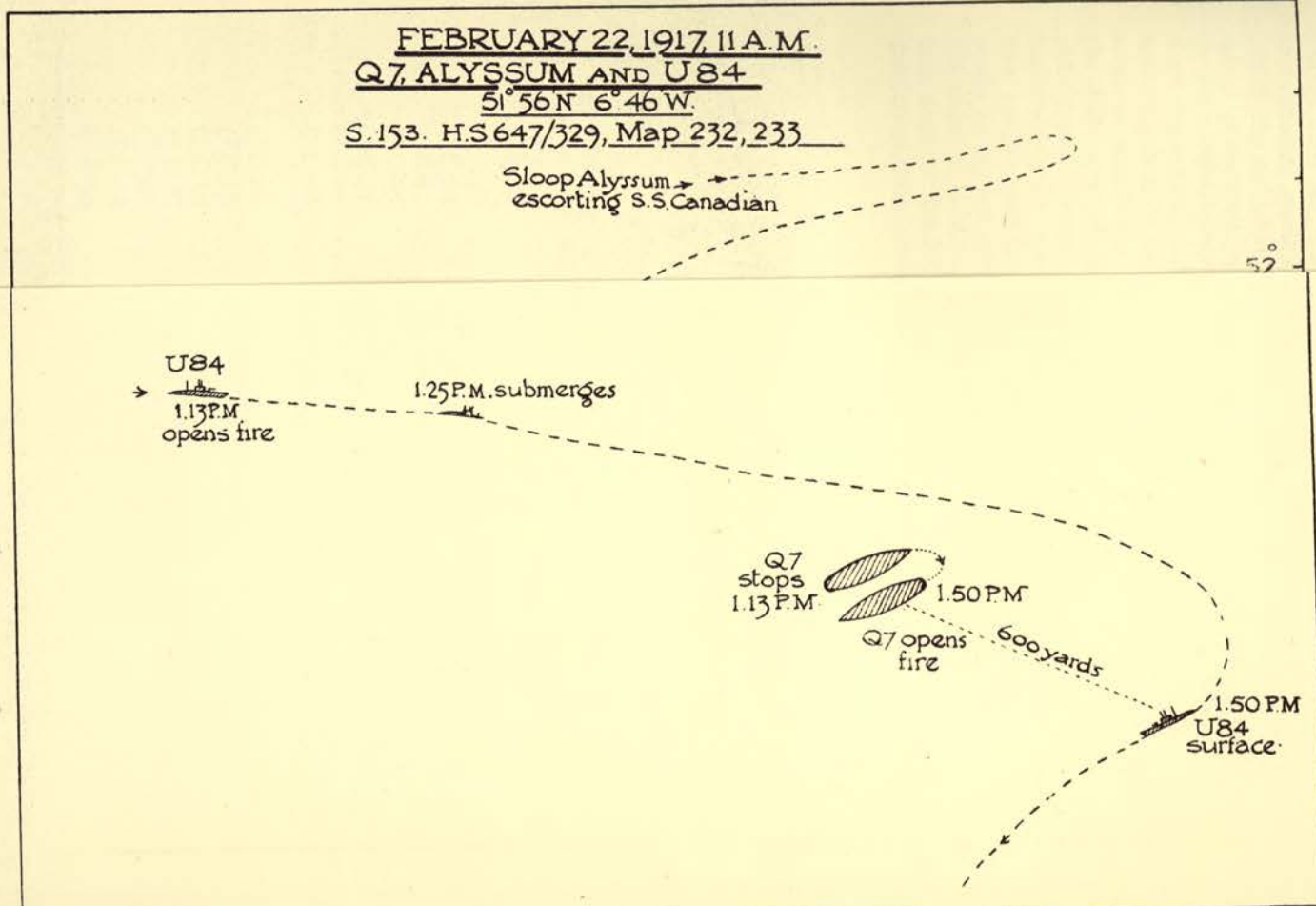
SHIPS SUNK S.W. IRELAND FEB. 3rd 4th 5th 1917.

□ Ship sunk. ◊ Ship attacked. × Attack on s/m by Patrol.
3, 4, 5 - Feb. 3rd 4th 5th



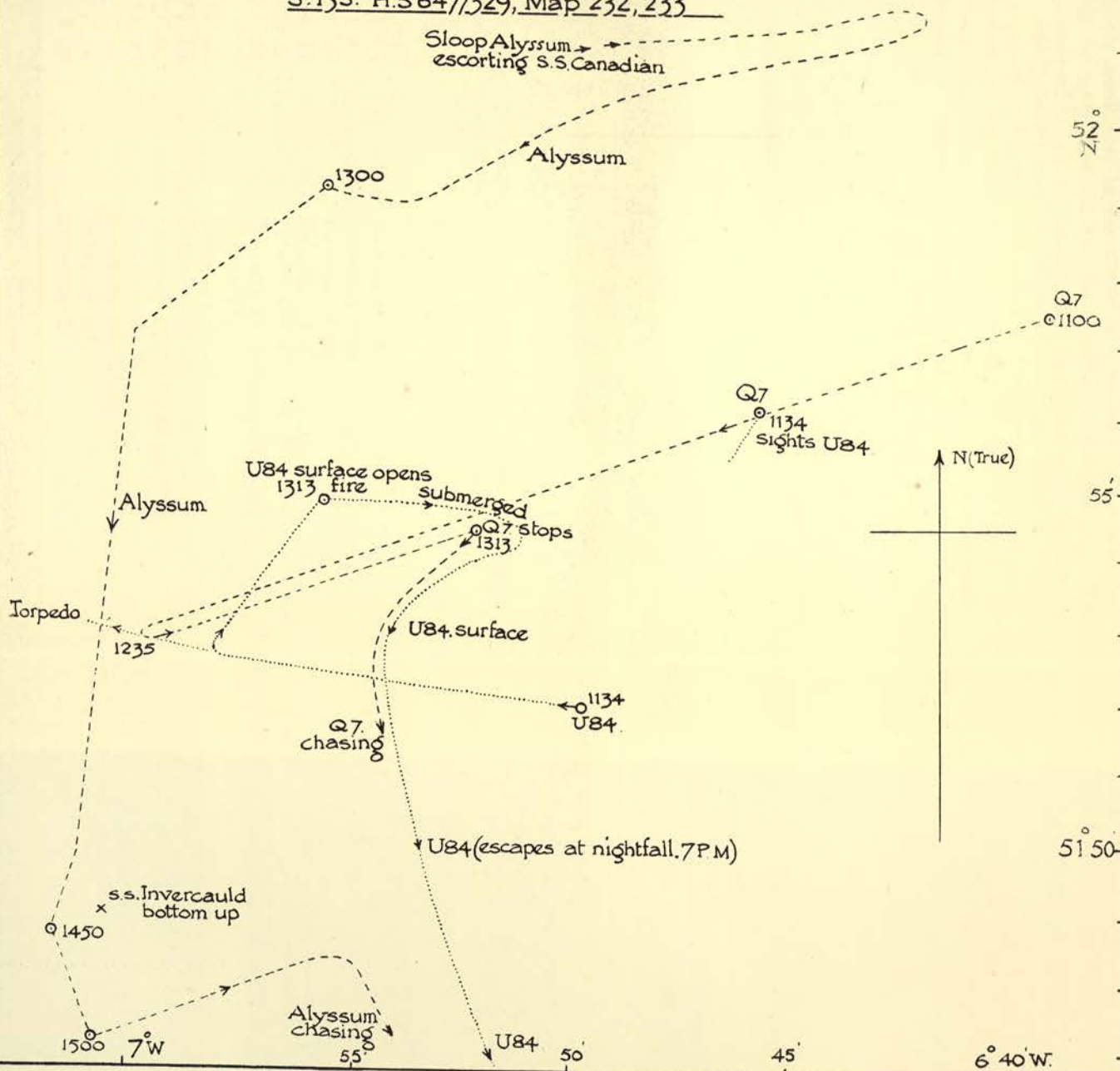
The letters & numbers of squares are Queenstown code designations.
Q15 = Qship 15.

Queenstown Papers
H.S. 650/27.

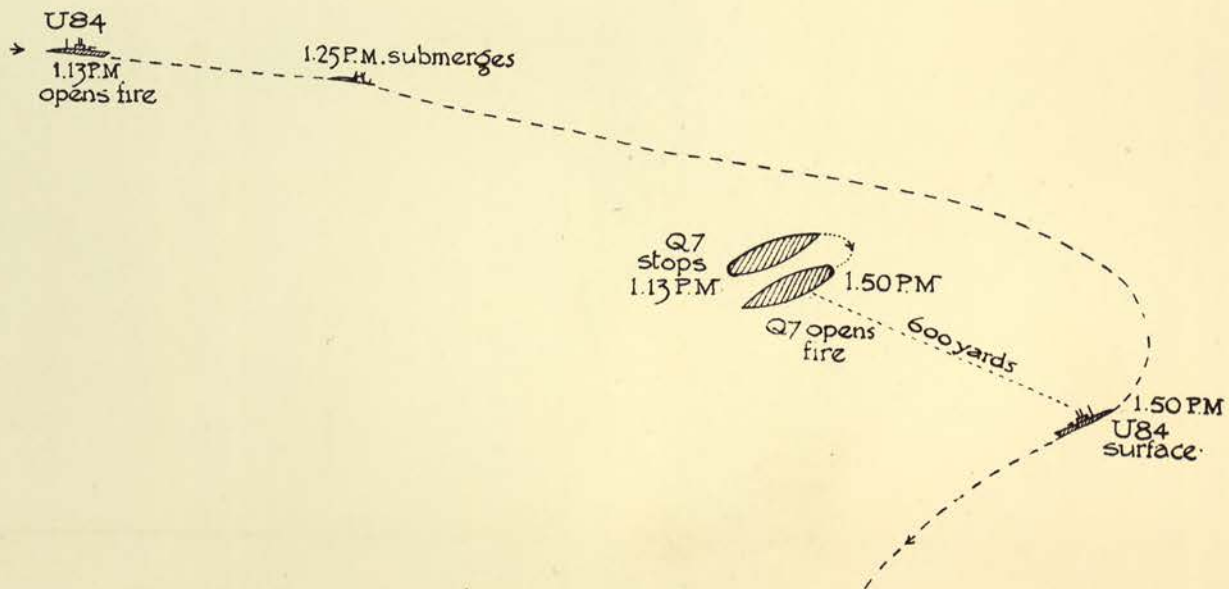


FEBRUARY 22, 1917, 11 A.M.
Q7, ALYSSUM AND U84
51° 56' N 6° 46' W.
S. 153. H.S. 647/329, Map 232, 233

Sloop Alyssum
escorting S.S. Canadian



1.50 P.M. Q7 OPENS FIRE.



At 11.35 p.m., on February 25, came in the news of the *Laconia's* loss in Lat. 52°, Long. 13° 40' (U.50).¹ U.49 was busy closer in, necessitating great care in the sailing of transports which went on under the escort of the 2nd and 4th Flotillas at Devonport. The escort performed by them and Admiral Bayly's sloops, the use of Q. ships, intelligence from German signals and alterations in routes were the principal measures by which in February the submarines were opposed in the South-west Approach. It was a month of anxious watchings, and of watchings not only for submarines. On February 15 Admiral Bayly was told to look out for an anticipated landing of arms on the West Coast of Ireland. He stationed Q.13 and five submarines off Eagle Island; Q.15 and two motor launches off Galley Head; ordered *Mona's Isle* to be ready to lay net defences in Galway Bay and himself proceeded up the coast in H.M.S. *Penelope* on the night of February 21.² Nothing was seen or landed, but these tasks added considerably to the burden of anti-submarine work.

CHAPTER IX.

SUBMARINES, FLANDERS.

FEBRUARY 1917. (Plans 21, 24.)

157. During February, fourteen Flanders submarines were working in the Channel, the Irish Sea and the Bay as follows:—

U.B.18	.. ..	January 30–February 11.
U.B.39	.. ..	January 30–February 14.
U.B.23	.. ..	February 1–4.
U.C.26	.. ..	February 2–5.
U.C.47	.. ..	February 6–16.
U.C.65	.. ..	February 6–20.
U.C.21	.. ..	February 7–20.
U.B.38	.. ..	February 8–22.
U.C.46	.. ..	January 25–February 8 (sunk by <i>Liberty</i>).
U.C.66	.. ..	February 10–23.
U.C.17	.. ..	February 15–28.
U.C.18	.. ..	February 16–19 (sunk by Q.18).
U.B.40	.. ..	February 21–28.
U.C.65	.. ..	February 24–March 2.
U.C.16	.. ..	February 26.
U.B.18	.. ..	February 27.

¹ H.S.362/279. ² H.S.647/315.

158. "U.B.18," January 30-February 11.—*U.B.18*, Lieut. Lafrenz, left Zeebrugge on January 30. On February 1, at 9.30 a.m., in 49° 46' N. 0° 45' W.¹ she stopped the British S.V. *Wellholme*, 112 tons, Poole to Caen, which was on the point of being abandoned when the destroyer *Hornet* came in sight and drove the submarine down. She turned up off the north coast of Brittany on February 3, and that forenoon sank three French sailing vessels, the *Goeland*, 253 tons, Lisbon to St. Malo, at 8.45 a.m. in 49° N. 4° 16' W., the *Confiante*, 83 tons, Cardiff to St. Briec, and the *Sainte Marie*, 61 tons, Cardiff to Lannion. She went on west, and was driven down at 3 p.m. by the French T.B.D. *Glaive*. The night was calm and clear; the Danish s.s. *Lars Kruse*, 1,460 tons, a Belgian relief ship, was proceeding eastward when at 12.10 a.m. (February 4) in 48° 46' N. 5° 16' W. she was torpedoed and sank in three minutes. Of nineteen men, only seven were saved, clinging to a boat. *U.B.18* went on, and at 9.15 a.m. (February 4) in 49° N. 5° W. stopped the Russian s.s. *Cerera*, 3,512 tons, proceeding with coal for the Admiralty from Newcastle to Brest. She was sunk with bombs and the submarine towed the boats towards land, picking up on the way a solitary survivor from the *Lars Kruse*.

It was possibly she (or *U.53* or *U.C.65*) that, off Portland on February 6, was attacked by *T.B.86*. The latter (Lieut. Leon Acheson, R.N.R.) at 3 a.m. off the Shambles (50° 29' N. 2° 18' W.) heard engines on her hydrophone, and at 3.30 a.m. in the moonlight saw a conning tower 500 yards off which just got under as she headed for it at full speed. She dropped a "C"² depth charge right on top of her which exploded. The submarine must have received a nasty shock, but if it was *U.B.18*, she was not seriously damaged, for she was back in Zeebrugge on February 11, having sunk two steamers and three small sailing vessels—5,371 tons in all. She (or *U.53*) had been attacked once by depth charges.

159. "U.B.39," January 30-February 14.—*U.B.39*, Lieut. Kustner, left Zeebrugge on January 30, and appeared first in the Bay where on February 4 at 6.10 p.m. in 45° 36' N. 1° 10' W. she opened fire on the British s.s. *Dauntless*, 2,157 tons, going from Newcastle to Bayonne, with coal. The ship was armed with a 3-pdr., but the first shell hit the bridge and the ship was stopped and sunk with bombs. She was some ten miles from the Gironde, but no patrols were in sight. *U.B.39* went on to the South and on February 5 at 6 a.m., off Arcachon Point in 44° 25' N. 1° 41' W., sank by gunfire a small French steam trawler, the *Yvonne*, 123 tons, after the skipper, engineer and a sailor had been killed by a shell. Nothing more was heard of her till February 10, when at 10 a.m., off Ushant, on the way home in 48° 43' N. 5° 26' W., she sank a small

¹ Or 49° 55' N., 0° 21' W. H.S. 355/124.

² M.01495/17. Lieut. Acheson was awarded a D.S.C.

French sailing vessel, the *Paquerette*, of 165 tons, proceeding from Verdon (Gironde) to Swansea. She was home by February 14, having sunk one steamer and two sailing craft, only 2,445 tons in all.

160. "U.B.23," February 1-4.—*U.B.23* (Lt. Niemer) set out again on February 1 and was possibly the submarine attacked by the T.B.D. *Liffey* on February 2 at 9.20 a.m. in 50° 8' N. 0° 28' W.¹ That evening at 9.15 p.m., in about 50° N., 0° 39' W., she torpedoed the French S.S. *Gabrielle*, 1,410 tons, going from Swansea to Caen with 1,835 tons of coal. The night was clear with a bright moon and the ship's navigation lights burning brightly signalled her presence. There are no further traces of *U.B.23*, and her early return on February 4 looks as if she may have had a breakdown or suffered some damage. She had sunk one steamer of 1,410 tons.

161. "U.C.26," February 2-5.—*U.C.26* (Kaptlt. Graf Mathias von Schmeltow) probably left Zeebrugge on February 2, laid eight mines off Boulogne and six off Cherbourg on February 3.² On February 4, at 9.40 a.m., off Cherbourg in 49° 42' N. 1° 40' W. a French S.S. *St. André* opened fire on a submarine. The next day, probably early in the morning of February 5, *U.C.26* laid four mines off Havre, one of which was responsible for the sinking of the French minesweeper *Noella* on February 7,³ just north of the entrance.

The night (February 5) was clear with bright moonlight and the British paddle steamer *Mona's Queen* and her escort were approaching Havre at 11.15 p.m. with 925 troops on board when a submarine rose close on the port bow and fired a torpedo which just missed ahead. The submarine collided with the ship, struck the fore side of the sponson and was hit by the port paddle wheel, which was severely damaged.⁴ *U.C.26* must have received a severe shock, for she returned home for repairs, having sunk nothing. The *Mona's Queen* received an award of £300.

162. "U.C.65," February 6-20, Irish Sea.—*U.C.65*, Lieut.-Cdr. Otto Steinbrinck, the senior officer of the Flanders Flotilla, left Zeebrugge on February 6 and appeared on February 8 off Trevoise Head, where at 4 p.m. she sank with bombs a French S.V. *Guillaume Tell*, 148 tons, going from Brest to Swansea, and a British trawler, the *Mary Anne*. Another fishing ketch, the *Geisha*, had been abandoned when she was saved by the timely appearance of a patrol vessel. On February 9, *U.C.65* laid eighteen mines off Milford

¹ H.S. 355/497; no further details.

² Fields 289, 289a, 289b in O.U. 6020B.

³ But "Études et Movements," No. 45, page 91, state that 4 more were found between February 7 and 11 and 6 more on February 19-20. These latter were probably laid by *U.C.18* which left on February 16 and did not return. See O.U. 6020B, page 55.

⁴ M.01472/17, Transport, February 6, 1917.

Haven and Skokham Light, eight of which were found and swept up on February 10. The port was closed and not opened till February 13.¹ *U.C.65* then went on to her special area—the Irish Sea. There, on February 10 at 7 a.m., her first attack was made off Bardsey Island, on the small British steamer, the *Sallagh*, 325 tons, going to Larne with coal. She sank her with bombs and gunfire, killing her engineer and wounding two others. The crew of eight were picked up by *S.S. Greenland*, and got to Holyhead the next day. Proceeding south, *U.C.65* at 11.27 a.m. in 52° 37' N. 4° 53' W. attacked the British *S.S. Kelvin Brae*, 5,162 tons, going from Newport News to the Clyde. She was armed with a 4·7-in. gun and escaped.² The next morning (February 11) at 6 a.m., in 52° 26' N., 5° 5' W., she sank with bombs the British *S.S. Olivia*, 242 tons; at 8.30 a.m. in 52° 15' N. 5° 13' W. sank with bombs the British *S.S. Voltaire*, 409 tons, going from Llanelly to Liverpool. At 9.30 a.m. (February 11) in 52° 12' N., 5° 27' W., she opened fire on the British *S.S. Lycia*, 2,715 tons, going from Swansea to Liverpool. The ship was armed with an old Russian 10-pdr. and returned the fire, but after being hit several times, was abandoned and sunk.

U.C.65 proceeded southward and the next day (February 12) at 7.30 a.m. opened fire in 51° 52' N., 5° 38' W. on the British *S.S. Pinna*, 6,288 tons, proceeding from Port Arthur to Avonmouth with 7,800 tons of petroleum. The *Pinna* was not armed, and after being hit was abandoned. But the firing had been heard ashore; armed trawlers came in sight and *U.C.65* sent a torpedo into her. The trawlers had scarcely taken her in tow when *U.C.65* sent another torpedo into her, undeterred by the presence of the A.T. *Lady Blanche* (Lieut. Edward Wilkinson, R.N.R.) who, at 9.10 a.m., in 51° 50' N., 5° 37' W., dropped a depth charge in the submarine's wake, a timely intervention which probably saved two merchant ships in sight at the time. Four trawlers lashed to the ship and, assisted later by a tug, got the ship finally into Milford.³

U.C.65 went off to the north-west, and at 5.45 p.m. (February 12) in 52° 10' N., 6° W., opened fire on the British transport *Gleneden*, 4,735 tons, proceeding from Avonmouth to Salonica with stores. The submarine was only 400 yards off, but the master at once turned to bring her astern, sent out an S.O.S. and opened fire with his 12-pdr. Japanese. It was growing dark and *U.C.65*, losing sight of the ship, found herself in the middle of the Milford Haven flotilla of indicator-net drifters, but passed them by submerging to 197 feet and going slow speed.⁴

The next day (February 13) *U.C.65* appeared in the entrance of the Bristol Channel and between 10.30 a.m. and noon in 51° 20' N.,

¹ H.S.B. 170 347. Field 299, in O.U. 6020B. *S.V. Hannah Croasdell* sunk February 26.

² No details.

³ H.S. 676/161.

⁴ C.B. 10370.

6° W., sank two small British trawlers, the *Zircon*, 48 tons, and *Friendship*, 37 tons. The *Zircon's* boat was picked up off Queens-town, three days later (February 16); the *Friendship's* boat with the skipper and four men was never seen again.¹

On February 14 *U.C.65* was off Milford, and at 3 a.m., in 51° 40' N., 5° 15' W., in the moonlight, sent two torpedoes² into the British *S.S. Inishowen Head*, 3,050 tons, going from Port Talbot in ballast to St. John's, N.B.

U.C.65 went on to the northward and that day destroyed three small British steamers. At 7 a.m. (February 14) in 52° 2' N., 5° 4' W., she sank the British *S.S. Ferga*, 791 tons, from Swansea to Liverpool, with gunfire, diving when the A.T. *Norman* (Holyhead) came in sight. At 4.45 p.m. in 52° 30' N., 5° 5' W., she sank the British *S.S. Greenland*, 1,763 tons, from Fleetwood to Cherbourg, with bombs, then went after the British *S.S. Margarita*, 375 tons, Liverpool to Swansea, and at 6 p.m. sank her in the same way. This completed her doings for the day. A little further south, on February 15, at 9.20 a.m., in 52° 18' N., 4° 55' W., she met the unarmed British *S.S. Kyanite*, 564 tons, going from Fleetwood to Bristol, and sank her with bombs; then at 1 p.m., in 52° 24' N., 5° 9' W.,³ fired a torpedo at the unarmed British *S.S. Afton*, 1,156 tons, going from Bristol to Belfast. It passed six yards ahead and the submarine then rose and opened fire, subsequently sinking the ship with bombs. The next day (February 16) she was off the Cornish coast again, and at 8.40 a.m., in 51° 3' N., 4° 37' W., stopped the French *S.S. Ville de Bayonne*, 1,301 tons, with coal from Barry to Bayonne, and sank her with bombs.

At 9.50 a.m. (February 16) in 51° 3' N., 4° 46' W., she opened fire on the British *S.S. Sheerness*, 962 tons, but the latter brought her astern, and, as soon as she opened fire with her 6-pdr., the submarine dived.

At 11.30 a.m. (February 16) a few miles to the southward in 50° 56' N., 4° 38' W., *U.C.65* opened fire on the British *S.S. Queenswood*, 2,701 tons, going from Rouen to Port Talbot, killing three men. Just then another British *S.S. The Princess*, 623 tons, going from Ayr to Granville, came in sight and *U.C.65* opened fire on her, but she replied with her 6-pdr. gun and dropped a shot 15 yards from *U.C.65*, forcing her to dive. She came up again soon and was going to board the *Queenswood* when the destroyer *Orestes* and

¹ *Zircon's* report, M.62316/17, copy in I.D., Vol. 633.

² The position is very close to where *U.C.65* laid her mines on February 9, and *U.C.65* does not mention the *Inishowen Head*. It is possible, therefore, that she was mined. On the other hand, the ship's report states that the submarine was seen lighting flares. I.D., Vol. 633.

³ M.01969/17, 23' N. by E. (mag.), from Strumble Head; E.1 log F.16/3 gives 52° 18' N., 5° 15' W.

⁴ Report in I.D., Vol. 633, says 51° 31' N., probably misscript.

A.T. *St. Elmo* came in sight, and after sending sixteen shots into the *Queenswood*, which finished her off, *U.C.65* went down.

She apparently moved only a little way to the south-west and the next day, February 17, at 9.30 a.m., in about 50° 30' N., 5° 8' W., stopped the Greek S.S. *Alexandros*, 485 tons, going from Nantes to Barry. The submarine fired a gun and the crew at once abandoned ship, though the A.T. *Yokohama* (Falmouth, one 12-pdr.) was only a mile or so away. The *Yokohama* opened fire, and *U.C.65* (if it were she) fired a torpedo which missed, though it seems to have exploded on the bottom, and went down. The ship was remanned and taken into Port Talbot. *U.C.65* went on south, and it was probably she that on February 17, at 1.40 p.m. in 50° 18' N., 5° 36' W., was engaged at long range by the A.T. *Gavina* (Penzance).

Her next appearance was on the way home in Dover Straits, where, on February 19 at 11 a.m. in 50° 8' N., 1° 5' E., she sank with bombs the Norwegian S.S. *Skrim*, 727 tons, and half an hour later with gunfire, in 50° 18' N., 1° 20' E., the British S.S. *Brigade*, 425 tons, going from the Somme to Liverpool with chalk. That afternoon (February 19) she finished up her cruise by sinking three French fishing vessels, the *Violette*, 36 tons, the *St. Louis de Gonzague*, 53 tons, and the *Alice*, 18 tons. It was a misty day and another fishing smack, the *St. Francois*, managed to slip away. *U.C.65* was back in Zeebrugge the next day (February 20). She had sunk twelve steamers, one sailing vessel, and five fishing craft, altogether 16,509 tons. Three defensively armed ships had been saved by their guns, and she had been attacked thrice by patrols, which had saved at least two ships.

163. "U.C.47," February 6-16.—*U.C.47* (Lieutenant P. Hundius) started for her first Channel trip on February 6. On February 7 she laid 8 mines off Dungeness in 50° 50' N., 0° 55' E.,* and 10 mines off the *Royal Sovereign* in 50° 42½' N., 0° 33' E. The first field was responsible the next day (February 8) for the loss of the British S.S. *Lullington*, 2,816 tons, on her way to Rouen. At 6 p.m. she struck a mine and went down in 20 minutes, all her crew being saved. Some two hours later H.M.S. *Ghurka*, Lieutenant Harold G. Woolcombe-Boyce, of the Dover Patrol, fell a victim to the second field. She was patrolling in the evening of February 8 and at 7.30 p.m. was some four miles S.W. of Dungeness in about 50° 51' N., 0° 55' E. The officers had just sat down to their evening meal when a heavy explosion took place near the foremost funnel, completely wrecking the ship. The forepart broke away and floated off, standing vertically on end. The after part went down shortly afterwards.

The armed trawler *Electra II* saw the explosion, sent out an S.O.S., and hurried to her assistance, firing rockets and Very's

* Fields 297 and 297A. In O.U. 6020B.

Lights. She was only able, however, to pick up five survivors, including Commander Francis H. Lewin, R.N., who had come on board for the night to inspect the gunnery arrangements. *P.24* saw the trawler's rockets, and came up at full speed, but seeing no survivors and sighting two mines, "cleared out."¹

U.C.47 had meanwhile gone on to the westward, and off Cherbourg that morning (February 8) at 1.26 a.m. in 50° N., 1° 20' W., opened fire on the British S.S. *Peregrine*, 1,900 tons. The submarine was on her starboard quarter, and going on at full speed, the ship escaped. The next day (February 9) at 6 p.m., off the Lizard, *U.C.47* opened fire on a British fishing vessel, the *Victorious*, which was abandoned. For some reason or other, *U.C.47* went down and the *Victorious* was found by the trawler *Sunbeam* on February 10 and brought in to Plymouth.

U.C.47 was off the Scillies the next day (February 10), and at 12.20 p.m. in 49° 30' N., 6° 43' W., sent a torpedo into the British S.S. *Japanese Prince*, 4,879 tons, bound from Newport News to Southampton. The destroyer *Lyra* (Devonport) was on her port bow, apparently escorting her, and saved all her crew. *U.C.47* then proceeded to the Cornish coast, and it was probably she that on February 11 at 5.50 p.m. in 50° 13' N., 6° W., opened fire on *Q.3* (*Echunga*). It was nearly dark and after firing five rounds, the submarine must have lost sight of her. Early the next morning (February 12) at 1 a.m. in 50° 12' N., 5° 48' W., she sent a torpedo into the Greek S.S. *Aghios Spyridon*, 2,350 tons, going from Swansea to Naples. Her unfortunate victim sank almost at once and an armed trawler close by could pick up only five survivors. The master and 15 others were drowned.

That afternoon at 3.0 p.m. she was off Trevoze Head and sank the British smack *Brissons* with bombs in 50° 31' N., 5° 15' W. Though *U.C.47* had now been working on the Cornish coast route² since February 9, it was evidently not considered advisable to close it, and it remained open during the whole month. The next day, February 13, at 6.45 a.m., the British S.S. *Sequoia*, a tanker of 5,263 tons, Avonmouth to Thameshaven, was off Trevoze Head in 50° 38' N., 5° 5' W., proceeding south-west, when a submarine opened fire on her. The *Sequoia* at once turned in towards land at full speed, and opened fire with her 4.7 inch gun at 2,000 yards. The ship was hit twice on the wheel, but one of her shots evidently falling too near *U.C.47* to be pleasant, drove her down and the ship escaped.

A few miles to the north-west were a number of fishing smacks and at 8.30 a.m. (February 13) *U.C.47* rose a couple of hundred yards from the British F.V. *Holkar*, in 50° 40' N., 5° 5' W., and sent

¹ M.10557/17 in X.1223/1917. The number of casualties is not given.

² Route 1, English Channel to Bristol Channel, and *vice versa*, by Scillies and Lundy Island. M.09748/16 of February 5 in Case 504.

the crew hurrying to their boat. The A.T. *Nighthawk* (Skipper H. Thomas, R.N.R.), two or three miles to the eastward, saw the gun flashes and toiling up at full speed, drove the submarine off with her 6 pdr. gun, and chased her to the northward. There was a nasty sea running, and after about an hour's chase, *U.C.47* went down. The *Nighthawk* then picked up the *Holkar's* crew and put them back on board.¹ This seems to have been enough for *U.C.47* and she was back at Zeebrugge on February 16. She had sunk two steamers and a fishing smack, altogether 7,289 tons. Her mines had sunk a steamer of 2,816 tons, and H.M.S. *Ghurka*. She had been twice attacked, once by *Q.3* and once by the A.T. *Nighthawk*.

164. "U.C.21," February 7-20. — *U.C.21* (Lieutenant Reinhold Saltzwedel) sailing from Zeebrugge on February 7 for the Bay, began her attacks off the Start, where, on February 10 at 3.50 a.m. in 50° 8' N., 3° 23' W. she torpedoed, without warning, the British S.S. *Beechtree*, 1,277 tons, going from Swansea to Rouen with coal. The ship sank in five minutes, but all the crew of 15 were saved by the A.T. *Cuthbert*. Off Ushant the next day (February 11) at 1 a.m. in 48° 40' N., 5° 25' W., she met the Norwegian S.S. *Dernes*, 738 tons, and after a careful examination in the moonlight to discover if she were armed, stopped her and sank her with bombs. At 11 a.m. (February 11) after rounding Ushant she was driven down in 48° 3' N., 5° 15' W., by the French destroyer *Fanion*, who attacked her with a depth charge. At 5 p.m. (February 11) the British S.S. *Portuguese Prince*, 4,981 tons, from New York to Brest, was in 47° 34' N., 4° 42' W., on a N.E. course when a submarine was seen on the port bow proceeding south. The ship, which was unarmed, at once brought it astern, and sent out an S.O.S. The submarine opened fire, but after chasing for a time, was lost sight of in the gathering darkness. *U.C.21* laid six mines on February 12 off Belle Ile in 47° 19' N., 3° 1' W., and at 6 p.m. off the Ile de Rhé stopped the Norwegian S.S. *Nordcap*, 322 tons, from Bilbao to Nantes, and sank her with bombs. She then went on down the coast and on February 13 at 3 a.m. in 44° 34' N., 1° 24' W., stopped and sank the Norwegian S.S. *Progreso*, 1,620 tons, going from Barry to Bayonne with 2,000 tons of coal. Proceeding north again she laid 12 mines off the Gironde² and at 4 a.m. (February 14)³ in the moonlight in 45° 46' N., 1° 25' W., stopped the Spanish S.S. *Mar Adriatico*, 2,410 tons, going from New York to Bordeaux, as she was entering the river and sank her with bombs. Further to the south westward at 10.25 a.m. (February 14) in 45° 25' N., 1° 55' W., she stopped the British S.S. *Longscar*, 2,777 tons, which was on the

¹ Milford reports, Rear-Admiral Charles Dare, H.S. 676/168.

² Fields 298a, 298b in about 45° 42' N., 1° 20' W.

³ There is some doubt as to the date. "Études et Movements" says February 13, 3 a.m.; French Naval Attaché, H.S. 359/475, says February 14; German certificate to master in I.D., Vol. 633, says February 15, 5 a.m.

way from Nantes to Bilbao and had lost her convoy. She was armed with a 12 pdr. 12 cwt. Japanese, which kept misfiring, and was finally sunk by bombs. *U.C.21* continued to cruise off the Gironde, and the next day (February 15) at 12.35 a.m. in 46° 3' N., 1° 33' W., stopped the British S.S. *Marion Dawson*, 2,300 tons, with ore from Huelva to La Pallice. It was very dark when the submarine suddenly appeared on the starboard beam and opened fire. The ship was armed with a 15 pdr., but was abandoned at once without any attempt to return the fire, and was sunk with bombs. An electric hand lamp, marked *U.C.21*, left in the ship's boat served to identify the submarine. *U.C.21* was still cruising there at 10 a.m. (February 15) when, in 46° 5' N., 1° 43' W., she opened fire on the French patrol vessel *Foi*, which returned the fire and drove her down. She came up again, however, at 11 a.m., some 5,000 metres away, and went off to the N.W. at a good speed. At 1.30 p.m. gunfire was heard by another patrol vessel, the *Ville de Royan*, which came up and opened fire at 5,500 metres just as *U.C.21* was placing bombs on board a French fishing vessel, the *Alma Jeanne*, 33 tons. The *Foi* was also coming up, and after sending two or three shells into another French fishing vessel, the *Desirée Louise*, 30 tons, *U.C.21* went down.¹

The next day (February 16) at 5.20 a.m. in 46° 15' N., 1° 48' W., she met a convoy on its way into the Gironde and sent a torpedo into the French S.S. *Niobe*, 1,318 tons, from Cardiff to Bordeaux; the ship went down in five minutes and of 23 men picked up, 16 died from cold and shock. *La Mouette*, one of the escorts sighted the submarine and opened fire, driving her down. Her Commander complained of the two Norwegian ships behind the *Niobe* having their navigation lights burning, which had probably attracted *U.C.21*² to the spot.

The same day (February 16) at 10.30 a.m. in 46° 39' N., 2° 15' W., just off the Ile d'Yeu, *U.C.21* opened fire on the British S.S. *Pollcrea*, 1,209 tons, Cardiff to Bayonne. The latter was unarmed, but her master, Mr. J. Galloway, made at once for the coast some eight miles off, and though chased under fire managed to beach herself off St. Gilles-sur-Vie and was ultimately salvaged. *U.C.21* was then on her way home. Off Ushant on February 17 at noon in 47° 49' N., 5° 29' W., she stopped the French S.V. *Silène*, 171 tons, with coal from Swansea to Blaye, and sank her with bombs. At 3 p.m. some 15 miles to the eastward, off Ar Men, the Norwegian S.S. *Cabo*, 1,249 tons, going from Newport via Falmouth to Seville, was stopped and sunk with bombs. *U.C.21* was off the Channel Islands the next day (February 18) where at 11.30 a.m. in 49° 38' N., 3° 26' W.,

¹ German report gives *Alma Jeanne* to *U.C.66*, but from French reports (Études, February 1917, 81) it is clear that both were sunk by the same submarine.

² Études et Movements, February, 1917, 81.

she sank with gunfire a small British ketch, the *Triumph*, of 46 tons, going from St. Brieux to Plymouth. This was her last victim, and she was back at Zeebrugge on February 20, having sunk 10 steamers and 4 sailing craft with a very respectable total of 19,272 tons. She had been driven down twice by French patrols.

165. "U.B.38," February 8-22.—*U.B.38* (Lieutenant Wilhelm Amberger) left Zeebrugge on February 8, but did even less than in her January cruise. She was off the Scillies on February 11 and at 6.45 a.m. in 49° 56' N., 7° 32' W., stopped the Norwegian S.S. *Dalmata*, 1,865 tons, New York to Havre, and sank her with bombs. This was her only ship, and she was back at Zeebrugge on February 22, having sunk 1,865 tons.

166. "U.C.46," January 25 - February 8 (Sunk).—*U.C.46* (Lieutenant Fritz Moecke) sailed for her first and last Channel cruise on January 25. It may have been she that was attacked on January 30 by *Q.11*¹ off the Smalls; she laid mines probably that night off Breaksea Light Vessel in the approach to Cardiff in 51° 20' N., 3° 18' W. Three of them were sighted on the surface near the Light Vessel on January 31 by S.S. *Orland*. Sweeping operations were commenced at once, and by February 18 some 18 mines had been swept up with the loss of one minesweeper, H.M.T. *Longset*, blown up on February 6 at 11.15 a.m. in 51° 21' N., 3° 20' W., with a loss of 8 men out of 15.

The subsequent movements of *U.C.46* are obscure, but she was probably cruising off the Scillies and in the Channel. She is stated in German reports² to have sunk the Dutch S.S. *Gamma*, of 2,115 tons, which was on the way from New York to Amsterdam via Falmouth when on February 1 at 2.30 p.m., in 51° 8' N., 8° 56' W., she was stopped by a submarine and sunk by bombs.

On February 2 she probably sank the British S.V. *Isle of Arran*, 1,918 tons (see Appendix G), and on February 6 the British S.S. *Crown Point*, 5,218 tons (see S. 142). She was then on her way home, but never reached it. On the night of February 7-8, H.M.S. *Liberty* (Lieutenant-Commander Philip W. King) was patrolling in Dover Straits on the Barrage off 7A buoy, on courses W.S.W. and E.N.E., at 12 knots. At 2.50 a.m. (February 8) she was at the end of her east-going patrol and turned W.S.W. The moon was full, shining in a clear sky, and the ship was steering into the moonlight. At 3.9 a.m. the ship was in Lat. 51° 7' 30" N., Long. 1° 38' 50" E., when a submarine broke surface ahead.

¹ H.S. 647/219, January 30, 12.54 p.m., 16 miles S.W. of the Smalls in 51° 29' N., 5° 52' W., *Q.11* opened fire at 1.26 p.m. and fired 5 rounds at 3,500 yards. She reported the submarine as of large sea-going type, which sounds like *U.55*, but *U.55* was off the Cornish coast, see S.96.

² Marine-Archiv, No. 251 of 1929. See Appendix G and K1.

The officer of the watch rang the alarm bell, and the Captain going to the bridge saw a submarine awash about half a mile off. It lay clearly visible, shining in the moon's rays, right across the destroyer's path. Apparently it had not seen her. The foremost gun opened fire at 400 yards. The flash blinded the bridge and the Captain, deciding to ram her, jammed the telegraphs to full speed. The ship sprang forward and going 24 knots struck the submarine a couple of feet ahead of her conning tower, which was still three feet awash. The shock brought the *Liberty* to a momentary stop, then as her stern passed the spot, the starboard depth charge was dropped and detonated. Nothing more was seen of the submarine. The *Liberty*, leaking badly, had to return to Dover, where examination showed she must have rammed the submarine to a depth of fully four feet.

Lieutenant-Commander P. W. King received a D.S.O. for his prompt action.¹

The submarine was *U.C.46*.² She had probably sunk two steamers and at least one sailing vessel of 9,251 tons.

167. "U.C.66," February 10-23.—*U.C.66* (Lieutenant Herbert Pustkuchen) left Ostend on February 10 for her first cruise. Off Beachy Head on February 11 at 4 a.m., in 50° 38' N., 0° 27' E., she met the Greek S.S. *Vasilissa Olga*, 1,400 tons, going from Port Talbot to Dunkirk, and sank her with bombs. Close by at 5.40 a.m., in 50° 39' N., 0° 20' E., she torpedoed without warning the British S.S. *Woodfield*, 4,294 tons, on her way from the Tyne to Newport to dry dock. It was in the early morning, still dark, but clear. The ship had a 4.7-in. gun., but the submarine was not seen. The destroyer *Mohawk* came on the scene, tugs arrived, and she reached Newhaven that evening.³ *U.C.66* went on to the westward, and at 1.40 p.m. (February 11), off the Isle of Wight, stopped the Dutch S.S. *Campine*, going from Norfolk, Va., to Rotterdam, with petrol, and let her go on. On February 12 at dawn she was off Devonport, where at 5.15 a.m. off the Eddystone she met a big prize. This was the British S.S. *Afric*, 11,999 tons, which was cruising off the port with navigation lights burning, waiting to go in. She was torpedoed in 50° N., 4° 25' W., and sank about 7.45 a.m. Her loss was the biggest of the month and has a story of its own. (See Measures, S.175.) Some 2½ hours later at 7.45 a.m. (February 12) in 50° 2' N., 4° 43' W.⁴ she met the British S.S. *Lucent*, 1,409 tons, going from Cardiff to St. Malo. She was unarmed and was sunk by gunfire. The Norwegian

¹ Report in M.01696/17; Vice Admiral, Dover, February 9.

² Her identity is established by the fact that only two submarines working in the Channel were lost in February, *U.C.46* and *U.C.18*. *U.C.18* did not sail till February 16.

³ H.S. 358/61, 81.)

⁴ Twenty miles East of Lizard (I.D., Vol. 362), but the report states a large steamer (the *Afric*) was sinking about 2 miles ahead.

S.S. *Dagali*, 742 tons, coming up on the way from Newport to Lorient with coal, was stopped at 8.30 a.m. (February 12) in 50° N., 4° 44' W., and bombs were being put on board her when an airship came in sight approaching from landward. This was C.22 cruising at about 1,000 feet. U.C.66 went down and the airship dropped two 65 lb. bombs, the first of which failed to explode, and the second exploded apparently over the swirl of the submerging conning tower. Two armed trawlers then arrived on the scene and escorted the *Dagali* into Falmouth.¹

It may have been U.C.66 who opened fire on the Italian S.S. *Confidenza*, 3,465 tons, at 1.20 p.m. that afternoon (February 12) in 49° 35' N., 5° 12' W. The ship was armed and when she returned the fire, the submarine went down.

U.C.66 then made for the Gironde, where on February 15 she sank two small French smacks, the *Argos*, 27 tons, and the *Aline*, 30 tons, and possibly received special instructions, for on her way back she made a cast to the westward, and on February 17 sank three Dutch steamers some 90 miles west of Ushant. The *Driebergen*, 1,884 tons, was on her way from Port Talbot to Huelva with coal and coke when at 10.30 a.m. (February 17) in 48° 28' N., 7° 22' W.,² on a clear fine day she was stopped by U.C.66 and sunk with bombs. The boats made for land and the whole crew of twenty-one were saved. The Dutch S.S. *Trompenberg*, 1,608 tons, and the *Ootmarsum*, 2,313 tons, had sailed in company on February 15 from Cardiff to Las Palmas with coal. They anchored in Mounts Bay, Falmouth, at 10.30 a.m., February 16, crossed to Ushant³ during the night, which was dark and foggy, and steered W. by S. The fog cleared. It was bright and clear at 3 p.m. (February 17) when in 48° 40' N., 6° 45' W., they were both stopped and sunk with bombs. The crews of both ships, forty-four men, pulled away, and were picked up by the Norwegian S.S. *Somerstad* six hours later.

U.C.66 seems to have gone off to the westward, for at 5.55 p.m. (February 17) the British S.S. *Gwent*, 5,754 tons, was chased in 48° 46' N., 7° 22' W., but got away.⁴

Q.7, the *Penshurst* (Commander F. H. Grenfell) was cruising on the line Tuskar to Scillies, and on February 19, taking in a signal from the S.S. *Headley* in 49° 9' N., 6° 29' W. (see U.60, s. 147) in

¹ I.D., Vol. 632. The *Dagali* stated she saw two submarines.

² Report merely says 90 miles West of Ushant; position has been plotted West true. I.D. Chart has 48° 20' N., 7° 24' W.

³ The Route open for British ships, English Channel to South Atlantic, at the time was No. 26. (Telegram, February 10, 1645), "Pass close south of Scillies, proceed to 6° 50' W. in the dark, then steer to cross 10° W. between 49° and 48° 30' N." This route ran some 40 miles northwest of the position of the Dutch ships.

⁴ H.S. 360/234. No details.

conjunction with a signal of the armed yacht *Salvator* of a submarine in the same area on February 18¹ decided to make for the spot.

On February 20, about 11 p.m., a report was received from the armed yacht *Salvator* of a submarine in 49° 21' N., 6° 18' W., at 10 a.m.² and the *Penshurst* held her course S.11 E. almost straight for the position. At 12.36 p.m., in 49° 21' N., 6° 16' W. (about 30 miles south true of Scillies) a submarine was seen to break surface about four miles off just abaft the port beam; it closed, and at 12.51 p.m. opened fire at about 3,000 yards and the *Penshurst* stopped. As the ship fell off the submarine bore on the starboard quarter, its shell bursting close to the ship. At 12.59 p.m. the boats and panic party were clear, and as the submarine came up on the port beam and recommenced fire, Commander Grenfell gave the order to open fire. Unfortunately the range had been underestimated—it was about 1,200 yards—and the first shots fell short; the submarine submerged at once and was down in one minute. The *Penshurst* was just about to drop a depth charge at 1.16 p.m. when the conning tower of the submarine emerged on the starboard bow about 180 yards away; the *Penshurst's* 6-pdr. opened fire at once, knocking away the jumping wires over the submarine's conning tower, but though she could not ram her, as the submarine was inside her turning circle, the 12-pdr. got in a hit, and the 6-pdr. two more; when the submarine was nearly abreast of her stern she dropped the starboard depth charge (D type) and turning round dropped the port one, both of them exploding. Nothing more was seen of the submarine, which was U.C.66. She had been suspicious of the *Penshurst* and had dived as soon as the latter opened fire, but the swell had brought her conning tower out of the water. One shot hit her breakwater, another went through her net cutter, and the first depth charge gave her a heavy shock,³ but she was not seriously damaged.

She appeared again on her way home off Plymouth, where on February 21, at 8 a.m., she sank three British smacks, the *Monarch*, 35 tons, the *Energy*, 25 tons, and the *K.L.M.*, 28 tons.

Two hours later at 10 a.m. (February 21) some 15 miles to the north, she opened fire on the French S.S. *Duguesclin*, 339 tons, in 50° 11' N., 3° 55' W. The ship turned away, replying to the fire with her 90 m.m. gun and U.C.66 abandoned the chase. At 3 p.m. (February 21) in 50° 7' N., 3° 33' W., she stopped the Dutch S.S. *Ambon*, 3,598 tons, outward bound to Batavia, and after ordering the crew into the boats, torpedoed her. In spite of a hole 40 feet by 25 feet, the ship remained afloat and was towed into Plymouth.

¹ A.Y. *Salvator*, submarine 49° 20' N., 6° 30' W. at 1655 (February 18). H.S. 360/525 (see Commander Grenfell's report to Admiral Bayly, H.S. 647/316).

² H.S. 647/316 and H.S. 360/953.

³ Extract, U.C.66's Kriegstagebuch, H.S./Q.24.

This was *U.C.66's* last effort, and she reached Zeebrugge on February 23. She had sunk six steamers and four smacks, altogether 19,930 tons; six ships had been attacked and escaped; their tonnage was 18,192 tons, of which two ships (7,892 tons) had been salvaged, three ships were saved by gunfire, and one by an air patrol. *U.C.66* had been attacked twice, once by airship *C.22* and once by a *Q.* ship, H.M.S. *Penshurst*.

168. "**U.C.17,**" February 15-28.—*U.C.17* (Lieutenant Ralph Wenninger) left Zeebrugge on February 15 to lay mines on the south coast and operate in the mouth of the Channel and in the Bay. She appeared first off the Channel Islands on February 16, where at 1.15 p.m., in 49° 50' N., 2° 58' W., she stopped the French S.S. *Hermine*, 3,810 tons, going from Fort de France (Martinique) to Havre with 13,000 barrels of rum. The ship was armed with a gun, but its running-out gear proved defective. She was crossing the Channel by day and was sunk by bombs. It was probably *U.C.17* that was seen the next day (February 17) at 2.30 p.m. by a French destroyer *Harpon* between Portland and Cherbourg. She laid six mines off Portland the same day in 50° 32' N., 2° 20' W.,¹ which were found on February 18 and were all swept up by the 21st.² Very early in the morning of February 18 at 1.45 a.m. she was sighted some five miles east of Dartmouth. There, either on the 17th or 18th, she laid six mines in 50° 19' N., 3° 31' W., and the armed trawler *Picton Castle*, proceeding there to sweep, was blown up on February 19 at 1.45 p.m., and lost with the skipper and eleven hands,³ two only being saved.

She laid six mines off Plymouth the same night in 50° 13' N., 4° 8' W., which were found on February 21 and swept up without loss. Then she hung about in the Start, Lizard and Scillies area for a couple of days. On February 18 at 2.45 p.m. in 49° 57' N., 3° 53' W., off the Start, she stopped the Norwegian S.S. *Thorgny*, 734 tons, going from Grimsby to Hennebout (Bay) and sank her with bombs. The ship was disobeying the Admiralty instructions by crossing the Channel in daylight. The next day (February 19) off the Lizard, at 10.55 a.m., in about 49° 42' N., 5° 10' W., she came up in the mist and stopped a British S.V. *Centurion*, 1,828 tons, from Pensacola to London, and sank her with bombs. The next day (February 20) at 8.30 a.m., in 49° 50' N., 5° 55' W., she rose suddenly right ahead of the Norwegian S.V. *Falls of Afton*, 1,965 tons, Buenos Aires to Rotterdam, and sank her with bombs; it was not she, but *U.84*, that at 12.35 p.m. off the Cornish coast, in 50° 15' N., 5° 33' W., attacked the British S.S. *Carperby*, 2,103 tons, on the way to Barry. A periscope only was seen 150 yards on the port beam, but no

¹ Field 303 in O.U. 6020B.

² H.S.B. 170/383.

³ H.S.B. 170/439; B.154/1917.

attack followed and the master reported that as he turned away his stern hit the submarine. *U.C.17* had turned south, and on February 21 at 12.40 p.m., north of Ushant, in 48° 53' N., 5° 7' W., met the Swedish S.S. *Manningham*, 1,988 tons, going from Cardiff to St. Vincent (Cape de Verde) and sank her with bombs. The next day (February 22) at 7 a.m., in the same area, in 48° 59' N., 5° 9' W., in a calm sea and fine weather, she stopped the Norwegian S.S. *Ajax*, 1,468 tons, going from Rufisque to Liverpool, and sank her with bombs. Both these ships were crossing the Channel in broad daylight. At 9.15 a.m. (February 22) in 49° 5' N., 4° 57' W., a small French sailing vessel, the *St. Saviour*, 158 tons, going from Charlestown to Nantes, which saw the *Ajax* attacked, suffered the same fate. All the crews of these three ships came safe to land. *U.C.17* went on into the Bay, where on February 23 she sank three ships. The first was met at 6.15 a.m. in 47° 32' N., 3° 58' W., the British S.S. *Belgier*, 4,588 tons, going from Norfolk to La Pallice (La Rochelle) with iron and copper. The sea was calm, the ship going S. 72 E., 9 knots, when a submarine was sighted five miles on the port quarter. Course was altered to bring it astern, but the ship was unarmed and after being overtaken was stopped. While the Germans were taking bombs onboard, two French patrol vessels (*Le Grondeur* and *T.B.283*) came in sight, and after sinking the ship with a torpedo, *U.C.17* went down. She turned up again some 15 miles to the eastward at 3.30 p.m. (February 23) where in 47° 28' N., 3° 35' W., she stopped the British S.S. *Iser*, 2,160 tons, going from Newport to Rochefort, with 2,800 tons of coal. The ship was armed and was torpedoed without warning, sinking in about half an hour. A French patrol vessel, the *Rosignol*, came up and picked up the crew, who were all saved, with the exception of one killed by the explosion.

Three hours later at 6.30 p.m. (February 23), only a few miles away, in 47° 32' N., 3° 41' W., *U.C.17* stopped the Norwegian S.S. *Nyland*, 1,824 tons, going from Barry to Gibraltar, with 2,200 tons of coal, and sank her with bombs. The advantage of sailing in convoy was proved the next day (February 24) when at 7.25 a.m., in 47° 20' N., 4° 20' W.,¹ the Roumanian S.S. *Bucaresti*, 2,269 tons, armed with a 13-pdr. was attacked by a submarine which was driven off by the French escort, the *Labrador*,² which opened fire at 4,800 metres.

U.C.17 went off to the north-east and at 3 p.m. (February 24) in 47° 35' N., 3° 58' W., stopped the Greek S.S. *Salamis*, 995 tons, from Cardiff to Bordeaux, and sank her with bombs. On February 25 on her way home, at 9 p.m., off Ushant in 48° 30' N., 5° W., she met

¹ Position from I.D. log, A.24/9; position in I.D. vol. 634 and Études and in Telegram H.S. 362/161 is 9° 52' W. and is evidently wrong for no convoy was in that position.

² Études, February 85.

a small French S.V. *Kleber*, 95 tons, going from Swansea to St. Martin with coal and sank her with bombs. On her way up Channel, off the Channel Islands, on February 26 at 4 p.m. in 49° 40' N., 3° 25' W., she met another French S.V. *Le Lamentin*, 716 tons, going from Hayti to Havre with dyewood and sent her to the bottom the same way. She was back in Zeebrugge on February 28, passing Dover without sighting anything. She had sunk eight steamers and five sailing vessels of 22,307 tons, and had attacked one steamer of 2,269 tons in convoy which had been saved by the French escort.

169. "U.C.18," February 16-19 (Sunk).—*U.C.18* (Lieutenant Wilhelm Kiel) left Zeebrugge on February 16 to operate in the Channel,¹ and under ordinary circumstances should have returned about March 1. She never returned and her cruise remains uncertain. Her mines were probably laid on the night of February 17 off Havre,² where six were found on February 18 and the port was closed for a day on February 19 till they were swept up. On February 18 at 1.40 p.m., somewhere near 50° 21' N., 1° 52' W.,³ the small British S.V. *Netherton*, 199 tons, from Havre to South Wales, was stopped and sunk by bombs. About 3.30 p.m. (February 18) in 50° 27' N., 2° 42' W., the British S.S. *Cambrian*, 5,626 tons, going from Boston to London, sighted the periscope of a submarine on starboard bow, turned round at once, going full speed and fired three rounds with her 6-inch Q.F. Nothing more was seen of the submarine, possibly also *U.84*, and the ship escaped.

That evening, the British P. & O. S.S. *Berrima*, 11,136 tons, was coming up Channel on her way from Devonport to London. Her navigation lights were burning when at 8 p.m. (February 18) in 50° 22' N., 2° 44' W., she was torpedoed without warning. She sent out a message for help and the destroyer *Forester* coming up helped to get her into Portland. This may have been the work of *U.C.18*, but was probably *U.84*. *U.C.18* was not to see home again. *Q.18*, the *Lady Olive* (Lieutenant F. A. Frank, R.N.R.), a small steamer of 701 tons, armed with one 4 inch and 2 pdr., had left Portland on February 15 at 4 p.m., to cruise on the Ushant route and go on to the Channel Islands. On February 19, at 6.35 a.m., she was in 49° 15' N., 2° 34' W., some 12 miles west of Jersey, when shots began falling round her, and at 6.54 a.m. a submarine was seen three miles off coming up astern. The ship was stopped and the "panic party" left her. The sea was calm with a gentle westerly wind and poor

¹ Marine-Archiv, Tätigkeit, January-June, 1917.

² O.U. 6020B, 55; somewhere about 49° 30' N., 0° 4½' W., to 49° 31' N., 0° 1' E. H.S. 360/473.

³ Fifteen miles S. (mag.) of Anvil Point. This was by fog signal and distance rowed. If *Cambrian* saw the same submarine, *Netherton* was probably some 10 miles to west of above position. See S.153.

visibility. The submarine came close under the stern, then passed up the port side still firing and at 7.10 a.m. came within the bearing of the port guns. She was in full view, broadside on, about 100 yards off when the order was given to open fire. Down dropped the shields; the first shot hit the base of the conning tower; the second knocked the submarine's gun overboard. Two more shots hit near the conning tower and great volumes of vapour came pouring out of the entry holes; the submarine took a slight list, settled by the head and sank with a whirlpool of bubbles. In the *Lady Olive*, things were in a bad way; water was rising steadily in the engine room and the dynamo was out of action. At 9.30 a.m. it was necessary to take to the boats (three boats and three rafts) and they pulled south all that day. Daylight broke. No land was visible, and the wind was freshening with a rising sea. It was not till 5.15 p.m. (February 20) that the French destroyer *Dunois* was sighted, and picked them up after circling round to fire at an imaginary submarine. Others were picked up by the *Hibou* and taken to Legardieux. The submarine was considered to have been sunk; Lieutenant Frank was awarded a D.S.O. and promoted to Lieut. Commander, R.N.R.; the gunnery lieutenant, Acting Lieutenant John H. Elfert, R.N.R., received a D.S.C., and the ship was given the full award of £1,000. This was almost certainly the end of *U.C.18*.* She had sunk one sailing ship of 199 tons; one ship had escaped from her by speed, and another big ship that she may have torpedoed had been salvaged.

170. "U.B.40," February 21-23.—*U.B.40* (Lieut.-Commander Howaldt) started from Zeebrugge on February 21 for a cruise in the Channel where on the French side at noon in 49° 49' N., 0° 18' E., she met the Norwegian S.S. *Alice*, 727 tons, going from Port Talbot to Treport, with 864 tons of coal. It was a fine day with a calm sea and she was sunk with bombs. Three days passed without an attack during which she was probably cruising on the Isle of Wight and Cherbourg route for she reported that in that area "submarine chasers" and trawlers made things unpleasant and forced her to

* M.02591 of April 12, 1917 in A.2426/1917. In Submarine Losses, C.B. 01292G, *U.C.18* was allotted to H.M.S. *Medea*. In C.B. 01292C, the submarine lost was taken to be *U.C.17*, but in the issue of January 1918, *U.C.18* appeared for the first time, allotted to H.M.S. *Medea* off the Tees on March 12 1917. The *Medea* was sweeping for a reported submarine when her paravane exploded at 4.5 p.m. March 12, in 54° 38' N., 0° 56' W. Mines were discovered in the vicinity the next morning and 11 were swept up. It was submitted by the Captain, *Lucia*, as "possible" that the minelayer had been destroyed, but the latter is now known to have been *U.C.30* and to have got home safely. The *Medea's* encounter was only marked as a "possible" in I.D., and no award was made to her by the Admiralty. The *Medea* possibly struck the wreck of S.S. *John Miles* sunk near the spot on February 22 1917. For *Medea*, see M.03560/17 in X.8304/1917 in H.S. 1281/377.

keep continuously submerged. She then reported being in the West Channel and it was possibly she that on February 24 at 9.30 a.m. in 50° 9' N., 3° 44' W. (off the Start) fired a torpedo at the British S.S. *Largo Law*, 3,974 tons, going from Newport News to Southampton with steel, oats, horses and mules. There was a thick haze on the water and the torpedo passed six feet astern. The ship was unarmed and the submarine started to chase her, but helped by the mist, she got away. Half an hour later, at 10 a.m., in the same area in 50° 4' N., 3° 45' W., the British S.S. *Somme*, 1,800 tons, Rouen to Newport, was attacked by gunfire; she returned the fire with her 6 pdr. and the arrival of a destroyer¹ helped her to get away, only to be sunk a month later when under escort. On February 25, *U.B.40* was back off Cherbourg and at 10.30 a.m. in 49° 51' N., 1° 27' W., stopped and sank with bombs the Dutch S.V. *Maria Adriana*, 87 tons, in ballast, from Havre to Teignmouth, afterwards giving the boats a tow towards Cape Antifer. She saw a good deal of traffic, but did not attack anything till the next day (February 26) at 10.40 p.m. when on the Havre route in 49° 52' N., 0° 45' W., she met three ships being escorted across by two patrol vessels and torpedoed one. This was the Russian S.S. *Tammerfors*, 980 tons, going from the Tyne to Caen, with 1,051 tons of coal. She had left St. Helens in convoy at 4 p.m. and was proceeding S.S.E. at six knots when torpedoed. Five men out of 17 were lost and her master stated that the escort did nothing to help her. *U.B.40* remained in the area and was sighted at 6.15 a.m. on February 27 in 50° 5' N., 0° 35' W., by the *Exe*² who got her paravanes out and by *P.33* which dropped two depth charges, both of which exploded. She went down for a few hours, but at 12.10 p.m. sank in 49° 30' N., 0° 31' W., a small French fishing smack, the *Marie Madeline*, 45 tons by gunfire. That night at 11 p.m., she managed to sink another French smack, the *Immaculée Conception*, 36 tons, in 50° 26' N., 1° 29' E. It was a calm, dark night, and the smack was sunk by bombs. This was the end of *U.B.40*'s cruise, and she was back at Zeebrugge on February 28. She had sunk only two steamers, one sailing vessel and two smacks, of altogether 1,875 tons. Two ships of 5,774 tons in all had escaped her, one in the mist, and another by defensive armament and the arrival of a patrol.

171. "U.C.65," February 24-March 2.—*U.C.65* (Lieut.-Commander Otto Steinbrinck) left Zeebrugge on February 24 for a cruise in the Channel (East). On February 25 at 6.30 p.m. in 50° 31' N., 0° 36' W. (off the Owers), she met the Norwegian S.S. *Vigda*, 1,851 tons, going from Hull to Nantes and sank her with bombs.

¹ I.D., Vol. 634; destroyer not named, possibly *Cochatrice* or *Medina* (Devonport).

² M.02821/17.

That night she laid six mines off the Owers in 50° 33' N., 0° 40' W,¹ and six off the Nab in 50° 38' N., 0° 55½' W.

It was in the Owers field that the next morning (February 26) at 2.30 a.m. in 50° 35' N., 0° 40' W., the British S.S. *Algiers*, 2,361 tons, going from Calais to Barry with coal, was blown up with the loss of eight lives. It claimed another victim the next day.

A mine was sighted by the A.T. *Torc* on February 27, in 50° 32' N., 0° 39' W., and sunk by gunfire; she signalled to the A.T. *Evadne* and at 10.30 a.m. saw a sudden explosion in which the *Evadne*² went down. She blew up in 50° 33' N., 0° 39' W., with a loss of 12 men out of 14. Sweeping followed, but no more mines were found.

On February 26 at 10 a.m., in 50° 13' N., 1° 46' W., *U.C. 65* stopped the small Dutch schooner *Alberdina*, 134 tons, and sank her with bombs. That night she laid her last six mines off the Needles, in 50° 38' N., 1° 36' W., which were found the next morning. On February 27 at 7 a.m., it was probably she that in 50° 16' N., 1° 20' W., attacked the British S.S. *Polzeath*, 881 tons, going from Rouen to Devonport. The ship was armed with a 13-pdr. gun and returned the fire at 5,600 yards; the submarine went down and the ship escaped. At 1.30 p.m., in 49° 54' N., 0° 31' W., she came up half a mile from the British transport *Lydia*, 1,132 tons, Havre to Southampton, and opened fire. The *Lydia* had no gun but brought the submarine astern, and going full speed at 17½ knots, managed to escape. At 3 p.m. (February 27) the submarine was sighted in 49° 47' N., 0° 35' W., by H.M.S. *Forester*, the conning tower showing 1½ miles away on the starboard bow. The sea was calm and the *Forester* going 25 knots E.S.E. at the time, made for it at full speed. Down went the submarine and the *Forester* dropped her two depth charges, both exploding near the spot.³ At 6 p.m., however, she turned up again, thirty miles to the eastward, and in 49° 46' N., 0° 15' E., sank with bombs the French sailing vessel *Brunette*, 77 tons, going from Fecamp, in ballast, to Swansea. The next day (February 28) at 11.50 a.m., she met a small convoy crossing the Channel. It consisted of three ships which had crossed from St. Helens and were being escorted to Fecamp by two French torpedo boats. At 11.55 a.m., the Norwegian S.S. *Sjostad*, 1,155 tons, going from Newport to Fecamp was blown up in 49° 38' N., 0° 2' W., and sank in two minutes with a loss of eight men. No periscope and no submarine was seen; it was thought at the time she was mined, and a dangerous area was proclaimed⁴ but no mines were

¹ Fields 304 and 304A, O.U. 6020B.

² H.S.B. 170/437. Portsmouth, A.347/1917.

³ M.62767/17.

⁴ H.S. 362/1270.

found in the vicinity, and according to German reports it was the work of *U.C.65*. Cautiously she crept on to the northward and at 7.20 p.m. in $49^{\circ} 43' N.$, $0^{\circ} 1' W.$, off Cape Antifer, sank with bombs a small French S.V., the *Marie Joseph*, 192 tons, going from Fecamp to London. That night (February 28), in $49^{\circ} 59' N.$, $0^{\circ} 10' W.$, the British S.S. *Huntscape*, a transport of 2,933 tons, armed with a 6-pdr. gun, was steering north across Channel, having left Havre for Portsmouth at 6.30 p.m. The night was clear, when at 9.30 p.m. a submarine was sighted on the starboard beam. The ship turned away to the westward and the submarine followed, opening fire, and hitting the ship twice. The ship returned the fire at 9.45 p.m., at a range of about 150 yards, and fired ten rounds before the submarine was lost to view.² This was the last ship *U.C.65* attacked in February though she continued to work in the area for another day.

In February she sank two steamers and three small sailing vessels of 3,409 tons. Three ships (4,946 tons) had escaped her, two by gunfire and one by speed. She had been attacked once by H.M.S. *Forester* with depth charges.

171A. "**U.C.16,**" February 26.—*U.C.16* was also out in February and on February 25–26 laid six mines (Field 308) off Folkestone, on which on February 26, H.M.T. *St. Germain* struck and was damaged and the British S.S. *Sea Gull*, 144 tons, was sunk. She went on and laid six mines off Dungeness in $50^{\circ} 56' N.$, $1^{\circ} 2' E.$, and six off *Royal Sovereign* in $50^{\circ} 43' N.$, $0^{\circ} 31' E.$ Nothing more is known of her cruise, but a submarine was attacked in this area by H.M.S. *Beaver* on February 26. At 2.48 p.m., the *Beaver* in $50^{\circ} 30' N.$, $0^{\circ} W.$ ¹ sighted a conning tower breaking surface nearly right ahead, two cables off, and endeavoured to ram at full speed. The conning tower went down and the *Beaver* dropped two depth charges, both of which exploded. *U.C.16*'s diary, however, contains no report of this attack.

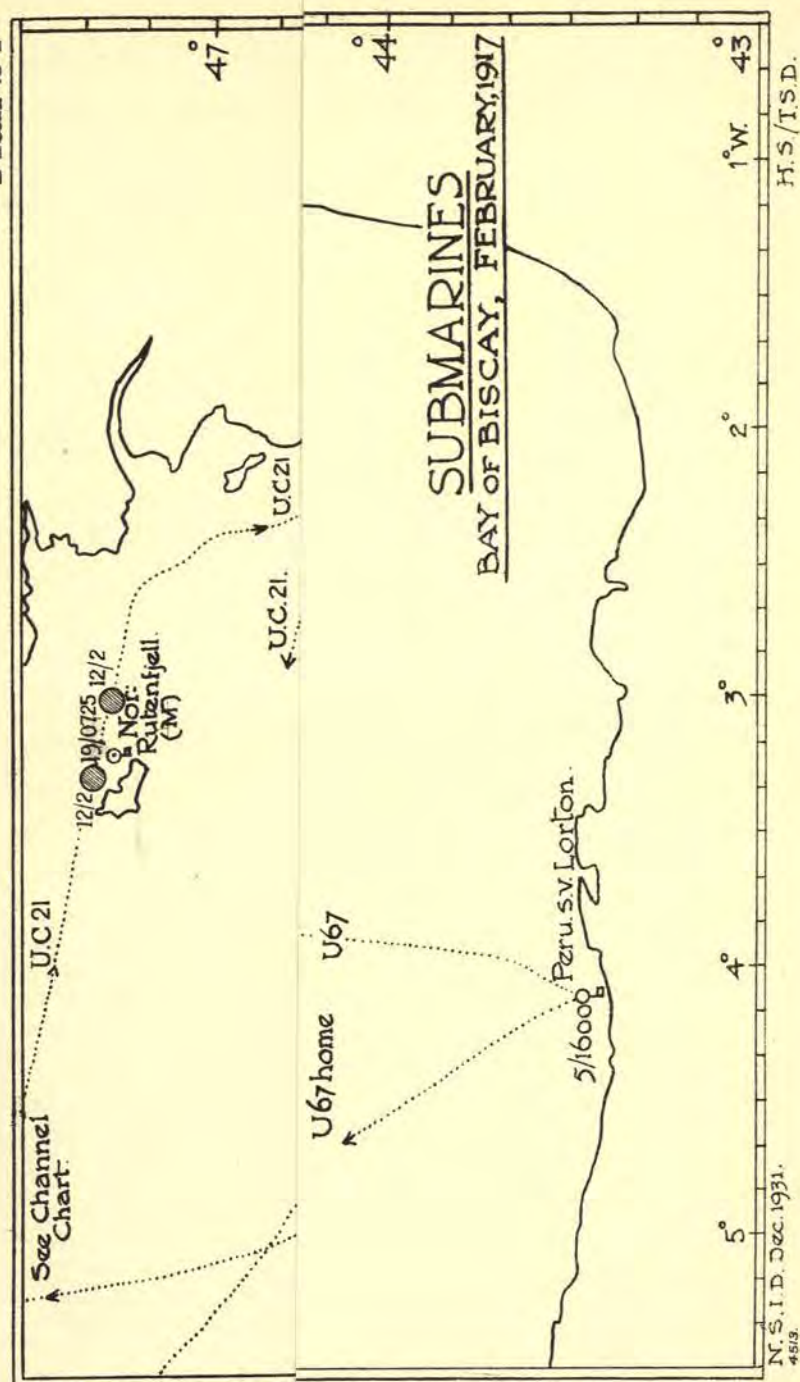
172. "**U.B.18,**" February 27–March 5.—*U.B.18* (Lieutenant Lafrenz) came out for a second time in February. Leaving Zeebrugge on February 27, she was working on February 28 off the French coast. At noon, in $49^{\circ} 55' N.$, $0^{\circ} 20' E.$, she stopped the British S.V. *Harriet Williams* (157 tons), going from Gravesend to Havre, and sank her with bombs.

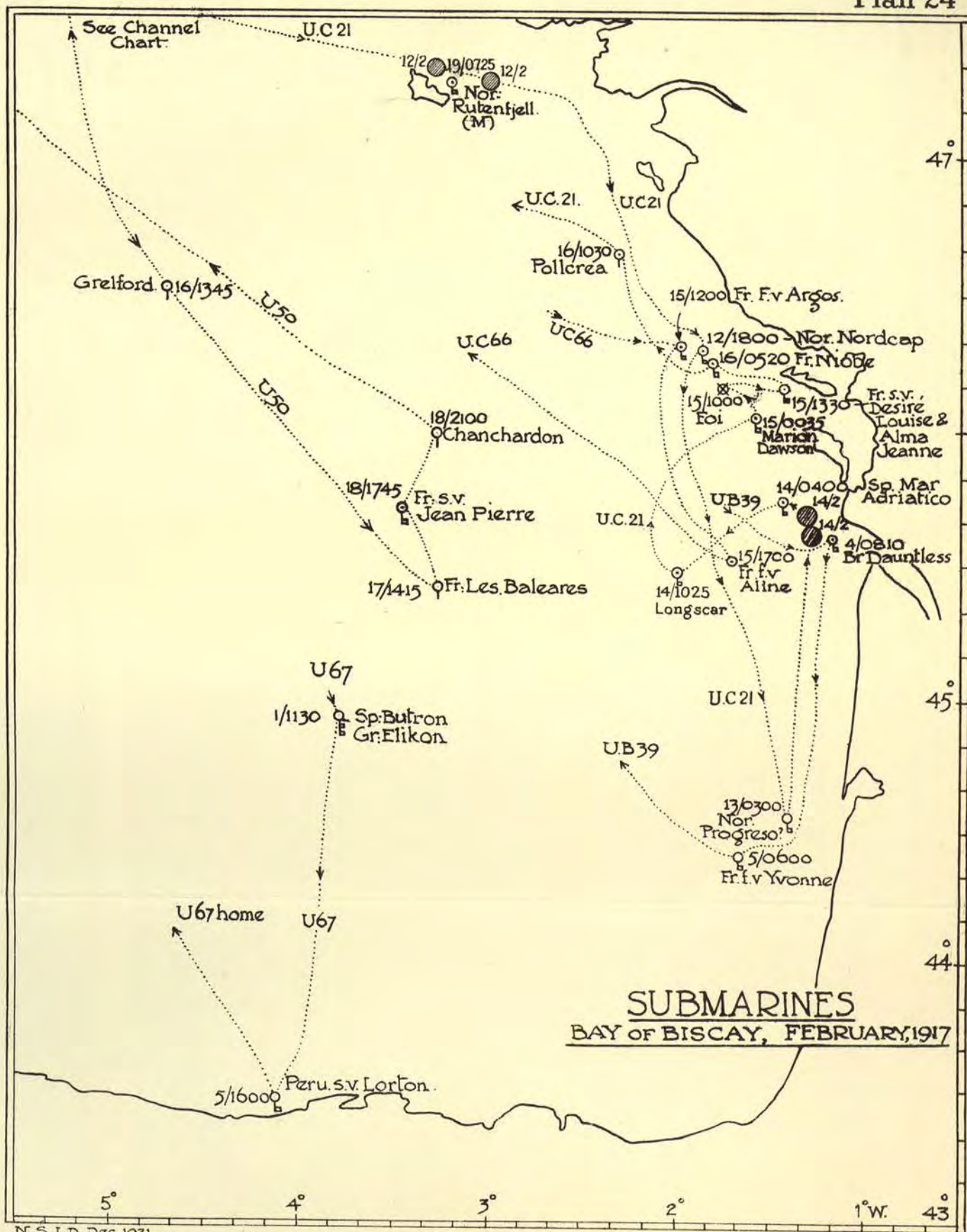
This was *U.B.18*'s last attack of the month. She had sunk one sailing vessel of 157 tons.

¹ Or *U.C.65* or *U.B.40*.

² M.02654/17 and I.D., Vol. 634.

Plan 24





SUBMARINES
BAY OF BISCAY, FEBRUARY, 1917

173. **Statistics, Channel, February, 1917.**—During February there were operating in the Channel fourteen Flanders submarines as follows:—

	Days out.	SUNK.			
		Steam-ships.	Sailing and Fishing Vessels.	Ships.	Tonnage.
<i>U.B.</i> 18 (I) ..	12	2	3	5	5,371
<i>U.B.</i> 39 ..	5	1	2	3	2,445
<i>U.B.</i> 23 ..	4	1	—	1	1,410
<i>U.C.</i> 26 ¹ ..	4	0	—	0	—
<i>U.C.</i> 65 (I) ..	15	12	6	18	16,509
<i>U.C.</i> 47 ..	11	2	1	3	7,289
<i>U.C.</i> 21 ..	14	10	4	14	19,272
<i>U.B.</i> 38 ..	14	1	—	1	1,865
<i>U.C.</i> 46 (sunk) ..	14	2	1	3	9,251
<i>U.C.</i> 66 ..	14	6	4	10	19,930
<i>U.C.</i> 17 ..	14	8	5	13	22,307
<i>U.C.</i> 18 (sunk) ..	3	0	1	1	199
<i>U.B.</i> 40 ..	8	2	3	5	1,875
<i>U.C.</i> 65 (II) ..	6	2	3	5	3,409
<i>U.C.</i> 16 ..	2 (?)	0	0	0	—
<i>U.B.</i> 18 (II) ..	6	0	1	1	157
S/Ms. 14 ..	146	49	34	83 ²	111,299

These 14 submarines, five more than in December, were operating for 146 days, and sank 83 vessels (49 steamers, 19 sailing vessels and 15 fishing vessels) of 111,299 tons (762 tons per submarine per day), approximately 22 per cent. of the total losses by submarines. Of these, 18 vessels (12 steamers, one sailing, five fishing) of 24,134 tons, that is roughly one quarter, were sunk in the Bay by *U.B.* 39, *U.C.* 21, *U.C.* 17, and *U.C.* 66. It will be seen that the sinkage by Flanders submarines rose from 63,617 tons in January to 111,299 tons in February—an increase of 76 per cent., chiefly due to heavy sinkage by four submarines, *U.C.* 65, *U.C.* 21, *U.C.* 66, and *U.C.* 17, who sank 75 per cent. of the Flanders total.

The total number of ships attacked was:—

Sunk	83 ships of 111,299 tons
Escaped	32 ships of 80,779 tons
Total	113 ships of 184,942 tons

making an efficiency coefficient of $\frac{80,779}{184,942}$ or 43 per cent., a rise of 9 per cent. over January.

¹ Returned damaged.

² Of which 15 were fishing vessels, 636 tons.

The agency of escape was as follows:—

Patrols, arrival of	8 of 3,587 tons (a)
Patrols and salvage	4 of 25,316 tons
Gun (defensive armament) ..	11 of 29,048 tons (b)
Speed	4 of 13,767 tons
Made for land (salved)	1 of 1,209 tons
Torpedo missed	2 of 5,533 tons
Escort in convoy	1 of 2,269 tons
Mist, escaped in	1 of 50 tons

32 of 80,779 tons

(a) Including three fishing craft of 248 tons, and two unknown vessels (*U.C.65*) of, say, 2,000 tons.

(b) Including one of 4,735 tons (gun and nightfall) and one of 1,800 tons (gun and patrol vessel).

In February it will be seen that the two most effective agencies were defensive armament and salvage with the help of patrols.

The number of attacks on Flanders submarines by patrols, *Q* ships, etc., was 15.

February.	Submarine.	Attacked by	Result.
5	<i>U.C.26</i>	S.S. <i>Mona's Queen</i> , collision (off Havre).	Serious damage, had to go home.
6	<i>U.B.18</i>	<i>T.B.86</i> , hydrophone (Portland), and depth charge.	Driven down.
8	<i>U.C.46</i>	H.M.S. <i>Liberty</i> , rammed (Dover).	<i>U.C.46</i> SUNK.
11	<i>U.C.21</i>	French T.B.D. <i>Fanion</i> , depth charge (Bay).	Driven down.
11	<i>U.C.47</i>	<i>Q.3</i> (<i>Echunga</i>), gunfire (Bristol Channel).	Driven down.
12	<i>U.C.66</i>	Airship, <i>C.22</i> , bombs (Scillies).	Saved merchant ship.
12	<i>U.C.65</i>	A.T. <i>Lady Blanche</i> , depth charge (Milford).	Saved 2 merchant vessels.
13	<i>U.C.47</i>	A.T. <i>Nighthawk</i> , gun, (Cornish coast).	Saved fishing craft.
15	<i>U.C.21</i>	French patrols <i>Foi</i> and <i>Ville de Royan</i> .	Driven down.
17	<i>U.C.65</i>	A.T. <i>Gavina</i> , gun (Cornwall)	Nil.
17	<i>U.C.65</i>	A.T. <i>Yokohama</i> , gun (Cornwall).	Saved ship.
20	<i>U.C.66</i>	<i>Q.7</i> , <i>Penshurst</i> (Scillies), gun and depth charge.	Minor damage.
19	<i>U.C.18</i>	<i>Q.18</i> , <i>Lady Olive</i> (Channel Islands).	<i>U.C.18</i> SUNK.
26	<i>U.C.16</i> (?)	H.M.S. <i>Beaver</i> , depth charges (Portsmouth).	Nil.
27	<i>U.B.40</i>	<i>Exe</i> and <i>P.33</i> , depth charges (Dover).	Driven down.
27	<i>U.C.65</i>	<i>Forester</i> , depth charges (Portsmouth).	Driven down.

This works out at one attack on each submarine every ten days.

Of these fifteen attacks there were by—

Destroyers or torpedo boat	6
Patrol vessel	5
<i>Q</i> . ship	2
Airship	1
Merchant ship collision	1

This compared with January shows an increased activity of destroyers and patrol vessels.

In addition, Flanders submarines were engaged on eleven occasions by defensively armed merchant ships which escaped.

The number of D.A.M.S. lost in the Channel and Bay in spite of their guns was six of 15,919 tons as follows:—

February.	Ship.	Tons.	Guns.	
4	Brit. S.S. <i>Dauntless</i>	2,157	3-prd.	1st submarine shell hit bridge.
11	Brit. S.S. <i>Lycia</i> ..	2,715	10-pdr. (Russ.)	
13	Brit. S.S. <i>Longscar</i> ..	2,777	12-pdr. (Jap.)	Continuous misfires.
15	Brit. S.S. <i>Marion Dawson</i>	2,300	15-pdr.	Gun not used, very dark.
16	Fr. S.S. <i>Hermine</i> ..	3,810	65 mm.	Running out gear defective.
23	Brit. S.S. <i>Iser</i> ..	2,160	13-pdr.	Torpedoed without warning.

The British S.S. *Woodfield*, 4,294 tons, armed with a 4·7-inch and torpedoed without warning on February 11, was salved.

Mines laid by Flanders submarines were—

In the Channel	90
In Bristol Channel	18
In the Bay	18
Total	126

Ships mined in the Channel were four of 5,472 tons, namely, February 8, British S.S. *Lullington*, 2,816 tons, Dungeness, *U.C.47*; February 26, British S.S. *Algiers*, 2,361 tons, Owers, *U.C.65*; February 26, British S.S. *Sea Gull*, 144 tons, Folkestone, *U.C.16*; February 26, British S.V. *Hannah Croasdell*, 151 tons, Milford, *U.C.65*.

There was an increase on January 1917, of 80 per cent. in mines laid and a decrease of 57 per cent. in tonnage mined.

There were mined in addition a destroyer and three mine-sweepers —

February 6 .. A.T. *Longset* .. Bristol Channel .. U.C.46
 February 8 .. H.M.S. *Ghurka* .. Off Dungeness .. U.C.47
 February 19 .. A.T. *Picton Castle* Dartmouth .. U.C.17
 February 27 .. A.T. *Evadne* .. Owers U.C.65

all of which were sunk. The A.T. *St. Germain*, mined on U.C.16's Folkestone field on February 26, was fortunately saved.

Submarines sunk in the Channel were two, U.C.46, rammed by a destroyer (H.M.S. *Liberty*), and U.C.18, sunk by a Q. ship (Q.18.)

The French coal trade system, instituted on February 6, was apparently not in full working order for in February no less than sixteen vessels (French six, Norwegian four, British three, Greek two, Russian one) of 18,625 tons carrying over 20,000 tons of coal to France were sunk, of which only one, however, the Norwegian S.S. *Sjostad*, was in convoy (see U.C.65).

174. Measures, Channel.—On January 31, Dover was informed that three submarines would pass the Straits on the evening of February 1. This probably referred to U.60 and U.83, but nothing was seen of them. The Intelligence Division explained that there was no doubt that submarines were passing along the French coast where there was no barrier.¹

On February 1 two Portsmouth destroyers, the *Hornet* and *Forester*, were hunting submarines off Cape Antifer and probably kept U.B.23 and U.B.18 from showing themselves. The principal sphere of activity, however, that day was off the Cornish coast (U.55) and off the Scillies for the next three days (U.53). Portsmouth generally had two destroyers out "hunting" and Plymouth three to four.²

On the reports of U.55 off the Cornish coast coming in on February 1 the Admiralty ordered Devonport to maintain a destroyer patrol in the Bristol Channel and to strengthen the trawler patrol there.³

The *Plucky* and *Orestes* accordingly proceeded there, and there were no more sinkings till the arrival of U.C.65 on the 8th.

It seems to have been expected that five minelaying submarines would pass the Straits on the night of February 3 or 4, and Dover

¹ Special Telegrams, 1917, H.S. 645/074, 075, 080. This was not correct and the I.D. amended its opinion on February 3. "We believe route to be under the nets close to second buoy."

² The destroyers doing this work were at Portsmouth—*Forester*, *Defender*, *Hornet*, *Beaver*, *Druid*. Plymouth—*Orestes*, *Plucky*, *Hardy*, *Medina*, *Achates*, *Midge*, *Cockatrice*, *Spitfire*.

³ H.S. 355/333.

was instructed accordingly.¹ None, however, were seen which may have made Dover sceptical, and it is now known that none passed that night.

The pressure at Portsmouth was increased by the necessity for getting the 57th Division across between February 6 and 15, and on February 5 four P. boats were ordered to Portsmouth to assist in this task.² An attack on a transport, the *Mona's Queen*, off Havre (by U.C.26)³ that very night in the moonlight led Admiral Colville to suggest that the passage should not commence till February 15 (the last quarter of the moon). Admiral Colville considered it "highly dangerous" to send transports across with a bright moon, when escorts available did not permit of "adequate protection," but the arrival of the P. boats eased the situation, and the transport was effected without accident.

On top of the 57th Division (February 5) came on February 6⁴ the orders to start the "Controlled Sailings" or escorts for the French coal trade.

The colliers began to collect, but on February 9 Portsmouth found it "quite impossible" to protect the convoy groups from St. Helens to Havre without depleting the trawlers available for the transport routes and asked for another unit of six trawlers. The Admiralty accordingly on February 13 ordered Portland to send to Portsmouth the unit which had been doing the Channel Islands patrol.⁵

The escort of the French coal trade may be regarded as the principal measure taken in the Channel in February, but it evidently took some time to get in order for from the 6th to the end of the month at least eleven ships⁶ carrying coal to France were sunk unescorted, and one ship, the Norwegian *Sjostad*, was torpedoed by U.C.65 when in convoy.

The attack on the South West Approach by U.45 and U.54 led on February 5⁷ to the Clyde, Irish Sea and Bristol Channel traffic being ordered to proceed by the north of Ireland. This route remained in force till February 21, when it was closed apparently on the discovery of the mines laid by U.78 on February 11 in the Firth of Lorn.

¹ H.S. 645/078.

² H.S. 356/477.

³ U.C.26 was seriously damaged in the resulting collision.

⁴ Telegram 6/1215, to Cardiff to commence Controlled Sailings forthwith, H.S. 356/740. See S.127.

⁵ M.01575/17. Portsmouth had seven units (of six each) or about 42 which had to do all the minesweeping and patrolling from Beachy Head to Poole. There were also two units at Newhaven (transport work) and two at Havre (minesweeping).

⁶ British 3, French 4, Norwegian 2, Greek 2.

⁷ Telegram, February 5, 2123.

On February 7 the activity of *U.85* off Ireland resulted in orders to the Commander-in-Chief, Grand Fleet, to send four destroyers fitted with "high-speed sweeps" to Queenstown at once,¹ and Rear-Admiral, East Coast, was ordered to send the Tenth Sloop Flotilla (six sloops) there as well.

Strong escorts continued to be given to all troop convoys, and on February 11 at Devonport all available destroyers of the Second Flotilla were "earmarked" for two convoys, the *Marmora's* "in," and the *Cornwall's* to Sierra Leone, "out."²

175. Measures, Entry into Port (S.S. "Afric").—A serious loss was that of the S.S. *Afric* off Plymouth on February 12 (see *U.C.66*, s. 167). She was a White Star liner of 11,999 tons, one of seven transports selected to proceed from Devonport to Sierra Leone under convoy of the *Cornwall*. She left Liverpool on February 9. Her sailing orders issued that day by the Divisional Naval Transport Officer, ordered her "not to go to the northward of the Lizard until 10 miles to the eastward of it, then to get instructions from the patrol vessels as to the entrance from Eddystone to your destination—Devonport." The instructions³ contained the sentence, "The following area must be avoided," but omitted to state what area, though they gave a safe swept channel (which was actually out of date, and had been cancelled). It had been swept on account of the closure of the port on January 31 owing to the discovery of a mine (one of four laid by *U.C.17* on January 20), but the port had been declared open on February 6 by *Q.692*,⁴ which had been overlooked at Liverpool.

The *Afric* sailed with these orders and at 7 p.m. on February 11 was three miles E.S.E. of Eddystone. The master had seen a number of trawlers and tried to call them up, but got no reply. He did not try to enter "on account of his Route Instructions," but slowed the ship down and "morsed all round from one beam to the other"; without reply. About 6 p.m. a signal was intercepted, "something about mines." At 7 p.m. he set a course at 12 knots towards the Lizard and continued "morsing" up to 8.10 p.m. It was hazy and quite dark; the oil side lights were "dimly burning,"⁵ and so he continued cruising during the night, occasionally switching on the masthead light in full brilliancy.

At Plymouth the Admiral Superintendent (as Superintending Transport Officer at Devonport) had been informed by the D.N.T.O.

¹ H.S. 356/1048.

² H.S. 358/297, 533, 770.

³ Copy of instructions from P.N.T.O., Liverpool, April 17, 1917; Case 721/88, 197. Original was lost in ship.

⁴ 692Q. "Admiralty telegram 662Q. and 671Q. are cancelled. The port of Plymouth is now open." February 5, 2348.

⁵ Chief Officer's evidence.

at Liverpool that the *Afric* would arrive on February 11 at 5.30 p.m. This message did not leave the Admiral Superintendent's office and no information was passed to the Commander-in-Chief or to the auxiliary patrols. "It had never been the custom to transmit such messages, the assumption being that the Commander-in-Chief would receive his information through other channels."¹

The destroyer *Bittern*, patrolling that afternoon, sighted a moored mine² seven miles south of the breakwater and had sunk it by rifle fire. In consequence, the port was closed about 3.30 p.m.³ and the destroyers *Bittern* and *Sunfish* patrolling off the Eddystone were given instructions to divert shipping; both of them were in its vicinity at 8 p.m.; the former closed two ships approaching the port⁴ about that time and diverted them to Falmouth. Another transport, the *Durham Castle*, approaching the port at 7.15 p.m. was ordered by the *Sunfish* to Falmouth.

There were only two trawlers⁵ on patrol as the escort work was heavy at the time. At 5 a.m. the *Sunfish* was one mile E. by S. of the Eddystone and sighted a ship bound for the port. It was the S.S. *Sondenia*. She closed her, and after some talk, she was diverted to Falmouth;⁶ the *Afric* by this time was coming up and at 5.15 a.m., February 12, was 12 miles S.S.W. of the Eddystone in 50° N., 4° 25' W., going E.N.E. at 10 knots when a torpedo struck her on the starboard side. All the lights went out and the engines stopped; the aerial crashed down. Half an hour passed; the water was over the top of the cylinder in the engine room. The ship was being abandoned, when another torpedo crashed into her on the port side.

Rockets were being sent up (twelve altogether), but nothing came to the rescue. The submarine then came to the surface and questioned the master, who saw the ship sink about 7.45 a.m. She had 153 persons aboard. Five of the crew were killed by the explosion; all the rest were picked up safe, between 10 and 11 a.m.

The loss was a heavy one and evoked severe criticism. An enquiry into it was held at Devonport.⁷ It found that the Master was justified in remaining outside the port as he was unable to get into visual communication with any patrol vessel, but he committed

¹ Admiral Superintendent, April 25, 1917, in Case 721/209.

² In 50° 13' N., 4° 9' W. This must have been one of the four mines laid on January 20 by *U.C.17*. One had been found on January 31 and the port had been closed, to be reopened on February 6.

³ C.-in-C. signal 3.32 p.m.; to Admiralty 3.48 p.m. (H.S. 358/253); Extended Defence Officer 3.50 p.m. (Case 721/95).

⁴ S.S. *Boscastle* 8 p.m. and s.s. *Imani* 8.30 p.m. (*Bittern's* log, Case 721/97).

⁵ On escort work 8; refitting 3; "Day In" 4; patrol 2.

⁶ Log of *Sunfish*, Case 721/103.

⁷ March 8, 1917, Case 721/51.

an error in judgment in not informing the naval authorities by wireless that he was cruising off the port. He was absolutely unjustified in reducing speed¹ and he showed bad judgment in exhibiting navigation lights.

The First Lord (Sir Edward Carson) wrote a severe minute.² No explanation had been offered as to why the Admiral Superintendent did not inform the Commander-in-Chief of the expected arrival of the *Afric*. The case showed the necessity of enquiring into the arrangements for entry at important ports.

Finally, the Admiralty considered that the Master had committed an error of judgment in cruising up and down at slow speed with lights burning, and that the omission on the part of the Admiral Superintendent to inform the Commander-in-Chief indicated a grave want of judgment. The D.N.T.O. incurred Their Lordships' grave displeasure.

Out of it there came a review of the arrangements for the rapid entry of vessels into ports.³

176. Measures, Irish Sea and Channel.—From February 11 to February 15 there came a succession of reports of a submarine in the Irish Sea (see *U.C.65*, S. 162). The first report was a distress call on February 10, made at 11.27 a.m., received at the Admiralty at 12.32 p.m. from the armed British S.S. *Kelvin Brae*, 5,162 tons, which was being chased and escaped.⁴ The *Contest* was sent from Queenstown at once to deal with it.

At 3.3 a.m. on February 11 came a report of the small British S.S. *Sallagh*, sunk off Bardsey Island on February 10, whose crew of eight had been picked up and brought to Holyhead.⁵

As reports came in on February 11 and 12, the *Christopher* was sent from Queenstown to help the *Contest*, and arrived at Holyhead on February 14.⁶ *U.C.65* was then working off Milford and the Admiralty ordered them both to be sent on there. The last ship sunk by her in the Irish Sea was the British S.S. *Afton*, 1,156 tons, sunk at 1.30 p.m. (February 15) and the Admiralty receiving the report at 9.5 p.m.⁷ ordered Devonport to send the *Orestes* to work with the *Christopher* and *Contest*, as soon as she had made good defects, but by that time (February 16) *U.C.65* was off the Cornish coast on her way home. *U.C.47* was working in the same area on February 16 and the Admiralty informed Vice-Admiral Bayly that as soon as the Tenth Flotilla (Humber)

¹ From 12 to 10 knots.

² Case 721/134.

³ N.L. 2/11005/1917 of April 20, 1917, Case 721/173.

⁴ H.S. 347/895, 982.

⁵ H.S. 358/27.

⁶ H.S. 359/71.

⁷ H.S. 359/666.

was available for Queenstown, it was intended to transfer the four Grand Fleet destroyers, *Parthian*, *Magic*, *Peyton*, and *Narwhal* to Milford,¹ but, by the 18th, things had become quiet again in the Irish and Bristol Channels and activity on the Cornish coast did not break out again till February 28.

Another big liner, even larger than the *Afric*, narrowly escaped being sunk in the Irish Sea. This was the *Celtic*, 20,904 tons. She left Liverpool for New York on February 15 at 4 a.m., and at 8.58 a.m. was in 53° 57' N., 4° 40' W., some 13 miles S.S.E. of the Calf of Man, going 16 knots when an explosion took place under the port bow, but though the forehold was flooded, she managed to get safely back to Liverpool. She had struck a mine on the troublesome minefield laid off the Isle of Man by *U.80* on October 27, 1916, which had already sunk two ships, the S.S. *Skerries*, November 4, 1916, and S.S. *Liverpool*, December 20.

Again a dangerous area was proclaimed, again the area was searched and again nothing was found.²

On February 20, Devonport was deprived of one of her much needed destroyers, when the collier *Mervin*, collided off the Lizard with the *Plucky*, cutting off her stern and being herself sunk by the explosion of her depth charge.

A collision, too, was the cause of another serious loss of a transport off the Isle of Wight on February 21. This was the British S.S. *Mendi*, 4,429 tons, from Sierra Leone with 806 natives of the South Africa Labour Contingent. At 5.10 a.m. she was coming up Channel under escort, going slow in a thick fog, when the S.S. *Darro*, crossing from France at 14 knots, ran into her 12 miles south of St. Catherines. Out of 828 natives on board, 624 were lost which was adjudged to be "through the wrongful act and default" of the Master of the *Darro* in not putting back to ascertain the damage done and in not sending away his boats.³

On February 21, S.N.O., Newhaven, informed his T.B.'s. that a German submarine was expected to pass homeward bound on the night of February 22 and 23. This referred to *U.C.66* which reached home safely on February 23.

Transport traffic across the Channel suffered little. In answer to a question by Admiral Jellicoe, on February 23 as to the number crossing, Portsmouth answered seven on February 22, twelve on February 23. At Devonport, during the previous thirty days, only 14 had crossed to France and six the other way.⁴

Early on February 26, a report came in from Cardiff from the S.S. *Hooton* that a torpedo had been fired at her by a submarine

¹ Telegram, February 16, 1915, H.S. 359/957.

² H.S.B. 170/385.

³ M.73315/17, Enquiry, July 24, 1917.

⁴ H.S. 361/802, 891.

and that she had seen another at the same time, at 7.45 p.m., on February 26 in 51° 20' N., 3° 26' W., that is right up the Bristol Channel in the approach to Cardiff. Sailings from Bristol Channel were suspended accordingly at 1.25 a.m. This was the only report from the area and sailings were resumed on February 27 at 2.5 p.m.*

The *Forester's* attack on *U.C.65* in the Havre area that day brought in a suggestion from Lieutenant Austen Lilly that destroyers should be provided with more depth charges, which received the D.A.S.D.'s approval.

And so by submarine "hunts" and escort of important traffic by *Q* ships, and sudden rammings, by salvage and by the start of French Coal Trade sailings, the war against the submarine went on in the Channel in February.

177. Submarines, North Sea.—The following High Sea Fleet submarines were operating in the North Sea (North of Flamborough Head) in February:—

U.C.32, January 28–February 5, Tees and Yorkshire Coast.

U.B.21, February 1–7, off Tees.

U.B.22, February 1–12, Tyne to Aberdeen.

U.B.34, February 1–10, off Whitby.

U.B.35, February 1–10, off Tees.

U.C.29, February 3–14, mines, Tay, February 6; May Island, February 7; Aberdeen, February 8; Forth, February 9.

U.C.44, February 3–16.

U.C.39, February 6, Yorkshire Coast, sunk by H.M.S. *Thrasher*, February 8.

U.B.21 (II), February 13–24, Holy Island.

U.C.30, February 12, laid mines off Hartlepool.

U.C.31, February 20–28, mines, Hartlepool, struck by steamer (unknown) February 26, had to return.

U.C.32, February 23, mines off Sunderland, sunk (own mines).

U.C.41, February 24–March 9, mines, Blyth, February 27; mines, Berwick, February 28.

U.C.42, February 16–25.

A total of 14 submarines and 112 submarine days with two submarines sunk and one that had to return.

177A. "U.C.32," January 28–February 5.—*U.C.32* sailed on January 28 and on January 30 laid ten mines close to the mouth of the Tees. (Fields 10, 11 in O U 6020A in about 54° 39' N., 1.8¼' W.) The tug *Ida Duncan* struck one of them the next day

* H.S. 362/309, 796. No submarine was there. H.S./Q.28.

(January 31) at 2.36 p.m. in 54° 39' N., 1° 7' W., and the same field was possibly responsible for the loss of the minesweeper *Euston* at 10.30 a.m., on February 12 in 54° 40½' N., 1° 9' W. It was discovered and swept up with one laid by *U.C.30* on February 12, only a mile to the south-eastward.¹

As *U.C.32* reported sinking an unknown steamer North of Flamborough Head, the Norwegian S.S. *Jerv*, 1,112 tons, from Rouen to Middlesbrough, was probably torpedoed by her.² The *Jerv* at 2.0 a.m. on February 1 was 10 miles N. of Flamborough Head in 54° 16' N., 0° 10' W., when a violent explosion took place and she sank in five minutes. This was *U.C.32's* only ship and she was back on February 5 having sunk one steamer of 1,112 tons. This was the last time she was to see home.

178. "U.B.21," February 1–7.—*U.B.21* (Lieut. Franz Walther), is stated by Marine-Archiv to have cruised in the North Sea from February 1–7. She claimed to have sunk a British steamer on February 3 but no losses occurred in the North Sea on that date. All that is known of her is that she cruised between Whitby and the Tees³ and saw several English steamers in the vicinity of that coast

179. "U.B.22," February 1–12.—*U.B.22* (Lieut. Karl Wacker) sailed the same day as *U.B.21* to work off the East Coast of Scotland. He made a resolute attack on fishing vessels. On February 5 at 3.15 p.m., in 55° 56' N., 0° 15' W., he sank by gunfire the F.V. *Resolute*, 125 tons, leaving the crew to a 17 hour pull in their boat. On February 6 at 2.30 a.m., in 55° 20' N., 0° 42' W., he sank the F.V. *Adelaide*, 133 tons; at 10.45 a.m., in 55° 52' N., 0° 30' W., the F.V. *Rupert*, 114 tons, and at 2.30 p.m. in 56° 6' N., 0° Long., the F.V. *Romeo*, of 114 tons. He was disturbed in this unheroic work by the appearance of the Humber Special Patrol and went down. On February 7 at 10.0 a.m., off the Forth in 56° 6' N., 2° 7' W., he sank by gunfire the steam trawler *Boyne Castle*, 245 tons. He went on to the northward and on February 9 at 12.50 p.m., in 56° 29' N., 1° 38' W., sank the F.V. *Benbow*, 172 tons, and still going north, at 7.45 p.m., in 57° 12' N., 1° W., 30 miles from Aberdeen, the F.V. *Duke of York*, 150 tons. He then turned for home and on the way back, on February 10, at 7.15 a.m., in 57° 20' N., 1° 30' E., sank the F.V. *Athenian*, 171 tons, and at 12.30 p.m., in 57° N., 1° 10' E., his last fishing vessel, the *Ireland*, 152 tons.

At 4.0 p.m. (February 10), in 56° 35' N., 2° E., he met the Norwegian S.S. *Bellax*, 1,107 tons, going from Frederikstad to

¹ Minesweeping Statements, H.S.B. 170/377.

² She has hitherto been attributed to a mine. *U.C.32*, on January 31, laid eight mines off Flamborough Head, 6½ miles to southward of *Jerv's* position, which are probably the ones mentioned in Minesweeping Statements, H.S.B. 170/343, as in the vicinity of the *Jerv*.

³ C.B. 01370 (captured document), page 10.

Havre and sank her with bombs after missing her with a torpedo. Altogether one steamer and six fishing vessels, 2,043 tons. His cruise off Aberdeen had brought him very little.

180. "U.B.34," February 1-10.—*U.B.34* (Lieut. Helmut von Ruckteschel) left on February 1 for a more exciting cruise off the Yorkshire coast. On February 5, at 11.50 a.m., in a thick haze off Whitby, in 54° 35' N., 0° 35' W., he torpedoed the British S.S. *Hurstwood*, 1,229 tons, going from London to Newcastle. She had no guns and no wireless and sank in about two hours. Four men were killed in the explosion and the remaining 11 (two of them badly wounded) were saved by the A.T. *Swallow* which came on the scene within an hour. The next day (February 6) at 1.5 p.m., the Italian S.S. *Ferruccio*, 2,192 tons, was off Whitby in 54° 30' N., 0° 28' W., when she was struck by a torpedo and sank in seven minutes. Five British destroyers hurried to the scene and saved the crew of 27, except one fireman, who was lost.¹

February 7 was an exciting day. At 10.0 a.m. *U.B.34* watching the War Channel off Whitby, in 54° 30' N., 0° 31' W., sent a torpedo into the British S.S. *Corsican Prince*, 2,776 tons, going from Dundee to the Downs. The British S.S. *St. Ninian*, 3,026 tons, going north, Algeria to Middlesbrough with iron ore, stopped to rescue the survivors. The armed trawlers *Swallow* and *Pigeon* patrolling off Whitby had heard the explosion and came up from the eastward. The *Swallow*, coming south at 10.14 a.m., as she passed the *Corsican Prince's* boats, sighted a periscope 300 yards from, and to eastward of, the *St. Ninian*, charged it, and at 10.15 bumped along the hull with the periscope only 3 feet away just as *U.B.34* let go a torpedo at the *St. Ninian*, which hit and sent her to the bottom in a few minutes. The *Swallow* turned round and dropped a depth charge, which exploded. The destroyers *Doon* and *Waveney* were ordered to the spot and arriving there² at 11.50 a.m. commenced a search. At noon (February 7) the *Waveney* (Lieut.-Commander V. Quin) steering east, 20 knots, sighted a periscope, $\frac{3}{4}$ mile away, 2 points on the port bow going south, opened fire and made for it, but passed over the submarine without touching. He had expended his single "D" depth charge, and his only remaining one (Bruce towing) failed to explode. At 12.20 he sighted the periscope again going S.W., made for it at full speed and his starboard side bumped along the submarine, which was apparently on an opposite course; again the Bruce towing charge failed to explode. This was one mile east of Whitby High Light (i.e., 54° 29½' N., 0° 31½' W.). The *Doon*, which still had two "G" depth charges, did not get an opportunity to attack.

¹ I.D. vol. 631.

² 11.37 a.m. "proceeded to a position 4 miles E.S.E. of Whitby" (i.e., 54° 29' N., 0° 30' W.).

U.B.34 did nothing more. It may have been she that was fired at by the A.T. *White Rose* on February 9 at 8.45 a.m. in 54° 15' N., 0° 13' E. When she got back on February 10 "the bed plate of her port engine had developed a second crack" and had to be repaired, which may be attributed to the *Swallow's* depth charge and the *Waveney's* bump. Lieut. I. Dixon, R.N.R., of the *Swallow* received Their Lordships' appreciation. Lieut. Quin submitted that a reserve of "D" depth charges should be kept at the Tyne and that the destroyers of the 7th Flotilla should be allowed two instead of one,¹ but on January 30, 1917, the supply of type "D" depth charges was just enough to permit an issue of 25 per cent. spare to destroyer depot ships.

U.B.34 had sunk four steamers of 9,223 tons. She had narrowly escaped being rammed and sunk.

181. "U.B.35," February 1-10.—*U.B.35* (Lieut.-Commander Gebeschuss) left the same day as *U.B.34* and was operating off the Tees. On February 6, at 3.50 p.m., five miles from Hartlepool, in 54° 46' N., 1° 7' W., she torpedoed the British S.S. *Vestra*, 1,061 tons, going from Newcastle to Havre with 1,100 tons of coal. The ship sank in seven minutes, with a loss of two lives out of seventeen. The next day, February 7, the *Nith* (Commander G. L. Parnell) was off Hartlepool when she received a signal from the *Waveney* of a submarine off Whitby (*U.B.34*). The *Nith* was patrolling to cut it off when at 4.30 p.m. in 54° 47' N., 0° 34' W., she sighted the conning tower of a submarine four cables on the port bow heading S.W. The submarine had evidently just come up to look round and went down at once. The *Nith* made for it at full speed and dropped a depth charge (Type "D"), at the same time putting over a Bruce towing charge and commencing sweep "JH2." A whole minute elapsed before the depth charge exploded and a large patch of oil appeared. When over the estimated position the Bruce charge failed to fire; it was slipped and another got out, taken back over the course and fired. A black object of some sort came to the surface, which was not examined.² The submarine seems to have been *U.B.37* or *U.B.35*, who reported, on February 9, that her diving tank had been damaged by a depth charge, and she must go into dock. She had sunk one steamer of 1,061 tons.

182. "U.C.29," February 3-14.—*U.C.29* (Lieut. Ernst Rosenow) left on February 3 to lay mines on the east coast of Scotland. She probably intended to start laying them off the Forth, but on February 5, at 4 p.m., three miles N. of Fidra (56° 7' N., 2° 48' W.), off North Berwick, her periscope was sighted 700 yards away by H.M.S. *Mallard*, who made for it, opened fire at 100 yards and

¹ M.02137/17, in X.12896/17.

² I.D. 3025 War Diary, February 9, 1839. *Nith's* report in M.01913/17, X.7437/1917.

exploded two 300 lb. depth charges, which were followed later by two more from *T.B.31* and *T.B.35*.¹ *U.C.29* escaped damage, for on February 6 she laid four mines off the Tay,² which were found between February 6 and 9. She then went south again, and on February 7 laid three off May Island; then on February 8, four miles off Aberdeen, in 57° 9' N., 2° 2' W., one of which was struck by the A.T. *Yesso*, 229 tons, on February 9, at 7.55 a.m., as she was getting ready to sweep, and sank her at once, with a loss of seven men.³ On February 9 she laid four more off the Forth in 56° 10' N., 2° 45' W., and on February 10, at 11.15 p.m., the British S.S. *Fraterno*, 9,587 tons, struck one of them in 56° 11' N., 2° 49' W., off Inchkeith, but managed to reach the beach. *U.C.29* was off the Tay again that day (February 10), where she laid her last three mines. She was working off Aberdeen, and on February 11, at 4.45 p.m., in 57° 8' N., 1° 58' W., sent a torpedo into the British S.S. *Roanoke*, 3,755 tons, going from Dundee to New York. The ship was armed with a 13-pdr. but saw nothing of the submarine; her wireless was disabled by the explosion, but the A.T. *Oku* saw the explosion and closed at once. The captain, first officer and first engineer returned to the ship, and in a heavy swell and squalls of snow managed with the help of the A.T. *Oku*, *Nairn* and *Seavanger* to get her into Lunan Bay and then into the Tay (February 14) for which a salvage award of £3,470 was granted by the Court.⁴ *U.C.29* reported having sunk two ships in this area on that day. The second must have been the British S.S. *Norwood*, 798 tons, going from Middlesbrough to Aberdeen, which was never seen again. She had arrived off Aberdeen on February 9, and finding the port closed on account of the discovery of *U.C.29*'s mines, had been cruising off the land.⁵ *U.C.29* was back on February 14, having sunk two steamers of 4,553 tons.

182A. "U.C.44," February 3-16.—*U.C.44* left on February 2, and laid seven mines off Lerwick on February 6, eight off Tarbet Ness on February 8, and, according to the German report, three off Kirkwall on February 9.⁶ It looks, however, as if she must have laid more than three off Kirkwall, for H.M.S. *Albacore*, on March 9 at 6.30 a.m., struck a drifting mine in Inganess Bay (just east of Kirkwall) which blew off her bows and killed eighteen men.⁷ *U.C.44* went south and made an attack on trawlers fishing between the

¹ M.01832/17.

² Field 47, O.U. 6020A. The steam trawler *Primrose*, 136 tons, due to return February 6, was never seen again and probably perished on this field with a loss of nine men (M.62360/17).

³ H.S.B. 170/341. M.6556/17.

⁴ X.11798/1917.

⁵ E 1 log, C.15/10, February 15.

⁶ O.U. 6020A, Fields 72 to 76 (at Kirkwall, Longitude should be 2° 41' 8" W.). The Kirkwall field was discovered on February 9 and one was recovered with sinker intact on February 17; the Lerwick field was discovered on February 12. H.S.B. 170/375.

⁷ H.S. 387/1030.

Orkneys and Peterhead, sinking five¹ between February 11 and 14, and taking the skippers prisoners. She sank only one ship—the Swedish S.S. *Adolf*, 835 tons—on February 12, at 4.30 p.m., in 58° 53' N., 1° 32' W., towing the boats for a couple of hours till they were off Copinsay Light (Orkneys). On February 13, at 9.0 a.m., in 57° 19' N., 1° 3' W., she attacked the armed French S.S. *Tunisie*, which returned her fire and escaped.² On February 14, at 9.50 a.m., two armed trawlers, the *Kimberley* and *Cameo*, were sweeping off Buchan Ness in 57° 28' N., 1° 40' W., when a submarine came up 5,000 yards away. They closed her and the *Kimberley* opened fire at 3,500 yards. The submarine, which was probably *U.C.44*, fired three rounds and went down. The last vessel sunk was the trawler *Mary Bell*, some 50 miles east of Aberdeen (in about 57° 42' N., 0° 33' W.), on February 14 at 5.15 p.m. Her skipper was taken prisoner and supplied in 1919 a circumstantial account of an attack by two British destroyers on February 15, about 10.30 a.m. The submarine submerged, "then followed two depth charges, destroying all the electric fittings, leaving everything in darkness, oil was then put into after torpedo tube, also some chairs, and this was ejected."³ As there is not the slightest trace of any such attack in British records, and the other two skippers who were prisoners said not a word about it, its authenticity may be doubted, though on February 14, in view of the activity of *U.C.44*, four destroyers from Scapa and two from Rosyth were ordered to patrol the area between Peterhead and Aberdeen, and the *Plover*, *Partridge*, *Portia* and *Rob Roy* sailed for this purpose that night. *U.C.44* reached Heligoland on February 16. She had sunk one ship of 835 tons and five trawlers of 751 tons, totalling 1,586 tons. She had been attacked once by armed trawlers.

183. "U.C.39," Sunk by H.M.S. "Thrasher," February 8.—*U.C.39* (Lieut. Ehrentraut) had only joined the Flanders Flotilla on February 3 and left Zeebrugge on February 6 for a cruise up the East Coast. She was not carrying mines. It may have been she that on February 7, at 8 a.m., in 52° 5' N., 2° 40' E., sank the Norwegian S.S. *Hans Kinck*, 2,667 tons. On February 7, at 11.20 p.m., off the Humber in 53° 42' N., 0° 39' E., she stopped the British S.S. *Hannah Larsen*, 1,311 tons, and after taking the captain, Thomas Reid, and chief engineer, prisoners, sank her with bombs. On February 8 the morning dawned calm and fine but hazy. At 7.45 a.m., in 53° 58' N., 0° 17' E., *U.C.39* opened fire on the Norwegian S.S. *Ida*, 1,300 tons, going from Leith to London, killing the chief mate and stewardess and wounding five men, and afterwards sank the ship with bombs. At 12.40 p.m., she fired

¹ February 11, 10.30 a.m., *Ashwold*, 57° N., 0° 10' W.; February 12, 2 p.m., *Dale*, 59° 6' N., 1° 12' W.; Feb. 13, 3.30 p.m., *King Alfred*, 58° 30' N., 0° 40' W.; February 14, 7.30 a.m., *Belvoir Castle*, 57° 22' N., 1° 20' W.; 5.15 p.m., *Mary Bell*.

² No details. H.S. 358/1018.

³ Copy, Letter in I.D., Vol. 633, *Mary Bell*.

on a trawler, the *Scomber*. This was seen from Flamborough Head Wireless Station, which informed Immingham, and Captain (D) 7th Flotilla. H.M.S. *Thrasher* had left the Humber at 10.0 a.m., escorting the submarine *D.4* to the northward. At 1.18 p.m. she was some $4\frac{1}{2}$ miles south of Flamborough Head¹ when she heard firing on the starboard beam. Lieutenant Hawkins put the helm hard a port, made for it at full speed and saw in the haze to the eastward a merchant ship stopped with projectiles falling round her. This was the British S.S. *Hornsey*, 1,803 tons, with coal from Sunderland to London, and just as Lieutenant Hawkins sighted her, and Captain D's signal was put into his hand, a submarine was seen a point on the port bow, 3,000 yards off. The *Thrasher* opened fire at once at 1.22 p.m., and the submarine made a crash dive heading south-west and was down in about three-quarters of a minute. Lieutenant Hawkins, steering about 100° for her estimated spot, dropped a Type "D" depth charge, which exploded. In *U.C.39* a heavy explosion was felt which started the rivets in the top plates, and broke the conning tower deadlights. Water began to pour down into the submarine and she came to the surface. As she rose the *Thrasher* opened fire with her starboard guns, riddling the conning tower with shell. It opened and the crew appeared holding their hands up. "Cease Fire" was ordered. At 1.30 p.m. *U.C.39* surrendered. Two officers and fourteen men, of whom two were severely wounded, were taken prisoners. Captain Reid, of the *Hannah Larsen*, and his chief engineer appeared on deck, quite unperturbed by this terrible form of rescue. Eight of the submarine's crew and her captain, Lieutenant Otto Ehrentraut had been killed. His body was picked up and buried with naval honours at Immingham on February 12.² The *Itchen*, arriving on the scene, attempted to tow the damaged *U.C.39*, but she sank at 4.30 p.m. in 53° 56' N., 0° 6' E., in 15½ fathoms. Lieutenant Hawkins received a D.S.O., and the gunner, Mr. Morris R. Cole, a D.S.C. *U.C.39* had sunk three ships of 5,278 tons.

184. "U.B.21," February 13-24.—*U.B.21* (Lieut. Franz Walther) sailed again on February 13. She was off the Yorkshire coast, for she reported a net barrage there in 54° 25' N., 0° 15' E., and stated she sank a ship on February 16.³ This was probably the British S.S. *Lady Ann*, 1,016 tons, which, at about 2.40 p.m., was on a S. by E. course some three miles E. by S. of Scarborough (54° 18' N., 0° 19' W.) when she was blown up, broke in two and sank at once, with a loss of eleven out of sixteen. *U.B.21* pursued her way north, for on February 18, at 7.30 a.m., in 55° 47' N., 0° 33' W., she sank a steam trawler, *Excel*, 157 tons. She also claimed a tanker on February 22, which may have been the British S.S. *John Miles*,

¹ In 54° 3' N., 0° 1' W.

² M.01639/17 in X.13040/17, also N.L./132668.

³ In Marine-Archiv report the British S.S. *Valdes*, but *Valdes* was sunk off Portland on February 17.

687 tons, going from the Tyne to Shoreham with coal. On February 22 at 0.35 a.m. she was off Hartlepool when there was an explosion on the port side; the ship sank in two minutes and only four men were saved out of fourteen.¹ *U.B.21* was back on February 24, having sunk two steamers and a trawler, altogether 1,860 tons.

185. "U.C.30," February 12.—*U.C.30* (Lieut.-Commander Heinrich Stenzler) laid ten mines off Hartlepool on February 12 in 54° 39' N., 1° 7' W.² and eight off Whitby in 54° 29½' N., 0° 30' W. At 10.30 a.m. (February 12) H.M.T. *Euston* struck a mine off the Hartlepool field in 54° 40½' N., 1° 9' W., and sank (see S.177A). On February 16, at 8.30 a.m., H.M.T. *Recepto* met the same fate in 54° 40' N., 1° 8' W.³ She returned home from an unexciting cruise on February 14 or 15.

186. "U.C.31," February 20-28.—*U.C.31* (Lieut.-Commander von Schrader) left on February 20, and on February 24 laid mines off Hartlepool in about 54° 40' N., 1° 8¾' W.⁴ At 8 a.m., just off the Heugh (Hartlepool), in 54° 44½' N., 1° 4' W., she torpedoed the British S.S. *Beneficent*, 1,963 tons, going from the Tyne to Havre with coal, then went to Robin Hood Bay and on February 25 laid three mines there in 54° 27' N., 0° 30' W.,⁵ and two off Whitby in 54° 28' N., 0° 29' W., then back to the Tees, and on February 26 laid nine more mines there, in about 54° 38' N., 1° 4' W. She was rammed by a steamship at 12.50 p.m. in 54° 47' N., 0° 40' W., with damage to her conning tower, which forced her to return home.⁶ The steamer that performed this useful piece of work remains unknown. *U.C.31* was back on February 28, having sunk one steamer of 1,963 tons.

187. "U.C.32," Sunk February 23.—A fortnight after the sinking of *U.C.39* by the *Thrasher*, another German submarine minelayer fell a victim to her own mines. This was *U.C.32* (Lieutenant Herbert Breyer), which left for the north on February 17. On the evening of February 23 she was off Sunderland, and after creeping close in to Roker Pier on the north side of the entrance was starting at 6.30 p.m. to lay her mines when she blew up. The roar of the explosion shook the whole town, and the harbour examination vessel going out picked up three survivors, including the captain. An engineer's handbook picked up near the spot identified the submarine as *U.C.32*. The wreck was located on February 25 just outside the entrance, half a mile S.80 E. from Roker Light, in

¹ There was doubt at the time as to whether it was a mine, but the nearest mines seem to have been 8 miles off (*U.C.30* of February 12).

² Fields 44, 45, O.U. 6020A.

³ Or on *U.C.32*'s field of January 30 in 54° 39' N., 1° 8¼' W.

⁴ Field 53.

⁵ Field 54, misprint in O.U. 6020A, 1° 30' W. for 0° 30' W.

⁶ Marine-Archiv, Tatigkeit, no details. No trace of incident in British records.

54° 55½ N., 1° 20' W.¹ The conning tower and forehatch were open and the forepart was a complete wreck. Salvage operations were commenced but were ordered by the Admiralty to be abandoned. This was the end of *U.C.32*.

188. "**U.C.42,**" February 16-25.—*U.C.42* (Lieut. Hans Albrecht Müller) left on February 16 for the east coast of Scotland. On February 21, at 9.52 p.m., the destroyer *Talisman*, in 55° 57' N., 0° 6' W., off the Forth, steaming 10 knots, sighted a dim light 800 yards on the bow. Making for it he sighted a periscope or mast 20 yards off and dropped two depth charges.² This was probably *U.C.42*, but she was not badly damaged for on February 22 she laid ten mines off Rattray Head, of which five were found that day showing just above water.³ At 12.30 p.m., in 57° 16' N., 0° 40' E., she sank with gunfire two fishing vessels, the *Frolic* and *Lord Collingwood*. On February 24 she was on her way back with a leak and reported having been twice caught in a net.⁴ No attack was reported at the time in the area so the leak may have been the effect of the *Talisman's* depth charges. Nor were any indicator net reports received, though on February 13 it had been decided at Rosyth to lay indicator nets for the dark hours off May Island,⁵ and it looks as if *U.C.42* may have been caught in them. She was back on February 25 with only two small fishing craft (331 tons) to her credit.

189. "**U.C.41,**" February 24-March 9.—*U.C.41* sailed on February 24 and laid four mines two miles south of Blyth in 55° 6' N., 1° 28' W. She trailed north up the coast laying batches of mines off Eyemouth, Berwick, and Holy Island.⁶ She probably went on to cruise off the Forth, for on February 28, at 11.45 a.m., the engines of a submarine were heard at Fidra hydrophone station, which led to a strenuous but unsuccessful hunt by eight hydrophone M.Ls.;⁷ at 4 p.m., a torpedo boat sighted a submarine in 56° 14' N., 2° 35' W., and on March 1 at 3.25 p.m. the *Dublin* was missed by a torpedo in 56° 8' N., 0° 20' E. She was back on March 9, having sunk nothing in February.

190. **Statistics, North Sea, February.**—In the North Sea, on the English coast, High Sea Fleet boats carried out fourteen cruises of 112 days in February. They sank 15 ships and 17 fishing vessels, a total of 29,588 tons, amounting to a sinkage of 262 tons per submarine day. They laid 118 mines (High Sea Fleet) which caused the loss of one tug and three trawler minesweepers; one large ship, the *San Fraterno*, 9,587 tons, which struck one of *U.C.29's* mines in the Forth was beached and salvaged. Of the fourteen submarines

¹ H.S. 361/908; H.S. 362/17, 631; N.I.D. 11118/17, examination of prisoners.

² M.02311/17.

³ O.U. 6020A. Field 42 in 57° 36' M., 1° 44' W. H.S.B. 170/375. H.S. 361/576.

⁴ War Diary, February 24, 1335.

⁵ X.12130/17.

⁶ Fields 67 to 71 in O.U. 6020A.

⁷ H.S.A.134/526.

seven were attacked and one was struck and damaged by a merchant ship. The attacks were as follows:—

Date.	S/M.	By.	Result on S/M.
February 5 ..	<i>U.C.29</i> ..	<i>Mallard</i> ..	.. Nil.
February 7 ..	<i>U.B.34</i> ..	A.T. <i>Swallow</i> ..	.. Nil.
February 7 ..	<i>U.B.34</i> ..	<i>Waveney</i> ..	.. Damaged. ¹
February 7 ..	<i>U.B.35</i> ..	<i>Nith</i> ..	.. Damaged.
February 8 ..	<i>U.C.39</i> ..	<i>Thrasher</i> ..	.. Sunk.
February 14 ..	<i>U.C.44</i> ..	A.T. <i>Kimberley</i> and <i>Cameo</i> .	.. Nil.
February 21 ..	<i>U.C.42</i> ..	<i>Talisman</i> ..	.. Nil.
February 23 ..	<i>U.C.32</i> ..	Own mines ..	.. Sunk.
February 26 ..	<i>U.C.31</i> ..	Collision, steamer unknown.	Damaged.

Exclusive of "own mines" and "collision" the attacks numbered one per sixteen submarine days.

191. **Flanders, Minelaying, North Sea.**—During February 1917, five Flanders submarines made thirteen trips to the east coast, where they laid 148 mines, chiefly off the Thames, as follows:—

Feb.	Submarine.	Place.	Mines.	Ships lost.
1	<i>U.C.1</i> (284) ²	Hewitt Channel 52° 32' N. (Norfolk). 1° 49' W.	12	
1	<i>U.C.4</i> (285)	Shipwash .. 52° 6' N. 1° 54' E.	12	
2	<i>U.C.11</i> (283)	Shipwash .. 52° 2' N. 1° 54' E.	12	A.T. <i>Holdene</i> , 2/2.
3	<i>U.C.6</i> (287)	Elbow .. 51° 25' N. 1° 33' E.	8	
10	<i>U.C.6</i> (291)	Elbow .. 51° 25' N. 1° 29' E.	12	
10	<i>U.C.11</i> (292)	Sunk 51° 55' N. 1° 43' E.	11	S.S. <i>Foreland</i> , 12/2; S.S. <i>Marie</i> <i>Leonhardt</i> , 14/2. A.T. <i>Sisters Mel-</i> <i>ville</i> , 13/2.
11	<i>U.C.4</i> (293)	Sizewell Bank 52° 12' N. 1° 41' E.	11	
15	<i>U.C.1</i> (294)	Lowestoft .. 52° 22' N. 1° 52' E.	12	
16	<i>U.C.11</i> (295)	Shipwash .. 52° 2' N. 1° 52' E.	12	
16	<i>U.C.6</i> (296)	Tongue .. 51° 30' N. 1° 28' E.	11	
21	<i>U.C.4</i> (300)	Albro' .. 52° 7' N. 1° 40' E.	12	
25	<i>U.C.14</i> (301)	Stanford Chan- 52° 26' N. nel. 1° 48' E.	11	
28	<i>U.C.4</i> (306)	Aldbro' .. 52° 5' N. 1° 49' E.	12	
Total ..			148	

¹ Would almost certainly have been destroyed if the Bruce towing charge had not failed to explode.

² Number in brackets is number of field in O.U. 6020B (German Statement, 1919). Lat. and Long. to nearest minute.

These mines caused the loss of two minesweepers and two steamers during the month. On February 2, the A.T. *Holdene* was carrying out a routine sweep off Harwich and had just turned round to re-sweep when at 10.55, in 52° 1½' N., 1° 54' E., she struck a mine and sank at once with the loss of seven men. This was in the field (283) laid by U.C.11 during the night.¹

In the Hoofden the sharpest attack of the month was made by the destroyers escorting Dutch traffic. A submarine prowling off the North Hinder on February 10 fell into a succession of attacks. The *Nimrod*, escorting the S.S. *Copenhagen*, was the first to sight her at 7.27 a.m. in 52° 6' N., 2° 44' E., but unwilling to leave her convoy she called up all the other destroyers. At 11.25 a.m. the *Matchless*, bringing the west-going convoy across, sighted the conning tower of a small submarine S.30 W. 4½ miles² from the North Hinder, chased at full speed and opened fire. The submarine went down three miles off, and the *Matchless*, after dropping a depth charge, returned to the convoy and ordered the *Meteor* to search. At 11.32 a.m. the *Meteor* sighted a submarine (in about 52° 5' N., 2° 40' E.), and at 11.38 opened fire on it at 8,000 yards, driving it down. At 1.35 p.m., in 52° 7' N., 2° 10½' E., P.31 picked her up to the westward and dropped a depth charge which failed to explode. The *Meteor*, *Myngs* and *Morris* were despatched to search and carried out JH2 without success.³ This was possibly U.C.4 on her way to Lowestoft, where she laid mines on February 11. On her way back it seems to have been she who on February 12 at 8.0 a.m., in 52° 45' N., 2° 30' E., sank the Norwegian motor vessel *West*, 350 tons. P.25 and P.18 sighted her alongside and after driving her down dropped depth charges.

On February 12 the British S.S. *Foreland*, 1,960 tons, going from the Tyne to Devonport with 2,700 tons of coal had passed the Shipwash, when at 11.15 a.m., in 51° 56' N., 1° 40' E., she struck one of the mines laid by U.C.11 two days before (Field 292) and went down.

On February 13 the A.T. *Sisters Melville* had been sweeping off Aldborough for an hour when at 10.30 a.m. in 52° 7' N., 1° 44' E., she struck a mine (laid by U.C.4 on February 11) and was blown up with a loss of seven men out of ten.⁴ The next day (February 14) the mines laid by U.C.11 on February 10, claimed another victim. This was the British S.S. *Marie Leonhardt*, 1,466 tons, proceeding from Newcastle to London with 2,225 tons of coal. At 8.10 p.m. she was off the Sunk in about 51° 53' N., 1° 40' E.⁵ when she struck

¹ X.1831/17.

² 52° 1' N., 2° 36' E.

³ M.06130/17. It may be noted that none of these reports were telegraphed to the Admiralty and I.D. did not hear of them till February 18.

⁴ X.2762/17.

⁵ Minesweeping Report, H.S.B. 170/373.

a mine which blew up the fore part of the ship killing four men. The remaining fifteen of the crew got away in safety.

On February 15, at 10.30 a.m., in 52° 10' N., 2° 7' E. (some 17 miles east of Aldbro') the minesweeping gunboat *Seagull* sighted a periscope 400 yards away which went down at once. The *Seagull* followed and while the wake was still visible dropped two depth charges, both of which exploded.¹ Her quarry was probably U.C.1 returning from Lowestoft.

On February 22, at 3.21 a.m., off the North Foreland, the British S.S. *Ashtabula*, 7,025 tons, struck a mine (either U.C.6 of February 10 or U.C.6 of February 16) but though considerably damaged managed to get into port. The next day (February 23) at 2.0 p.m. the British S.S. *Grenadier*, 1,004 tons, coming from Rotterdam, was blown up off Aldbro' in 52° 6' N. 1° 42' E., evidently by one of the mines laid by U.C.4 two days before. The total losses by the 148 mines laid by Flanders submarines in February in the North Sea were three ships of 3,430 tons sunk, one of 7,025 tons damaged, and two minesweepers sunk.

On February 27, at 9.30 p.m., in 52° 20' N., 1° 51' E., the net drifter *Rosevine* (Lowestoft) seeing a submarine come to the surface put over her sweep, which exploded, at 10.45 p.m. This submarine may have been U.C.14, which had laid mines off Lowestoft on February 25.

The next day, February 28, the *Milne* and four destroyers were bringing the Dutch traffic back from Holland² when, at 8.45 a.m., in 52° 4' N., 3° 47' E., steering N.70 W., 25 knots, she sighted a periscope 600 yards on the starboard bow; the track of a torpedo followed. It was evaded by hard-a-port helm and the *Milne*, following it up, dropped a depth charge without any apparent result. The submarine is not known.³

192. Merchant Ship Losses in February.—The total losses by submarine and submarine mines in the principal areas are shown in the tables on pages 260 and 261.

British losses were, approximately, 56 per cent. of whole as compared with 38 per cent. in January; French losses were 7 per cent., as compared with 12 per cent.; Norwegian losses remained heavy at 10.5 per cent. The Dutch suffered, too, owing to the heavy sinkage by U.21.

¹ M.02088/17.

² Comm.(T)'s Diary, H.S. 247/75 and X.5057/1917.

³ U.C.4 laid mines off Aldeburgh on February 28 but her speed being not more than 7 knots, if date is correct, she could hardly have been in 3° 47' E., by 8.45 a.m.

(a) MERCHANT SHIP LOSSES (NATIONALITY).

Submarines and Submarines' Mines, February, 1917.

S = Ships. T = Tons gross.

	Channel.		Atlantic.		Bay.		North Sea.		Mediterranean.		Total.	
	S.	T.	S.	T.	S.	T.	S.	T.	S.	T.	S.	T.
British	32	56,595	32	139,210	6	14,114	13	18,502	12	38,729	95	267,150
French	19	12,007	—	—	5	8,941	—	—	3	13,282	27	34,230
Japanese	—	—	—	—	—	—	—	—	1	3,060	1	3,060
Italian	—	—	3	6,068	—	—	1	2,192	26	24,884	30	33,144
Russian	2	1,353	4	6,488	—	—	1	2,194	1	178	8	10,123
Norwegian	9	11,657	11	17,862	8	13,486	4	5,206	1	2,760	33	51,075
Danish	1	1,460	—	—	—	—	2	—	—	—	1	18,460
Swedish	2	3,507	1	2,584	—	—	2	2,942	1	2,903	6	11,936
Dutch	5	6,026	7	32,381	—	—	—	224	—	—	14	38,631
Greek	2	3,018	—	—	2	1,161	—	—	4	11,757	8	15,936
Portuguese	—	—	1	120	—	—	—	—	—	—	1	120
Spanish	—	—	—	—	3	5,544	—	—	—	—	3	5,544
Peruvian	1	1,419	—	—	—	—	—	—	—	—	1	1,419
U.S.A.	1	3,413	—	—	—	—	—	—	1	1,300	2	4,443
	74	100,199	59	204,713	24	43,246	23	31,350	50	98,853	230	478,361

(b) BRITISH MERCHANT SHIP LOSSES.

Submarine and Submarines' Mines.

	Submarines.		Mine.	
	Ships.	Tons.	Ships.	Tons.
November 1916 ..	42	96,672	7	72,137
December 1916 ..	36	109,945	12	20,197
January 1917 ..	35	109,754	7	16,724
February 1917 ..	86	256,390	9	10,760

Losses by submarine had gone up 132 per cent. Losses by mine had decreased 35 per cent.

(c) BRITISH LOSSES (AREAS).

February, 1917, and January, 1917.

	February, 1917.				January, 1917.			
	Submarine.		Mine.		Submarine.		Mine.	
	Ship.	Tons.	Ship.	Tons.	Ship.	Tons.	Ship.	Tons.
North Sea ..	8	11,628	5	6,874	—	—	7	16,724
Channel	21	47,493	3	3,735	9	23,940	—	—
Irish Sea	7	5,216	1	151	—	—	—	—
Atlantic ..	32	139,210	—	—	15	42,648	—	—
Bay	6	14,114	—	—	2	1,593	—	—
Mediterranean	12	38,729	—	—	9	41,573	—	—
	86	256,390	9	10,760	35	109,754	7	16,724

Losses in the North Sea had gone up, but had been balanced by a decrease in losses by mines. In the Channel and Irish Sea losses by submarine had increased 128 per cent. In the Atlantic they had increased 140 per cent. In the Mediterranean they had gone down 8 per cent.

CHAPTER X.

OPERATIONS IN THE NORTH SEA.

MARCH, 1917.

193. **H.M.S. "Pheasant" Sunk off Stromness, March 1.**—At the beginning of March the 15th Destroyer Flotilla, stationed with the Grand Fleet, suffered a perplexing and distressing loss. As part of the defences of Scapa Flow, a patrol, known as the "Hoy Patrol," was maintained off the western entrance, at the northern end of the island of Hoy. It consisted of armed trawlers, and one destroyer drawn from the Grand Fleet Flotillas. The duty of the destroyer when the trawlers were not on watch was to patrol outside the harbour at Stromness, anchoring at night. When the trawlers were patrolling, however, the destroyer remained at anchor. On February 28 1917, the destroyer on duty, the *Pheasant*, of the 15th Flotilla, appears to have been at anchor all day.¹ About 5.15 a.m. the next morning, March 1, she got underway, and in rather less than an hour, was in a position about one mile west of the Old Man of Hoy on the West Coast of the Orkneys (58° 53' N., 3° 28' W.). About 6 a.m. a deck hand in the armed trawler *Grouse*, lying at anchor in Rackwick Bay, saw a heavy explosion about four miles off and reported it to the second hand. The trawler at once got underway and steamed to the position where it was thought the explosion had occurred. A "nasty" swell was running, and nothing unusual was seen.² At 7.10 a.m. two armed trawlers of the 5th Fleet Sweeping Flotilla, the *Loch Kildonan* and *Oropesa* left Hoy Sound to search the Whiten Channel. Between 7.30 and 8 a.m. (March 1) they discovered a mass of floating oil, off the Old Man of Hoy, and at once began to search. About 8.30 a.m. the *Loch Kildonan* picked up the body of Midshipman Cotter, R.N.R., of the *Pheasant*. The corpse showed no signs of injury and the medical opinion held that death had resulted from drowning or long immersion in the water. A wrist-watch found on the body had stopped at 6.10 a.m. A coat, belonging to Lieutenant H. W. E. Hearn, the 1st Lieutenant of the *Pheasant*, was picked up, with one sleeve turned inside out, which indicated that the wearer had had time to slip it off. A lifebuoy marked *Pheasant* and a little wreckage were also found. That was all. The explosion which destroyed the *Pheasant* so quickly and so completely must have been a very violent one, but there was nothing at the time to show what caused it. The position of the disaster was carefully swept, but no mines were found; it was thought at the time that a drifting mine from the *Moewe's* old minefield off Whiten Head might have been responsible

¹ H.S.A. 122/275.² H.S.A. 122/282.

for the accident,¹ but it can now be said that the *Pheasant* was probably sunk by one of four mines laid by *U.80* on January 21 1917.²

194. **Search for Homeward Bound Raider, March 11-14.**—Ten days later, on March 10, the Admiralty informed the Commander-in-Chief that there were indications that an enemy raider homeward bound, might try to pass the blockade line during the next few days.³ Next day, March 11, he was instructed to strengthen the northern patrol as much as possible and to keep a patrol on the Norwegian coast, since the indications of the return of a raider still persisted.⁴ The 1st Light Cruiser Squadron had just returned from a sweep off Utvoer, on the Norwegian Coast, and he at once ordered the 4th Light Cruiser Squadron to proceed and patrol a line 360° from a position 61° N., 4° E.,⁵ the ships being stationed 15 miles apart. At the same time he informed the Commodore (4th Light Cruiser Squadron) that the 2nd Cruiser Squadron was patrolling 360° from a position 61° 45' N., 1° W.,⁶ and that the object of the patrol was to intercept an enemy raider or prize returning homeward.⁷ The squadron proceeded out at 11 p.m. and took up its patrol but saw nothing. By 6 p.m. on the 14th the four destroyers screening it were running short of fuel and were ordered home. The light cruisers then worked in pairs, two to the north and two to the south of the position off Utvoer.

Shortly after midnight (March 14) the Admiralty informed Admiral Beatty that a damaged enemy submarine with both periscopes out of action and unable to submerge completely was in a position 60° 30' N., 1° 29' E.,⁸ and was making for Lyngvig.⁹ The 'standby' destroyer division was immediately hurried off at high speed for a position off the Little Fisher Bank at the entrance to the Skagerrak, and was followed by its leader, the *Kempfenfelt* (11th Flotilla). The submarine was *U.48*, which after torpedoing the British S.S. *East Point* on March 9 off the Start, had collided with her, putting both periscopes out of action and killing the captain and coxswain.¹⁰

195. **British Destroyers Attack "G.12," March 15.**—Further south the 2nd Light Cruiser Squadron and four destroyers were ordered out from Rosyth to support the *Kempfenfelt's* division, and

¹ H.S.A. 122/264 to 326.² O.U. 6020A/field 37, in 58° 53' N., 3° 28' W.³ H.S. 645/148.⁴ H.S. 645/150.⁵ Off Utvoer.⁶ About 50 miles north of the Shetlands.⁷ H.S.A. 225/March 11 and H.S.A. 342/410.⁸ Halfway between Shetlands and Norway.⁹ H.S. 645/156.¹⁰ Intercept 14/3/2002, I.D., vol. 3026. See S.216.

after some delay owing to a breakdown of the telegraph in the *Princess Royal*,¹ sailed at 6.30 a.m. on the 15th for a position in 57° 10' N., 4° 30' E.² At 7.10 a.m. the Admiralty informed the Commander-in-Chief that directionals placed the damaged submarine at 6 a.m. in a position in 58° 40' N., 3° 41' E., that is to say approximately 100 miles N.N.W. of the position given to the 2nd Light Cruiser Squadron. Shortly after noon, when the squadron was still 150 miles short of its rendezvous the *Kempensfelt's* division, *Maenad*, *Noble*, *Mindful* and *Nessus* had arrived in a position 57° 42' N., 5° 52' E.³ when they sighted a submarine on the surface about 5,000 yards off. The submarine challenged, but the destroyers, which by that time had closed to 3,000 yards, not recognising the challenge and thinking she must be German, opened fire, and continued firing for 2½ minutes, closing the range to 1,200 yards. The shooting was excellent and the submarine was plainly seen to be hit before she disappeared. On reaching the spot where she had gone down two depth charges were exploded. The captains of the *Maenad* and *Noble* claimed that beyond doubt the submarine had been sunk, and gave the position as 20 miles S.60 W. from Lister Point.

That evening the Commander-in-Chief informed the Admiralty that the damaged German submarine had been destroyed and was congratulated upon the success of his dispositions.⁴

The sequel was disappointing. About 9 a.m., next day, March 16, the Captain (S) Tees, informed Admiral Beatty that the British Submarine G.12 had reported herself damaged by shell fire, and he was at once ordered to send out the *Medea* to bring her in. Three hours later, at 11.55 a.m., the Admiralty informed the Commander-in-Chief that the German submarine had not been sunk, and asked for details of the action.⁵

It had been G.12 (Lieut.-Commander C. O. Regnarth) who had encountered the British destroyers on March 15. Knowing nothing of the approach of British destroyers, she had been patrolling an area off Jaedarens Point on a course S 70 E., when she had sighted smoke on the horizon; then four destroyers appeared, steering south, crossing from port to starboard; believing them to be friendly and that diving would be interpreted as a hostile act, he remained on the surface, and endeavoured to establish his identity by challenging with her cruiser arc lamp. They approached in line abreast and at 2 p.m. the southernmost destroyer opened fire. When it became clear that the challenge had not been understood, G.12 was forced to dive, but not before she had been hit on the

¹ Flagship of B.C.F. during absence of *Lion* under repair.

² Off entrance to Skagerrak.

³ Approximately 40 miles S.W. of Lister.

⁴ H.S. 389/550.

⁵ H.S.645/160, 173.

bridge by a well aimed shell which knocked out her after periscope and standard, damaged or destroyed her voice-pipes, telegraphs and water jet, and made two holes in the free flooding compartment on the starboard side. She went down at a steep angle of 18° and heard four depth charges exploding near her. The damage, though severe, was fortunately not fatal, and at 5.15 p.m., when she broke surface involuntarily, there was nothing in sight.¹ G.12 was able to return home and report the encounter. The incident was not unique, and afforded a vivid illustration of the risks that submarines had to face, besides emphasising the urgent necessity of keeping vessels informed of one another's whereabouts and for an instantaneous recognition signal between British submarines and surface craft. It supplied, too, a first-hand knowledge of the effects of British shells on the upper works of a submarine.² On the other hand, as U.48 could not have been much more than 30 miles to the Northwest and might possibly have been sighted later G.12's untimely emergence was a distinct misfortune.

In the meanwhile, the 4th Light Cruiser Squadron which had been searching for the homeward bound raider, had been ordered to proceed to a position in 59° N., 3° 48' E.³ and to sweep north to latitude 60°. When the southern pair of light cruisers reached the rendezvous by 10 a.m., the damaged German submarine had not been seen, nor had anything further been heard of the raider,⁴ and the force was recalled.

The Admiralty's information that a German raider was returning was well founded. A week later the *Moewe* returned from her four months' cruise in the Atlantic and Pacific,⁵ and on her way in must have passed through the very positions which the British light cruisers had been watching.

196. **The German Raider "Leopard" sunk, March 16.**—The good fortune which had attended the *Moewe* on her cruise, and which had enabled her to pass twice through the lines of the British blockade, did not attend her successor. The new raider was a British steamer, the *Yarrowdale*, which had been captured by the *Moewe* herself in the North Atlantic, as recently as December 11, 1916.⁶ She, in turn, had run the gauntlet of the blockade and had been brought into Swinemunde on December 30 or 31.⁷ Her arrival had become known to us, and Admiral Tupper, Commanding the 10th Cruiser

¹ M.03959/17. See U.48, S.216.

² Technical details and photographs of the damage will be found in H.S.A. 149/251 ff.

³ Off Utsire.

⁴ H.S. 645/155.

⁵ See Section 1.

⁶ Merchant Shipping (Losses), p. 28.

⁷ Scheer, "High Sea Fleet," 281. N.I.D. 10705/17.