

to "board" and "cut her out." The steamer which turned out to be the German s.s. *Gamma*, 1,433 tons, bound from Emden to Narvik in ballast was then making for the land and about 9.7 a.m. ran ashore off Kvasseim Light.¹ The Captain refused to let the *Marvel's* boat aboard—"we are in Norway not in England"—and Captain Fountaine decided to torpedo her and signalled to her to abandon ship. The Germans had already lowered their boats and were making for the shore. At 9.25 a.m. the *Marvel* fired a torpedo which apparently hit a rock but did not explode; a second missed the ship and ran up the beach; the *Mindful* then joined in with a torpedo which hit the ship aft, and in a concerted attack by all three another torpedo² is said to have hit amidships wrecking her completely.

The *Cambrian* resumed her patrol and the Norwegian Government presented an emphatic protest. A Court of Enquiry held on June 6 at Scapa found that the neutrality of Norway had undoubtedly been infringed but Captain Fountaine's action in disabling the ship was "a proper one from a military point of view."³ The Admiralty considered that a "very regrettable" error of judgment had been made in not firing at the *Gamma* as soon as she refused to stop; an expression of deep regret was conveyed to the Norwegian Government,⁴ and approval was given for the sale of the vessel.

At the end of the year the German Government presented a bill to Norway for 3,406,124 marks (£170,300)⁵ which the Norwegian Government passed on to the British, who replied that the failure of the German Government to provide compensation in cases where their forces had violated neutral waters was a sufficient answer to this or any other claim of the same sort.⁵

138. Norwegian Neutrality Infringed, June 2.—The *Cambrian's* cruise led to a crop of protests. On June 2 out of seven neutral ships stopped at sea (five Norwegian and two Swedish), five entered protests.

At 5.9 a.m. the Norwegian s.s. *Viktorja*, 966 tons, bound from Frederickstadt to London with timber was examined by the *Marvel* and allowed to proceed. The *Marvel* gave the position as 58° 55½' N., 5° 18' E., which is 8½ miles from the mainland and 4½ from the islet of St. Haasten. The Norwegian account however states that the

¹ 58° 33' N., 5° 41' E.

² The reports as to the torpedoes differ. See Sir M. Findlay, June 3, and Norwegian Enquiry, June 4. H.S. 1290/496, 587.

³ H.S. 1290/530. See also H.S.A. 149/409.

⁴ Papers, Norway, 1917, in H.S. 1290/556, 561. It may be noted that the plea of "hot chase" was not mentioned, possibly because no attempt had been made outside territorial waters to enforce the signal to "heave-to."

⁵ German s.s. *Gamma*, letters December 31, 1917–January 5, 1918, in H.S. 1290/602.

vessel was hailed about 10 a.m. by three British destroyers 1 mile from land between Feisten and Kvitingy.¹ The obvious discrepancies between the British and Norwegian accounts point to the assumption that the ship may have been stopped twice that morning, though this suggestion does not figure in any report.

At 11.30 a.m. the Swedish s.s. *Helge*, 1,133 tons, bound from Haugesund to Middlesborough was sighted off Lister Light by the destroyers who were ordered by the *Cambrian* to board her. The steamer ignored the *Marvel's* signal to "stop engines" and it required a blank round and a practice projectile to bring her to. This happened according to the British report 4 miles from shore in the entrance to Lister Fjord. Her papers proved to be in order and she went on her way but the Norwegian Government claimed that she had been stopped in territorial waters and presented a letter of protest.

Four more vessels were stopped during the day; at 12.30 p.m. in 58° 2½' N., 6° 32½' E.² the Swedish s.s. *Ulla*³; at 3.15 p.m. by *Marvel* the Norwegian s.s. *San Remo*, 2,073 tons; then the Norwegian s.s. *Sarpen*, 1,864 tons, and *Mexicano*, 3,694 tons, and lastly the Norwegian s.s. *Praesident Christie*, 611 tons, from Christiania to Flekkerfjord with mails. Protests were made with regard to the *Viktorja*, *Helge*, *Ulla*, *San Remo* and *Praesident Christie*, the Norwegian Government claiming that the latter was only 6 cables off Lister Light when stopped.

The Admiralty ordered an investigation and a scrutiny of the logs and charts led to the conclusion that in the cases of the *Viktorja*, *Helge*, *Ulla* and *Praesident Christie*, an infringement of neutral waters had undoubtedly occurred. The weather conditions (mist and rain squalls) had made it difficult for the *Cambrian* to get an accurate fix, and the Secretary of State was asked by Their Lordships to convey to the Norwegian Government an expression of regret.⁴

Two further sweeps to the Norwegian Coast were carried out on June 11 and June 29, in which definite orders were issued that territorial waters were not to be violated, and both passed without incident.

139. Harwich Force Sinks "S.20," June 5.—Only 18 days after the night action on the Dutch traffic route (May 17) the Harwich Force again encountered the enemy. During May, Admiral Bacon

¹ Feisten, a small island in 58° 49' N., 5° 31' E. (Chart 2281). Kvitingy for Kvittingsøy, 14 miles north of Feisten in entrance to Skudesnes Fjord.

² 3 miles from shore (British report).

³ The only *Ulla* in Lloyd's Register, 1916–17, is Danish.

⁴ Commodore, 4th L.C.S. report in H.S.A. 342/436; M.07668/17 in H.S. 1290/575. The original boarding reports are in 4th L.C.S. Records, H.S.A. 342/422.

had thrice¹ left Dover to bombard Ostend, and thrice had been forced to turn back by fog and bad weather conditions.

At length on June 4 the weather cleared, and the Vice-Admiral seized the opportunity to renew the attack. He required a strong destroyer force in support, and at 2.50 p.m. on June 4 the Admiralty informed Commodore Tyrwhitt that the Dover monitors would be operating from about Lat. 51° 25' N., Long. 2° 43' E.,² and ordered him to send the usual supporting force.

Early, therefore, next morning (June 5) Commodore Tyrwhitt in the *Centaur* was in 51° 36' N., 2° 51' E., some 20 miles due north of Ostend, steaming south-west at 15 knots. With him were the *Canterbury*, *Conquest*, *Concord* and *Lightfoot*, and eight destroyers, a mile ahead.

At 2.27 a.m. the *Lightfoot* (Commander W. de M. Egerton) sighted two destroyers to the S.S.W. steaming west at high speed. They were close to the expected position of the Dover Force, but his challenge made at 2.33 a.m. remained unanswered, and two minutes later all doubts were solved by a series of rapid salvos which were instantly returned.

The British force, turning west and increasing to 20 knots, opened fire, and about 2.38 a.m. scored a hit. At 2.42 a.m. Commodore Tyrwhitt turned south to cut the enemy off, but they too turned to the southward and the Commodore, turning back to south-west, ordered the *Taurus* (Commander J. C. Hodgson, D.S.O.) and her division³ to chase. The *Taurus*, making to the southward, ran past the German smoke screen at 2.48 a.m., and passing a badly damaged destroyer 3 miles off, engaged another at 5,000 yards.

At 2.50 a.m. a shot from the light cruisers hit S.20 in the boiler room. The *Satyr* and *Torrent* closed to within 2,000 yards hitting her again and again, and blowing up the bridge. She sank at 3.15 a.m. The *Torrent* with the *Taurus* and *Sharpshooter* had gone in pursuit of another destroyer damaged and on fire. By that time four more German destroyers had come in sight. The *Sharpshooter* chasing south-east closed to 3,800 yards; the shore batteries were ranging on her, and at 3.10 a.m. a torpedo missed her astern. A mirage to the south-east had given the Commodore a chance view of the coast, and at 2.57 a.m. he recalled the *Taurus* and her division lest in the ardour of their chase they might come under fire of the forts, whose shots were already falling round the *Satyr* as she stopped

¹ May 13-14, 26-27, 28-29. For the Dover movements see Vice-Admiral Dover's report in H.S. 1288/563. Also Dover Monograph, O.U. 5413 (D), p. 44. Vice-Admiral Sir Reginald Bacon's flag was flying in H.M.S. *Terror* (Captain C. W. Bruton, R.N.).

² Approximately 13½' N.N.W. of Ostend.

³ *Taurus*, *Sharpshooter*, *Satyr*, *Torrent*.

to pick up seven German survivors with aircraft swooping overhead. The *Lightfoot* made the recall and the destroyers turned to rejoin the Commodore. He had every reason to be satisfied; S.20 (Lieut.-Commander Erich Giese) had been sunk and S.24 and V.47 severely damaged.¹ At 3.20 a.m. Admiral Bacon's monitors opened their bombardment.

139A. Admiral Bacon's Bombardment of Ostend,² June 5.—Meanwhile, Admiral Bacon had left Dover with his two 15-in. monitors, the *Terror* (Captain C. W. Bruton, flying the flag of Vice-Admiral Sir Reginald Bacon), and the *Erebus* (Captain C. S. Wills). They were escorted by eight destroyers³ of the 6th Flotilla and two P-boats. With them were 12 motor launches under Commander Ion Hamilton Benn, M.P., R.N.V.R., with Captain Colin Maclean, R.N., in charge of the smoke screen arrangements, and two De Havilland aircraft to assist in spotting, each escorted by a fighting De Havilland.

The force started from Dover at 10 p.m. and steered for No. 2 Buoy (on the Outer Ratel). Reaching this at 1.20 a.m., course was altered to 10°. They had just missed an encounter with the enemy, for at 1.42 a.m. came a message from the *Lochinvar* reporting a flotilla of enemy destroyers off the Outer Ratel. At 2.36 a.m. firing was heard and seen before the beam; it was evident that Commodore (T) was engaging the enemy destroyers, and at 2.47 came a message from him to say he was chasing them on a southerly course.⁴ Admiral Bacon at once detached his destroyers to assist, but the enemy were too near the shore to permit them to do more than engage at long range. The appearance of the enemy prevented the *Lochinvar* and *Lance* carrying out their task of running a course and distance to the firing buoy, so that ships had to be anchored merely by their dead reckoning from No. 2 Buoy, P.11, the aiming mark boat having been previously despatched to its anchorage. At 3.3 a.m., the smoke screen was started with the shore just visible and was very sluggish in spreading. Fire was opened at 3.20 a.m.; it was quickly answered by the *Tirpitz* battery, followed by *Hindenburg* and two guns of *Breedene*, the direction of the German firing being good.

¹ Reports and Track Chart in M.06883/17 in H.S. 1288/604. Commander Hubert H. de Burgh (*Satyr*) and Lieut.-Commander E. K. Boddam Whetham (*Sharpshooter*) awarded D.S.O. During the chase the helms of the *Satyr* and *Torrent* had jammed frequently when at full speed. H.S. 1288/619.

² Admiral Bacon's report, M.01739/17, in H.S. 1288/563; see also Dover Monograph, O.U. 5413 (D), p. 45; Admiral Bacon's Orders (16 May) in H.S. 1288/569.

³ *Botha* (Commander Graham Edwards), *Faulknor* (Commander Henry G. L. Oliphant), *Lochinvar* (Commander William D. Irvin), *Manly* (Commander Robert Hammond-Chambers), *Mentor*, *Moorsom*, *Miranda*, *Lance*, P.11, P.50.

⁴ See S.139.

The Germans started a smoke screen ashore and at 3.40 a.m., as this was obscuring the spotting, after 115 rounds had been fired, ships ceased firing and returned to Dover without mishap. A photograph taken the next day showed some 20 shell hits on the dockyard, which must have severely handicapped work of refit and repair. Their Lordships expressed to the Vice-Admiral their appreciation of his plan, and the care and thoroughness of his organisation.¹

140. The "Avenger" Torpedoed, June 14.—Nine days later the 10th Cruiser Squadron suffered a heavy loss. Early on June 14 the armed merchant cruiser *Avenger*, Commander Arthur L. Ashby, was returning from patrol to refuel at Scapa Flow, with orders to rendezvous at 3 a.m. in Latitude 60° N., Longitude 4° W., with the destroyers *Noble* and *Nessus*. She was steaming at 16 knots in wide zig-zags along a mean course of S. 26° W., and at 2 a.m. had turned to that course; the weather was fine with a light south-west breeze, overcast sky and slight sea; it was in that latitude at that hour almost broad daylight, with a visibility of 6 or 7 miles.

At 2.3 a.m., the ship was in Latitude 60° 20' N., Longitude 3° 58' W.,² when a torpedo was seen approaching. It struck her on the port beam bursting the auxiliary steam pipe. The helm was immediately put hard a-port, but the ship rapidly lost way and stopped, as the pressure in her boilers fell. All her pumps were out of action, and as nothing could be done to save her, Commander Ashby at 2.30 a.m. ordered her to be abandoned, remaining on board himself with a few officers and men. At 3.20 a.m., the motor boat, lying off the port side, reported the periscopes of a submarine coming up 200 yards astern. Five or six rounds of 3-pdr. were fired at them and the submarine disappeared, not to be seen again by the *Avenger*. We now know that the submarine was *U.69*, Kaptlt. Wilhelms, and that she was herself sunk less than a month later.³

At 4 a.m., the destroyers *Noble* and *Nessus* arrived and picked up the survivors.

At 5.30 a.m., the *Noble* sighted a periscope about a mile on the *Avenger's* port beam, and both destroyers dropped depth charges, but nothing further was seen of the enemy.

The wind had been gradually rising, and was blowing on the starboard side of the ship, which by 7.30 a.m., had an increasing list to port and was down by the stern. The water was gradually rising

¹ The following received D.S.O.s: Captain Charles S. Wills, of H.M.S. *Erebus*; Captain Colin Maclean, of H.M.S. *Attentive*; Commander John S. G. Fraser; Commander Ion Hamilton Benn, R.N.V.R.; Lieut.-Commander Evan Bruce-Gardyne, of H.M.S. *Terror*.

² i.e., 10 miles ahead of position in report, H.S. 1275/560.

³ Historical Exchange, Marine-Archiv, 12.11.29, H.S./Q.10.

in her holds and Commander Ashby decided to abandon her, and at 8.30 a.m. went on board the *Noble* just as the *Relentless* and three more destroyers arrived on the scene. At 10.50 a.m., seeing that the *Avenger* was settling, Commander Ashby returned to Swarbacks Minn with the *Noble* and *Nessus*, while the *Relentless* remained behind and saw her sink at 12.25 a.m.¹

The loss of the *Avenger* concentrated attention on the 10th Cruiser Squadron. The advent of unrestricted submarine warfare had led to the organisation of examination services overseas at Kingston, Halifax and Sierra Leone, and with the entry of America into the war, the *raison d'être* of the "blockade" had begun to lapse, for the stoppage on goods was being enforced on the quays before they got as far as shipment. On June 27, a conference² was held on the work of the 10th Cruiser Squadron, and it was decided by the Admiralty to detach eight of its ships³ for convoy work. This was the beginning, of the end of the 10th Cruiser Squadron. The *Avenger* was quickly avenged. A German airship was shot down in the south the very morning of her loss.⁴

141. Airship Raids, January–June, 1917.—During the first half of 1917, four airship attacks were made over the eastern counties of England. The first, February 16–17, was by one airship only, "L.Z.107." After raiding Calais she crossed the English coast near Deal about 2 a.m. on the 17th, but dropped no bombs, and sustained no attack. The next raid, of a more determined character, was carried out exactly a month later. On the night of March 16, four of the most recent naval airships, "L.35," "L.39," "L.40" and "L.41" rose to attack England. A fifth, "L.42," also went up, but made no attempt to cross the English coast, and after cruising for two hours near Zeebrugge, made for home. The other four flew for a while over Kent and Sussex, dropped 46 H.E. and 33 incendiary bombs, with no casualties, and a total damage estimated at only £162 7s. 6d. On her way home "L.39" crossed the Channel, and at 5.30 a.m. was stationary over Compiègne; there she was bombarded for 15 minutes by three batteries of French anti-aircraft guns, and at 5.55 a.m. fell in flames from a height stated to be over 10,000 ft., certainly visible to a large sector of the German line, only 8 miles away. With her, her Commander, Kapt.-Leutnant Koch and the whole of his crew, perished.

More than two months elapsed before German airships again raided the eastern counties. Then, on the night of May 23–24,

¹ N.L. 5333/17 in H.S. 1275/486.

² Apparently at Scapa. Adm. Tel. 24.6.17, H.S. 463/1401.

³ *Andes*, *Almanzora*, *Arlanza*, *Virginian*, *Victorian*, *Kildonan Castle*, *Armada Castle*, *Columbella*, Grand Fleet Records, H.S.A. 112/208.

⁴ See S.142.

four or five of them flew over East Anglia dropping some 75 bombs, killing one man, but doing little material damage. On this occasion all the raiding airships reached home safely, though one of them, "L.43," fell a victim to one of our seaplanes in the North Sea shortly afterwards.

142. The Destruction of "L.43," 14 June.—The destruction of "L.43" was the result of a fine piece of work on the part of two flight sub-lieutenants. At 4.15 a.m. June 14, Flight Sub-Lieutenants B. D. Hobbs and R. F. L. Dickey, Wireless Operator H. M. Davis and A. W. Goody left Felixstowe in a large America flying boat No. 8677 for one of the long-distance Anti-Zeppelin patrols off the Dutch Frisian Islands.

Shortly after 8.30 a.m. that morning they were on their way home off Vlieland when they sighted a Zeppelin with the number "L.43" on her bow and stern, some five miles off, flying temptingly low at about 1,500 ft. Flight Sub-Lieutenant Hobbs was at the controls and opening out his engine to full speed, rose rapidly from 500 to 2,000 ft., and at 100 knots dived for the tail of the yet unsuspecting airship. The midship gun, manned by the wireless operator, Davis, opened fire as the machine passed diagonally from starboard to port over the airship's tail. Dickey, too, fired the bow guns. The two bursts of fire were enough. The airship burst into flames and fell rapidly. Three men dropped or fell off her and the wreckage burnt for some time on the water. Her loss must have been a sad blow to the Germans, but it did not prevent them from again raiding the eastern counties only two days later.¹

143. The Destruction of "L.48," June 16.—On the afternoon of June 16, the airships "L.41," "L.42," "L.44" and "L.48" left their sheds to attack England. In view of the short hours of darkness it is curious that the Germans should have considered a raid worth while at this period of the year. As it was, only two of the airships crossed the coast. The first, "L.42," visited Ramsgate where two men and one woman were killed, and the second, "L.48," Kapt.-Leutnant Eichler, flagship of the raiding squadron, with Korvetten-Kapitan Victor Schuetze, Commodore of the North Sea Airship Division, on board, crossed the coast just south of Orfordness about 2 o'clock. At 2.42 a.m. she was just north of Kirton when fire was opened on her from the defences at Harwich. About this time she dropped some twelve bombs, doing little damage beyond blowing the tiles off a barn. The Harwich guns continued to fire at her until 3.17 a.m. when she passed out of sight north of the river Deben, and at 3.20 a.m. was reported in the neighbourhood of Orford. Eight minutes later she was brought down in flames

¹ M.07369/17.

by an aeroplane of the 37th Squadron, Home Defence Group,¹ and fell in a field at Holly Tree Farm, near Theberton, north-east of Saxmundham. She came down more slowly than any of the previous airships, her fall taking about four minutes. The envelope was stripped off by the flames and blew away, a blazing mass above the heavier structure of the airship, giving rise to a statement that she broke in two. To the comparatively slow fall two survivors owed their lives. She struck the ground stern first, smashing the whole after part and killing the occupants of her rear gondola. The front gondola was badly damaged, but Lieutenant Mieth one of its occupants, though terribly injured, survived, and was rescued from the burning wreck by a local policeman; Eichler and four of his crew jumped for their lives, but were killed outright; Commodore Schuetze was burnt to death; Maschinistenmaat Ücker, who was in the port gondola, was rescued severely injured, but Maschinistenmaat Elleramm, who was in the starboard gondola, reached the ground absolutely unhurt, and was standing by the wreck when arrested by a petty officer of the Royal Navy and a local constable, while the gondola remained high in the air, almost undamaged. Both side gondolas seem to have been slung higher than was the case in other German airships.²

143A. C.M.B. Action off Ostend, June 19.—Early on the morning of June 19, an aerial engagement took place off the Belgian Coast and one German and two British seaplanes were brought down.³ At 7.30 a.m. the Commodore at Dunkirk was requested to send *M.L.123* to a position 10 miles N.N.E. of Nieupoort to salve the three seaplanes. He considered, however, a motor launch too slow for such an operation and being low water he was unable to use his only destroyer, the *Greyhound*. He therefore decided to launch two C.M.Bs. which were on land, and to send them out in the hope that they would at least be able to pick up the pilots.

At 7.45 a.m., therefore *C.M.B.9*, Lieutenant A. Dayrell Reed, R.N.R., and *C.M.B.1*, Acting-Lieutenant W. S. Green, left Dunkirk but shortly afterwards *C.M.B.9* came to a stop with engine defects and *C.M.B.1* went on alone. By 8.10 a.m., *C.M.B.9* was able to proceed and made for the Zuidcoote Pass at 20 knots. By 8.45 a.m., the Middlekerke Buoy was on the starboard bow when four destroyers appeared on the port beam and five minutes later opened a very accurate fire, whereupon *C.M.B.9* altered course southward in an attempt to draw them over the minefield. They would not follow and Lieutenant Reed, changing his tactics, altered course towards them and at a range of 2,000 yards let go a torpedo which missed. He could

¹ Pilot Second Lieutenant L. P. Watkins, Canadian Army.

² Air Raids, 1917 (1), and M.07736/17. Captain Joseph Morris, "German Air Raids on Great Britain" p. 166.

³ H.S. 462/998.

do no more and at 10.5 a.m. entered Dunkirk after reporting to the *Greyhound* which he met near the Whistle Buoy on his way in.

In the meantime, *C.M.B.1* had come to grief. She had been heavily attacked by eight seaplanes¹ and was endeavouring to avoid them when five destroyers appeared out of the mist and, opening fire, hit her engine, putting it out of action. Lieutenant Green and his Second-in-Command, Lieutenant G. S. N. Johnson, were taken prisoner, but the mechanic had a leg blown off and died of wounds.²

This operation convinced Admiral Bacon that the British were so hopelessly inferior in seaplanes both in numbers and design, that he gave orders that none were to be flown near the hostile coast, thus having to abandon control of the air over the sea to the Germans³ at a time when a number of important conferences were taking place with a view to taking more offensive operations against them.

144. Policy and Conferences, June 1917.—June was another month of important conferences.

The First Lord arrived in Edinburgh on June 9 to meet the Commander-in-Chief. The question of instituting an "offensive" section of the Naval Staff⁴ was discussed, but it was found difficult to spare the officers required by the First Lord, and the Commander-in-Chief proposed instead a Committee of three or four officers in the Grand Fleet. The entry of America into the War, the Anti-Submarine Campaign, the new Convoy System and the reorganisation of the Naval Staff, were the principal subjects discussed by the Commander-in-Chief and Vice-Admiral Sir Henry Oliver, the Deputy Chief of the Naval Staff, when the latter visited the *Queen Elizabeth* at Rosyth on June 11.⁵

The Commander-in-Chief favoured the use of submarines as an antidote to submarines and wanted their construction accelerated. With the same end in view, he wished to transfer six "G" class submarines from Blyth to Scapa, and asked for some of Admiral Startin's "Q" ships at Granton to be sent north to co-operate with them. Admiral Oliver pointed out the necessity of a sufficiency of modern submarines on the East Coast to oppose raids, and it was decided to send only three of the "C" class to work off Fair Isle and Kirkwall.

The Commander-in-Chief was emphatic, too, on the desirability of making full use of the valuable directional reports and asked for

¹ No time or position given in report in H.S.A. 301/578.

² H.S.A. 301/570-580.

³ H.S. 462/951.

⁴ See Admiral Oliver's memorandum in H.S. 1374/397. No notes on the conference have been seen. Captain A. D. P. R. Pound and Commander Kenneth Dewar were appointed to this section in July, 1917.

⁵ Memorandum of Conference with Commander-in-Chief, at Rosyth, on 11.6.17 (in Admiral Oliver's writing), in H.S. 1374/576. Notes on Agenda in H.S.A. 141/177.

appreciations and forecasts of submarine activity to be sent to him regularly by the Naval Staff.

He asked, too, for a full account of the new Convoy System and for information as to the effect on the Blockade of America's entry into the war, and its influence on the work of the 10th Cruiser Squadron. Would the retention of the squadron in the same strength and in the same positions meet the new conditions?¹

Then there was the mining of Heligoland Bight; this was proceeding as fast as the mines could be supplied. The delivery of the H.2 mines was about to begin, though they would not be available for service in large quantities until after trial. The output should be 2,000 by end of July, 5,000 in August, and 10,000 in September.²

The still bigger question of moving the fleet south was also discussed. Rosyth would be ready for the whole Grand Fleet by the middle of July,³ with accommodation for 30 large ships, exclusive of the Battle Cruiser Force. It was the Commander-in-Chief's view that "the battlefleet *must* be kept together." Rosyth should be regarded as a temporary base to be used in the event of any operations off the Belgian coast which might draw the German Fleet out, while Scapa should remain the permanent base.

A point specially emphasised by the Commander-in-Chief was the necessity of closer touch and constant interchange of opinion between himself and the War Staff. This particular point he stressed both to the First Lord and to Admiral Oliver, and to facilitate it wished to be regarded as a member of the War Staff⁴ and asked for monthly visits to be arranged between the Naval Staff and Fleet. The outcome of the Commander-in-Chief's request was a forecast of submarine activity sent on June 12⁵ anticipating that between June 15 and 24 a considerable number of enemy submarines would be passing north about homeward bound. The Commander-in-Chief thereupon issued the next day (June 13) orders for a large anti-submarine operation which engaged for nine whole days the services of one-half⁶ of the destroyer strength of the Grand Fleet, and just failed to achieve success.⁷

¹ A conference on the work of the 10th Cruiser Squadron was held at the Admiralty on June 27, attended by Vice-Admiral Sir Reginald Tupper.

² Conference with Third Sea Lord, June 16, 1917. H.S.A. 141/182.

³ The Battle Squadrons sailed from Scapa for Rosyth on July 16.

⁴ The Commander-in-Chief's point apparently was that sections of the Naval Staff would be more communicative if the Commander-in-Chief was himself a member of the Naval Staff. Admiral Oliver thought it might be of use "when the War Cabinet criticise the Admiralty." See note, H.S. 1374/398. See also *Queen Elizabeth*, June 22, 1917, in H.S.A. 141/185.

⁵ June 12, 1917. Special telegrams, H.S. 645/301.

⁶ Grand Fleet destroyer strength, June 15 = 105. Leaders, 9; destroyers, 96. Subtract 18 (repairs, 8; detached, 10), leaving 87. Employed in BB Operation (June 15-24), 53 = 56 per cent.

⁷ See Chapter XI, Measures, BB Operation.

The Prime Minister was in Scotland towards the end of the month and expressed an urgent desire to see the Commander-in-Chief and Admiral Pakenham. Mr. Churchill was with him and the subject under discussion was apparently the possibility of more offensive operations in the Bight on the part of the fleet, which the First Sea Lord was not inclined to favour.¹

The oil fuel situation was very serious, and on June 26 the Admiralty sent the Commander-in-Chief a "most secret" telegram to say that latest information disclosed a most critical situation in regard to oil fuel stocks. "It is incumbent to exercise the most rigid economy."

145. **The King's Visit to Scapa, June 21-25.**—His Majesty the King made a four day visit to the Fleet at the end of the month. He was met at Thurso by Admiral Sir Frederic Brock, Admiral Commanding Orkneys and Shetlands, and crossed to Scapa Flow in H.M.S. *Castor*, arriving on June 21 at 5.10 p.m.

His Majesty made his stay on board H.M.S. *Queen Elizabeth*, witnessing full calibre firing from her on June 22.

During his stay, His Majesty visited and inspected a number of ships and establishments, including the *Hercules* (4th Battle Squadron), the *Revenge* (1st Battle Squadron), the *King George V* (2nd Battle Squadron), the *Barham* (5th Battle Squadron), the 4th Light Cruiser Squadron, the Fleet Sweeping Flotillas, and the Hospital Ship *Plassy*, the Y.M.C.A. hut, the golf links and arrangements for recreation ashore. On June 23, at 11.40 a.m., His Majesty held an Investiture on board H.M.S. *Queen Elizabeth*, where a number of orders and decorations were conferred, including the G.C.B. on Admiral Sir David Beatty, the K.C.M.G. on Admirals Sir Charles Madden and Sir F. C. Doveton Sturdee, and the K.C.B. on Rear-Admiral Hugh Evan Thomas. On June 24, Sunday, His Majesty attended Divine Service and left the next day, June 25.

His Majesty sent the following message to the Commander-in-Chief:—

"I wish to congratulate you and the Grand Fleet on the high standard of preparedness I found on coming among you. Never has the British Navy stood higher in the estimation of friend or foe. You can assure all ranks and ratings under your command that their brothers throughout the Empire rely upon them with pride and confidence to defend our shores and commerce. I thank you for the patient endurance that keeps the British Navy ever ready to enhance the glories of its historic

¹ See Telegram, 1st S.L. to Commander-in-Chief, H.S. 465/710; also H.S.A. 41, Grand Fleet, In Telegrams, June 29.

tradition and which secures to us and our Allies the ocean highways of the world. May God's Blessing rest upon all and upon your work."

The following reply was sent to His Majesty by the Commander-in-Chief:—

"The Grand Fleet thanks Your Majesty for your gracious message. Your Majesty's stay among us has afforded an opportunity of giving expression to our unswerving loyalty and devotion to your person. We are proud of the confidence which Your Majesty reposes in us, more especially as it is a confidence based upon intimate knowledge of the Fleet and those who man it."¹

146. **British Minelaying, Heligoland Bight, June.**—Minelaying in the Bight, which was to become one of the major measures of British naval strategy, made little progress in June, when as a consequence of the shortage of mines and the short summer nights, only five minefields of 490 mines were laid—two by surface craft, three by submarines.

The first field of the month, consisting of 20 "S" mines, was laid on June 1 by *E.45* (Lieut.-Commander Geoffrey R. S. Watkins) about 18 miles south-west of Lynvig Light.² *E.45* was sighted while laying them, and attacked by aircraft and patrol vessels, who dropped several depth charges round her, fortunately without damage. Nothing is known of the history of this field.

The next field (Field 113), consisting of 115 B.E. and 80 service mines, was laid in the night of June 13-14, round about 54° 30' N., 5° 5' E., some 70 miles north of Terschelling. The *Abdiel*, *Royalist* and *Tarpon* left Rosyth at 6 a.m. on June 13, with four destroyers as a submarine screen and two light cruisers and three destroyers as a supporting force, 5 miles in rear. Off the Dogger Bank at 10.35 p.m., the *Abdiel*, going 20 knots, suddenly sighted a vessel ahead, and mistaking it for surface craft, altered course. It was actually *E.42* (Lieut.-Commander J. G. Bower) out on patrol which narrowly escaped being cut in half. The mines were laid without sighting anything except a Zeppelin, which followed them for about an hour. Nothing seems to have been lost in this field which was not discovered till February 4, 1918. No attempt appears to have been made to clear it, but a channel swept in its vicinity probably just touched its northern edge.

¹ The Orders for the Visit of His Majesty the King are in Grand Fleet Orders and Memoranda (Various), H.S.A. 225, June 19, 1917. The Royal Standard was not to be flown. No guards were to be mounted. For Investiture see *Idem*, p. 6. For His Majesty's message see *Idem*, June 26, 1917.

² Field No. 19 (Lockhart Leith) in about 55° 55' N., 7° 35' E. H.S.A. 276/661.

The same morning, June 14, *E.46* (Lieutenant H. G. Higgins) laid a field¹ of 20 "S" mines 3 miles north of Normands Dyb (off Horns Reef) round about 55° 37' N., 7° 49' E. This field was not discovered until September 12, 1917, when sweepers picked it up and probably cleared it.

On June 23, the *Abdiel*, *Royalist* and *Blanche* were out again, and at 11.30 p.m. laid a field (Field No. 37) of 155 B.E. and 80 service mines about 32 miles west of Horns Reef Light.²

This field was not discovered till August 9, 1918, and probably remained undisturbed till after the Armistice.

The last field (Field 218), laid in June, consisted of 20 "S" mines, dropped by *E.41* (Lieutenant Norman Holbrook) at 7.30 a.m. on June 27, 3 miles north of the western end of Terschelling, in about 53° 26' N., 5° 8' E. The operation passed without incident. At 9.10 a.m., off Vlieland, on her way home,³ *E.41* torpedoed the German s.s. *Westphalia*, 929 tons, on its way from Rotterdam to Copenhagen,⁴ under escort of two patrol vessels. She was chased by the latter, and to escape had to dive close to the minefield laid by the *Princess Margaret* on May 20. *E.41*'s minefield soon found a victim. On June 28, at 8.40 a.m., an outpost vessel, the *Sonnin*, came to grief in it,⁵ and at 3.45 p.m. a minesweeper, *M.63*, struck another mine and sank.⁶ Sweepers were busy in the vicinity in July, and on July 25 the area was reported clear, though on March 30, 1918, mines were again sighted in the same position, though no fresh ones had been laid.⁷

¹ Field No. 50.

² British Minelaying Operations, May to December 1917. H.S. 839/277.

³ In 53° 24' N., 5° 1' E. Report in H.S.A. 274/77.

⁴ H.S./Q.58 (1).

⁵ In 53° 25' N., 5° 7' E. I.D. Vol. 3029, June 28/0910.

⁶ I.D. Vol. 3029, 28/1545. Longitude given is 5° 20' 4" E. This should evidently be 5° 2' 4" E.

⁷ Lockhart Leith, History of Minelaying, pp. 235-240.

CHAPTER X.

SUBMARINE WARFARE, JUNE 1917.

147. **Statistics, June 1917.**—The figures for June were not too promising. True, they were not so bad as April, but they were some 15 per cent. higher than those of May. In the different areas the total gross tonnage sunk of merchant shipping and fishing vessels, Allied and neutral, was as follows:—

Tonnage Sunk by Submarines, June 1917.

| Area. | Ships. | Tonnage. | Per-centage. | May. | Increase or Decrease. |
|--|---------|----------|--------------|---------|-----------------------|
| South-West and West, and Atlantic. | 90 | 296,838 | 46.5 | 201,180 | +47% |
| Channel, Channel Approach, Irish Sea, Bay. | 85 | 172,181 | 27 | 163,039 | + 5% |
| Mediterranean | 76 | 110,188 | 17 | 151,687 | -27% |
| North Sea | 33 | 38,155 | 6 | 33,340 | +15% |
| Arctic | 7 | 13,425 | 2 | 1,751 | — |
| Baltic | 7 | 4,691 | .7 | 1,788 | — |
| | 298 (b) | 635,478 | — | 552,785 | +15% |

In the south-west and west the sinkings had risen 47 per cent. ; in the Channel, Channel Approach and Bay they had risen 5 per cent. ; in the Channel proper¹ there had been a heavy fall. Only in the Mediterranean was there any marked reduction ; there the sinkings had gone down by 27 per cent. ; in April they had been 32 per cent. of the whole ; by May this figure had fallen to 27 per cent. ; in June they amounted to only 17 per cent. This drop in the Mediterranean sinkage was probably the outcome of the Corfu Conference of April 27,² which had made the following proposals : (1) to adopt the principle of navigation by night wherever possible ;

(a) Does not include tonnage sunk by mines laid by submarines, viz., 13 ships, 34,233 tons.

(b) Statistical Review (1918) gives sunk by submarines, 272 ; 631,895 tons. The discrepancy in numbers probably arises from fishing vessels being described as sailing vessels. In addition to the above, there were sunk 21 fishing vessels of 1,342 tons, viz., in South-West and West, 3—497 tons ; Channel, 5—182 tons ; North Sea, 13—663 tons.

¹ Dover to Scillies as far as Long. 6° 30' W.

² For papers on the Corfu Conference under Vice-Admiral Gauchet and Vice-Admiral Thursby, see H.S.A. 376/77 ; H.S. 1421.

(2) to increase the number of day ports of refuge (ports de garage); (3) to utilise coastal navigation whenever possible; (4) to continue to patrol coastal routes and narrow channels; (5) to abolish fixed routes and to adopt convoy escorts and dispersed routes on non-coastal routes. It had also recommended that shipping bound from the Atlantic to ports east of Aden should proceed by the Cape of Good Hope, and that a "Direction Générale" of Mediterranean Maritime Routes be set up at Malta. The measures subsequently taken seem to have been effective, for the number of British ships sunk in the Mediterranean, except for a set-back in August, fell steadily up to October 1917.¹

The figures for High Sea Fleet submarines working to the westward in June 1917 were as follows:—

H.S.F. Submarines to Westward, June.

| | June. | May. | Increase in June. per cent. |
|----------------------------|---------|---------|-----------------------------------|
| Submarines to westward .. | 43 | 37 | +16 |
| Submarine cruising days .. | 664 | 411 | +62 |
| Tonnage sunk | 297,335 | 201,180 | +47 |
| Tons per submarine-day .. | 445 | 490 | -10 |

The big increase in sinkings in the southwest and west may be attributed therefore in part to an increase in the number of cruises, which numbered 43 in June as compared with 37 in May, though the figure of tons per day per submarine showed a slight decrease.

In the Channel and adjacent areas in June 1917, the figures were:—

| | June. | May. | per cent. |
|---------------------------|---------|---------|-----------|
| Submarine cruises | 22 | 29 | -24 |
| Submarine days out | 204 | 280 | -28 |
| Tonnage sunk | 172,181 | 163,039 | +5 |
| Tons per submarine-day .. | 845 | 580 | +47 |

Here the submarines were evidently able to compensate by increased activity for a drop in the cruising days.

In the Channel proper, however, namely the area between Dover and the Scillies, bounded by 6° 30' W., a big drop took place—viz., from 87,131 tons to 28,739 tons—which may be attributed partly to the heavy losses suffered by German submarines in that area in May² (or early in June), and partly perhaps to the increasing efficiency of the French coal trade convoys.

¹ British ships sunk: April, 32; May, 25; June, 17; July, 8; August, 13; September, 7.

² U.B. 39, U.C. 26, U.B. 36, U.C. 36, U.C. 66—all failed to return.

Tonnage Sunk, Channel and Adjacent Areas.

| Area. | June. | | May. | |
|----------------------------|--------|----------|--------|----------|
| | Ships. | Tonnage. | Ships. | Tonnage. |
| Channel (a) | 30 | 28,739 | 50 | 87,131 |
| Channel Approach (b) | 18 | 64,303 | 1 | 3,754 |
| Ireland, South | 6 | 9,908 | 2 | 5,551 |
| Irish Sea | 1 | 572 | 15 | 11,252 |
| Bristol Channel | 0 | — | 1 | 593 |
| Bay of Biscay | 30 | 68,659 | 34 | 54,778 |
| | 85 | 172,181 | 103 | 163,039 |

As an offset, however, to this improvement there had been a corresponding rise in the losses in the Channel Approach (Approach Route A), particularly in the area about 150 miles west of Ushant where no fewer than 15 submarines¹ were operating at different times during the month. In the Irish Sea since U.C. 65 had gone home, only one small ship had been lost. The tonnage lost in the Bay had increased by 25 per cent. and in the North Sea by 15 per cent. In Home Waters only two British ships (5,904 tons) were lost by mines.

148. **High Sea Fleet Submarines.**—The following High Sea Fleet submarines were operating in June:—

Ireland, North, and Scotland, West:

U. 87, 20/5-9/6 (and Channel Approach);
U. 75, 23/5-19/6; U. 78, 29/5-22/6;
U. 79, 6/6-3/7; U. 93, 18/6-13/7.

Ireland, South:

U. 57, 7/5-4/6; U.C. 50, 14/5-6/6;
U.C. 55, 19/5-9/6; U. 88, 22/5-9/6;
U.C. 45, 22/5-10/6; U.C. 41, 26/5-15/6;
U. 55, 31/5-26/6; U.C. 75, 4/6-23/6;
U. 61, 7/6-25/6; U.C. 42, 7/6-28/6;
U.C. 51, 10/6-30/6; U.C. 31, 20/6-10/7;
U. 88, 25/6-19/7; U. 57, 28/6-22/7.

(a) Dover to Scillies (longitude 6° 30' W.).

(b) South of 50° N., from 6° 30' W. to 10° W.

¹ U. 87 (2nd), U. 96 (9th), U. 70 (10th to 13th), U. 24, U. 54, U. 82 (14th), U. B. 31, U. C. 71, U. 60 (19th), U. 50 (20th), U. C. 17 (21st-24th), U. C. 65, U. 53, U. 62, U. 84 (29th).

Ireland, South-West :

U.54, 22/5-23/6 ; *U.C.29*, 26/5-7/6 (sunk) ;
U.96, 29/5-20/6 ; *U.50*, 2/6-2/7 (and Bay) ;
U.82, 3/6-24/6 (and Channel Approach) ;
U.62, 12/6-4/7 (and Ireland, West) ; *U.53*, 18/6-13/7 ;
U.C.44, 23/6-9/7 ; *U.45*, 26/6-29/7 ;
U.49, 27/6-23/7 (and Ireland, West).

Ireland, West :

U.43, 29/5-28/6 ; *U.95*, 29/5-18/6 ;
U.94, 5/6-2/7 (and South-West).

Channel Approach :

U.86, 15/5-9/6 ; *U.66*, 23/5-16/6 (and South-West) ;
U.69, 24/5-17/6 (and Ireland, West) ;
U.70, 28/5-22/6 ; *U.60*, 7/6-3/7 (and Ireland, North) ;
U.84, 17/6-15/7 (and Bay).

Atlantic :

U.155, 23/5-5/9.

North Sea :

U.C.77, 27/5-9/6 (Scotland, East) ;
U.B.21, 29/5-12/6 (England, North-East) ;
U.80, 23/6-10/7 (Shetlands, West) ;
U.C.33, 24/6-8/7 (Shetlands) ;
U.99, 12/6 (sunk) (Lerwick to Bergen) ;¹
U.19, 14/6-4/7 (Lerwick to Bergen).

149. South-West and West, Large Ships.—In the West and South-West Approach, nine ships of over 5,000 tons were sunk during June.

On June 1, at 7.30 p.m., in 50° 54' N., 10° 35' W., the British s.s. *Cavina*, 6,539 tons, armed with a 4.7-in., bound from Santa Marta (Colombia) to Avonmouth, was struck by two torpedoes from *U.88* and sank ; she was proceeding N. 83 E., at 15 knots ; she had no escort and no patrols were in sight ; the submarine was not seen. The crew took to the boats and were all saved.

On June 4, at 8.43 a.m., in 56° N., 12° 14' W. (Tory Island), *U.70*, which had sailed on May 28, torpedoed the British s.s. *Southland*, 11,899 tons, bound from Lough Swilly to Philadelphia. The ship, which was proceeding without escort S. 88 W. in fine weather, was armed with a 6-in. gun and equipped with wireless. She was hit by three torpedoes and sank.

The same day (June 4), at 10.30 a.m., some 60 miles to the eastward, in 56° N., 10° 20' W., the British s.s. *City of Baroda*, 5,541 tons, bound from Liverpool to Calcutta, was struck by a torpedo and sank.

¹ Marine-Archiv, H.S./Q.10.

She was armed with a 4.7-in. gun and had no escort. She reported the submarine as a small one with one gun, which may have been *U.C.29*, which was sunk by the Q-ship *Pargust* three days later.

Further south on June 4, at 12.27 p.m., in 54° 56' N., 12° 3' W., *U.C.45* met the British s.s. *Phemius*, 6,699 tons, bound from Liverpool to Shanghai, and torpedoed her without warning. The ship was armed with a 4.7-in. gun and was proceeding at 14 knots unescorted ; she sank in 15 minutes.

U.43 arrived in the area about June 4 and on June 10, at 6 a.m., in 53° N., 16° 9' W., torpedoed the British s.s. *Bay State*, 6,583 tons, bound from Boston to Liverpool, proceeding at 13 knots, unescorted. She was armed with a 4.7-in. gun and sank in three-quarters of an hour.

U.95 had left the Ems with *U.43* on May 29. She was working further south, and on June 11, at noon, in 51° 6' N., 11° 5' W., sent two torpedoes into the British s.s. *Polyxena*, 5,737 tons, bound from Liverpool to Capetown, which sank in about 15 minutes. She was armed with a 4.7-in. gun and was not under escort.

On June 18, at 11.15 a.m., in 52° 20' N., 17° 30' W., the British s.s. *Elele*, 6,557 tons, Boston to Liverpool, was torpedoed and sunk possibly by *U.43*.¹ The officers believed that the wireless calls made to Crookhaven had drawn the submarine to the spot.² The ship was not under escort.

On June 21, at 9 p.m., in 49° 1' N., 9° 55' W., the British s.s. *Ortona*, 5,524 tons, bound from Philadelphia to London, was torpedoed by *U.50* and sank at 1.45 a.m. H.M.S. *Laverock* (4th Flotilla), patrolling in the area was 1½ miles from the spot. As the War Warnings right through June had warned ships to cross 10° W., south of 47° 30' N, and the *Ortona* had wireless, she should not have been there, a conclusion equally applicable to a number of other ships.

150. Cruise of "U.70," May 28-June 22.—The biggest sinkage was that of *U.70* (Lieut.-Commander Otto Wünsche), 38,030 tons. She left Emden on May 28, proceeding northabout for the South of Ireland. On June 3, at 4.40 p.m., in 56° 22' N., 10° 58' W., the British s.s. *Lorenzo*, oiler, 9,607 tons, proceeding to Port Arthur, Texas, on a course N. 65 W. at 9 knots, escorted by the armed trawler *Nathaniel Cole* (Lough Swilly), sighted the conning tower of a submarine bearing S. 25 W., 6 miles away. She started zig-zagging and at 11.50 p.m. was torpedoed, being subsequently salvaged and brought into Lough Swilly (Ireland, North). The next day, June 4, *U.70* was more successful. At 8.43 a.m., in 56° N., 12° 14' W., she

¹ The position is not far from where *U.43* was working on June 10. *U.43* states she sank the British s.s. *Mahanada*, 7,196 tons, on June 19 ; but the *Mahanada* was neither sunk nor attacked.

² I.D. Vol. 648. Home Waters, Ships Attacked, June 11-20.

met the British s.s. *Southland*, 11,899 tons, outward bound to Philadelphia, armed with a 6-in. gun and unescorted. The ship was struck by three torpedoes and sank. At 3.40 p.m., in 56° 25' N., 11° 55' W., the British s.s. *Miniota*, 4,928 tons, outward bound to Montreal, was fired on by a submarine,¹ returned the fire and escaped.

At 5.40 p.m. (June 4), in 56° 40' N., 12° W., the British s.s. *Manchester Port*, 4,093 tons, outward bound to Montreal, was attacked with gunfire, but bringing the submarine (possibly *U.70*) astern, escaped. At 7 p.m., the s.s. *Miniota*, still being chased, sighted the American s.s. *Norlina*, which had been hit by a torpedo, that did not explode, and had been abandoned. The *Miniota* apparently reopened fire on the submarine, which did not follow up her attack, and the crew of the *Norlina* returned to their ship, and at 9.5 p.m. proceeded on their way.²

On June 7, at 2.15 p.m., in 47° 12' N., 9° 37' W., the British s.s. *Imani*, 4,590 tons, an Admiralty transport on the way to Brest, was attacked by gunfire, but escaped by turning away and putting on speed; at 3.15 p.m., 10 miles to the south-westward, the British s.s. *Cape Transport*, 4,109 tons, was similarly attacked, possibly by *U.70*.

On June 9, *U.70* was operating on Approach Route A, West of Brest and that day at 2.20 a.m. in 47° 47' N., 9° 15' W., torpedoed and sank the British s.s. *Harbury*, 4,572 tons, bound from Monte Video to Brest.

Then at 1 p.m. in 48° 38' N., 8° 56' W., the British s.s. *Egyptiana*, 3,818 tons, outward bound to Halifax, was suddenly torpedoed, and sank 4 hours later. Nothing was seen of the submarine (*U.70*). At 3.40 p.m. in 48° 42' N., 8° 56' W., the British s.s. *Appledore*, 3,843 tons, homeward bound to Middlesbrough with iron ore, was torpedoed without warning and sank an hour later. The destroyer *Medina*, passing at the time, drove *U.70* down and picked up the crew.

On June 10, at 4.30 a.m., in 48° 55' N., 10° W., the British s.s. *Galicia*, 1,400 tons, from Lisbon to Falmouth, was torpedoed and sunk. The next day (June 11), at 8.54 p.m., in 48° 6' N., 10° 30' W., the British s.s. *City of Perth*, 3,427 tons, bound from Alexandria to London, was struck by a torpedo and sank two hours later. *U.70* probably left the area about June 14, and was on her way home northabout when, on June 18 at 11.35 a.m. in 58° 4' N., 8° 35' W., she torpedoed the British s.s. *Queen Adelaide*, 4,965 tons, bound

¹ S.S. *Miniota's* report (I.D. 647) states submarine had two guns, but this may be a mistake.

² I.D. Vol. 647. Report from G.S.O., St. Johns. *Miniota's* report in H.S. 1321/177. The Captain, William P. Hains, received a D.S.C. The name *Norlina* is not in Lloyd's Register.

from Sydney, Cape Breton, to Leith, under escort of three armed trawlers. That night (June 18) at 11.40 p.m. in 59° 34' N., 7° 3' W., she torpedoed the British s.s. *Buffalo*, 4,106 tons, bound from Hull to New York. The destroyer *Obedient* arrived on the scene and tried to take the ship in tow, but she sank the next day (June 19). *U.70* went on and arrived at Emden safely on June 22. She had sunk eight ships of 38,030 tons, and attacked some others of about 30,000 tons, which had escaped. Not once had she been seriously attacked.

151. **Flanders Submarines, June.**—The following Flanders submarines were operating in June:—

Ireland, South:

U.C.62, 16/5–1/6.¹

U.C.66, 22/5 (did not return).

Channel:

U.B.23, 28/5–6/6; *U.B.18*, 31/5–14/6;

U.B.40, 3/6–13/6; *U.B.32*, 6/6–17/6;

U.C.71, 12/6–17/6; *U.B.40*, 25/6–3/7.

Channel, West and Approach:

U.B.31, 7/6–19/6; *U.C.17*, 14/6–28/6;

U.C.62, 20/6–1/7; *U.B.23*, 23/6–6/7;

U.C.61, 23/6–8/7.

Bay:

U.C.70, 16/5–1/6; *U.C.21*, 19/5–3/6;

U.C.72, 26/5–12/6; *U.C.48*, 4/6–20/6;

U.C.69, 11/6–29/6; *U.C.65*, 11/6–30/6 (also Channel);

U.C.71, 24/6–8/7; *U.C.72*, 30/6–19/7.

Hoofden (North Sea):

U.C.64, 19/6–26/6; *U.C.63*, 23/6–2/7;

U.C.21, 28/6–4/7.

152. **Channel, Large Ships.**—In the Channel area four ships over 5,000 tons were sunk in June. On June 10 at 10.17 p.m. in 49° 22' N., 7° 12' W. the British s.s. *Anglian*, 5,532 tons, from Boston to London, armed and going 12 knots, unescorted, was torpedoed and sunk by *U.C.75*. On June 15 at 8.55 p.m. in 50° 30' N., 0° 57' W. the British oiler *Wapello*, 5,576 tons, armed, going 9 knots, escorted by two armed trawlers, was torpedoed and sunk by *U.C.71*. On June 16 at 4.45 p.m. in 47° 54' N., 5° 52' W. the U.S. oiler *John D. Archbold*,

¹ Date of leaving Zeebrugge and of return.

8,374 tons, from New York to Brest, armed and going $11\frac{1}{2}$ knots, unescorted, was torpedoed and sunk by *U.C.48*. On June 16 *U.C.69* laid mines in the Bay, off Belle Ile, on which the U.S. oiler *Kansan*, 7,913 tons, was lost on July 10, at 12.15 a.m. On June 24 the British s.s. *Clan Davidson*, 6,486 tons, was sunk in the approach by *U.C.17* (see S.153). On June 27 at 6 a.m. in $48^{\circ} 17' N.$, $4^{\circ} 49' W.$, off Brest, the French cruiser, *Kleber*, 7,700 tons, was sunk by a mine laid that morning by *U.C.61*.

153. "**U.C.17,**" June 14-28.—The most successful Flanders boat for the month was *U.C.17* (Lieutenant Erich Stephan) which sank 20,466 tons, in the approach to Ushant and the Channel. On June 18 she laid 18 mines off Beachy Head;² one mine was discovered that morning by *T.B.22*, but at 5 p.m. (June 18) the armed trawler *Borneo*,³ minesweeper, struck a mine and was lost with all hands, and the armed trawler *Taiipo* was sunk by another on June 24. *U.C.17* had gone on, and off Guernsey on June 19 sank with bombs a small British steam vessel the *Kate and Annie*, 96 tons; on June 20, at 11.30 a.m., in $47^{\circ} 13' N.$, $7^{\circ} 23' W.$, she was engaged by the "Q" ship *Mitchell* at 50 yards and was hit by rifle bullets on the conning tower, but suffered no damage;⁴ on June 21 at 4.30 a.m. to the westward of Brest she sank the United States s.v. *Childe Harold*, 781 tons, and at 1 p.m. in $47^{\circ} 55' N.$, $8^{\circ} 5' W.$, torpedoed and sank the Italian s.s. *Scheria*, 2,727 tons, bound for Genoa. Two blank days followed and then on June 24 she scored three successful shots.

On June 24, at 8.39 a.m., in $48^{\circ} 16' N.$, $8^{\circ} 36' W.$, she torpedoed the British s.s. *Clan Davidson*, 6,486 tons, bound from Dakar to London, unescorted, armed with a 4.7-in. gun and proceeding at 11 knots. The ship sank about 10 a.m. and the boats were being picked up by the British s.s. *Crown of Arragon*, 4,500 tons, outward bound from Cardiff to Montreal, when at 2.10 p.m. in $48^{\circ} 10' N.$, $8^{\circ} 14' W.$, 14 miles from the scene of the first disaster, the latter ship was herself torpedoed and sank some hours later. That night (June 24), at 11.50 p.m., in $48^{\circ} 24' N.$, $7^{\circ} 47' W.$, 22 miles from the *Crown of Arragon*, *U.C.17* torpedoed another ship the British s.s. *Saxon Monarch*, 4,828 tons, Dakar to London, which sank at 12.30 a.m.

On June 25, at 6 a.m., *U.C.17* was evidently on her way home, for she sank an American s.v. *Galina*, 1,048 tons, 70 miles south-west of Ushant. She returned to Zeebrugge on June 28.

¹ Master's deposition says 7.50 a.m. H.S. 1318/135.

² Field 440 in $50^{\circ} 36' N.$, $0^{\circ} 13\frac{1}{2}' E.$

³ Report in H.S. 1292/613.

⁴ Marine-Archiv, H.S./Q.50.

The sinking of the *Clan Davidson*, *Crown of Arragon*, and *Saxon Monarch* displays clearly the weakness of the system of independent sailings, for no escorts had been provided for any of these ships. The two homeward bound vessels (*Clan Davidson* and *Saxon Monarch*) seem to have obeyed conscientiously enough the War Warning of June 11,¹ intended to keep ships clear of Approach Route A, and were some 20 to 30 miles to the south-west of the old limits of that area.

The *Clan Davidson* sent out a wireless warning which was picked up by Brest and reached the Admiralty at 10.20 a.m.²

It is not known if the *Crown of Arragon*, some 50 miles to the southward of her at the time, took in this signal, but she ran straight on into the same area and was stopped and picking up the *Clan Davidson's* boats when she was herself torpedoed. The *Crown of Arragon* was unable to signal as her dynamo was wrecked, and the *Saxon Monarch*, some 100 miles behind the *Clan Davidson*, ran on into the same area and suffered the same fate.

154. "**U.C.48,**" "**U.C.69,**" "**U.C.65,**" in the Bay.—The next highest figures were obtained by submarines operating in the Bay, viz., *U.C.48*, June 4-20, 16,645 tons; *U.C.69*, June 11-29, 16,908 tons; *U.C.65*, June 11-30, 10,183 tons.

U.C.48 (Lieutenant Hundius) left Zeebrugge on June 4, and by June 10 was off the north coast of Spain where at 10.30 a.m., somewhere near $43^{\circ} 40' N.$, $5^{\circ} 44' W.$, she stopped and sank with bombs the Norwegian s.s. *Solhaug*, 1,217 tons. The exact position remained in dispute, the British Ambassador maintaining that she was in territorial waters $2\frac{3}{4}$ miles from shore, while the Spanish Government insisted that she was at least five miles off.³ About a week later evidently on the way home on June 16 at 4.45 p.m. in about $47^{\circ} 54' N.$, $5^{\circ} 52' W.$, she torpedoed and sank the large American oiler, *John D. Archbold*, 8,374 tons, bound from Brest to New York. This ship was unescorted, and had previously sighted another submarine⁴ (possibly *U.C.69*).

The next day, June 17, at 10.30 p.m. in $49^{\circ} 42' N.$, $5^{\circ} 25' W.$, off the Lizard, *U.C.48* torpedoed and sank the British s.s. *Tyne*, 2,909 tons, proceeding in a French coal trade convoy with eight other ships from Falmouth to La Pallice in fine weather. This was

¹ To cross meridians $15^{\circ} W.$ and $10^{\circ} W.$, south of $47^{\circ} 30' N.$ H.S. 460/424, repeated June 14, 17, 20, 21, 22, 23.

² H.S. 463/1181. Brest did not get the name, and gave the latitude as $48^{\circ} 42'$.

³ M.70072/17, Marquess de Lema to His Excellency Sir Arthur H. Hardinge, July 10, 1917 (copy in I.D. Vol. 647, *Solhaug*).

⁴ I.D. Vol. 648.

U.C.48's last ship and she was back in Zeebrugge on June 20. She seems to have been attacked twice, by French aircraft on June 13, and on the same day by a French patrol vessel.

U.C.69 (Lieut.-Commander Erwin Wassner) left Zeebrugge on June 11, laid mines off Penmarch (south of Brest) on June 15,¹ and at 12.15 p.m. in 47° 24' N., 5° W. torpedoed the British s.s. *Addah*, 4,397 tons, bound from Montreal to Brest; the ship was unescorted and sank in quarter of an hour; no patrol vessels were in sight and *U.C.69* opened a ruthless fire on the boats, killing eight men and wounding four.² After laying mines the next day (June 16) off Belle Ile,³ she proceeded to the Spanish coast, where between June 19 and 23 she sank five ships—on June 19, the Norwegian s.s. *Spind*, 1,174 tons, and the French s.s. *Bearn*, 1,271 tons; June 20, Greek s.s. *Katerina*, 3,092 tons; June 21, Danish s.s. *E. T. Nygaard*, 1,923 tons; June 23, Portuguese s.s. *Cabo Verde*, 2,220 tons. The four neutral ships were sunk either in or on the edge of territorial waters, but when the derricks of the *Cabo Verde* were found lying above water in a position 2.4 miles from Cape Villano, the explanation of the Spanish Secretary of State that she must have drifted there after having been blown up⁴ indicates the difficulties attendant on such disputes. *U.C.69* sank one more ship in the Bay on June 24, at 7.55 a.m., the Norwegian s.s. *Helma*, 1,131 tons, bound from Rusfisque to Liverpool, unescorted, with 920 tons of copra. On June 25, at 3 p.m., in 46° 16' N., 9° 18' W., she fired a torpedo which missed the French s.s. *Isabelle*, 2,466 tons. The next day at 1.30 p.m. in 47° 10' N., 6° W., the U.S. destroyer *Cummings* sighted a submarine track and dropped a depth charge on it. This was probably *U.C.69*, but she arrived safely at Zeebrugge on June 29.

U.C.65 (Lieut.-Commander Otto Steinbrinck) left Zeebrugge on June 11, laying mines off Boulogne⁵ on June 16, and off Cherbourg on June 17. They soon found victims. On June 17 at 4 a.m. in 50° 45' N., 1° 31½' E., off Boulogne, the armed trawler *Fraser* was sweeping when she struck a mine and sank with a loss of 13 out of her 16 hands. That afternoon the Dover destroyers *Afridi* and *Tartar*, coming round from Calais to Boulogne, were off Ambleteuse, when at 4.12 p.m. in 50° 47' N., 1° 34' E., the *Tartar* struck a mine, which blew off the fore part of the ship and killed 50 men, including

¹ 47° 48' N., 4° 25' W. Field 431, O.U. 6020B.

² H.S. 1316/505.

³ Field 431a, 47° 18' N., 3° 2' W.

⁴ M.71746, H.S. 1318/197.

⁵ Off Boulogne, Field 432 in 50° 39½' N., 1° 32½' E.; 50° 48' N., 1° 32½' E.; 50° 45' N., 1° 32' E. Off Cherbourg, Field 432c, 49° 40½' N., 1° 40½' W.

the Commanding Officer, Lieutenant Guy Twiss, who had just joined the ship. With the help of two French tugs the wreck was towed to Dover.¹

On June 18 *U.C.65* was off Ushant, where at 9.35 p.m. in 48° 38' N., 5° 2' W., she stopped and sank with a torpedo the Danish s.s. *Vaering*, 2,157 tons, proceeding in convoy from Bordeaux to Barry. On June 20, at 11.30 a.m. in 47° 13' N., 7° 23' W., the "Q" ship *Mitchell* (Lieutenant J. Lawrie, R.N.R.), working from Falmouth in the Channel Approach, sighted the conning tower of a submarine 3 miles off, steering west. The submarine opened fire; the *Mitchell* hove to and abandoned ship. The submarine approached gradually to 800 yards, when the *Mitchell* opened fire with her 12-pdr. and two 6-pdr. guns, firing 17 rounds before the submarine disappeared, and obtaining what appeared to be three 12-pdr. and four 6-pdr. hits.² At 6.10 p.m. in 47° 37' N., 6° 38' W., she sighted another submarine and a smaller one of older type—which opened fire at 2 miles; the ship hove to; the submarine stopped about 800 yards off, then approached at full speed and dived; the conning tower came to the surface about 50 yards off, the ship opened fire, and the first shot from the after 6-pdr. seemed to hit the hull before the conning tower. A shell from the 12-pdr. seemed to hit the bows and the submarine went down.³ The ship was awarded £300 for each attack and Lieutenant Lawrie received a D.S.O. The first submarine was *U.C.65* and the second was *U.C.17*, but both continued their cruises. *U.C.65* went on into the Bay, and on June 24 at 12.20 a.m. in 44° 25' N., 1° 25' W., met a convoy of nine ships coming up the coast from Bayonne, escorted by two French armed trawlers. The convoy was about 9 miles from the coast, proceeding on a course N. 5° E. at 7½ knots, in a calm smooth sea, when the Greek s.s. *Taigetos*, 2,961 tons, Algiers to Newcastle, was torpedoed; another torpedo struck the Greek s.s. *Aghia Paraskevi*, 2,795 tons; and *U.C.65* then opened fire on the Greek s.s. *Constantinos*, 3,014 tons, bound from Bougie to Glasgow, and the Norwegian s.s. *Kong Haakon*, 2,231 tons; the two armed trawlers were apparently helpless and all four ships were sunk. *U.C.65* was off the Scillies the next day, June 25, where, at 7.40 p.m., she torpedoed the British s.s. *Guildhall*, 2,609 tons, bound from Bougie to Cardiff, which sank with a loss of ten men.⁴ *U.C.65* returned to Zeebrugge, having sunk six ships of

¹ The *Afridi* was leading and was somewhat to westward of the swept channel. Her Captain was tried by court martial on October 13 for hazarding H.M.S. *Afridi*—charge not proved, acquitted of same.

² M.07761/17 in H.S. 1317/535.

³ Intelligence Division noted both attacks as "Possible" (H.S. 1317/558), but did not consider a submarine had been sunk.

⁴ *Guildhall's* report (I.D. Vol. 649) describes the submarine as 300 ft. long with two guns. *U.62* was operating in the vicinity.

10,183 tons¹ and dealt a nasty blow to the French coastal convoy system in the Bay.

155. North Sea German Submarines.—In the North Sea some seven High Sea Fleet submarines were operating during the month as follows:—

U.C.77, 27/5–9/6, Scotland, East.

U.B.21, 29/5–12/6, England, North-East.

U.B.22, 14/6–30/6, England, North-East.

U.99, 12/6, did not return. Shetlands to Bergen.

U.19, 14/6–4/7, Shetlands to Bergen.

U.80, 23/6–10/7, Shetlands, West.

U.C.33, 24/6–8/7, Shetland.

U.C.77 sailed on May 27, laying mines off Coquet Island on May 30 and off May Island in the Forth on May 31.² On June 6 at 6.30 a.m. in 56° 45' N., 1° 5' W. (Scotland, East) she torpedoed and sank the Swedish s.s. *Anton*, 1,568 tons, in a Scandinavian convoy proceeding north, escorted by two destroyers and five trawlers, one of which sighted her periscope and opened fire. At 6.30 p.m. (June 6) in 56° 6' N., 1° 44' E. (off the Forth) she torpedoed and sank the Danish s.s. *Harald Klitgaard*, 1,799 tons, bound south to Seaham, which had fallen astern of her convoy and was being escorted by an armed trawler. *U.C.77* got back to Heligoland safely on June 9.

U.B.21 sank two ships in June. On June 6 at 1.55 a.m. in 54° 22' N., 0° 24' W. (Robin Hood Bay, Yorkshire) she torpedoed and sank the French s.s. *S.N.A.2*, 2,294 tons, bound from South Shields to Dunkirk with coal. On June 7 at 4.40 a.m. in 54° 19' N., 0° 22' W. in the War Channel off Scarborough, she torpedoed the British s.s. *Sir Frances*, 1,991 tons, proceeding from London to the Tyne in convoy. The ship sank in 1½ minutes with a loss of 10 lives. *U.B.21* was back in Heligoland on June 12.

U.B.22 sailed on June 14 to work apparently off the Yorkshire coast. She seems to have done very little, and it was probably she that was attacked by H.M.S. *Talisman* (Lieut.-Commander J. I. Hallett) off Blyth on June 26. At 1.15 a.m. on a clear night in 55° 31' N., 0° 35' W., the *Talisman* (11th Submarine Flotilla) sighted a submarine on the surface a mile off and made for her at full speed. The submarine did not disappear till *Talisman* was within 100 yards, and the swirl was clearly visible when the *Talisman* dropped a depth charge (type "D"), and then another, 180 yards ahead, both of

¹ Marine-Archiv credit her also with British s.s. *Crown of Arragon*, 4,500 tons (June 24), and French s.s. *Isere*, 2,159 tons (June 23), which were sunk, however, far out of her possible range at the time.

² See S.89.

which exploded.¹ *U.B.22* was back on June 30, and reported that she had been damaged in an attack with depth charges.

156. "U.99," June 12—Did not Return.—*U.99* (Lieut.-Commander Max Eltester), left Heligoland on June 12 to attack Scandinavian shipping in the North Sea between Bergen and the Shetlands. On July 4 at 12.12 p.m. in 59° 30' N., 0° 56' W. a submarine was sighted 200 yards off by the whaler *Arctic Whale* escorting a south bound convoy from Lerwick. It submerged at once and the *Arctic Whale* dropped a depth charge. H.M. trawler *Vireo* escorting the same convoy sighted a periscope 200 yards off at 1 p.m., and dropped a depth charge. On July 6 at 8.30 a.m. in 58° 35' N., 0° 45' W. H.M.S. *Itchen* with the *Flying Fish* and five trawlers was escorting three merchant ships in a north bound Scandinavian convoy, when she was struck by a torpedo and broken nearly in two; a depth charge shaken loose exploded under her stern and she sank. According to the German Historical Section, *U.99* was the only submarine in the area at the time, and the sinking of H.M.S. *Itchen* has been attributed by them to her.² The German report rules out the assumption that *U.99* succumbed to an attack by the Cunard s.s. *Valeria* on June 20 in the South-West Approach,³ and it is necessary to seek for her destruction in the North Sea between July 6 and somewhere around July 9 when she would be due to return. The only probable attack seems to be that of H.M. Submarine *J.2* (Lieut.-Commander Vincent M. Cooper) on July 7.

On July 7 at 7.40 a.m. in 58° N., 3° 5' E., *J.2* on the surface sighted an enemy submarine also on the surface, about 5½ miles off, 30°, steering 240° and dived to attack; at 8.7 a.m. fired No. 1 tube at 4,500 yards; at 8.8 fired No. 2 tube; at 8.11 fired No. 4 tube at approximately 5,500 yards; the torpedoes all started their run (of about 7,000 yards) correctly with enemy steering a steady course, and showing no signs of preparing to dive; at 8.17 Lieut.-Commander Cooper observed a black pointed column coming out of the conning tower, distinctly visible and lasting about a second. For a few seconds afterwards the enemy submarine was still in sight, then suddenly disappeared altogether; no explosion was heard in the Control Room, but men in the foremost engineroom stated they had heard one distinctly. As it is now known that *U.99* was in the area at the time and did not return, it seems very possible that she

¹ H.S. 1281/339. Lieut.-Commander J. Hallett was awarded a D.S.O. See S.88.

² It may be noted that the position of the previous attacks are in the same area.

³ The submarine that attacked the *Valeria* has been identified by Berlin as *U.62*; the *Valeria* did not touch her, and she went off undamaged (Marine-Archiv, H.S./Q.50). The *Valeria* sent in a very circumstantial report: On June 20 at 4 a.m. in 52° 20' N., 12° 28' W., struck a submerged object, saw the top of a conning tower; fired three rounds at it, which hit. She received a £1,000 award. H.S. 1317/456.

succumbed to the attack, though it is possible too that she may have struck a mine in the Bight.¹

157. **North Sea, "U.19," "U.80," "U.C.33."**—*U.19* (Lieutenant Johannes Spiess) sailed on June 14 to operate on the Shetland-Bergen route. On June 20 he sank with bombs the Norwegian s.v. *Fido*, 1,459 tons, which he thought at first was a "Q" ship, and on June 21 gained his first "double" against a convoy, torpedoing at 7.10 a.m. in 60° 22' N., 1° E. the British s.s. *Black Head*, 1,898 tons, and the Norwegian s.s. *Laatefos*, 1,458 tons, in a convoy of 14 vessels,² westward bound escorted by three destroyers, one whaler, and three armed trawlers. The convoy was proceeding at 8 knots, and the two ships sunk were at the head which was "bunched" in very close order. The submarine was not seen, and none of the escorting vessels got an opportunity of attack. The Grand Fleet destroyers were carrying out a big operation against submarines (see section 170), and the scene of *U.19's* attack was well inside Area C where the 15th Flotilla was patrolling. The next day (June 22) at 4.30 a.m. in 60° 27' N., 1° 34' E., *U.19* succeeded in torpedoing the Norwegian s.s. *Bolette*, 1,431 tons, in a west going convoy of eight ships escorted by four destroyers and a whaler. This was her last ship, but on the early morning of July 2 she narrowly escaped colliding with a British submarine.³ Spiess was back in Emden on July 4, having escaped the snares of Operation B.B., and reported that the only way of breaking down the convoy system would be the wholesale destruction of a couple of convoys by the guns of surface craft.⁴

U.80, a big minelayer, left Heligoland on June 23 and on June 26 laid six mines on the east coast of Shetland off Bard Head, and on June 27 and 28 scattered a number off the entrance to Yell Sound on the north-west coast of the Shetlands, evidently under the delusion that it was being used as an anchorage, and going on to the southward laid another 12 in St. Magnus Bay in the approach to

¹ Lieut.-Commander Cooper's report is in H.S.A. 126/260; the hit was considered "very improbable" by Commander-in-Chief's staff (H.S.A. 126/255). I.D. remarks in H.S. 628/179—"particularly difficult case to classify." It was, however, not known at the time that *U.99* was working in the Lerwick-Bergen area. Another good attack in North Sea, North, is on July 12 (H.M.S. *Patriot* and *Anzac* (see S.186)). This is, however, distinctly late for *U.99* to be out, and was apparently *U.69*, outward bound. The *Abdiel* laid a minefield of 235 mines on June 23-24, 32 miles west of Horns Reef (Field 37), round about 55° 37' N., 6° 17' E., which does not appear to have been discovered till August 1918.

² Convoy was specially large as no vessel had sailed the previous day on account of bad weather conditions. Plan in H.M.S. *North Esk's* report, H.S. 1367/453.

³ Possibly *J.2* (Lieut.-Commander Vincent Cooper), H.S.A. 126/257. Johannes Spiess, *Sechs Jahre "U" Boat Fahrten*, 130.

⁴ This may have suggested the attacks on the Lerwick-Bergen convoys in October and December.

Swarbacks Minn, the anchorage of the 10th Cruiser Squadron. On July 1 at 3.10 in 60° 33' N., 2° 8' W., 20 miles from the west coast of the Shetlands, she torpedoed and sank the British s.s. *Don Emilio*, 3,651 tons, bound for Yukanski (Archangel). She had no further successes and was back in Heligoland on July 10.

U.C.33 left Heligoland on June 24, and on June 27 laid 10 mines off Helli Ness, 5 miles south of Lerwick,¹ one of which sank the destroyer *Cheerful* entering with a convoy. On June 29 she laid six mines² off Ingale Skerry on the east coast of the Orkneys in the approach to Kirkwall, and sank a couple of British fishing vessels off Rattray Head.

On June 30 at noon, H.M.S. *Cheerful* (Lieutenant H. A. L. Bond, R.N.R.) and H.M.S. *Ness* were escorting a north bound convoy of five ships into Lerwick, when in 60° 3' N., 1° 7' W. the *Cheerful* struck a mine and broke in two, the fore part floating away bottom up. A drifter had just found a mine off Bard Head (4 miles off) and was coming down to warn the convoy which was in sight. The channel (1½ miles wide) had been swept that morning and nothing found; the *Cheerful* was zig-zagging and was about 1 mile west of the swept channel, when she was blown up with a loss of 40 men.³

U.C.33, the same day at 4.10 p.m. in 59° 3' N., 1° 5' W., attacking a convoy steering south, torpedoed and sank the Swedish s.s. *Germania*, 1,064 tons⁴ and got safely back to Heligoland on July 8.

158. **Submarine Losses, "U.C.29" and "Pargust," June 7.**—During June three⁵ submarines were destroyed—*U.C.29*, *U.C.66* and *U.99*.

U.C.66 (Flanders) was probably lost in the Channel in June,⁶ and *U.99* (High Sea Fleet) in the North Sea early in July.⁷ There remains *U.C.29* (High Sea Fleet). H.M.S. *Pargust*, a "Q" ship of 2,817 tons, one 4-in., four 12-pdrs. and two 14-in. torpedo tubes, Commander Gordon Campbell, V.C., left Queenstown on May 28 to cruise to the south-west of Ireland. On June 7 at 8 a.m. in 51° 50' N., 11° 50' W., she was steering 90°, at 8 knots, in misty weather and heavy rain with a fresh southerly breeze and choppy sea, when a torpedo evidently fired at very close quarters was seen approaching on the starboard beam; it jumped out of the water 100 yards from the ship and struck it in the engine room, making a large hole, flooding the engine room, boiler room, and No. 5 hold,

¹ Fields 244, 245, 246 in about 60° 5' N., 1° 5' W.

² Field 247, O.U. 6020A.

³ Report in H.S. 1370/28.

⁴ Exchange, H.S./Q.62 (2).

⁵ Counting *U.B.36* as having been lost in May (see S.64).

⁶ See S.72, possibly by armed trawler *Sea King* on June 12.

⁷ See S.155, probably by *J.2* on July 7.

and blowing up one lifeboat. The "Abandon ship" was sounded and the boats went off with the "panic" party. As they got away at 8.15 a.m. a periscope appeared on the port beam 400 yards away, steering towards the ship, and at 8.25 submerged 50 yards off. At 8.33 a.m. the enemy broke surface partially 50 yards off the ship on the starboard beam, heading opposite to the ship and parallel, she then followed the lifeboat coming round the stern. Lieutenant Hereford in the lifeboat pulled in towards the ship's starboard side, which apparently annoyed the submarine captain, for she came right up on the starboard beam and started to signal. Commander Campbell was waiting this opportunity. At 8.36 a.m., with the submarine on the surface, a point before the beam, only 50 yards off, he gave the order to "Open fire." Down fell the ports, the guns crashed out and the first shot, hitting the base of the conning tower, blew both periscopes away. A hurricane of fire swept her, every shot hitting. She took a list to port; men were crowding up the hatch. She passed slowly across the bows with an increasing list to port and stern nearly under water. The men were holding up their hands and shouting, and Commander Campbell stopped fire. But as she began to move off into the mist at a fair speed, he was obliged to open fire again. At 8.40 a.m. an explosion took place forward and she sank 300 yards from the ship. A number of men were in the water, of whom two were picked up. By 12.30 p.m. the sloop *Crocus* arrived on the scene and took the *Pargust* in tow, bringing her safely into Queenstown on June 8.

Commander Campbell, V.C., was promoted to Captain and received a bar to his D.S.O. Lieutenant Ronald Stuart, D.S.O., R.N.R., and Seaman William Williams, D.S.M., R.N.R., were awarded V.Cs.¹ This was the third submarine sunk by Captain Campbell.

From the survivors² it was discovered that she was *U.C.29*. She had left Heligoland on May 29 with instructions to proceed by Dover to the south-west of Ireland and lay mines between Inishtearaght and the Blaskets. According to the two survivors she had sunk two sailing vessels, one by torpedo, and had fired a torpedo at a destroyer which missed. It may have been she that sank the Swedish s.v. *Gotha*, 232 tons, lost without trace; on June 3 at 6 p.m. in 51° N., 13° W., the Italian s.v. *Luisa*, 1,648 tons, was attacked by gunfire by a submarine of *U.C.* type, and abandoned apparently sinking, though subsequently salvaged and brought into Berehaven on June 10 by the armed trawler *Luneda*.³ No report can be traced of a torpedo fired at a British destroyer, but on June 5

¹ Captain Campbell's report in Queenstown Decoy Ship, H.S. 649/27; plan of action and awards in H.S. 649/35, 49.

² Marine-Archiv, H.S./Q.50; Survivors' Report, N.I.D. 13318/1917, in I.D. Vol. 549A.

³ H.S. 1315/105. Not mentioned by any other German submarine.

at 8.30 a.m. in 52° 49' N., 14° 7' W., the U.S. destroyer *McDougal* sighted a submarine.¹ It would appear that *U.C.29* laid her mines, for four moored mines were found off the Blaskets on June 25 and 11 in all were swept up. It is possible, too, that she came north about, for on June 4 at 10.30 a.m. the British *City of Baroda*, 5,541 tons, in 56° N., 10° 20' W., was sunk by a "small" submarine with one gun, and was not claimed by any submarine that returned. *U.C.29* was the tenth submarine to succumb to a "Q" ship.²

CHAPTER XI.

MEASURES.

159. "Q" Ships and Losses.—The day of the "Q" ship was drawing to a close by the end of June, 1917. They had sunk 10 submarines altogether. In January, 1917, the Director of the Anti-Submarine Division had asked for 12 more "Q" ships³ and 16 "P" boats to be fitted as such. By June, 1917, there were 78 operating, of which 22 were good sized steamers based on Queenstown, Longhope (Orkneys), Portsmouth and Malta.⁴ During May they had 19 encounters of which 16 were with the larger class of vessel.

In 1917, up to July, they had sunk five submarines; after the destruction of *U.C.29* (June 7) they sank only one more⁵ and the Germans exacted a heavy toll, sinking six in the first half of 1917, of which no less than three were in June—the *Mavis*, *Zylpha* and *Salvia*.

The *Mavis*⁶ (Commander Adrian Keyes, 1,295 tons, one 4-in., two 12-pdr.), had been taken up in January and was ready for sea in March. She had accompanied the first Gibraltar convoy in May, and on June 3 was cruising off the Scillies, when at 9.45 p.m. in 49° 38' N., 5° 39' W., a torpedo broke surface, and struck the ship the starboard side, flooding the engine and boiler rooms. The crew went to "panic" stations and got the boat launched, but nothing more was seen of the submarine. The destroyer *Christopher* came up and at daylight, June 4, the armed trawler *Whitefriars* took her

¹ H.S. 458/86.

² Marine-Archiv, H.S./Q.50.

³ H.S. 1267/20.

⁴ For information see Grand Fleet Files, H.S.A. 133, and Queenstown Decoy Ships, H.S. 649.

⁵ *U.C.72*, probably sunk by H.M.S. *Acton* on August 20 in the Bay.

⁶ Also *Q.26* or *Nyroca*.

in tow. Off Plymouth she began to sink and had to be beached in Cawsand Bay.¹

A week later the *Zylpha* (2,917 tons, Lieut.-Commander J. K. McLeod, R.N.) on June 11 at 8 a.m. was in 51° 58' N., 15° 20' W., off the south-west of Ireland, proceeding west at 6½ knots in a calm sea. At 8.3 a.m. a torpedo hit her the port side, flooding the engine room. The "panic" party dashed on deck as the ship took a big list to port. At about 8.40 a.m. a submarine (possibly *U.96* or *U.82*) came to the surface right ahead 7,000 yards off, and steaming straight away disappeared about 11 a.m. At 2 a.m. (June 12) a destroyer came up and 16 stokers were transferred to her. The *Zylpha* struggled for two days to make port, and on June 14 the *Daffodil* arrived and made fast a tow. But by daylight June 15, after having been towed 200 miles, she was settling heavily; the bulkheads began to give way, and about 7.45 p.m. with bridge awash she was abandoned and sank slowly at 11.20 p.m. some 9 miles off the Skelligs.²

On June 12, at 11 a.m. the *Prize*, an auxiliary schooner of 227 tons, Lieut.-Commander W. Sanders, V.C., R.N.R., two 12-pdrs., from Milford Haven, was in 51° 3' N., 9° 11' W., under all sail on a course N.N.W. making about 1 knot. A submarine came to the surface bearing E.S.E., 1½ miles off, and opened fire at once. The "panic party" got away. The ship was hit and the Captain wounded in the right arm and knocked across the deck by a shell. At 11.33 as the submarine was turning away, fire was opened with both guns. The submarine (probably *U.55*) submerged at once.³

The *Salvia* (Lieut.-Commander Wybrants Olphert, D.S.O., D.S.C., R.N.R.), on June 20 at 6.50 a.m., was in 52° 25' N., 16° 20' W. when she was struck by a torpedo the starboard side aft, exploding the depth charges, wrecking the poop and blowing the 4-in. gun overboard. The "panic party" got away, and the submarine coming up at about 1,700 yards and keeping right astern opened a heavy fire, setting fire to the wheelhouse and bridge, and forcing a real abandonment, the ship sinking at 10.15 a.m. The commanding officer was taken prisoner, the rest of the crew (except five men killed by the explosion and shell fire) were picked up by H.M.S. *Aubretia* that afternoon. For this gallant effort the Captain and Lieutenant Frederick W. Siddall, R.N.R., were mentioned in despatches.⁴ The submarine was *U.94*.

160. Routeing—Approach Route A.—In June, 1917, as in May, the outward bound traffic was regulated on the Western Trade

¹ Report in H.S. 1267/354.

² Report in H.S. 649/90.

³ M.07454/17 in H.S. 1316.

⁴ Reports in H.S. 1317/496 and in H.S. 649/136.

Route system¹ by the Trade Division, while homeward bound ships, not included in convoys, were steering for rendezvous given them by British Consuls abroad in the Approach Route² areas. The route which suffered most severely in June was Approach Route A running towards the Scillies in a direction roughly 80°.³ The danger of this area was evidently recognised, for outward bound ships by May 17 had been ordered to keep well to the south-eastward of it⁴ and a War Warning was issued to eastbound ships on May 28,⁵ to the same effect, with the evident intention of keeping traffic down towards the Bay and to the south-eastward of Approach Route A. This war warning continued to be sent out right through June.⁶

By the middle of June the convoy organisation was taking shape, and on June 19 the Admiralty informed Admiral Browning (Vice-Admiral, North America and West Indies) that vessels of 8½ knots were to be included in convoy; slower vessels defensively armed were to proceed by Approach Route C (Ireland, North) for Irish Sea Ports and by Approach Route A for Bristol and Channel Ports.⁷

On June 20 the Commander-in-Chief, Plymouth (Admiral Bethell) was told that owing to a hold-up at Gibraltar from June 8 to 15, a large number of ships would be coming in on Approach Route A, and every endeavour was to be made to pass a War Warning to them to keep south of 47° 30' N. between 17° W. and 10° W.⁸

This measure seems to have been temporarily effective, for only two ships (the British s.s. *South Wales*, 3,668 tons, on June 24, and the *Ultonia* on June 27) were sunk during the last week of the month in the old Approach Route A. Its success, however, was only partial, for *U.62*, *U.C.62*, *U.C.17* and *U.C.65* were working off Brest and caught four ships (June 24, British s.s. *Saxon Monarch*, *Clan Davidson* and *Crown of Arragon*, and June 26 British s.s. *Cattaro*) to the south-eastward of Route A.

On June 25, the Commander-in-Chief, Plymouth, considered that the enemy had located "new Route A," and the warning for eastbound ships making the Scillies was cancelled (to cross 15° W. and 10° W., south of 47° 30' N.), and superseded by a warning for all ships making the south-west coast of Ireland, if west of

¹ M.09748/16 of 5.2.17 in Case 504, Vol. II; Home Waters VIII, Plan 18.

² M.02567/17 of 2.3.17 in Case 636, Vol. I. Of the North Atlantic Trade about 20 per cent. was put into convoy in June; of the whole Atlantic traffic, about 10 per cent.

³ See Home Waters VIII, Plan 18.

⁴ Telegram, May 17, Western Routes in Case 504, Vol. II.

⁵ H.S. 449/983, "to cross 10° W. between 47° 30' N. and 46° N."

⁶ June 1 (H.S. 457/360), repeated on 3, 4, 5, 11 (H.S. 460/217). On June 14, "Ships using Approach Route A to cross 15° W. and 10° W., south of 47° 30' N.": repeated on June 17, 20, 21, 22, 23.

⁷ H.S. 656/540.

⁸ Telegram, June 20/1803, H.S. 462/1373.

16° W., to leave this route and steer to cross the meridian of 15° W. 300 miles south or 200 miles north of their rendezvous position.¹ This measure sounds very drastic for it meant a ship, which was proceeding to a rendezvous in say 49° N., making either for the latitude of the Skelligs (which was equally dangerous), or the latitude of the Gironde. It is not known whether any ship attempted to comply with it. The inadequacy of war warnings, so conspicuous in May, is equally evident in June. During the month, on Approach Route A, or close to it, in an area banned by war warnings, 16 homeward bound ships were attacked (of which twelve had wireless) and ten (of which seven had wireless) were sunk.² How many actually passed through the banned area without being attacked is not known.

161. North of Ireland Approach.—Another area which suffered severely in June was the approach to the North Channel between 56° N. and 57° N. and from 13° W. to 10° W.

On June 3 and 4, *U.70* and probably *U.C.29* were operating there and attacked four ships, of which two were sunk; on June 11 and 12, *U.94* was there and five ships were attacked of which two were sunk. On June 4, when the British s.s. *Southland*, 11,899 tons, outward bound, was torpedoed by *U.70* and sunk, all west bound traffic was held up till June 7.³ It was again held up on June 18⁴ and not released till June 20. On June 22 *U.70* attacked two ships and sank one; on June 26 *U.79* and *U.60* attacked five ships and sank two. This new attack led on June 28 to the Commander-in-Chief being directed to send a division of destroyers from the Grand Fleet to Lough Swilly as they were imperatively necessary for the protection of trade.⁵

162. Ireland, South-West.—On June 17 one ship was sunk by *U.94* and one missed; the next day three ships were sunk and four missed, the latter including the P. & O. s.s. *Palma*, 7,632 tons, which had three torpedoes fired at her, the s.s. *Batoum*, 4,053 tons, an oiler under escort, and the "Q" ship *Wonganella*. On June 19 the *Wonganella* was missed again, and another ship had the same good fortune; the *Batoum* was attacked again off the Fastnet by *U.78* and sunk. On June 20 two ships were sunk.

On June 19 a war warning was sent out, warning ships of submarines operating in 52° N.,⁶ and on June 20 the Commander-in-Chief, Grand Fleet, was told to send a ship of the 10th Cruiser

¹ H.S. 464/119, 342.

² Also three outward bound ships.

³ H.S. 458/965.

⁴ H.S. 462/680, 1414.

⁵ H.S. 465/306.

⁶ H.S. 462/1046.

Squadron out to 25° W. to patrol between 48° N. and 52° N. and divert all shipping making for the west coast of Ireland; and the *Armada Castle* was despatched by him to perform this task. Admiral Bayly at Queenstown asked for more destroyers, but was told that all Grand Fleet destroyers were engaged in a large offensive operation¹ against submarines and none could be sent.

On June 19 the Consuls in the United States were informed that vessels capable of 200 miles a day were to be included in convoy, but vessels if defensively armed could be sent by Approach Route C (*i.e.* North of Ireland) for the Irish Channel and by Approach Route A (*i.e.* the Scillies) for the Channel and Bristol Channel.²

On June 26 the Commander-in-Chief was told that the oil fuel situation was "most critical," and it was necessary to exercise the most rigid economy in all oil burning vessels which except in great emergency were to be limited to three-fifths power. Similar instructions were sent to Admiral Bayly at Queenstown, who replied on June 27 that unless destroyers had steam for full speed available at once, attacks on submarines would not be possible.³

On June 27 the British s.s. *Ultonia*, 10,402 tons, homeward bound from New York to Falmouth for London, was torpedoed and sunk by *U.53* at 7.32 p.m. in 48° 25' N., 11° 23' W. She had been given a rendezvous in 48° 45' N.⁴ by the Consul in New York and was being escorted by H.M.S. *Tamarisk*. She was sunk actually in Approach Route, though, to judge by war warnings, Route A was apparently regarded as dangerous at the time.⁵

163. Fixed Approach Routes, June 11.—The sinkings in Approach Route B (Ireland, West) had given rise to grave apprehension, and towards the end of May proposals were put forward for a radical change in the system. On May 25 the Director of the Operations Division pointed out⁶ that under the system of different rendezvous for each ship the patrols and escorts had to cover large areas steaming from one to another. He suggested that all patrols should be concentrated on one route—in other words he suggested a system of fixed routes with a rendezvous to be changed every five days.⁷

¹ BB Operation, see S.170, H.S. 462/1429.

² H.S. 656/540. This seems to be tantamount to closing Approach Route B except for convoy.

³ H.S. 464/619, 692; H.S. 465/942.

⁴ H.S. 656/523. The rendezvous is outside Approach Route A.

⁵ Not, however, to defensively armed ships. See instructions to V.A., N.A. and W.I. supra.

⁶ Captain H. W. Grant (for D.O.D.) in M.06472 in Approach Routes, Case 636, Vol. I, p. 74.

⁷ "A" in 53° 24' N., 15° 10' W.; "B" in 52° 40' N., 15° 42' W.; "C" in 51° 52' N., 16° W.; "D" in 51° 2' N., 15° 56' W.; "E" in 50° 13' N., 15° 36' W.; "F" in 49° 28' N., 15° W.

Admiral Duff (D.A.S.D.) was not very sanguine about it as "the success of the system would depend on a line of sloops spaced some 15 miles apart," but concurred in giving the system a trial, pending the introduction of convoys. He was in favour, however, of discontinuing the use of Approach Route B altogether, and dividing the traffic and patrols between Routes A and C. Admiral Bayly at Queenstown¹ expressed his agreement in principle, pointing out, however, that he had only 11 sloops available for the work. The proposal was approved and was issued by Telegram on June 11 as an amendment to the original Approach Route telegram and letter of March 5. It applied at first only to Approach Route B (West of Ireland) and was not applied to Approach Routes A and C till the new edition of Approach Routes appeared on August 19 (Case 636, Vol. I, p. 240). The six rendezvous for Approach Route B were: Alpha in 53° 24' N., 15° 10' W. then to Blaskets; Beta in 52° 40' N., 15° 42' W. then to Skelligs; Gamma in 51° 52' N., 16° W. then to Skelligs; Delta 51° 2' N., 15° 56' W., then to Dursey Island; Epsilon in 50° 13' N., 15° 36' W., then to Mizen Head; Zeta in 49° 28' N., 15° W. then to Fastnet. The dates laid down for their use in July 1917, were: June 30–July 4, Alpha; July 5–8, Gamma; July 9–16, Epsilon; July 17–22, Zeta; July 23–28, Delta; July 29–Aug. 4, Beta.

The change was a radical one for it meant the adoption of fixed Patrolled Routes, changing periodically. There had however been so many corrections and additions to the original Approach Route order of March 5, that Admiral Bayly (Queenstown) suggested on July 4 that the orders "as they stand at the present date" should be redrafted and issued to all concerned,² which led to a new printed edition of August 19, 1917. It was easily adapted to the convoy system, and grew up with it.³ It may be noted, however that, only a month before, the Allied conference at Corfu had decided against the system of fixed patrolled routes in the Mediterranean which had been in operation since March 1916.⁴ There could, however, be little doubt that the Approach Route system of March 1917 was unable to ensure the safety of traffic, and it is perhaps not too much to say that by the end of May it was verging on a breakdown. The time had come for the simpler and more comprehensive system of convoy. (See Appendix A.9, A.12).

¹ Queenstown, June 5, 1917; A.T. of 11.6.17, 1532 to Ottawa, etc., and A.L. of 15.6.17, M.06855/17 in Case 636, Vol. I, p. 64, 71.

² Captain Coode for D.O.D. on 12.7.17, remarking on this suggestion, pointed out that the Reporting Officers in North America were "obviously confused."

³ For the new system, see Control of Mercantile Movements (Technical History, 30, C.B. 1515 (30), Captain Bertram Smith, R.N., p. 69).

⁴ Corfu Conference; President, Vice-Admiral Gauchet, April 28–May 1, 1917. H.S. 1421/125.

164. **First Atlantic Convoy, May 24.**—Proposals for an Atlantic Convoy of 16 to 20 British or Allied ships had been sent to Washington on May 3. Captain Lionel de L. Wells, Naval Vice-Consul at New York, was at the same time given the rank of Commodore 1st Class, and the task of organising convoys at Hampton Roads, while Captain H. J. Haddock, C.B., R.N.R. was appointed Commodore 2nd Class and sent out to assist him with a draft of instructions.¹ It was intended that the first convoy should be brought across by United States destroyers. A difficulty arose straightaway for the Navy Department at Washington expressed itself as "very strongly against large convoys," proposing instead "small separate convoys of four ships."² It took some little time to adjust this difference of opinion and to make the preliminary arrangements, and it was not till May 24 that the first Atlantic Convoy got under way. It consisted of 12 ships, and sailed at 5.30 a.m. from Hampton Roads under Captain F. A. Whitehead, R.N. in H.M.S. *Roxburgh*.³ A speed of 9 knots had to be maintained, and two ships (the *Ravenshoe* and the *Highbury*) dropped astern and were ordered to Halifax. The Commander-in-Chief, Plymouth (Admiral Bethell) had instructions to provide an escort of eight destroyers (4th Flotilla) to be at a rendezvous in 50° N., 16° W. at noon on June 6. There they met the convoy at 5.30 p.m. South of Ireland the six west coast ships in the convoy shaped course with four destroyers for the Smalls, the four east coast ships for Portland, their route being covered by the Portland Hydrophone Flotilla working along 50° N., and by Plymouth aircraft.⁴ There was a lull at the time in submarine activity. *U.54* was operating round 51° 30' N., 16° W. on June 5, but the approach latitude of 50° N. was bare of reports. On June 7 at 1.45 p.m. off the Lizard a small British sailing vessel, the *Wilhelm*, was sunk by *U.B.18* (or *U.C.66*), but no other attacks were made and by June 10 all the ships of the convoy had arrived safely at their destinations.

165. **General Convoy, June 1917.**—The crux of the convoy question was not so much the merits of convoy (for as Sir Maurice Hankey had pointed out in his paper of February 12, 1917, it had been invariably adopted for troop transports) as the possibility of extending the system to all mercantile traffic. There was a sharp conflict of interests between the system of escorts for Troop Transports, maintained and supervised by the Operations Division,

¹ H.S. 1322/379, 387, 394, 400.

² Telegram, May 5, H.S. 1322/402. See Appendix A.1.

³ List of ships and formations and orders in Captain Whitehead's orders of May 20, 1917. H.S. 1322/426, 434; Letter of Proceedings, June 7, 1917, in Manisty's Convoy Records, Vol. I.

⁴ Instructions, May 31, M.06345/17, to Devonport, Milford Haven and Portland. C.R.1 (Convoy Records, Vol. I).

and the conception of general convoys advocated by the Anti-Submarine Division. The Routeing systems constituted an effort to protect mercantile shipping by means of routeing, patrols and war warnings, without the use of destroyers. "Western Trade Routes" had been in force for outward bound ships since December 1916, and "Approach Routes" for inward bound ships since March 2. The former had certainly contributed to the safety of outward bound trade, but the losses of April, May and June were throwing an ominous light on the grave weakness of a policy¹ which ensured the safety of troop transports at the expense of general trade.

166. Convoy Committee, May 17-June 6.—Attached to Admiral Duff's minute of April 26 advocating convoy was a paper of "outline proposals" by Commander Reginald Henderson, recommending the preparation of a "worked out" plan in conjunction with the Shipping Controller, and indicating the essential points, viz., assembly port (convoy depôts), volume of trade, sailing periods and escorts required.²

Admiral Duff suggested the appointment of a Captain to work out the scheme and to superintend its practical application, but as no Captain was available the task fell on Commander Reginald Henderson.³

A small committee⁴ had been constituted in April to consider the possibility of convoy but had "fallen through." Doubts existed as to the efficiency of convoy and as to its practicability. The adoption of a convoy system would mean that the Admiralty would be assuming direct responsibility for the protection of all mercantile traffic, which hitherto they had endeavoured to control indirectly by means of routeing and the promulgation of general instructions. The destroyers required would diminish the number available for the convoy of troop transport, which the Admiralty regarded as a prime responsibility⁵—as indeed it necessarily was.

¹ "The Admiralty has adopted the expedient of prescribing the routes, and these routes are frequently changed in order to puzzle the enemy. It is obvious that this system has many weaknesses." Sir Maurice Hankey, February 12, 1917 (full text in Corbett & Newbolt, *Naval Operations*, V, 10).

² Original in H.S. 1322/261; also in Manisty's *Atlantic Convoy System*, C.B. 1515 (14), p. 11. According to Sir Eldon Manisty this was the first suggestion in a "concrete form."

³ The drafts of convoy instructions up to June 25 are in Commander Henderson's handwriting.

⁴ Commander Thomas Fisher (Trade), Commander Reginald Henderson, Paymaster Commander H. W. E. Manisty.

⁵ See "The System of Convoys for Merchant Shipping in 1917 and 1918," by an official in the Ministry of Shipping, *Naval Review*, Vol. V, p. 43.

On May 15, after a conference in the First Sea Lord's room, a Committee¹ was nominated which received its formal constitution in an Admiralty letter of May 17. It consisted chiefly of officers from the Trade Division, with Paymaster Commander Henry Manisty as Secretary.

It was "to consider and draw up" a complete organisation for a general system of convoy, dealing with (a) ports of assembly; (b) programme of sailing; (c) organisation of requirements for merchant ships; (d) rendezvous and destinations; (e) signalling; (f) station-keeping; (g) route orders; (h) dispersion and subsidiary escort; (i) organisation of escorts; (j) coastal traffic escorts. The task was a formidable one, but Commander Reginald Henderson, who had been making a close study of the problem with Sir Norman Leslie, lent his assistance, and the Report was ready on June 6.

167. Convoy Committee Report, June 6.—The Convoy Committee Report² was brief and definite. It consisted of three parts and 13 Appendices.

Part I dealt with the General System proposed. It covered all important points—the focal areas of trade at home and abroad, speeds of ships, cycle periods, destroyer escorts, ocean escorts, size of convoy and procedure for assembly.

Part II dealt with "First Steps" viz., to establish Atlantic Convoy Executive at Admiralty, to appoint Port Convoy Officer and staff to Gibraltar and home ports of assembly; to appoint "Commodores of Convoys" for Gibraltar convoys; to arrange for signal ratings, instructions and charts.

Part III dealt with subsequent steps required.

Appendix A proposed as Ports of Assembly—Abroad:—

- (a) New York for New York, Boston, Portland.
- (b) Hampton Roads for U.S. Coast, South, and New York, Mexico, and the Gulf.
- (c) Dakar for South America and South Africa.
- (d) Gibraltar for Mediterranean.

¹ Captain Horace Longden (Trade Division), Fleet Paymaster H. W. E. Manisty (T.D.), Commander J. S. Wilde (T.D.), Lieutenant G. E. Burton (Anti-Submarine Division), and Norman A. Leslie (Ministry of Shipping). Report (print folio 20 pp.) M.05982 (not M.05981) in H.S. 322/269; also in Manisty's *Atlantic Convoy System*, C.B. 1515 (14), T.H.14, p. 13. Mr. Lloyd George, in his *War Memoirs*, Vol. 3/1166, says: "It was not until the 17th May—over three weeks after the Cabinet decision—that the Admiralty went so far as to appoint a Committee."

² *Atlantic Trade Convoy, Report of Committee, June 6, 1917.* Naval Staff, Admiralty, folio, 20 pp., M.06984/17 with Minutes, in H.S. 1327/12-28. Appointment of Committee in H.S. 1322/269, M.05981/17 (note that in Registry, notation is 05982). Report also in print in *Atlantic Convoy System*, C.B. 1515 (14), (T.H.14) p. 13.

Appendix B—Time Table for Eight Day Cycle.

Appendix C—Requirements for Merchant Ships, Personnel and Materiel (fog buoy, voice pipes, shades for stern lights, Table mast-head angles, set of harbour charts, sets of flags, revolution indicators).

Appendix D—Alternative Rendezvous.¹

Appendix E—Wireless Telegraphy.

Appendix F—Instructions for Ocean Escorts, for Destroyer Escorts, for Masters. (The term "Convoy" to designate the merchant ships under escort, page 11.)

Appendix G—Route Orders, New York, Hampton Roads, Dakar, Gibraltar.

Appendix H—Points of Dispersion.

Appendix I—Organisation and Basing of Escorts.

Appendix J—Coastal Convoys and Coastal Escorts.

Appendix K—Port Convoy Offices and Staffs.

Appendix L—Central Authority at the Admiralty.

Appendix M—Volume of Trade.

168. **Convoy Section, June 25.**—It was estimated that when complete the system would require 14 escort flotillas of 84 destroyers in all, based on Lough Swilly, Queenstown, Portland, Plymouth (three flotillas at each), and Gibraltar. The volume of trade to be included was estimated at a daily average of 19·5 ships homeward and 19·5 outward bound.

The Committee recommended the institution of an Atlantic Convoy Executive at the Admiralty with (a) a Superintendent, an Assistant-Superintendent and three Duty Officers to control all movements of convoy, and arrange programmes of sailing. Attached to it was to be (b) an Officer in Charge of Ocean Escorts to control all arrangements for them; (c) an Officer in Charge of Destroyer Escorts; (d) Officer in Charge of Coastal Escorts; (e) an Officer in Charge of Minesweeping to keep Superintendent informed of all mining activity.

The Committee also asked for a large room in which Convoy Charts could show at any moment the position of convoys. The Superintendent was to be furnished with daily reports from the various officers, and was to be supplied with the latest information as to enemy movements.

Admiral Duff, the Director of the Anti-Submarine Division, had by this time become Assistant Chief of the Naval Staff, and the

¹ See Table of Rendezvous and Routes (print) for Commodore Wells in H.S. 1327/34.

report went first to him. He concurred generally, and asked for the establishment of a Convoy Section without delay, which the First Sea Lord (Admiral Jellicoe) minuted as a "most urgent" requirement.¹ The first essential was accommodation, and the Defensive Armament Section of the Trade Division was moved out of the Ground Floor of Admiralty House to make room for it. On June 14 the First Sea Lord minuted the Report, "Propose to put this into force as the situation develops and necessary vessels become available."² Fleet Paymaster H. W. E. Manisty was appointed, on June 25, Organising Manager of Convoys in charge of a Convoy Section³ which was placed directly under the A.C.N.S. as an independent section, remaining so until it developed into the Mercantile Movements Division in September, 1917. The institution of the Convoy Section removed the conduct of convoys from the Trade Division and Operations Division, and placed its movements under a unified control working in close co-ordination with the Ministry of Shipping and the Intelligence Division.

For the first time, too, the latest intercepts became available for the use of merchant shipping. The door of Room 40, the wireless intercept and decoding room, had hitherto been kept closely shut. Barely permissible was it to utter its name aloud and no information derived from it could be plotted even on the charts of the Enemy Submarine Section of the Intelligence Division. The door was now opened wide enough to permit of intercepts and directionals being plotted on the Convoy Chart. For the first time one could see the latest information as to enemy submarines side by side with the track of a convoy, and as the Commodore's ship was always equipped with wireless, it was possible to at once divert a convoy from a dangerous area. This was simpler, more accurate, speedier and more reliable than the procedure of the routeing systems, and it is permissible to think that part of the undoubted efficacy of convoy lay in the simplicity of "Carrington's⁴ Chart."

¹ Minutes, June 11, 12.

² H.S. 1327/28. Mr. Lloyd George states that the Shipping Controller reported to him that though Board approval had been given on June 14, the indispensable forces were not made available. "I had to convey to the Admiralty in peremptory terms my disapproval of their conduct." There is, however, no record of this in the Admiralty papers. War Memoirs, David Lloyd George, 1934, Vol 3/1167.

³ T.H. 14, Section 18. The drafts of instructions for convoys previous to June 25 are in the handwriting of Commander Reginald Henderson.

⁴ Commander John Carrington, who kept the Convoy Chart. It was hung on the west wall of the Drawing Room of Admiralty House, and constant watch was kept on it by three navigating lieutenants. It was a large chart about 7 ft. high, and was changed once a month. Positions of "To-day" were marked with red flags, "Yesterday" with blue, "Day before yesterday" with grey.

169. **Convoys, June.**—The number of convoys that crossed the Atlantic in June was five, all from Hampton Roads, as follows:—

| No. | Left. | Arrived. | Ocean Escort. | No. of Ships. | Tonnage. | Torpedoed. |
|------|-------|----------|-----------------|---------------|----------|------------|
| HH 1 | 24.5 | 6.6 | "Roxburgh" .. | 10 | 52,814 | Nil |
| HH 2 | 4.6 | 19.6 | "Isis" .. | 12 | 70,906 | Nil |
| HH 3 | 13.6 | 28.6 | "Drake" .. | 11 | 45,219 | Nil |
| HH 4 | 19.6 | 6.7 | "Antrim" .. | 18 | 88,721 | 1 (salved) |
| HH 5 | 25.6 | 13.7 | "Carrigan Head" | 20 | 105,510 | Nil |

This made a total of five convoys, 71 ships, 363,170 tons, all of which arrived in safety. Of these only one ship, the Admiralty oiler *Wabasha*, 5,864 tons, in HH4 was torpedoed on July 6 in the Channel and salved. None were sunk.

The first convoy has been dealt with (S.164). The second (HH2) left on June 4, and was taken over by the *Isis* (Captain J. T. Bush) at Halifax on June 8. It was met on June 18 at 5 a.m. by eight destroyers of the 4th Flotilla, Devonport. Captain Bush reported that the escorting T.B.Ds. were calling up Lands End for several hours during the night of June 18-19, apparently merely to report their position. Station keeping was good and signals were answered and executed quickly. The east coast ships were taken up to Sandown Bay (Isle of Wight) by the destroyers *Leonidas*, *Lookout* and *Liberty*, with the armed trawler *Sea King's* Hydrophone Flotilla guarding their rear. A submarine was reported off the Longships on June 19 at 10.30 p.m., and the Commander-in-Chief, Plymouth, diverted the *Leonidas* to pass 30 miles away from it.

The third convoy which left Hampton Roads under H.M.S. *Drake* on June 13, met with a dense fog and had to anchor. One ship lost touch, and another unable to maintain speed was sent back. Milford Haven (Admiral Charles Dare) was ordered to send two P-boats to meet the convoy in 8° W. and to help to escort west coast ships to 51° N. The 4th Flotilla escort (Devonport) of six destroyers met the convoy in 48° 35' N., 15° 30' W. on June 27 at 1 p.m. Admiral Bayly pointed out that Queenstown had been given no information of its passage through his area. The behaviour of the convoy was reported as very good, though there had been a general lack of care in darkening ship.

The fourth convoy (HH4) of 18 vessels under the *Antrim* left Hampton Roads on June 19, and was met by eight destroyers on July 3 at 10 p.m. in 48° 35' N., 15° 30' W. By July 4 the escort had increased to 12 T.B.Ds. and two salvage tugs. The next day, July 5, at 4 p.m. the west coast ships parted company escorted by six T.B.Ds. On July 6 at 4.55 a.m. the *Cockatrice* reported a torpedo fired at the s.s. *Karoo* which she was escorting. The *Cockatrice* gave

no position, being then some 6 miles on the port beam of the *Antrim*, which was zigzagging at a speed of 9 knots on a mean course 120°, and did not turn the convoy away. At 5.22 a.m. in 49° 49' N., 5° 15' W., 10 miles S.S.E. of the Lizard, s.s. *Wabasha*, an oiler of 5,864 tons, the second ship of the port column, was torpedoed by U.B.32.¹ The *Achates* (Commander F. E. Strong, Senior Officer of escort) turned at once and dropped 10 depth charges (four type "D," six type "G") while the *Garland* dropped four. The *Wabasha* remained afloat and reached Falmouth escorted by the *Spitfire*. The Portsmouth destroyers that were to meet the convoy off Plymouth and take it on to Folkestone were not sighted, and the Plymouth destroyers had to take it on up Channel.² The *Wabasha* was the only ship torpedoed in any Atlantic convoy sailing in June.

The *Carrigan Head* sailed with 20 vessels (Convoy HH5) from Hampton Roads on June 25 at 1 p.m. and was met on July 11 at 6.40 p.m. 40 miles west of the rendezvous 49° 24' N., 15° W. On July 13 the westbound ships parted company escorted by five T.B.Ds. (two of them United States), two P-boats and a salvage tug. A seaplane from Truro and an airship "C.9" from Mullion joined in the escort for 8 hours. Portsmouth sent five P-boats who met the eastbound ships off Plymouth and took them up to Folkestone. Commander F. E. Strong, *Achates*, reported the station keeping as the worst he had seen; stating that on one occasion a distance of 6 miles separated the van and rear. All the ships, however, arrived safely and none were attacked.

The total of Atlantic convoy ships during the month was 71 or an average of 2.3 ships per day, amounting to 22 per cent. of the North Atlantic homeward trade. Of these 1.6 per cent. had been torpedoed and none lost. By the end of June the success of the convoy system was assured.

Admiral Sims was convinced of its efficacy, and on June 24 he wired to the Secretary of the Navy—"It will seem suicidal if convoy system as proposed by British Admiralty is not put into immediate operation. Impossible to carry on partial convoy and partial patrol system. The former much better than present system which is not succeeding."³ Admiral Sims was on that day, during the absence of Admiral Bayly, in general charge of operations of vessels in the Irish Command.⁴

A large United States troop convoy in three groups was on its way across to France and all the American destroyers had gone out to escort them in, leaving only six destroyers and six sloops in the

¹ Exchange Q.59A (11).

² Convoy Records (Manisty), Vol. I.

³ H.S. 462/1225.

⁴ Admiralty Telegram, June 15, to C.-in-C., G.F., C.-in-C., Devonport, R.A. Buncrana, V.A. Milford. H.S. 461/749.

South-West Approach. Admiral Sims regarded this situation as very serious and on June 20 sent an urgent telegram to Secretary Daniels at Washington to say that he regarded the immediate despatch of all possible destroyers and anti-submarine craft of any description as mandatory, if the submarine issue was to be effectively met.¹

170. Destroyer Operation B.B. against Submarines, June 15-24.—

A strong body of opinion favoured the use of destroyers to hunt and harass the submarine, and in the end of June this took the form of a large concerted operation by the destroyers and submarines of the Grand Fleet, interesting as indicating an intention to maintain an actively "offensive" policy in conjunction with what was regarded by some as the "defensive" policy of convoy.

Admiral Oliver, the D.C.N.S., went north to confer with the Commander-in-Chief on June 11, and in the evening of June 12 the Commander-in-Chief was informed that a number of German submarines would be passing north-about between June 15 and 24. The short nights presented a favourable opportunity for anti-submarine operations, and on June 13 Admiral Beatty issued orders for an extensive destroyer operation. It was known as Operation B.B. and even the convoys arriving from New York on June 23-25 were not permitted to interfere with it, for when Admiral Bayly at Queenstown asked for Grand Fleet destroyers to reinforce his escort he was told he could not have them on this account.

Its object was "to force enemy submarines to dive through certain areas occupied by destroyers, so that they would be on the surface while passing through adjacent areas occupied by our submarines."²

The total force employed consisted of 4 flotilla leaders, 49 destroyers and 17 submarines, representing no less than 56 per cent. of the available destroyer force³ of the Grand Fleet, the number actually on patrol being about 34, varying from day to day.

171. Forces Employed and Areas.—The following were the forces employed :—

*Destroyers.*⁴

Castor, Commodore (F) J. R. P. Hawksley.

11th Flotilla (Area D), *Seymour* (Captain E. O. Gladstone) and 10 destroyers.

12th Flotilla (Area A), *Saumarez* (Captain A. J. B. Stirling) and 12 destroyers.

¹ H.S. 462/397, 1122.

² Report in M.08575/17 in H.S. 875/258.

³ Leaders, 9, destroyers, 96 = 105. Detached, 10, repairs and refits, 8 = 18. Available, 87 and 4 destroyers with the Submarine Flotillas. Positions and Movements, June 15.

⁴ For Destroyer Forces see reports from Captain (D) in H.S. 875/210, 215, 223, 238.

14th Flotilla (Area B), *Ithuriel* (Captain H. R. Godfrey) and 8 destroyers.

15th Flotilla (Area C), *Parker* (Captain A. B. S. Dutton) and 12 destroyers.

13th Flotilla (Area D) (Rosyth)—3 destroyers.

Submarines.

10th Submarine Flotilla, *Termagant*, *Medea*, G.8, G.9, G.10, G.11, G.12.

11th Submarine Flotilla, *Talisman*, *Trident*, G.3, G.4, J.1, J.2, J.4, J.5.

12th Submarine Flotilla, K.1, K.2, K.4, K.6, K.7, K.8.

The area covered by the operation extended roughly right round Scotland, from the parallel of the Flannan Islands (in about 58° N., 7° 30' W.) round the Shetlands and Orkneys to the latitude of Wick—roughly an area stretching 70 miles west of the Hebrides, 30 miles north of the Shetlands and 180 miles east of the Orkneys.¹ It was divided into five Destroyer Areas and four Submarine Areas² as follows (from west to east) :—

Area A.—Area west and north-west of Hebrides between 59° 20' N. and Flannan Islands. 12th Flotilla (*Saumarez*) based on Stornoway, 9 to 10 on patrol.

Area F.—West of the Orkneys between 59° 30' N. and 60° 10' N. 10th Submarine Flotilla, 2 to 3 submarines on patrol.

Area B.—West of the Shetlands between 60° 20' N. and 61° 20' N. 14th Flotilla (*Ithuriel*) based on Swarbacks Minn (Shetlands), 7 to 8 on patrol.

Area G.—North of the Shetlands. 10th Submarine Flotilla, 2 submarines on patrol.

Area C.—East of the Shetlands and Fair Isle between 61° N. and 59° 30' N. 15th Flotilla (*Parker*), based on Lerwick, 9 to 12 on patrol.

Area E.—West of Fair Isle, *Termagant*, *Medea*, and 2 destroyers, based on Scapa, 2 to 3 on patrol.

Area H.—Orkneys North, Fair Isle Channel. 12th Submarine Flotilla, based on Mill Bay, 1 to 2 on patrol.

Area D.—East of the Orkneys. 11th Flotilla² (*Seymour*), based on Scapa, 3 to 5 on patrol.

Area I.—East of the Orkneys. 12th Submarine Flotilla, based on Widewall Bay (Orkneys South), 2 on patrol.

¹ For the precise limits see Operation Orders, June 13, in H.S. 875/253 and Plan.

² The three destroyers of the 13th Flotilla, *Narborough*, *Orestes* and *Oriana* were attached to the 11th Flotilla. See H.S. 875/250, 251.

There were, in addition, six submarines of the 11th Submarine Flotilla patrolling on the route to the Bight, roughly between 58° 30' N. and 56° 30' N., and from 1° E. to 4° 30' E.

By June 14 the patrols were in position and remained out till June 24.

172. German Submarines.—During these 11 days, 19 German submarines passed in and out of the North Sea—12 homeward bound, 7 outward bound¹—besides 5 working on the Bergen—Lerwick route. Between June 16 and 24, 26 forecasts² were sent by the Naval Staff.

How many submarines passed actually through the patrol areas it is difficult to say—probably 15 at least through Area C (15th Flotilla, East of the Shetlands), while four (*U.21*, *U.19*, *U.99* and *U.58*) were operating on the Bergen—Lerwick route and sank two ships within this area. The areas were wide, and the courses and speeds of the submarines were not precisely known. There were altogether 37 reports, consisting of 26 sightings³ and 11 attacks, eight of which by destroyers and three by submarines. One torpedo fired by *K.1* hit a submarine (*U.95*), but unfortunately failed to explode.

173. Areas, Reports—Area A (12th Flotilla).—Area A, to the westward of the Hebrides, about 90 miles long by 50 broad, was patrolled by the 12th Flotilla. Of the 12 destroyers, eight were on patrol with the *Saumarez*,⁴ and four in Stornoway (55 hours at sea and 17 in harbour). Captain Stirling divided his area into Northern and Southern halves along the parallel of 58° 49' N. The destroyers spread to 4 miles, patrolled at 15 knots on courses 41° and 221°. After two blank days (June 15, 16) the course of the operations was dislocated by the necessity of helping ships attacked outside the area. On June 17, at 7.30 a.m., the armed trawler *Walpole*, escorting the British s.s. *Queen Adelaide*, 4,965 tons, homeward bound, reported a submarine in 59° 27' N., 10° 50' W., at least 80 miles outside the western limit of Area A. Instructions were received at 10.45 a.m. to send two destroyers, and the *Munster* and *Strongbow* were sent off to help her.

¹ Homeward: *U.66*, *U.69*, *U.95*, *U.75*, *U.96*, *U.70*, *U.78*, *U.54*, *U.C.75*, *U.82*, *U.61*, *U.55*. Outward: *U.62*, *U.84*, *U.53*, *U.93*, *U.C.31*, *U.C.44*, *U.80*. Bergen—Lerwick Route: *U.21*, *U.19*, *U.99*, *U.58*, *U.100*.

² Homeward bound, 11; outward, 13; not stated, 2. These can be identified with homeward: *U.96*, *U.70*, *U.C.75*, *U.70* (or *U.78*), *U.61*, *U.55*; outward: *U.58*, *U.19*, *U.62*, *U.84* or *U.53* or *U.93*. For Admiralty telegrams see H.S. 675/301 *et seq.*

³ The report (H.S. 875/260) mentions 61 reports, but the plan (in H.S. 875/261) includes a number of sightings up to June 27 subsequent to the close of operations, and also reports by armed trawlers outside the actual areas.

⁴ H.S. 875/211.

Captain Stirling in the *Saumarez* was just leaving Stornoway to reinforce the patrols when another signal came in—"Submarine fired at convoy¹ 0930 in 59° 2' N., 5° 28' W., detach two destroyers." This position off Cape Wrath was 40 miles to eastward of Area A, and the *Sable* was sent off to help, though no answer could be obtained as to the course and speed of the "convoy." The patrolling force by this time had been reduced by three destroyers, which had been despatched to assist ships attacked outside its area.

On June 18 at 11.50 a.m. the *Queen Adelaide*, which had then almost reached Area A, escorted by three armed trawlers (the *Munster* and *Strongbow* apparently had missed her) was torpedoed and sunk by *U.70* in 58° 44' N., 8° 35' W. 8 miles west of the area, and at 7.30 p.m. in accordance with instructions from the Commander-in-Chief the boundary of Area A was moved 20 miles west. At 11.30 p.m. that night (June 18) in 59° 33' N., 7° 3' W. some 14 miles north of Area A, another vessel, the British s.s. *Buffalo*, 4,106 tons, outward bound to New York, was torpedoed by *U.70*, who then came to the surface and opened fire on her. The *Obedient* and *Maenad* saw the gunflashes and made for them, driving the submarine down. The *Obedient* tried to take the ship in tow, but she sank in 59° 42' N., 6° 22' W. at 3.45 p.m. on June 19.²

Two days passed without any sign of a submarine. On June 21, a signal came in that two homeward bound submarines should be passing St. Kilda at 1 p.m. and 4 p.m., speed 10 knots. The *Saumarez* thereupon joined the patrol line and sent one division sweeping down towards St. Kilda. It came back without having sighted anything, but at 8.7 p.m. in 58° 48' N., 7° 55' W.³ the *Prince* sighted a submarine (possibly *U.82* or *U.61*) on the surface and dropped two depth charges near the spot where she had dived. The *Sable* came hurrying up and started a search which met with no success. The next day (June 22) at 6.8 a.m. the *Obedient* sighted a submarine in 59° 8' N., 7° 27' W. (possibly *U.61* again) which dived before an attack could be made. In Area A there had been two sightings and one attack without result.

174. Area F, 10th Submarine Flotilla.—Area F, north of the Hebrides, where *G.9*, *G.10* and *G.11* were working, adjacent to and north-east of Area A, was 78 miles long and 40 miles wide. There were in it four sightings with no opportunities of attack.⁴ On June 20

¹ This was a ship (unidentified) escorted by armed trawler *Pavlova* from Lerwick to Stornoway. H.S. 571/255. The submarine was probably *U.78*, which had sunk the oiler s.s. *Fornebo*, 3,118 tons, off Cape Wrath at 2.30 a.m.

² See H.S. 1276.

³ This is some 65 miles north of St. Kilda. The speed of the submarine was apparently over-estimated.

⁴ On June 27, after Operation BB was over, at 7.35 a.m. in 60° N., 6° 15' W., *G.11* sighted a submarine proceeding north, and dived to attack; at 8.8 and 8.10 fired two torpedoes at 1,000 to 1,200 yards, both of which missed. H.S.A. 125/271.

at 4 p.m. in 59° 50' N., 5° 36' W., G.10 sighted the top of a conning tower, outward bound on the port bow, 8 miles off (U.84 or U.53 or U.93). Two days later (June 22), G.11 at 5 p.m. in 60° 10' N., 6° 30' W. sighted a submarine 5 miles off, making E.S.E. (U.61 or U.55), but was not able to get within range. That night, June 23, at 1.58 a.m. in 60° 12' N., 6° 10' W., G.11 caught another glimpse of a submarine about 3 miles off, proceeding E.N.E., but lost her in a heavy rainstorm, probably U.61 (or U.55) once again. At 8.55 a.m. in 60° 15' N., 5° 30' W. she sighted 1,000 yards off, the periscope of a submarine (possibly U.C.31 outward or U.55 homeward), and dived to avoid attack.

175. Area B, 14th Flotilla.—North-east of Area F was Area B lying to the west of the Shetlands. In it the day before the operations commenced, June 14 at 2.3 a.m. in 60° 47' N., 3° 53' W., H.M.S. *Avenger* (10th Cruiser Squadron) on her way to Scapa to oil had been torpedoed and sunk by U.69. The *Ithuriel* arriving in the area had only eight destroyers with her. Two divisions (five boats) were on patrol, steaming 16 knots, 2 miles apart by day and at visibility distance at night. The weather was poor, with a heavy swell and nasty sea, which forced the patrols on the night of June 22 to take refuge in St. Magnus Bay. Only one submarine was seen. On June 23 at 10.45 p.m. in 60° 42' N., 4° 23' W., H.M.S. *Mons* sighted the conning tower of a submarine, possibly U.61 or U.55, five miles off (H.S. 875/220) steering E. by N. It dived 4,000 yards away, leaving the *Mons* to drop a depth charge near the spot.

176. Area G, 10th Submarine Flotilla.—North-east of and adjacent to Area B was Area G north of the Shetlands and Muckle Flugga, where G.8 (Lieut.-Commander de Burgh) and G.12 (Lieut.-Commander C. Regnart) were patrolling. They arrived in the area on June 15 at 6.45 a.m. At 4.14 p.m. in 61° 27' N., 1° 9' W. G.8 was sighted by H.M.S. *Duke of Edinburgh* (2nd Cruiser Squadron) who fired two shots at her at 8,000 yards (H.S.A. 125/279,283). On June 17 at 11.12 p.m. in 61° 16' N., 0° 14' E. G.12 sighted a submarine (possibly U.58 or U.19 or U.99) 3 miles off, and dived to attack, but lost her. On June 18 at 10.40 p.m. in 61° 36' N., 0° 39' W. the armed trawler *Bega* escorting six ships to the White Sea was torpedoed and sunk by a submarine. On June 19 at 1.10 a.m. in 61° 20' N., 1° W. G.8 sighted a submarine 5 miles off, proceeding west, and at 1.25 fired two torpedoes which ran well and must have gone close to her (U.58 or U.99 or U.84). U.58 was in the Area at the time, for that morning June 19 at 6 a.m. in 61° 37' N., 0° 5' W. 33 miles to the north-east, she stopped the Danish s.v. *Ivigut*, 456 tons, and sank her by gunfire. She was working on the Bergen route, and it was probably she that G.12 at 5.55 p.m. (June 19) in 61° 11' N., 0° 2' W. sighted steering south-east 5 miles away (H.S.A. 125/287). On June 20 at 3.56 p.m. in 61° 30' N., 1° W. G.8

sighted a "dark object" in the mist and rain 2 miles away; she dived and brought her tubes to the ready, but the port tube fired prematurely and nothing more was seen of the submarine. On June 22 at 6 p.m. (no position given), G.12 in her hydrophone heard a vessel apparently passing over her. On June 23 at 3.30 p.m. in 61° 45' N., 1° 38' W., U.55 homeward bound stopped the Danish s.v. *Sophie*, 89 tons, and sank her by gunfire.

In this area there were five sightings (including one report of a ship sunk) by submarines and one attack without result.

177. Area C, 15th Flotilla.—Area C, east of the Shetlands, was occupied by the 15th Flotilla (Captain Arthur B. S. Dutton), organised in three divisions of four boats each. The area was divided by Captain (D) into two halves—north and south of parallel 60° N.—and normally there was one division on patrol in each half—52 hours at sea, 20 in harbour. On all but three days the weather was good, but the visibility was low. By June 15, 2.15 a.m., the 2nd Division was spread in the Northern half and 3rd Division in southern half. Of the 1st Division two boats were escorting an oiler to Lerwick and the other two were in Lerwick.

On June 15 at 12.15 p.m. in 60° 15' N., 0° 12' E. the *Rowena* (Lieut.-Commander R. Hamer) sighted a submarine—evidently waiting for a convoy which could be seen to the westward—drove it down and dropped a depth charge. The *Trenchant* at 3.10 p.m., some 5 miles to the south-east in 60° 10' N., 0° 20' E. sighted a submarine and dropped a depth charge, and at 8.50 p.m. in 60° 6' N., 0° 44' E. the *Rowena* again sighted one steering north and dropped a depth charge.

Nothing else occurred till June 17, when at 1.30 p.m. in 60° 45' N., 4° 19' E., off the coast of Norway the Danish s.s. *Gunhild*, 960 tons, in an east-bound convoy of nine ships escorted by the destroyers *Northesk*, *Leopard* and *Pellew*, was torpedoed and sunk by U.100. This position was well outside the area. The next day (June 18) at 3.55 a.m. in 59° 54' N., 1° E. the *Rowena* sighted a submarine and dropped a depth charge. That evening at 7.30 p.m., Captain Dutton was informed that a homeward bound submarine should pass Muckle Flugga (north of Shetlands) or Fair Isle on June 19, and an outward bound submarine on June 19 or early on June 20. On June 19 at 8 p.m., Area C was extended to the eastward and Captain (D) was informed that a submarine outward bound would pass Muckle Flugga about 8 p.m. on June 20. On June 20 at 7 p.m. in 60° 2' N., 1° E., the *Trenchant* sighted a submarine steering south-east some 10 miles off (possibly U.19), and in the morning of June 21 the *Rob Roy* caught a glimpse of one 8 miles off in 60° 50' N., 1° 30' E.; at 4.45 a.m., the *Romola*, in 60° 40' N., 2° 30' E., sighted one 6 miles off (possibly U.21). At 7.10 a.m. (June 21) in 60° 22' N., 1° E., some 50 miles from the *Romola's* sighting a Scandinavian

convoy of 13 ships, westward bound, escorted by three destroyers, one whaler and 3 armed trawlers, was attacked by *U.19*, who torpedoed and sank two ships, the British s.s. *Black Head*, 1,898 tons, and the Norwegian s.s. *Laatefos*, 1,458 tons, and missed another, the Danish s.s. *Uranienborg*, 1,974 tons. The *Trenchant* and *Sabrina*, who were in the vicinity, proceeded at once to whip up the convoy which was straggling over 6 miles, while the *Rowena* and *Rob Roy* reinforced the *Northesk* and escorting destroyers. At 9.25 a.m. came orders for the *Salmon*, *Sorceress* and *Undine* to reinforce the convoy, and the 2nd and 3rd Divisions proceeded to hunt the submarine with, however, no success. The next day (June 22) at 6 a.m. in 60° 21' N., 1° 34' E., *U.19* attacked another west bound convoy of seven ships escorted by four destroyers, and torpedoed and sank the Norwegian s.s. *Bolette*, 1,534 tons. At 9 a.m., in 60° 17' N., 0° 37' E., the *Romola* sighted a submarine which dived 6 miles ahead, and twice again during the day a submarine was seen, only to dive and disappear. On June 24 at 9 a.m. in 60° 8' N., 0° 54' E., the *Sabrina* sighted a submarine on the surface, and at 12.15 in 59° 48' N., 2° 18' E. the *Rowena* sighted one steering W.N.W., dropped a depth charge, and with the *Trenchant* and *Rob Roy* carried out a hunt. Nothing came of it and the operations came to an end at 4 p.m.

In the area there were eight sightings (including ships sunk) without attack and five ineffective attacks. Three ships were sunk—all in convoy. The operations demonstrated clearly the difficulty of attacking submarines effectively. They continued to operate and sank two ships in the patrolled area. Out of 117 ships passing along the Scandinavian route, four were sunk (3.5 per cent.), and the operations tended at times to become a mere reinforcement of convoy escorts, resembling in this respect the doings of the 12th Flotilla in Area A on June 17.¹

178. Areas E, H, D and I—Torpedo hits "U.95."—It is unnecessary to deal in detail with the remaining areas. In Area E (two destroyers west of Fair Isle) nothing was seen by the destroyers. In Area H (Fair Isle), two "K" class submarines were on patrol. On June 16 at 11 a.m., *K.7*, Lieut.-Commander G. H. Kellett, arrived in the area and began a diving patrol, being reported as an enemy submarine and hunted by the *Observer* and *Rocket*, till she blew, came to the surface and communicated with them. At 3.12 p.m. in 59° 31½' N., 1° W. she sighted a submarine bearing 1° steering to southward. At 3.21 p.m. she fired the port beam tube and at 3.29 p.m. all four bow tubes in succession, all the torpedoes breaking surface and running on the surface most of the way, the third apparently being a hit. The enemy altered course and opened

¹ Captain A. B. S. Dutton's report, H.M.S. *Parker*, June 27, 1917, in H.S. 875/223.

fire, leaving *K.7* to fire the starboard tube at her stern. She was *U.95* on her way home and was hit by one of the torpedoes, which unfortunately failed to explode.

In Area D, 11th Flotilla, there was only one sighting and one attack; on June 20, at 5.52 a.m., a report came in of a submarine disabled by *J.1* to the southward, and the *Narborough* and *Oriana* were sent off at full speed in chase, but sighted nothing.

In the submarine patrol areas to the southward stretching between the Forth and Norway there were five submarines on patrol.¹ These were out on the ordinary North Sea patrols, and were not there solely to take part in the B.B. operations. They sighted submarines four times on June 17 and 18,² and made two attacks.

On June 20 at 2.45 p.m. in 58° N., 1° 36' E., *J.1* saw an enemy submarine come to the surface 3 miles off, and fired one bow tube as soon as ready at 4,500 yards, the remaining three at 5,000 yards; all the torpedoes missed.³ *J.1* came to the surface and chased at full speed, opening fire at 3.45 p.m., when two rounds seemed to hit. The enemy was proceeding 170° at high speed and by 4.7 p.m. was out of sight. *J.1* thereupon sent out a signal to say that the submarine could not dive, and the *Oriana* and *Narborough* from Group D were sent off at full speed to the south-east to intercept her. They fell in with a thick fog, and after reaching 55° 30' N., without sighting anything, returned to the base.

On June 24 at 2.12 p.m. in 57° 43' N., 2° 55' E., *J.5* sighted a submarine, and fired four bow tube torpedoes which missed.

179. Commander-in-Chief's Report.—The Commander-in-Chief expressed the opinion that the operation had, on the whole, been successful in arresting a serious enemy submarine attack which was developing off the Hebrides and on the Scandinavian route.⁴ He considered, however, that destroyers should be concentrated in greater numbers in fewer areas. Captain W. W. Fisher, D.A.S.D., was of opinion that if the entire forces had been concentrated in one area, there would have been definite success⁴; he urged a repetition of the operation on the lines laid down by the Commander-in-Chief as soon as vessels and fuel were available.⁵ On the German side there is nothing to show that the passage of submarines had been seriously interrupted. It was not, however, till October that another operation could be carried out on so large a scale.

¹ *J.1*, *J.2*, *J.3*, *J.4*, *J.5*.

² June 17, 12.15 p.m., *J.4*; June 18, 3 a.m., *J.2*; June 18, 7.10 a.m., *J.2*; June 18, 8.35 a.m., *J.3*. H.S.A. 126.

³ H.S.A. 126/238.

⁴ It was not known that *U.95* had been hit till November, 1917.

⁵ H.S. 875/260, 264.

180. **Dover Barrage Shifted, June.**—At the other end of the North Sea, a considerable piece of work was being performed in the shifting of the mine net Barrage at Dover. Early in 1917, the Cross Channel Net Barrage at Dover had been strengthened by three lines of deep mines,¹ which had been laid between December 17, 1916, and February 8, 1917, to the number of 2,010 on the south (*i.e.* Channel) side of the Barrage, half a mile away from it, by the *Princess Margaret*, *Biarritz*, *Wahine* and *Paris*. They were laid from 54 ft. below L.W.O.S. to within 30 ft. of the bottom and as it was difficult to get good moorings in the strong tide on the slippery chalk bottom, double sinkers were used joined by 15 ft. of cable. In spite of this precaution, with the eastgoing tide setting more strongly than the westgoing, the mines seem to have dragged into the barrage.² In January and February the Dover minesweepers swept up a number of mines.

On March 16, 1917, the drifter *Protect* while trawling nets near 6D buoy hauled in a mine which blew her up with a loss of ten lives. A month later (April 15) the Trinity House tender was blown up while laying buoys at 2 p.m. off 17C buoy with the loss of most of her crew.³ On April 22, the Vice-Admiral, Dover, wrote to the Admiralty⁴ to say that he considered it unwise to lay any more mines in the vicinity of the nets. The Admiralty replied on May 9, that the position of the mines laid had been reported to Vice-Admiral, Dover, and a tracing, showing the position, forwarded by Captain (M). They considered it equally probable that the Barrage buoys had dragged towards the mines.⁵

In divergence from this view Captain Frederic Bird, in charge of the Barrage, reported that between 10A and 14B buoys where the barrage buoys held their positions well, he had swept up 70 British mines on May 11.⁶

Admiral Bacon evidently decided that it was necessary to sweep up the deep minefield, for on May 19 he informed the Admiralty that "owing to deep mines dragging, have been obliged to remove nets temporarily from 0A to 15A (buoys), to drag the moorings clear to north-east and sweep up the mines."⁷

The sweeping had already begun on May 10 and continued right up to July 9, with one or two days in August, during which period

¹ See suggestion by Vice-Admiral, Dover, November 24, 1916. H.S.A. 428/510.

² H.S.A. 428/53.

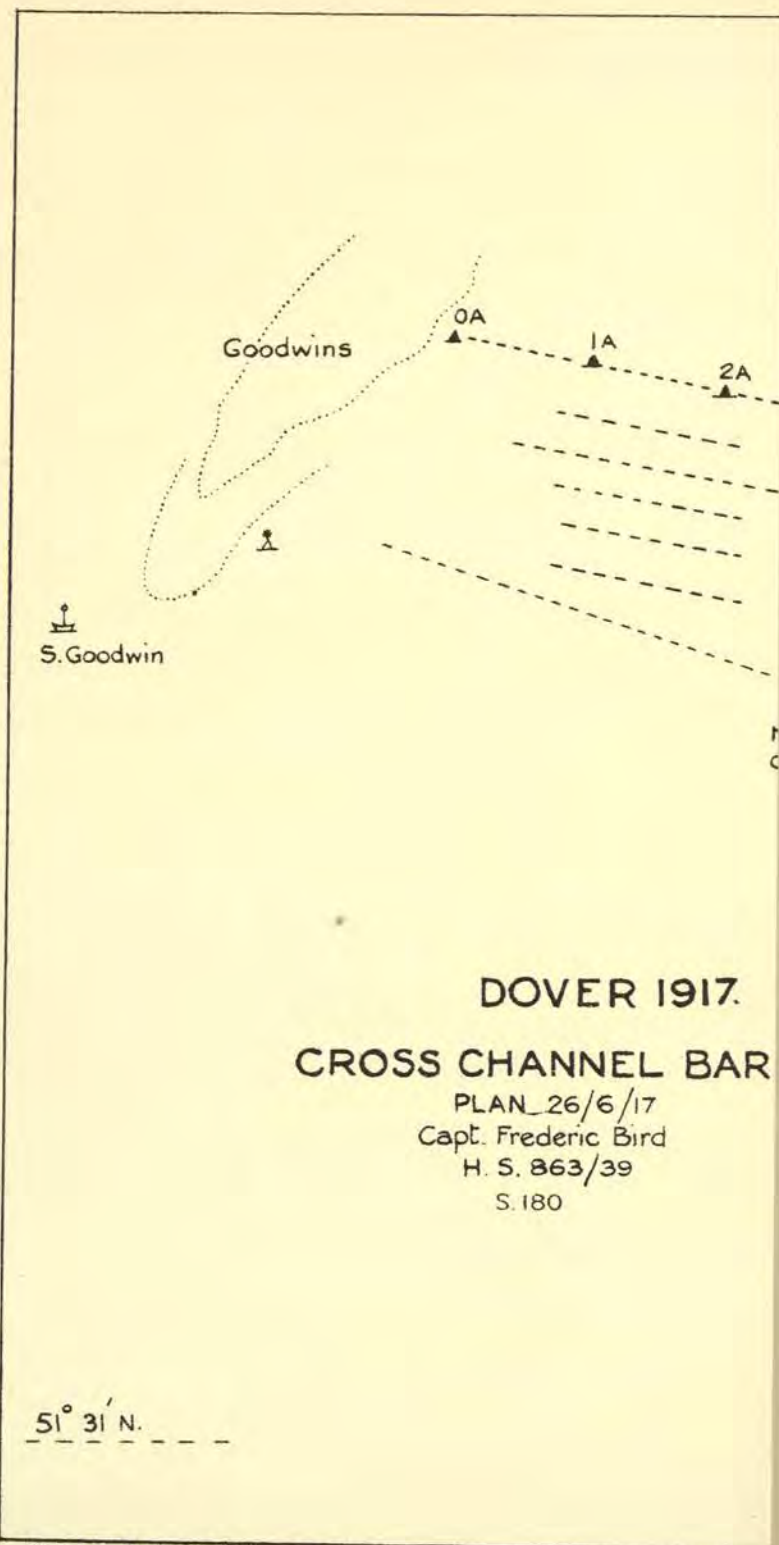
³ For *Protect* see H.S. 1287/88, H.S.A. 427/352; for *Alert*, H.S. 409/160.

⁴ H.S.A. 428/56 in reply to an Admiralty letter of 12.4.17, not seen.

⁵ Admiralty letter of 9.5.17 in H.S.A. 428/109; Plan of Minefield, 2.3.17, in H.S.A. 428/641.

⁶ Actually on May 10 and 11. See H.S. 529. For state of Barrage on 3.3.17 see Captain Bird's report, H.S.A. 427/335.

⁷ H.S. 447/515. May 19, 1917, received 4.43 p.m.



1,071 British mines were swept up.¹ Towards the end of June, Admiral Bacon evidently decided to move the barrage out of the infected area instead of replacing it, for on June 26 he wrote to Admiral Oliver to say that he had instructed Captain Bird to drag the whole line of barrage buoys to the south-west and on June 27 made a signal at Dover giving the new position of 10A buoy as $51^{\circ} 7' 45''$ N., $1^{\circ} 46'$ E. and stating that the new barrage line would run from this point in a direction N.W. by W. $\frac{1}{2}$ W. (magnetic) to the Goodwin Sands.¹

It was probably some weeks before the new barrage was in place. The laying of deep mines close to the barrage having proved unsuccessful, Admiral Bacon on July 7 proposed laying a field of deep mines off Gris Nez in the deep run between that point and the Varne. The mines were not available and it was not till October 8 that the Admiralty replied that a minefield would be laid about the middle of November and that 4,500 mines had been earmarked for the purpose. This was the precursor of the Gris Nez-Folkestone deep minefield which later closed the Straits.²

CHAPTER XII.

OPERATIONS IN THE NORTH SEA, JULY 1917.

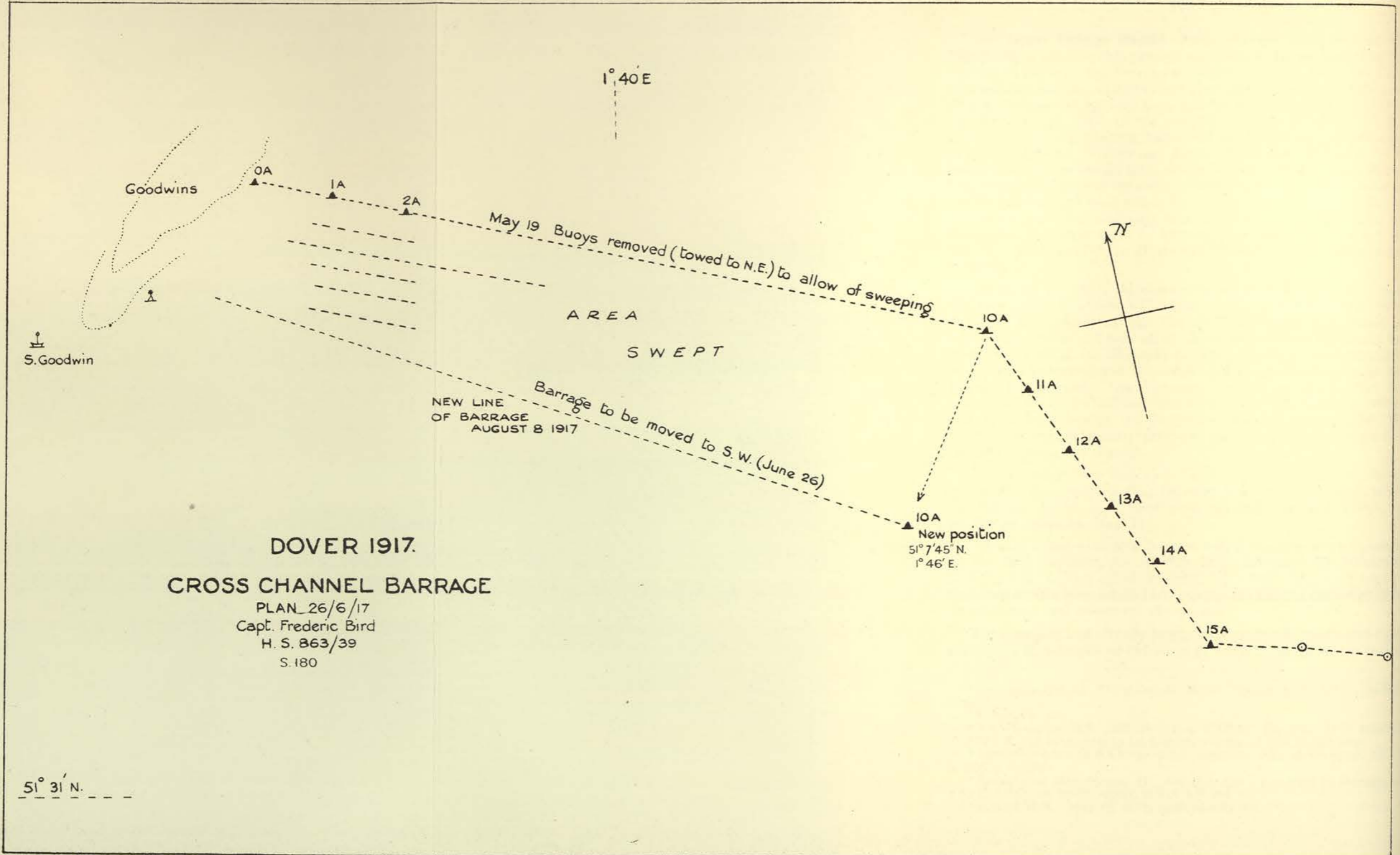
181. **Attack on German Traffic, Dutch Coast.**—July saw the beginning of a sustained effort to close the route along the Dutch coast to German ships. On June 5, Maxse, British Consul General in Rotterdam, had informed the Admiralty of lively traffic between Rotterdam and Germany, many of the ships proceeding outside territorial waters, most of them carrying coal to Sweden³; Maxse was convinced that any interference would put an end to the traffic. This traffic had been growing during 1917; in April, May and June there had been 113 arrivals, 86 sailings at Rotterdam and Maxse was convinced that it could be stopped. The Admiralty in reply to a Foreign Office enquiry seemed dubious about the possibility of interception. It could not be done except by submarines which

¹ Letter to Admiral Oliver, H.S. 845/196; Plan (pencil notes by Admiral Bacon) in H.S. 863/49. (See Appendix C.)

² Vice-Admiral, Dover, letter of July 7 in H.S. 849/11-19; also in Naval Staff Monograph on Dover, p. 137.

³ During 1916, Sweden had supplied Germany with something like 4.35 million tons of ore.

⁴ H.S. 1289/501. 521.



would involve torpedoing without examination, nor could ships be intercepted in Dutch waters without infringing Dutch neutrality.¹ Commodore (T) was more optimistic and on June 14 submitted proposals for the interception of enemy vessels passing along the coast of Holland. He proposed stationing four submarines off the coast to intercept ships and order them to a rendezvous, in 52° 30' N., 4° E., where they could be met by destroyers.² On June 27, *E.41* (Lieutenant Norman D. Holbrook) took a part in the game. She was on her way home from laying mines in the Bight when, at 9.10 a.m., 5 miles west of Terschelling, she met two German merchant vessels escorted by patrols and torpedoed and sank the s.s. *Westphalia*, 3,079 tons, bound from Rotterdam to Gothenburg with coal,³ the loss of which had a very damping effect on German sailings. Captain (S) in reporting the incident asked if German merchant ships were to be sunk without warning and was told "Yes, if there is strong evidence that they are German." On July 1st when Maxse, at 1.55 p.m., sent a telegram to say that some 18 large German ships might be sailing that night, an order was sent to the Harwich force to be ready at short notice, only to be cancelled when a later telegram came to say that no ships were sailing.⁴

For an hour and a half on July 2 the Harwich Force were again at short notice, but a fortnight elapsed before they actually went out in chase (see S.188).

182. German Aeroplane Raid on Harwich, July 4, 1917.—Two days had passed, when on July 4 the Germans made a determined aeroplane attack on Harwich and the surrounding neighbourhood. It was a fine morning, with a considerable amount of cloud and a moderate easterly breeze, when at 6.55 a.m. sounds of aircraft out to sea were heard at Orfordness, and five minutes later the raiders were reported approaching the land. The German machines, numbering about 16 Gotha biplanes, crossed the coast near Shingle Street about 7 a.m., flying at 14,000 ft. Just off the coast they were met by Captain Palethorpe, R.F.C., who was carrying out an endurance test on a D.H.4, and who attacked the centre machine, forcing the whole formation to turn temporarily to the east, but his observer, First Air Mechanic J. O. Jessop, was shot through the heart, and he was compelled to land.

The enemy then turned south and then due west to Ramsholt, passing over Alverton and being distinctly seen from Bawdsey. At Ramsholt they divided into two detachments, one passing over Felixstowe and the other over Trimley, Shotley, the harbour, and Harwich. Two bombs were dropped on Trimley Marshes, killing

¹ Admiralty to F.O., 14.6.17 in H.S. 1289/557.

² H.S. 1391/18.

³ H.S.A. 274/77; H.S. 464/1036; H.S. 465/15.

⁴ H.S. 477/276, 379. Commodore (T)'s Diary, H.S. 247/175.

21 and injuring 29 pedigree sheep valued at £1,000. Seven bombs fell further south on marshland doing no harm. Three fell near Felixstowe railway station doing little damage, and two more near the camp of the 3rd Battalion Suffolk Regiment, killing five men and wounding 10. Further south, between Felixstowe and Landguard, seven 50 kilogram and four 12 kilogram bombs fell on waste land just north of Felixstowe Dock and near the Beach railway station doing no damage. Two bombs which fell on the Royal Naval Air Service Station, killed five men of the R.N.A.S. and three civilian workmen besides injuring 20 others. A large seaplane, too, was destroyed here by fire.

At Shotley two 50 kilogram and two 12 kilogram bombs fell near the naval balloon station breaking some windows, killing two naval ratings, and injuring another. In the harbour 15 bombs fell in the water or the mud. None did any damage to vessels, though one fell perilously close to the *Conquest's* whaler and the forecastle of the *Conquest* herself was hit by a piece of 4-in. shell apparently fired by the *Canterbury*. The *Conquest* and *Concord* also fired at the raiders. A few more bombs were dropped in the neighbourhood of Harwich, Dovercourt and Felixstowe Spa, and then the enemy went out to sea at a height of about 10,000 ft.

The aeroplanes of the Royal Flying Corps and Royal Naval Air Service made a gallant attempt to cope with the occasion. Sixty-six Flying Corps machines rose in various parts of Essex and Kent, but failed to find the raiders. Seventeen naval machines rose in England and 20 from Dunkirk. A flight of five of the Dunkirk machines intercepted the enemy some 20 miles N.N.E. of Nieuport and brought two of them down in flames, forcing another to land, damaged, near Ostend. All our machines returned safely.¹

183. Grand Fleet Anti-Submarine Operation "CC," July 5-9, 1917.—The early part of July saw a trial in the Grand Fleet of a new mode of hunting submarines by means of kite balloons. The route used by the Germans was said to pass through a position 30 miles north of Muckle Flugga to latitude 60° 20' N., longitude 1° 30' E., and thence by alternative routes either direct to Lynvig or west of the Dogger Bank,² Mine Area, and thence to Emden. Barely 10 days had passed since the completion of Operation "BB," June 14-24, when five destroyers equipped with kite balloons left Scapa to patrol a circular area with the position latitude 60° 20' N., longitude 1° 30' E. as a centre, and a radius of 40 to 50 miles. The new operation was known as "CC," and is interesting as the first

¹ Air raids, July 1917 (II). H.S. 247/176. Note.—Aeroplanes also raided England on July 7 and July 22.

² Marked on Mine Chart, X.74, as Mine Area No. 1, roughly in 4° E. between 56° N., 55° N. Laid by German light cruisers May 17, 1915. The Grand Fleet designation was Mine Area A.

of a series which the Commander-in-Chief proposed to carry out against the German submarines.

The force, consisting of the destroyers *Anzac*, *Morning Star*, *Moon*, *Patriot*, *Maenad* and *Norman*,¹ sailed from Scapa on the evening of July 5. The weather conditions were ideal, with visibility so extreme that the Shetlands, 80 miles away, could be seen from the balloons. Submarines were sighted from the balloons, but although immediate steps were taken to hunt them, were not seen again and the whole force returned to Scapa on the 9th after a cruise which had given it valuable experience in kite balloon work.²

184. **H.M.S. "Itchen" Torpedoed, July 6.**—While this anti-submarine operation was still in progress a destroyer employed on convoy duty was sunk by a German submarine in the North Sea. On the morning of July 6, at 8.30 a.m., the *Itchen*, 7th Destroyer Flotilla, Lieutenant Frederick L. Cavaye, accompanied by the destroyer *Flying Fish* and five trawlers, escorting a Scandinavian convoy of three merchant ships up the coast to Lerwick was in about latitude 58° 35' N., longitude 0° 45' W., 70 miles east of Pentland Firth, when she was hit by a German torpedo. The convoy was steering N. 11 E. at 6 knots at the time.

Between 8.20 and 8.27 the *Itchen* had come down on a course S. 18 W. to a position abreast the second ship of the convoy⁴ and had just turned to north-east under 20° of starboard helm, when at 8.30 a.m. a torpedo exploded on her port side abreast the engine-room, nearly cutting her in two. The force of the explosion released the depth charges and one exploded 80 ft. under her stern. The trawler *Gardenia* coming alongside at once took off the survivors and had only just completed the task when the *Itchen* sank. The torpedo which had destroyed her had come from the direction of the convoy.⁵ The only German submarine in the vicinity was *U.99* which left Germany on June 12 to operate off the Orkneys and Shetlands and was never heard of again.⁶ No other German submarine reported sinking a British destroyer on July 6 and in the opinion of the German Historical Section the loss of the *Itchen* must be attributed to *U.99*.

¹ Not equipped with a balloon. During the early part of the operation the *Norman* was detached temporarily to reinforce the destroyer *Salmon* convoying 20 merchant vessels from Norway to Lerwick.

² H.S. 875/274 *et seq.*

³ Times are approximate.

⁴ See Plan 10.

⁵ H.S. 1368/139.

⁶ Historical Exchange, Q.10. The loss of *U.99* was previously attributed to an attack by the s.s. *Valeria* off the south-west of Ireland on June 20. According to Marine-Archiv, the attack by s.s. *Valeria* was made on *U.62*, which was not damaged. *U.99* was possibly sunk by H.M. submarine *J.2* on July 7, or on a minefield in the Bight. (See Section 156).

TORPEDOED.

1917.

approximate.

45° W.

4.

HMS *Flying Fish*.

8 30 A.M.

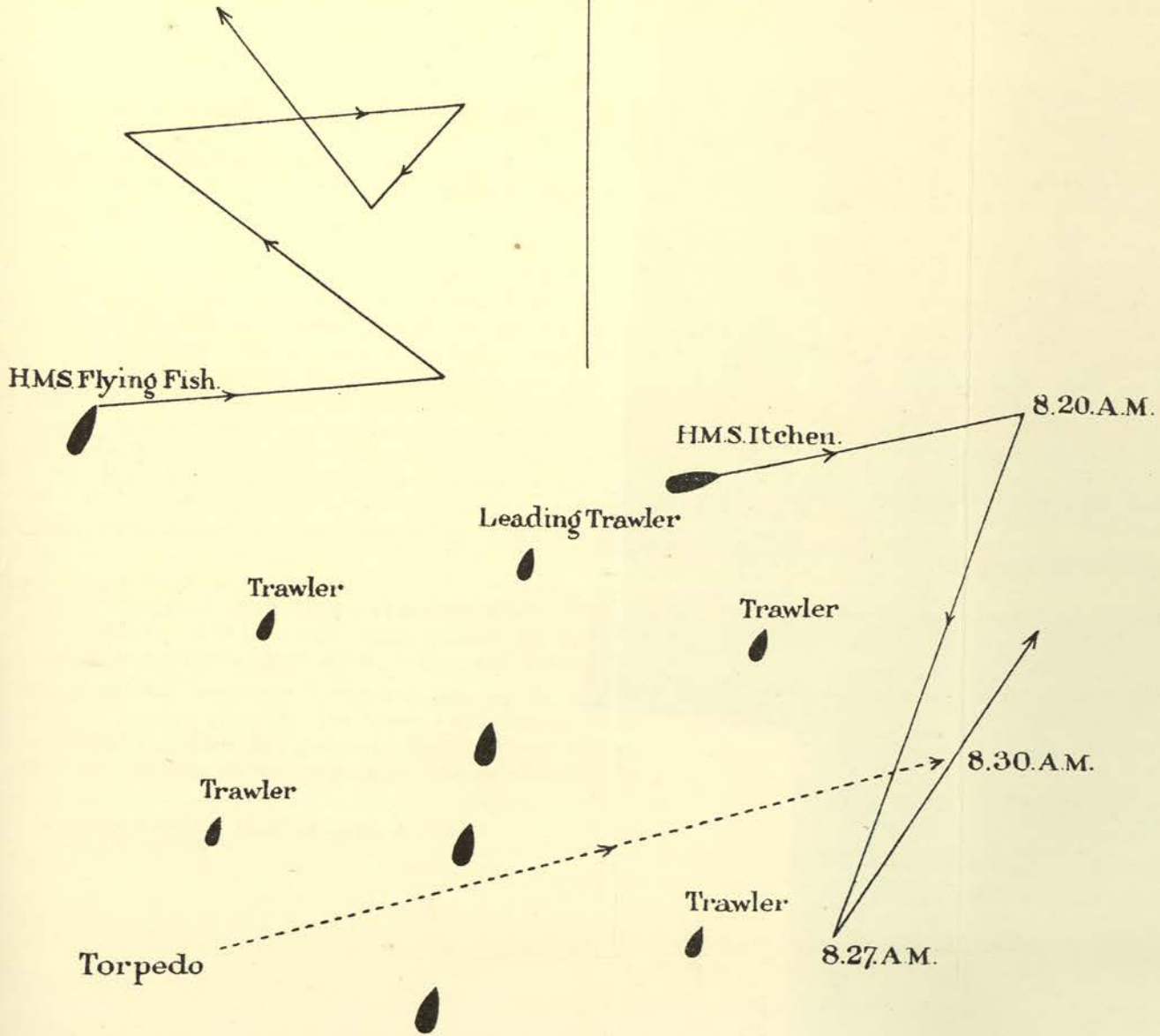
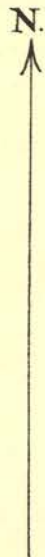
H.M.S. ITCHEN TORPEDOED.

JULY 6, 1917.

Times are very approximate.

58° 35' N. 0° 45' W.

Section 184.



NL. 12749/17

185. H.M.S. "Vanguard" Blows Up at Scapa, July 9.—During July an appalling catastrophe deprived the Grand Fleet of one of its battleships. On the morning of the 9th the *Vanguard*,¹ 4th Battle Squadron, Captain James Douglas Dick, Commander William Cadman, was anchored on the North Shore at Scapa Flow. At 5 o'clock that afternoon she crossed to her berth in the Fleet anchorage and anchored at 6.30 p.m. Night fell, fine and calm. Hours passed by. One by one the lights of the assembled Fleet disappeared, leaving only the dim silhouettes of the battleships. At 11.20 p.m. a small bright tongue of flame appeared suddenly on board the *Vanguard* abaft the foremast. In a moment it flared into a huge mass of fire, and a heavy explosion broke the stillness of the summer night. Great pieces of wreckage went hurtling skywards and fell into the dark waters of the Flow. A large piece of steel plating crashed on to the deck of the *Bellerophon*. Wreckage, too, fell flaming on to the island of Flotta starting a number of fires. A great curtain of smoke arose and veiled the scene, and when a second heavy explosion tore the doomed ship to pieces, no eyes saw her sink.

From every ship in the fleet boats hastened to the spot to search for survivors, while parties were landed on Flotta to put out the fires. Stations were taken up for protecting the anchorage against submarines, but the hydrophones could report nothing suspicious. Only two survivors were picked up and all further search was in vain.

A boat from the *Neptune* found Lieut.-Commander Allen C. H. Duke swimming and clad only in pyjamas, but so badly burnt that he died two days later without being able to recall any details of the disaster. The *Bellerophon's* whaler picked up 1st Class Stoker F. W. Cox who had a strange tale to tell. At 10.15 p.m. he had turned in and was quietly reading. At 10.40 p.m. he dropped his book and dozed. It appeared to him as though he was just falling asleep when suddenly the lights went out and there came a great crash, the deck above him opened and he was hurled up through the gap. He fell into the water with a piece of the deck on top of him. Swimming from under it he came to the surface, and attempted unsuccessfully to save another man near him, and, overcome by burns, became unconscious as he was picked up.² Only one other man on board the *Vanguard* at the time was rescued alive. He was Private John Williams, R.M.L.I., and when picked up by the *Bellerophon's* boat was suffering from shock, bruises and burns.

It so happened that when the *Vanguard* blew up 15 of her officers were at a concert given by the *Royal Oak*, among them Commander Wilfred Custance, her gunnery officer. Three officers and 49 ratings, too, had gone on advance leave; two sub-lieutenants

¹ 19,250 tons, 10—12-in., 18—4-in., 4—3-pdrs.

² H.S.A. 122/710.

had been lent to destroyers, and two midshipmen to submarines. With the ship perished Captain Dick and more than a thousand of his officers and men. The name, too, of Commander K. Ito of the Imperial Japanese Navy, appears among the lost.

A preliminary investigation into the loss of the *Vanguard* was followed by a careful inquiry under Rear-Admiral W. C. M. Nicholson, 1st Battle Squadron. Commander Custance and gunnery officers from other ships were called and questioned on the arrangements for safeguarding magazines on board the *Vanguard*, and in the fleet. Commander Weston, a cordite expert, from the Admiralty gave technical evidence on the ammunition supplied to the *Vanguard*. Engineer Officers, gunners, officers in charge of turrets, and officers in command, from other battleships also gave evidence, answering questions not only with regard to magazines and spaces near them, but a host of others which might throw light on the disaster.

It so happened that on the very day of the explosion two dockyard employees had been working on board the *Vanguard* replacing the gear of a Holmstrom Carrier in the gunhouse of "A" turret. They had left the ship at 4.45 p.m. Both came before the Enquiry to give evidence. By a strange coincidence it appeared that one of them, a Chargeman of Naval Ordnance Fitters, Chatham Dockyard, had been working on board the *Natal* on the very day on which she had blown up in Cromarty Firth,¹ a piece of circumstantial evidence which drew considerable suspicion upon him. He was carefully questioned. On July 14 the Commander-in-Chief informed the Admiralty that there was nothing suspicious in his evidence but that he had displayed remarkable ignorance of the general details of magazines.

Salved from the wreckage of the *Vanguard* were certain fragments of correspondence which, together with a copy of the evidence of the two ordnance fitters, was the subject of a further investigation. The correspondence referred to consisted of some letters written in German, the contents of which, it was said, "might well be considered most incriminating." There was, too, a photograph of a young woman said to be "of most fascinating appearance who, in style and dress, appeared to be of a type much employed by the Germans in their spying system." This photograph which had been sent before the war was accompanied by writing in German, and a German Bible was also picked up.

Pages of evidence shed no real light on the cause of the explosion. The Court of Enquiry could only say that it was unable to attribute blame to any person in connection with the loss of His Majesty's Ship *Vanguard*.² It remained a mystery, whose cloud hung over the ships at Scapa for many a day.

¹ See Home Waters VI.

² H.S.A. 122/391-800.

186. Grand Fleet Kite Balloon Operation, "U.69" Destroyed, July 12.—The second of the series of kite balloon operations which Admiral Beatty had planned against the German submarines ended in a possible success. On the morning of July 12, 1917, the destroyers *Anzac*, *Patriot*, *Maenad*, *Moon* and *Norman* were spread round a centre in latitude 60° N., longitude 1° E. Three of them, the *Patriot*, Commander Robert G. Hamond, *Maenad*, and *Moon* were towing balloons on patrol lines 15 miles from the centre and keeping a circular area 80 miles wide under observation.

The weather was fine and very clear. A homeward bound German submarine had been expected off Muckle Flugga the previous evening. Early on the 11th, too, the Swedish s.s. *Vanda*, 1,646 tons, had been sunk by an enemy submarine¹ in latitude 60° 20' N., longitude 1° 40' E. At 5.37 a.m., on the 12th, Flight-Lieutenant Osborne A. Butcher sighted, from the *Patriot's* balloon, a submarine on the surface 28 miles away to the east. The *Patriot* at once steered for it at 25 knots, but was still 6 miles away when it dived. At 7.5 a.m. the destroyer waiting near the spot where the submarine had disappeared, saw it rise again some four miles off in a position about 60° 20' N., 1° 33' E. Commander Hamond at once opened fire but the submarine dived without being hit. The *Patriot* made for the spot and about 7.15 a.m. under the directions of Flight-Lieutenant Butcher, dropped two type "G" depth charges, one where a swirl was seen, and the other where there was an oil patch and some air bubbles. More than four hours had passed without further incident and at 10.30 the *Patriot* had been relieved by the *Anzac*, Commander Brien Money, when at 11.23 a.m. at least four of the destroyers felt the shock of a heavy explosion and 20 minutes later the *Anzac* found in latitude 60° 23' N., longitude 1° 32' E., an extensive patch of thick brown oil in a turbulent condition and giving off a powerful smell. A great deal of oil, too, was still coming up from below. A few odd pieces of wood, floating in the oil, which at the time covered an area nearly a quarter of a mile across, were retrieved for inspection.

At the time of the explosion the *Anzac* was 4 miles from the spot, the *Patriot*, 10; the *Norman*, 14 and the *Maenad*, 16. The explosion was a very heavy one and in the *Moon*, 18 miles away, the shock was so severe that all hands tumbled up on deck to see what it was.

The evidence that a submarine had been destroyed seemed conclusive and Commander Money submitted that it was beyond reasonable doubt, though the exact cause of the explosion could only be surmised. Admiral Beatty, too, considered that there was little doubt that a submarine had been sunk. At the Admiralty, however, the encounter was noted only as a "Possible"; a D.S.C. was awarded to Flight-Lieutenant Butcher and Commander Hamond was mentioned in despatches. Later it became definitely known that

¹ U.52.

a submarine had been lost about this time. She was *U.69*, Lieut.-Commander Ernst Wilhelms which had left Emden outward bound for the West of England on July 10. She had been completed in October 1915, and had sunk a large number of ships, H.M.S. *Avenger* among them, during the 22 months of her career. The heavy explosion and the mass of oil afforded clear evidence of the loss of a submarine, the immediate cause of which was apparently an internal explosion, possibly induced by circumstances arising from the *Patriot's* depth charge attack.¹

187. **H.M.S. "Tarpon" Mined, July 14.**—On July 14 about 9 p.m. the *Telemachus* (Commander Taprell Dorling), *Legion*, *Tarpon* (Commander E. O. Tudor) and *Meteor*, each laden with 40 mines, escorted by the *Swift* (Captain A. M. Peck), "*P.21*" (Captain Evans of *Broke* on board) and four Harwich destroyers² left Dunkirk to lay mines off the Belgian coast. The field was to be laid off the Middelkerke Bank, preparatory to the laying of the Belgian coast barrage on July 25. The mines were laid between 10.40 and 10.52 p.m.³ It was pitch dark with a strong south-west wind and raining hard. The *Tarpon* had laid her mines, turned west and rejoined the *Teazer* and *Thruster* when at 11.28 p.m., in about 51° 20' N., 2° 40' E.⁴ she struck a mine which wrecked her stern and blew off the starboard propeller. She anchored and the *Thruster* (Commander G. L. Gibbs) got her in tow and safely back to Dunkirk. The Court of Enquiry was of opinion that she had either struck an enemy mine or one of the mines of the old barrage.⁵ It was thought just possible, however, that she had been torpedoed, for Commander Dorling reported that shortly before 11 p.m. while still laying mines, he sighted three or four vessels 500 yards on the port bow, steaming fast to the N.N.W., and after comparing his movements with the *Swift* he was tolerably certain that they were enemy craft. These were probably *G.91* and *V.70* who were patrolling in the vicinity but they saw nothing and fired no torpedoes.⁶

188. **The Harwich Force, Capture of Four German Merchant Vessels, July 16, 1917.**—In July 1917, a new task fell to the Harwich Force. A number of tugs and barges,⁷ required for the projected

PLAN II.

H.M.S. STARPON
MINED OFF BELGIAN COAST
JULY 14, 1917
V.A. Dover 21.7.17 H.S. 863/54
S. 187.

¹ H.S. 1374/110. Berlin thinks *U.69* may have gone on to Irish Sea. Vide Section 241A.

² *Torrid*, *Springbok*, *Thruster* and *Teazer*. The *Springbok* had escorted H.M. the King back from Calais that afternoon.

³ Between 51° 17' N., 2° 36½' E., and 51° 20' N., 3° E.

⁴ This is the position in Commander Tudor's report (H.S. 845/255). In Vice-Admiral Dover's plan (H.S. 863/54) it is 51° 21' N., 2° 44' E.

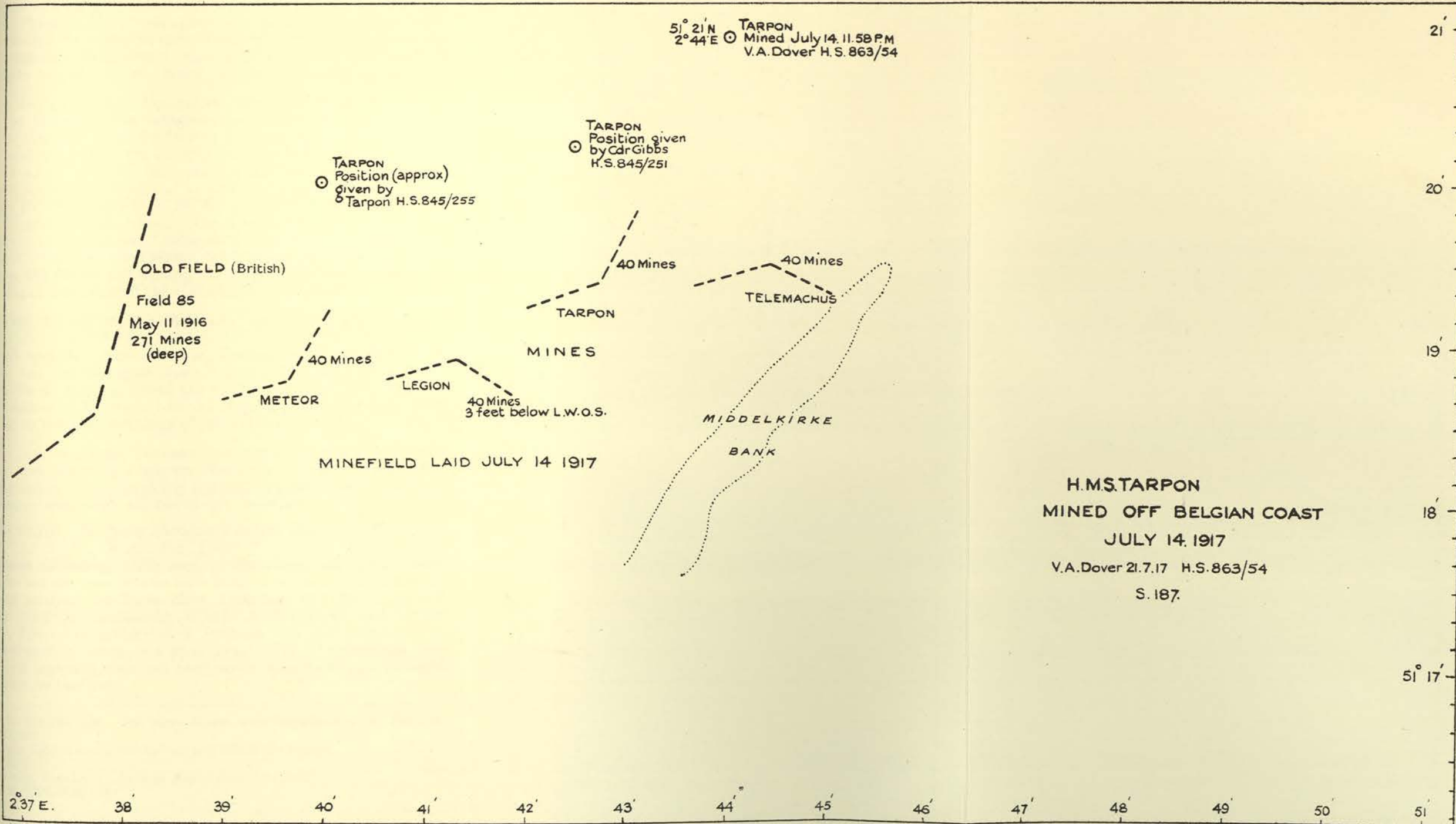
⁵ Field 85 laid May 11 1916, 271 deep mines. The position given by Commander Tudor was about 1 mile east of its southern extremity.

⁶ Captain Peck's report in H.S. 428/318; V.A., Dover, Orders, July 13, in H.S. 385/266; Commander Tudor's (*Tarpon*) report and Court of Enquiry, H.S. 845/255; Plan of Minefield, H.S. 863/54. Marine-Archiv, H.S./Q.54 (16).

⁷ See Monograph, "The Dover Command," Vol. 1/117. Admiral Bacon's "Dover Patrol," 1/223.

21'
20'
19'
18'
51° 17'

47' 48' 49' 50' 51'



landing westward of Ostend were waiting at the Hook of Holland for escort to England, and on the evening of July 13, the *Centaur*, *Aurora*, *Penelope*, and a dozen destroyers sailed to bring them over. The next day the squadron arrived back at Harwich with eight tugs and 13 lighters. It had been unsuccessfully attacked that forenoon by hostile aircraft, but the cruise had been otherwise uneventful.¹

The next day, July 15, another blow was struck at German traffic to Holland. The Admiralty had learnt that a number of German steamers would be leaving Rotterdam for Germany that night, and at 8.15 p.m. the Harwich Force² sailed to intercept them. At 2.45 a.m.,³ July 16, the squadron had reached a point some 15 miles west of the Texel and at 4.15 a.m. arrived at a position in latitude 53° N., longitude 4° 29' E., and steered thence S.S.W. to keep 10 miles off the coast. The *Undaunted* and seven of the destroyers were stationed 3 miles on the port beam of Commodore Tyrwhitt's flagship, the *Centaur*, with orders to place themselves between any vessels sighted and the shore. The morning was fine, but a slight haze reduced the visibility to about 5 miles.

Fifteen minutes later, at 4.30 a.m., six German steamers were sighted ahead, and were at once chased by the destroyers. Events followed quickly. The *Thruster*, Commander G. L. D. Gibbs, D.S.O., and the *Springbok*, Lieut.-Commander Cosmo M. Graham, bore down on them, captured the s.s. *Brietzig*, 1,495 tons, and the s.s. *Pellworm*, 1,370 tons, both of Hamburg and soon had them heading to the west in charge of prize crews.

The four remaining steamers were slightly in rear of their two leaders and promptly made for the shore. Two of them,⁴ after running ashore, were completely disabled by gunfire and lay exposed to a heavy swell; one was towed into Ymuiden.

The fourth, after being abandoned drifted ashore but was towed off by the *Sylph*, Commander James V. Creagh. She was the s.s. *Heinz Blumberg*, 1,226 tons, of Hamburg, and after raising steam in her the *Sylph's* prize crew brought her safely into Harwich. Another steamer, the *Marie Horn*, 1,088 tons, of Lubeck, captured by the *Surprise*, Commander Wilfred A. Thompson, and by the *Teazer*, Lieut.-Commander E. S. Graham, was also despatched to the westward in charge of a prize crew.⁵ Out of seven ships, four had been captured, two had been driven ashore and one managed to return to harbour.

¹ H.S. 247/185, 186. Ten more barges were brought over on July 24. H.S. 247/201.

² Eight light cruisers, two leaders and fifteen destroyers.

³ G.M.T.

⁴ *Renate*, *Leonhardt*; *Lavinia* (towed into Ymuiden).

⁵ H.S. 1391, 108, 145.

At 6 a.m., two Dutch torpedo-boats arrived on the scene but made no signals, nor did they interfere in any way with the British movements. A Dutch cruiser, too, appeared but never got within signalling distance. On completion of the captures Commodore Tyrwhitt, to prevent any interference from hostile vessels, proceeded with his cruiser force to the northward. The speed of the four prizes was exceedingly slow. The last two captures, indeed, could scarcely exceed 5 knots. On the way in, off Harwich on July 17 at 1.5 a.m. in 52° 5' N., 1° 48' E., an unsuccessful attack¹ was made upon the *Thruster* by a German submarine, the torpedo passing under her and across the bows of the *Brietzig*. The Dutch vessels who had been watching the encounter sent in their report and H.M. the Queen of Holland sent a telegram² to H.M. King George, complaining of the infringement of Dutch waters. As Commodore Tyrwhitt's report made it clear that in the cases of the two German steamers destroyed, an infringement of Dutch neutrality had undoubtedly taken place, the Admiralty at once called for further details. In reply, Commodore Tyrwhitt pointed out that it had been exceedingly difficult to get accurate fixes from landmarks and accepted full responsibility. From the reports of the boarding destroyers, the Hydrographer was of opinion that at least three of the four vessels, the *Brietzig*, *Marie Horn* and *Heinz Blumberg*, were within territorial waters when captured.

In the four ships captured, however, no lives had been lost. The Harwich Force had carried out a "very smart piece of work"³ and struck a crippling blow at German trade from Rotterdam.⁴ Their action was followed by the Harwich submarines of the 9th Flotilla. On July 26 at 9.18 a.m., *E.53* torpedoed the German s.s. *Nordeney*, 5,497 tons, off the Texel in 53° 1' N., 4° 36' E.; on July 27 at 11.15 a.m., *E.55* fired a torpedo at the *Batavier II*, which missed; the ship was then chased and boarded, but two Dutch torpedo-boats came on the scene and told Lieutenant Bradford he must consider himself a prisoner as the ship was in territorial waters. In these circumstances, as the ship was making water, the prize crew withdrew.⁵

189. Harwich Force and Belgian Coast Landing Project.—At the end of 1916, Admiral Bacon had suggested that the Navy should be ready for landing a force near Middelkirk, in conjunction with any advance of the Army from Ypres. During the first part of 1917 preparation for this task had been going on.⁶ In June the

¹ H.S. 1391/136.

² H.S. 483/137.

³ Minute 17.7.17, H.S. 1391/108.

⁴ See reports, M.09075/17 and M.09134/17, in H.S. 1391/127; H.S. 247/185, 186.

⁵ Sec. Records, Case 853.

⁶ V.A., Dover, to C.O.S., December 23, 1916, in H.S. 1383/190. For preparations in 1917 see Dover Monograph, O.U. 5413 (D), p. 114.

First Sea Lord had laid stress on the importance of our regaining the Belgian coast ports which were the bases of the Flanders submarines, and at a conference held at Rosyth on July 19, the First Sea Lord informed the Commander-in-Chief, Grand Fleet, of reasons for temporarily strengthening the forces in the Southern part of the North Sea.¹ Four light cruisers, four destroyers and eight "G" Class submarines were to be detached from the Grand Fleet and to be at Harwich by August 2. This movement was to safeguard the big projected landing of three brigades, some 13,550 men,² on the Belgian coast between Middelkerke, Ostende, associated with the advance on Passchendaele which was launched on July 31 in torrential rain and was drowned after three months fighting in swamps and mud.³ Little has been said of this project of landing for it never came to fruition, but there seems little doubt that Haig was much influenced by the importance attached by the Admiralty to the capture of the Belgian coast ports and by the idea that our safeguard from starvation lay in the capture of Zeebrugge and Ostend.

190. Belgian Coast Patrol and Mine Net Barrage, July 25.—To cover this projected landing, Admiral Bacon decided to re-institute the Belgian coast barrage and patrol, which had lapsed during the bad weather period set in. A sufficient number of 4-in. gun destroyers were available for the purpose, if four more could be added to his force. In view of increased German destroyer activity, Admiral Bacon considered that the minimum patrol should be one 15-in. monitor, 2 "M" monitors, 1 light cruiser, 1 leader and 8 destroyers.

The mine net barrage, consisting of 15 miles of nets, was to be relaid, running parallel with the Belgian coast between Nieuport and Zeebrugge. The vessels taking part were the *Broke* (Flag), *Terror*, *Erebus*, *Marshal Soult* and *Attentive* (Captain D.); 2 leaders and 12 destroyers, of which 4 were French; *Paris* (minelayer) with 2 Harwich destroyers as escort; 7 paddle minesweepers; 8 motor launches, 2 "P" boats; and 62 drifters. The whole force of no less than 102 vessels was assembled as secretly as possible on the evening of July 24 and as near dark as the state of the tide permitted. The movements of the various units on the previous night had been synchronised so that the laying could be started and ended by each unit simultaneously.

¹ M.06198/17 in H.S. 1391/211.

² See Admiral Bacon's "Dover Patrol," 1/223.

³ For complete orders issued by Admiral Bacon see H.S.A. 306/70 (Dover volumes), "Operations on Belgian Coast," August 18, 1917. See also Admiral Bacon to Admiral Oliver, December 23, 1916, H.S. 1383/190, and Admiral Bacon on possible German strategy, July 6, 1917, H.S. 1383/196. Life of Haig, Duff Cooper, Vol. 2, pp. 135, 146.

The Dover Force was not powerful enough to carry out the operation unaided and at 9 p.m. that night Commodore Tyrwhitt detached the *Nimrod* and eight destroyers to support the Dover vessels while the rest of the Harwich Force kept steam at half an hour's notice from 2 a.m. till 10 a.m. July 25. The whole arrangements worked out according to plan. The actual laying of the nets occupied about ninety minutes. Temporary lines of drift nets were laid, too, between Cliffe d'Islande¹ and West Hinder on the off chance of catching a homeward bound submarine.

The operation was not carried out, however, wholly unopposed, for at 5 a.m. three German destroyers appeared and attacked the drifters and destroyers at long range. The *Broke* and the first destroyer division returned the fire, and the *Torrid*, one of the destroyers from Harwich, claimed two hits. The Germans remained, however, under the shelter of their shore batteries, and Admiral Bacon ordered the *Terror* to engage them with 15-in. shell. The first round from the monitor nearly scored a hit and the enemy, retiring behind a smoke screen, made no further attempt to interfere. The Knocke battery, however, opened fire in reply and straddled the *Terror*, but as she was underway at a range of 32,000 yards could not maintain an accurate fire and did not obtain a hit.

At 6.30 a.m., the operation was completed and Admiral Bacon despatched the *Nimrod* and four of the Harwich destroyers to their own port, and left the line to the ordinary patrol vessels. Three days later, on July 28, the remaining five miles of nets were laid. The arrangements were much the same but the operation was completed without interference from the enemy boats or batteries. By August 3 the new patrol was well established and was maintained daily when the weather allowed. At night it was carried out by the C.M.B's and occasionally by a destroyer sweep when the weather prevented the motor boats from running. In addition to the minefield laid by H.M.S. *Paris* on July 25, a minefield had been laid on July 14 off Ostende by the destroyers *Telemachus*, *Tarpon*, *Legion* and *Meteor* (see S.187) and another on July 16 off the Smal Bank by the trawlers *Osta*, *Carmania II* and *Ostrich II*. *U.B.20* which left Zeebrugge on July 29 for a short trial trip was probably lost on one of these fields.²

191. Submarine Patrol off Texel.—The landing project involved the landing of three brigades (13,554 officers and men) of the 1st Division of the 4th (Rawlinson's) Army on the Belgian coast by

¹ 51° 21' N., 2° 31' E.

² Orders for Mine/Net Operation, July 19, 1917, in H.S. 1383/30; Vice-Admiral, Dover, report, M.010013/17, in H.S. 1383/18; plan in H.S. 1383/22. See also Admiral Bacon's Dover Patrol 1/168. Exchange, H.S./Q.52 (32) re *U.B.20*.

means of specially designed pontoons 600 ft. long.¹ It was necessary to provide against an attack from the Bight and with the help of the eight "G" class submarines, lent by the Commander-in-Chief it was decided to institute a submarine patrol off the Dutch coast. Altogether 28 submarines were available; the Texel patrol was to consist of 10 submarines in three lines, 12 miles apart, with another patrol of six submarines 6 miles apart off the Schouwen, the latter to be called the Schouwen patrol. These were evidently intended to act against any forces which the Germans might send down the Dutch coast.²

192. The Grand Fleet Cruisers, July, 1917.—Meanwhile in the north the light cruiser squadrons of the Grand Fleet had been active. On July 11 the *Sydney* and *Dublin* left Scapa to sweep for enemy vessels, and to intercept any others that appeared suspicious, off the Norwegian coast. On the way out on July 12 they passed the oil patch that marked the end of *U.69*.³ They saw nothing suspicious and returned on the 13th.⁴

A week later, the 1st Light Cruiser Squadron carried out an operation on a more ambitious scale directed against enemy mine-layers. The *Caledon*, *Galatea* and *Phaeton* accompanied by seven destroyers and the *Manxman*⁵ sailed from Rosyth on July 20 to proceed to 54° 10' N., 4° E., then sweep north to latitude 54° 40' N., longitude 4° 20' E., and thence to the southern end of "L" channel.⁶ During the operation a hard N.N.W. wind was blowing which would have made it difficult for Zeppelins to act, and the force saw nothing of the enemy.

193. British Minelaying, Heligoland Bight, July, 1917.—Five new British minefields were laid in the Heligoland Bight during July of which four were the work of submarines. The first consisted of 20 mines laid by *E.34* about 5 miles north of the west end of Terschelling Island during the forenoon of July 7.⁷ On her way over, and when 15 miles north-west of the North Hinder Light Vessel, she used her water jet to make a recognition signal to a seaplane. Owing

¹ For orders for the landing dated August 18, 1917, see Dover Papers in H.S.A. 306/70. See also Admiral Bacon's "Dover Patrol" 1/223.

² M.00200/17 of July 28, 1917, to Captain (S) in H.S. 1391/248, 254. Plan in H.S. 1444/236.

³ See Section 186.

⁴ H.S. 875/284, 287.

⁵ Seaplane carrier. She was to send up machines only if Zeppelins were actually sighted.

⁶ H.S. 875/290, 292. "L" channel ran south-east from the Firth of Forth; the southern end was in 54° 30' N., 3° 30' E. See Home Waters, Vol. VII, Plan 11.

⁷ Field 215.

to the choking of the pressure gauge an abnormal pressure was applied to the main ballast tank and it burst into the after battery tank. The mines were successfully laid however whilst the submarine was submerged, except the ninth which jammed in the tube owing to the damaged ballast tank. Eventually it shook out when *E.34* went to the bottom at 2.25 p.m. that afternoon, and she proceeded along the bottom for ten minutes to get clear of it. Her field was discovered during the sweeping operations to clear Field No. 218,¹ but the actual date of its discovery is not known.

In the early morning of July 12, *E.41* laid a field of 19 mines² some 7 miles north of Vlieland. The field was discovered during the clearing operations of Field 218.³ Four days later *E.51* laid 20 mines 6 miles north of Vlieland,⁴ which were discovered by German sweepers the same day and the area was declared clear on July 25, the day on which the *Blanche*, *Bellona*, *Royalist* and *Telemachus*⁵ laid a field 16 miles north of Horn Reefs and 4 miles from the Danish coast.⁶ The new field consisted of 280 mines and was discovered by a German Destroyer Half Flotilla on the very day on which it was laid.⁷ No attempt appears to have been made to clear it, though its limits were established. It was known to be still there in the middle of October 1917, and possibly remained until after the Armistice.

The last field of the month was laid by *E.46* on the 27th some 4 miles west of Texel Island. It consisted of 20 mines⁸ but nothing is known of its history. The British Minelaying in the Bight in July 1917, was not therefore, very successful, for apparently not one of the 359 mines laid did any damage to the enemy.⁹ On the other hand, there can be little doubt that by July 1917 the minefields in Bight were becoming a very real danger to German submarines both outward and homeward bound.

194. Extension of Dangerous Area, North Sea, Dogger Bank Light Vessels, July 24.—On June 25, an extension of the Notified Mined Area in the Bight had been issued by the Admiralty,¹⁰ extending the notified area from 56° N. to 57° N. and out to 4° E. The Dutch and Scandinavian countries made strong protests against what they regarded as a serious restriction on shipping between Holland and Norway, Sweden and Denmark. After some discussion it was agreed

¹ See Section 146.

² Field 213. One mine failed to leave the tube.

³ See Section 146.

⁴ Field 211.

⁵ T.B.D.

⁶ Field 21.

⁷ Several mines were seen on the surface.

⁸ Field 182.

⁹ Lockhart Leith/240-243.

¹⁰ Notices to Mariners, No. 637 of 1917 in Case 616.

to reduce our Notified Area¹ and the Dutch Government agreed to lay and maintain a line of light vessels, and light buoys about 7 to 10 miles to the westward of the western limit of the British Notified Area. These aids to navigation were at once established and the long line of four light vessels and seven light buoys running for some 180 miles became a well known feature of North Sea navigation in the war.²

195. "Ariadne" Torpedoed, July 26, 1917.—On July 26, the British minelayer *Ariadne*, Captain Harry Smyth, was torpedoed in the Channel by *U.C.65*,³ Kapt.-Lt. Otto Steinbrinck. This old cruiser, claimed by Steinbrinck as his hundredth ship, was built in 1897 and was converted for minelaying at Plymouth in March 1917. Though equipped in her new guise to carry 400 service mines, her selection as a minelayer can hardly be regarded as a very happy one, for she was almost worn out, her boilers and engines gave continual trouble and her arrangements for minelaying and coaling were inconvenient and unsatisfactory.

On the afternoon of July 24 she left the basin at Immingham and sailed for Plymouth at 4.30 a.m. next day to lay deep mines off that port.⁴ She was given no route orders, but before leaving the Humber, Captain Smyth asked Admiral Stuart Nicholson, the Vice-Admiral, East Coast, for details of the route from the Downs westward. No information was available at Immingham and Admiral Nicholson requested the Vice-Admiral, Dover, to send instructions to Captain Smyth on his arrival in the Downs. Owing to the *Ariadne's* early departure from the Humber she was unable to collect her mails, which included signal orders dated July 17, 1917, containing instructions that wireless look-out was to be kept on "Q" wave instead of "S" wave. She was therefore listening on the wrong wave on her passage, and would presumably miss any reports of submarines on "Q" wave.

When she anchored in the Downs on the evening of July 25, her route instructions were brought to her by the armed yacht *Simoun* of the Downs Boarding Flotilla. Part of the route given passed through an area in 50° 35' N., 0° 55' W., previously reported as dangerous, and Captain Smyth at once asked whether he should pass north or south of it, and was told to steer from Beachy Head

¹ Notices to Mariners, No. 731 of 1917 of July 24 in Case 616. Area commenced in 57° 8' N., 3 miles from coast of Jutland, thence to 57° 8' N., 6° E.; to 56° N., 5° 10' E.; to 54° 45½' N., 4° 17' E.; to 53° 29' N., 4° 4' E.; to 53° N., 4° 10' E.; thence along 53° N. to a position 3 miles from Netherlands coast.

² Notices to Mariners, 779 of 1917. The light vessels were Dogger Bank Noord, 56° N., 5° E.; Dogger Bank Zuid, 54° 47' N., 4° 8' E.; Terschelling Bank, 53° 29' N., 4° 2' E.; Haaks, 53° N., 4° 5' E. See Lockhart Leith, 242.

³ Marine-Archiv, H.S./Q.10.

⁴ H.S. 484/598.

through a position 3 miles south of Brighton to a point 7 miles south of Owers L.V., and thence to a position 1 mile south of St. Catherine's Point.

In the morning of July 26 a telegram from the Naval Centre, Portsmouth, informed the Admiralty and other Naval Centres, that a submarine had been sighted in $55^{\circ} 33' N.$, $0^{\circ} 3' E.$ (south-west of Beachy Head) at 6.5 a.m. that morning.¹ Portsmouth passed this report to Dover by land wire at 8.13 a.m. The *Ariadne* was then still anchored in the Downs, and after being delayed by fog, eventually got under way about 10.30 a.m. The reported position of the submarine off Beachy Head lay close to her track, but had not been communicated to her at Dover, "as it was not the practice of the Vice-Admiral, Dover, to warn vessels in the Downs of submarines reported west of Beachy Head."

She steered through the Folkestone Gate and down the swept channel at 16 knots with two destroyers, the *Peregrine* and *Norman* 1,200 yards ahead on either bow, all three vessels steering a steady course because of the narrow limits of the swept channel. At 2.7 p.m., the Commander-in-Chief, Portsmouth, sent out a signal, timed 1432,² to his auxiliary patrol vessels that submarines, probably hostile, were in sight 5 miles W.S.W. from the *Royal Sovereign* Light Vessel.³ About 2.12 p.m., the *Ariadne*, steering S. 72 W., passed the *Royal Sovereign* L.V. and altered course N. 78 W. Ten minutes later, at 2.22 p.m. (G.M.T.), she was in $50^{\circ} 43' N.$, $0^{\circ} 22' E.$ ⁴ when a violent explosion shook her from stem to stern. A torpedo from U.C.65 had struck her on the port side at "C" boiler room which rapidly flooded. She at once listed 10° to port and heeled slowly until the list was 15° . All lighting was extinguished and "B" and "D" boiler rooms gradually filled, though "A" boiler room remained intact; the engine rooms and boiler rooms were evacuated with the starboard engine stopped but the port engine still running. The helm was put hard-a-port and jammed and all communication between engine room and bridge having failed, the ship continued to circle to starboard for about 25 minutes until the port engine was stopped. Immediately after the explosion, Captain Smyth, thinking that the ship was capsizing, ordered the boats to be got out; the alarm rattlers failing to work, he ordered "Everyone up from below," and sent out a wireless call for help; then finding that the ship remained with a list of 15° , he ordered the starboard wing compartments to be flooded.

At this juncture a paddle sweeper came hurrying up and made ready to take the *Ariadne* in tow, and was actually moving slowly

¹ H.S. 485/468.

² Presumably 1.32 p.m., G.M.T.

³ H.S. 485/603. $50^{\circ} 39' N.$, $0^{\circ} 21' E.$

⁴ H.S. 485/601.

ahead while the tow rope was being paid out, when at 3.12 p.m. a second torpedo passing under the sweeper's stem struck the *Ariadne* on the port side and exploded abreast of "B" boiler room. The minelayer immediately began to capsize and four minutes later was lying bottom up. When it became evident that she was capsizing, Captain Smyth ordered "Every man for himself," and the survivors jumped overboard. There were 384 saved and 33 lost, including five killed by the explosion.

In the meantime the two destroyers had searched for the attacking submarine without success. At the time of the second attack, four paddlesweepers and three trawlers were also in the vicinity, but although the tracks of both torpedoes had been sighted nothing was seen of the enemy.

The court-martial, which was held at Devonport on August 21-23, 1917, found that no blame was attributable to Captain H. H. Smyth, but remarked on the unsatisfactory manner in which the port engine room had been abandoned without orders.¹ The case was conducted on the lines of the recently established new procedure in which an interrogatory comprising the principal points was put in by the Prosecutor to the Court.¹

¹ Court-martial, 21 August, 1917, in Case 2165. The Admiralty notified C.-in-C., Plymouth, that it was not apparent why, when the Court had found certain persons to blame in certain respects, it did not proceed to award sentence as directed in Article 666, Clause 8 of K.R.

CHAPTER XIII.

SUBMARINE WARFARE, JULY 1917.

196. **Statistics, July, 1917.**—The figures for July showed a distinct improvement with a decrease in total tonnage lost of 22 per cent. compared with the June, and 40 per cent. with the April, figures.

The tonnage (gross) allied and neutral sunk by submarines in the different areas was as follows:—

Allied and Neutral Tonnage (gross) sunk by Submarines, (a)
July 1917.

| Area. | July. | | | June. | | |
|---|---------|----------|--------------|--------|----------|-------------------------------|
| | Ships. | Tonnage. | Per-centage. | Ships. | Tonnage. | Increase or Decrease on June. |
| South-West, West and Atlantic. (d) | 86 | 237,101 | 47·2 | 90 | 296,838 | —20% |
| Channel, Channel Approach, Irish Sea and Bay. | 57 | 146,432 | 29·1 | 85 | 172,181 | —15% |
| Mediterranean .. | 41 (b) | 83,380 | 16·6 | 76 | 110,188 | —24% |
| North Sea | 40 | 34,716 | 6·9 | 33 | 38,155 | —9% |
| Arctic | 0 | — | — | 7 | 13,425 | — |
| Baltic | 0 | — | — | 7 | 4,691 | — |
| | 224 (c) | 501,629 | — | 298 | 635,478 | —21% |

(a) Not including tonnage sunk by mines laid by submarines, viz., 12 ships of 33,570 tons (in June, 14 ships of 35,738 tons), a decrease of 6 per cent. Statistical Review (1918) gives 14 ships of 52,701 tons sunk by mines, which includes, however, two ships of 14,759 tons sunk by mines laid by the raider *Wolf*. The actual total of ships sunk by mines in July was 14 ships of 49,329 tons. Three ships formerly attributed to mines were sunk by submarines, viz., the *Henry R. James* (July 16), the *Bramham* (U.C.47, July 19) and the *Fluent* (July 20), and one ship formerly attributed to a submarine may have been sunk by a mine, the *Beatrice* (July 20).

(b) Official History, Vol. 4/314, gives 22 ships, but is evidently counting only ships of over 200 tons.

(c) This includes fishing vessels (12—1,155 tons). Excluding fishing vessels, the total is 212 ships, 502,904 tons. Statistical Review (excluding fishing vessels) gives 210 ships and 492,320 tons.

(d) Includes 10 ships (25,842 tons) sunk in the Azores by U.155 and three ships (7,536 tons) off Gibraltar by U.35, a Mediterranean boat.

There was a fall in sinkings for July of 21 per cent. compared with June. In the south-west and west, they had fallen 19·5 per cent; in the Channel, Channel Approach and Bay 15 per cent; in the Mediterranean, 24 per cent; in the North Sea, 9 per cent. This fall was coincident in Home Waters with a decrease in submarine activity during the month, as shown in the following table, and was evidently related to it.

German Submarines, Number Operating and Tons Sunk per Day.
July, 1917.

| | July. | June. | + or — |
|---------------------------------------|---------|------------|--------|
| <i>Submarines to Westward.</i> | | | |
| Submarines out | 34 (c) | 43 | —28% |
| Days out | 535 | 664 | —26·4% |
| Tonnage sunk | 237,101 | 296,838 | —18·5% |
| Tons per day per submarine .. | 452 | 445 | + 1·2% |
| Submarines sunk | Nil | 1 (U.C.29) | — |
| <i>Submarines in Channel and Bay.</i> | | | |
| Submarines out | 15 | 16 | —6% |
| Days out | 170 | 204 | —17% |
| Tonnage sunk | 146,432 | 172,181 | —15% |
| Tons per day per submarine .. | 860 | 845 | + 2% |
| Submarines sunk | 2 (a) | 1 (U.C.66) | — |
| <i>Submarines in North Sea.</i> | | | |
| Submarines out | 15 | 7 | +101% |
| Days out | 148 | 141 | + 13% |
| Tonnage sunk | 34,716 | 38,155 | —9½% |
| Tons per day per submarine .. | 244 | 270 | —11% |
| Submarines sunk | 5 (b) | 0 | — |

The "Days Out" of submarines working to the westward fell by 26·4 per cent., and in the Channel and Channel Approach by 17 per cent., which corresponds approximately with the fall in tonnage sunk, viz., 21 per cent.

In the Channel proper, however, that is in the area between Dover and the Scillies, a big rise took place in the tonnage sunk, though there was a fall in the number of ships.

(a) U.B.23 on July 26, off Lizard, depth charged by P.60; seriously damaged and interned at Corunna, July 29. U.C.61, stranded July 26 on Wissant Shoal, Gris Nez (Channel).

(b) U.99 on July 7 at 7.40 a.m. in 58° N., 3° 5' E., torpedoed by J.2, or on mine in the Bight; U.69 on July 12 at 11.25 a.m. in 60° 23' N., 1° 32' E., explosion seen by H.M.S. *Patriot*; U.C.1, July 18-19, British mine, Flanders coast; U.B.20, July 28, British mine, Flanders coast; U.B.27, July 29 at 10.57 a.m., in 52° 47' N., 2° 24' E., struck and depth charged by H.M.S. *Halcyon*.

(c) Includes U.155, out, 31 days in July.

Tonnage Sunk, Channel and Adjacent Areas.

| Area. | July. | | June. | | + or - |
|--|--------|----------|--------|----------|--------|
| | Ships. | Tonnage. | Ships. | Tonnage. | |
| Channel | 25 | 56,590 | 30 | 28,739 | +89% |
| Channel Approach (Scillies to 10° W.). | 14 | 44,251 | 18 | 64,303 | -28% |
| Ireland, South | 2 | 2,730 | 6 | 9,908 | — |
| Irish Sea | 2 | 3,547 | 1 | 572 | — |
| Bay | 14 | 39,314 | 30 | 68,659 | -43% |
| Total | 57 | 146,432 | 85 | 172,181 | -15% |

The rise in the Channel, however, was coincident with a corresponding fall in the Channel Approach and in the Bay which more than compensated for the increase in the Channel proper.

197. **Mediterranean, February–July, 1917.**—In the Mediterranean too there had been a fall of 25 per cent. in July, with a decrease, since April, so striking as to merit comparison with that in Home Waters.

Tonnage Sunk, Mediterranean.

February–July, 1917.

| | July. | June. | May. | April. | March. | Feb. |
|-----------------------------|--------|---------|---------|------------|--------|--------|
| Submarines out (a) | 19 | 25 | 20 | 24 | 13 | 10 |
| Days out (a) .. | 238 | 290 | 260 | 290 | 140 | 110 |
| Tonnage sunk .. | 83,380 | 110,188 | 151,687 | 271,657(b) | 51,413 | 98,853 |
| Tons per submarine per day. | 348 | 380 | 580 | 935 | 368 | 895 |
| Submarines sunk | 0 | 0 | 1 | 0 | 0 | 0 |

While the "Days out" in July had fallen only from 290 to 238 (100 : 81.5) compared with April, the sinkages had fallen from 271,657 tons to 83,380 (100 : 30.6). This was possibly due to the fact that in the Mediterranean, as in Home Waters, the system of routing and patrols had been under a close review.

(a) From Étude des Mouvements des Sous-Marins ennemis. (French Naval Staff, monthly, I.D. Vol. 727.)

(b) Including 34,476 tons sunk by U.35 (Mediterranean Flotilla), West of Gibraltar.

In January, 1917, an Allied Conference held in London¹ had agreed to a "mixed" routing system in the Mediterranean. In the Mediterranean West the French thereupon adopted fixed coastal routes in their zones, while in the Mediterranean East the British authorities gave their ships dispersed routes, though fixed routes were retained for neutral vessels and kept patrolled. These measures led to an improvement in the situation, for from January 15, 1917, to the end of February, only four British ships were lost as compared with nine in the first two weeks of January.

On March 7, therefore, on the strength of these results, the Admiralty decided to abandon the Algerian Coastal Route and to introduce dispersed routes for British ships over the whole Mediterranean.² This measure, however, evidently did not meet the situation, for in April and May there was a big increase in losses both in the east and west of the Mediterranean, the toll of British ships from January to July, 1917, being as follows:—

| | Jan. | Feb. | March. | April. | May. | June. | July. |
|--------------------|------|------|--------|--------|-------|-------|-------|
| Mediterranean West | 0 | 7 | 5 | 17(a) | 16(b) | 11 | 5 |
| Mediterranean East | 9 | 2 | 5 | 12 | 9 | 5 | 3 |

On April 15 the situation was aggravated by the loss on one day of two large British transports—the *Arcadian*, 8,939 tons, in the Aegean, on the way from Salonica to Alexandria, and the *Cameronian*, 10,963 tons, between Sicily and Greece on the way from Marseilles to Egypt—and an Allied Conference was summoned to deal with the situation.

198. **Mediterranean, Corfu Conference, April 28.**—This Conference met at Corfu on April 28, under Vice-Admiral Gauchet and Vice-Admiral Thursby. Rear-Admiral George Ballard (Senior Naval Officer, Malta), was unable to attend but Rear-Admiral Fatou, after an interview with him, made the following proposals:—

- (a) Traffic from the Atlantic for ports east of Aden to go by the Cape.
- (b) All allied patrol vessels to be pooled in one organisation.
- (c) Patrols to be stationed on the Algerian coastal route.
- (d) Patrols on the Aegean route with day "garages" at Suda, Milo and Skyros.

¹ January 24, 1917. See M.00160/17 (printed). For Mediterranean Zones of Command, see Official History, Naval Operations, 4/276.

² Telegram, March 7/1845 in H.S. 498/857.

(a) Of which six on the Algerian coast and three on Spanish coast.

(b) Of which four on the Algerian coast and four on Spanish coast.

A proposal was also put forward for the formation of convoys of three or four vessels to be escorted by three or four patrol vessels, and for escorted convoys from Malta to Suda Bay (Crete) and Milo, thence to Salonica or Port Said; between Marseilles and Bizerta; Marseilles and Oran; Gibraltar to Oran and Bizerta to Malta.

In a careful estimate of traffic and of forces available prepared for the Conference, the number of merchant vessels at sea on any day was estimated at 300¹ while the total forces engaged in patrol, escort and sweeping work were stated to be as follows:—

| | | |
|--|-----|-------------------|
| Destroyers | 89 | (37) ² |
| Sloops and gunboats | 55 | (34) |
| Large patrol vessels | 40 | (26) |
| Large trawlers | 311 | (176) |
| Small trawlers | 173 | (59) |
| Small torpedo boats and motor launches | 190 | (97) |
| Total | 858 | (429) |

From the above figures there had to be deducted vessels employed in minesweeping and for the protection of bases, leaving available for the protection of trade, 387; viz., 217 for escorts and 170 for patrols, of which there would be available at any one time, 201; viz., 112 for escort and 89 for patrol. For an efficient patrol system it was considered that patrols should be not more than 10 miles apart, and as the distance to be patrolled was 2,030 miles, 203 vessels would be required for patrol work, making a deficit, against 89 available, of 114.

The conclusions³ arrived at and recommended by the Corfu Conference were as follows:—

- (1) Navigation by night in every case where circumstances permit.
- (2) Increase of harbours of refuge and of net protection for a number of ports.
- (3) Coastal navigation whenever possible.
- (4) Patrols on coastal routes and in narrow channels.
- (5) Navigation as close to land as conditions would allow.
- (6) Protection of vessels on high sea⁴ routes to be assured⁵ by means of escorted convoys, and by a "dispersed routes procedure."

¹ 400 by the French Admiral, Fatou.

² H.S. 1421/201. Figures in brackets are the number that were British, viz., 429, or 50 per cent. of whole.

³ M.05566, Commander-in-Chief, East Mediterranean, May 2, 1917, in H.S. 1421/191 (French version, p. 63).

⁴ French version is "routes éloignées des côtes."

⁵ French "assuré."

- (7) Convoys to be composed of not more than three ships, but, in view of limited resources, the number of ships and organisation of convoy, to be entirely at the discretion of the routing officer at the port of departure.
- (8) Obligatory to pass through certain areas by night.
- (9) Use of Cape of Good Hope route for all traffic between Atlantic and ports east of Aden, except in cases of military requirements.
- (10) More use to be made of Italian railways, via Taranto, for transport to Macedonia and Egypt.
- (11) Fixed net barrage to be laid in the Straits of Otranto, at the entrance to the Dardanelles, the Gulf of Smyrna, Gibraltar and, if experience permits, between Cape Bon and Sicily.
- (12) Reduction, to the lowest limits, of patrol vessels for military and political work off Syria, Asia Minor and Greece.
- (13) Increase in every possible way of means of attack and defence against submarines.
- (14) Institution at Malta of an organisation to be called "Central Authority for Mediterranean routes" in charge, under the control of the French Commander-in-Chief, of everything to do with navigation and protection of transports, the composition and duties to be defined after a decision had been received from the British Admiralty on the following proposals submitted by Vice-Admiral Thursby.

- (a) All British Naval Forces in Mediterranean to be under one command.
- (b) The French Commander-in-Chief to deal with a single British Officer.
- (c) The Admiral commanding British Naval Forces to have a Flag Officer to assist him in matters of transport routes.

On May 20, 1917 the Admiralty concurred in the discontinuance of fixed patrol routes, the adoption of navigation by night and of coastal navigation, and in the introduction of a convoy system, with escorts on dispersed routes, so far as resources would permit.¹

On the receipt of these instructions, Admiral Ballard at Malta on May 22, 1917 started small convoys of four ships escorted by four armed trawlers from Malta to Alexandria.²

¹ Telegram, May 20, 1917, and letter June 8, 1917, in H.S. 1421/145, 152.

² See Auxiliary Patrol Reports, Mediterranean, H.S. 758/163.

It is not known to what extent tonnage was actually diverted to the Cape route, but Admiral Ballard's convoys seem to have been a distinct success, for from May 22 to July 16 of 275 vessels escorted from Malta only two are reported to have been sunk.¹

To conform with the proposals for the institution of a central authority, Vice-Admiral Sir Rosslyn Wemyss, Commander-in-Chief, East Indies, was appointed,² on June 20, British Commander-in-Chief in the Mediterranean, to fly his flag ashore at Malta. He immediately submitted proposals for a new organisation at Malta, and on July 26 a conference was held in Paris to discuss the matter, attended by the French, and Italian Ministers of Marine and the First Sea Lord.³ Admiral Wemyss, however, was not to see his plans carried out for he was soon afterwards selected to fill the new office of Deputy First Sea Lord, and on August 6 Vice-Admiral the Honourable Sir Somerset Gough-Calthorpe was appointed to succeed him as Commander-in-Chief, Mediterranean, and it was under him that the new scheme began to take shape.

These changes in the Mediterranean were directly related to the submarine campaign, and Admiral Ballard's convoys of three or four ships escorted by armed trawlers may be compared with the small convoys started by Admiral Sir Frederick Brock in February 1917 on the Scandinavian route (*see* Home Waters VIII/181). It is clear that a careful estimate of the traffic concerned is the first essential for the introduction of a system of control. It was on an estimate of the coal traffic provided by Commandant Vandier in December 1916 that the French coal trade started. A similar estimate was the basis of Admiral Sir Frederick Brock's first Scandinavian convoy and was the first step in the institution of the Atlantic convoy system; with the help of the figures furnished at the Corfu Conference, Admiral Ballard was able to start a preliminary system of convoy, though it may be noted that it was not till September 1917, when a Statistical Department was started at the Admiralty, that the actual traffic figures in some of the principal areas began to be regularly compiled.

¹ The s.s. *Ruperra*, 4,332 tons, Malta to London, June 20; s.s. *Khephren*, 2,774 tons, Malta to Alexandria, July 16. The above figures evidently refer, however, to convoys from Malta only, for from May 22 to July 16 there were sunk in the East Mediterranean 11 British ships, of which seven were under escort.

² H.S. 652/358.

³ H.S. 653/393.

CHAPTER XIV.

FLANDERS SUBMARINES, JULY 1917.

199. **Flanders Submarines, July 1.**—On July 1 there were operating in the Channel and Bay, six Flanders submarines, viz., *U.B.23*, *U.C.61*, *U.B.31*, *U.B.40*, *U.C.71* in the Bay; *U.C.72* in the Channel (on passage to the Bay).

During the month 15 Flanders submarines worked in or passed through the Channel of which two, *U.C.47* and *U.C.61*, went out twice, making a total of 17 cruises, a drop of 40 per cent. on the May figures.¹ This total includes three submarines, *U.C.71*, *U.C.72* and *U.C.69*, which passed through the Channel to operate in the Bay. Only one Flanders submarine, or at the most two, appeared in the Irish Sea, though eight of them worked in the Hoofden and one, *U.C.63*, sailed on July 31 to work off Flamborough Head. Five Flanders submarines were lost, three in the Hoofden (*U.C.1*, *U.B.27* and *U.B.20*), and two in the Channel (*U.B.23*, *U.C.61*).

The highest figures of tonnage sunk in July were:—

U.C.72 (Bay), 22,522 tons; *U.C.65* (Channel), 11,277 tons;²
U.C.17, 11,308 tons; *U.C.69* (Bay), 9,646 tons;
U.C.71 (Bay), 8,637 tons; *U.B.40* (Channel), 8,059 tons;
 no other submarine sank as much as 7,000 tons.

200. **Flanders Submarines Operating, July.**—The following Flanders submarines were operating in July:—

In the North Sea—

| | |
|---------------|----------------------------------|
| <i>U.C.21</i> | June 28–July 4 (Holland route). |
| <i>U.C.64</i> | July 8–July 17. |
| <i>U.C.1</i> | July 18–Lost, July 18 or 19. |
| <i>U.B.18</i> | July 21–July 29 (Holland route). |
| <i>U.B.35</i> | July 21–July 24 (Holland route). |
| <i>U.B.27</i> | July 22–Lost, July 29. |
| <i>U.C.16</i> | July 25–July 30. |
| <i>U.B.20</i> | July 28–Lost, July 28. |
| <i>U.C.63</i> | July 31–August 16. |

¹ *See* S.48.

² Also H.M.S. *Ariadne*, minelayer.

In the Channel:—

| | |
|-------------------|---|
| <i>U.B.23</i> | June 23–July 6 (Channel, West). |
| <i>U.C.61 (1)</i> | June 23–July 8 (Channel). |
| <i>U.B.31</i> | June 30–July 13 (off Portland and West). |
| <i>U.C.77</i> | July 7–July 15 (Channel, West). |
| <i>U.C.48</i> | July 12–July 21 (Channel, West). |
| <i>U.B.40</i> | July 14–July 25 (Channel, East). |
| <i>U.C.17</i> | July 14–July 29 (Channel Approach). |
| <i>U.C.47 (1)</i> | July 14–July 22 (Channel, West). |
| <i>U.C.65</i> | July 18–July 29 (Portland and West). |
| <i>U.C.62</i> | July 21–August 5 (Channel, West). |
| <i>U.B.23</i> | July 23–Interned at Corunna, July 29. |
| <i>U.C.50</i> | July 23–July 31 (Channel, West). |
| <i>U.C.47 (2)</i> | July 25–August 2 (Channel, West). |
| <i>U.C.61 (2)</i> | July 25–Stranded near Cape Griz Nez, July 26. |

In the Bay:—

| | |
|---------------|-----------------------------------|
| <i>U.C.71</i> | June 24–July 8 (off Ushant). |
| <i>U.C.72</i> | June 30–July 19. |
| <i>U.C.69</i> | July 16–August 4 (Spanish coast). |

201. **Channel and Bay, Large Ships Sunk, July.**—In the Channel and Bay seven vessels of over 4,000 tons, and one cruiser minelayer, the *Ariadne* of 11,000 tons, were sunk by Flanders submarines during July.

On July 7 at about 3 p.m. in 49° 54' N., 5° 8' W., off the Lizard, the British s.s. *Bellucia*, 4,368 tons, bound from Montreal to London with a cargo of wheat and flour, escorted by a destroyer, the *Lyra*, was hit by a torpedo fired by *U.B.31*, who was attacked by the *Lennox* with depth charges. The ship drifted ashore 2 hours later 1 mile north of Beast Point (by Lizard) and capsized.¹

On July 11 at 0.50 a.m. in 46° 20' N., 2° 15' W., in the Bay, the British s.s. *Anglo Patagonian*, 5,017 tons, was torpedoed and sunk by *U.C.72*. She had sailed on June 25 from New York for Bordeaux with a cargo of nitrates, worth a million pounds; on arriving at Quiberon Bay she joined a south bound French coastal convoy, but as its speed was only 6 knots she obtained permission to go on alone, and left it at 10.30 p.m. on July 10. The night was dark and she sank in 10 minutes.

On July 15 at 3.30 p.m. in 47° 28' N., 6° 28' W. (Bay) the British s.s. *Trelissick*, 4,168 tons, bound from Boston to Bordeaux also fell a victim to *U.C.72*, who hit her with a torpedo, and coming to the surface finished her off with bombs. *U.C.72* took the Master and two men prisoners, and towed the *Trelissick's* boats towards the shore.

¹ H.S. 1349/310.

On July 20 at 6.20 a.m. in 47° 45' N., 9° 45' W., *U.C.17* sent a torpedo into the British s.s. *City of Florence*, 5,399 tons, bound from Valencia to London, unescorted, with a cargo of 120 tons of manganese ore and 6,500 tons of potatoes and onions, and ransacked her before she finally sank at 12.30 p.m.

That same day, July 20, at 12.25 p.m. in 50° 27' N., 2° 31' W. a torpedo fired by *U.B.40* sank the British s.s. *Salsette*, 5,842 tons, bound from London to Bombay. She was coming up Channel without escorts in sight of two patrol vessels, *T.B.80* and *M.L.213*, who hurried to the spot and dropped depth charges evidently without effect, for the submarine sank another British steamer, the *L. H. Carl*, 1,916 tons, a few miles further west, in 50° 26' N., 2° 48' W. at 8.30 p.m. that same evening, July 20.

On the afternoon of July 26, at 2.22 p.m. in 50° 43' N., 0° 22' E. (off Worthing), Steinbrinck, in *U.C.65*, torpedoed and sank the cruiser minelayer *Ariadne*, 11,000 tons, on her way from Immingham to lay a deep minefield off Plymouth,¹ and on the following morning, July 27, at 4 a.m., in 50° 32' N., 0° 26' W., he torpedoed and sank the British s.s. *Candia*, 6,482 tons, homeward bound from Melbourne to London coming up Channel without escorts.

Next day, July 28, at 10.15 p.m. in 48° 40' N., 6° 55' W. the British s.s. *Glenstrae*, 4,718 tons, bound from Dakar to Dunkirk with a mixed cargo of zinc ore, rice, and copra, and on her way to Falmouth for orders, unescorted, was torpedoed and sunk by *U.C.62*.² The submarine which remained on the surface throughout the attack was still lying stationary on the surface when last seen at 6.30 a.m. next morning, July 29.

202. **Submarine Cruises—"U.B.23" and "U.C.61 (1)," June 23–July 8.**—*U.B.23* and *U.C.61* (first cruise) both left Zeebrugge on June 23 to operate in the Channel. *U.B.23* was operating apparently round the Lizard, but appears to have sunk nothing in July, and was back in Zeebrugge on July 6. *U.C.61* after laying mines off Brest on June 27, returned to operate off Portland and the Isle of Wight.

On July 4 at 2.10 a.m. in 50° 32' N., 2° 41' (off Portland) she stopped and sank with gunfire the Norwegian s.s. *Ole Lea*, 534 tons, Glasgow to Nantes, unescorted.

On July 6 at 6.20 a.m. in 50° 34' N., 1° 26' W. (Isle of Wight) the Belgian s.s. *Indutiomare*, South Wales to Havre, unescorted, was struck by a torpedo and sank in 2 minutes.

On July 7, five ships which had come over in a Hampton Roads convoy (HH4), were being escorted up Channel to London by the destroyer *Landrail*, three other destroyers and four "P" boats. At 6.50 a.m. in 50° 29' N., 0° 11' E. they were off Beachy Head

¹ See S.195.

² Or possibly *U.C.50*.

going 9 knots, when a torpedo crossed the *Landrail's* bows, fired apparently at the British s.s. *Madrono* (oiler). It struck H.M.S. *Ettrick* (Lieutenant A. E. Gudgeon, R.N.R.) just abaft the forebridge, cutting her in two. The forepart floated off, turned turtle and sank in about 5 minutes, with a considerable loss of life. The after part was towed into Portsmouth. (Report H.M.S. *Landrail*, H.S. 1341/99.) This was apparently the work of *U.C.61* on her way back to Zeebrugge, which she reached on July 8, entering it for the last time.

203. "U.B.31," June 20 to July 13, and "U.B.32."—*U.B.31*, which had left Flanders on June 20, had an exceptionally eventful cruise during the first half of July. On July 5, at 8.50 a.m. in 50° 7' N., 3° 20' W. she sank the small British s.v. *Ocean Swell*, 195 tons, bound from Granville to Fowey, and at 11.45 a.m. in 50° 10' N., 3° 44' W. the Norwegian s.s. *Havbris*, 677 tons, with coal from Newport (Mon.) to Honfleur, unescorted. *U.B.32* was also in the Channel at the time, for on July 6 at 3.40 a.m. in 49° 51' N., 5° 17' W., she fired a torpedo, which missed, at the British s.s. *Karoo*, 6,127 tons, escorted by H.M.S. *Cockatrice* who attacked with five depth charges, and at 5.32 a.m., in 49° 49' N., 5° 15' W. attacked a convoy coming up Channel (HH4, see S.169) and torpedoed the British s.s. *Wabasha*, an oiler of 5,864 tons, which managed to reach Falmouth. The *Achates* and *Garland* dropped depth charges apparently without effect.¹ The same day (July 6) at 3.18 p.m. in 50° 2' N., 3° 47' W., *U.B.31* torpedoed the British s.s. *Ariadne Christine*, 3,550 tons, bound from Falmouth to Cherbourg, which was beached in Salcombe Bay.

On July 7 at 3.20 p.m. in 49° 54' N., 5° 8' W., close in shore off the Lizard, *U.B.31* sank the British s.s. *Bellucia*, 4,368 tons, bound from Montreal to London with a cargo of wheat and flour, under escort at the time of the destroyer *Lyra* which dropped four depth charges.² The destroyer *Lennox*, half a mile away, returning with the *Laverock* and *Lookout* from convoy duty, sighted the submarine and dropped four depth charges.³

U.B.31 continued her cruise apparently undamaged, and on July 8 at 3.35 p.m. in 49° 56' N., 5° 10' W. fired at and missed the British s.s. *Clifftower*, 3,509 tons. Two days later, on July 9, at 6.15 a.m. in 50° 0' N., 4° 20' W., she opened fire on the "Q" ship *Puma* at a range of 2,500 yards. The *Puma* replied with her 3-pdr. By 6.37 a.m. the range had opened to more than 3,000 yards. At this juncture the "Q" ship increased to full speed, hoisted the white ensign and opened fire with her port 12-pdr. gun and port 4-in. gun. At 6.42 a.m. she altered course and continued

¹ Exchange, Q.59A.

² H.S. 1349/318.

³ H.S. 1349/322.

the action with her starboard guns. According to the *Puma's* report *U.B.31* was hit several times, and at 6.44 a.m. disappeared, at a distance of 5,000 yards in a heavy cloud of smoke and listing to starboard.¹ *U.B.31* actually suffered no damage, and next day, July 10, at 5.45 a.m. in 50° 4' N., 3° 27' W. she sank with gunfire and bombs the U.S. barquentine *Hildegard*, 622 tons. The armed trawlers *Lois* and *Recono* came hurrying up and fired 29 rounds at the submarine which dived away to the eastward.¹

That afternoon, July 10, at 2.30 p.m. in 49° 58' N., 3° 14' W. the "Q" ship *Glen*, Sub-Lieutenant Keith Morris, R.N.R., opened fire on a submarine, which had been sighted on the surface at 1 p.m. 2 miles distant. The enemy opened fire at 3,000 yards and the *Glen* "abandoned ship." After trying to drive the *Glen's* boat off with rifle fire the submarine dived and, circling slowly round the "Q" ship some 100 yards off, examined her closely through the periscope. Seeing nothing suspicious she came to the surface and hailed the boat. Down crashed the screens of the *Glen* unmasking her guns which got off 8 rounds² in rapid succession. Sub-Lieutenant Morris thought that he saw three 12-pdr. rounds take effect on the enemy's waterline some 12 ft. abaft her conning tower, and that she went down with two gaping holes in her hull, listing to starboard, in a great swirl of white vapour, oil and bubbles.

It is disappointing to record that the submarine, which was *U.B.31*, not only survived to tell the tale, but escaped undamaged. According to her report she dived at full speed as soon as she realised the true character of her opponent and was completely submerged before a single shot was fired at her. Nor did she hurry from the scene but watched the "Q" ship move triumphantly away under her auxiliary motor.³

This was the third time within three months that the *Glen* reported a successful attack on an enemy submarine, but according to German reports none of these submarines was even hit.⁴

It was probably *U.B.31* who the next day July 11 at 12.50 a.m. in 50° 14' N., 3° 27' W. torpedoed and sank the British s.s. *Brunhilda*, 2,296 tons, proceeding to Sunderland, with bauxite, unescorted.

It was *U.C.77* and not *U.B.31* who next day, July 11, at 6.50 a.m. in 49° 39' N., 5° 43' W. engaged the "Q" ship *Helgoland* (Lieutenant Evan Maclellan, R.N.R.) in calm hazy weather. The submarine opened fire at a range of 4,000 yards, and at 7 a.m. the "Q" ship was "abandoned." The submarine dived and after

¹ H.S. 1341/134 ff.

² Three 3-pdr., five 12-pdr. rounds.

³ Marine-Archiv, H.S. Q.52; H.S. 1295/549.

⁴ On April 20, in 49° 57½' N., 0° 16' W., the submarine was *U.C.16*; on May 17, in 50° 5' N., 1° 25' W. the submarine was actually *U.B.18* though supposed at the time to have been *U.B.39*, which did not return. On July 10, in 49° 58' N., 3° 14' W., the submarine was *U.B.31*. H.S. 1295/506 to 572.

waiting ten minutes Lieutenant MacLennan recalled the boat and, starting his auxiliary motor, moved off to the north-west. At 7.40 a.m. the submarine reappeared 700 yards astern, and at 500 yards turned to port and opened fire. The *Helgoland* turning 6 points to port replied with her port guns, claiming three hits.¹ The submarine submerging to deck level appeared to sink stern first, her bows coming well out of the water and the Q-ship immediately steering towards the spot dropped two depth charges. This attack was classified as "Probably seriously damaged," but as the only other Flanders submarines west of Dover at the time were *U.C.77* and *U.C.72*, the latter of which was in the Bay some distance off, and as *U.B.31* returned to Zeebrugge on July 13 and *U.C.77* on July 15, the attack must have been unsuccessful.

204. "**U.C.77,**" July 7-15.—*U.C.77* left Zeebrugge on July 7, and after laying mines² off Dieppe, St. Valery and Fécamp on July 9, proceeded to the Channel, West. She was the submarine engaged without result by the Q-ship *Helgoland* on July 11 at 6.50 a.m. in 49° 39' N., 5° 43' W. (See S.203.)

At 4.20 p.m. in 48° 54' N., 5° 13' W., she stopped the Danish s.s. *Vordingborg*, 2,155 tons, unescorted, bound from Cardiff to Huelva with coal, and sank her with bombs.

On July 13 at 9.25 p.m. in 48° 38' N., 4° 57' W., off Ushant, a small French coal trade convoy of three ships, returning to England met a submarine which torpedoed the French s.s. *Ascain*, 1,688 tons, bound from Bayonne to Cardiff. The submarine (*U.C.77* or *U.C.48*) was chased by two planes and the French armed trawler *Renard* without result. *U.C.77* returned to Zeebrugge on July 15.

205. "**U.C.48,**" July 12 to 21, Coast of Brittany.—*U.C.48* left Zeebrugge on July 12 to operate on the north coast of Brittany against the French coastal convoys. She laid mines on July 15 off the Ile de Bas, and it was probably she that on July 15 at 12.17 a.m. in 48° 49' N., 3° 50' W., off Triagoz torpedoed the British s.s. *Westmeath*, 9,179 tons, the biggest ship hit in the Channel during the month, bound from Montevideo to Havre with meat, in a French coastal convoy of five ships proceeding at 7½ knots, escorted by the French destroyer *Stylet*. The ship was struck forward, and her bows were wrecked, but she was able to continue her voyage and reached Cherbourg safely.

At 6 a.m. July 15, in 49° 4' N., 4° W., the American s.v. *Florence Creadick*, 733 tons, Philadelphia to Havre, was attacked by gunfire and abandoned, but was sighted later by a French plane and was towed into harbour.

¹ H.S. 1438/346.

² Field 448 in German minefields, O.U. 6020B.

On July 16 at 1.50 a.m. in 48° 50' N., 3° 57' W., *U.C.48* met another French coastal convoy of six ships, and torpedoed the British s.s. *Henry R. James*, 3,146 tons, bound with iron ore from Bilbao to Middlesbrough, which sank in one minute with a loss of 24 out of 28.

On July 19 she laid mines off Les Sept Iles round 48° 53' N., 3° 33' W.,¹ and at 10.15 p.m. in 48° 51' N., 3° 31' W., met another French coastal convoy of three ships proceeding S. 70 W. at 11 knots, and fired a torpedo which missed at the French s.s. *La Perouse*, 12,600 tons, bound from Havre to New York. This was the end of *U.C.48*'s cruise, and she was back at Zeebrugge on July 21, having sunk one vessel, hit a big one, and missed another still bigger.

206. "**U.B.40,**" July 14-25.—*U.B.40* left Zeebrugge on July 14 to operate in the Channel, and on July 15 sank with bombs two small British sailing vessels, the *Dinorwic*, 124 tons, bound to Treport, and the *Ebenezer*, 177 tons, bound for Dieppe. *U.B.40* then moved westward to Lyme Bay, where on July 20 at 12.25 p.m. in 50° 29' N., 2° 45' W., she torpedoed the British s.s. *Salsette*, 5,842 tons, bound from London to Bombay, armed with a 4.7 Q.F. which did not fire. The ship sank in 23 minutes with a loss of 14 native firemen out of 289. She was going down Channel unescorted at 15 knots, and being some 11 miles from land was not following the instructions given her to hug the coast.² That evening at 8.30 p.m. in 50° 26' N., 2° 48' W., *U.B.40* torpedoed and sank the British s.s. *L. H. Carl*, 1,916 tons, bound, unescorted, from Plymouth to St. Helens, to cross with the French coal trade to Rouen. She too was cutting across Lyme Bay, and like the *Salsette* was 12 miles from land, apparently disobeying her instructions "to hug the coast as closely as safe navigation permits." It may have been *U.B.40* (or *U.C.62*) that on July 22 at 8.30 p.m. in 50° 25' N., 3° 17' W., torpedoed and sank the British s.s. *Rota*, 2,171 tons, bound to Middlesbrough with iron ore, unescorted. *U.B.40* was back in Zeebrugge on July 25.

207. "**U.C.47 (1),**" July 14-22.—*U.C.47* left Zeebrugge on July 14, and on July 16 laid eight mines³ off Dielette, on the French coast, south of C. de la Hague, and the remaining ten in the Raz de Blanchard, between Guernsey and Jersey,³ evidently directed against the French coastal route. She may then have been working off the Lizard, for on July 19 at 11.45 p.m. in 50° 1' N., 4° 56' W., she torpedoed and sank the British s.s. *Bramham*, 1,978 tons, bound

¹ Field 452. German minefields, O.U. 6020B.

² H.S. 1341/209.

³ Field 453, O.U. 6020B, round about 49° 33' N., 1° 55' W.; Field 453a & b, round about 49° 38' N., 2° 3' W.

from Barry to Rouen, and at 1.45 a.m., July 20, the British s.s. *Beatrice*, 1,000 tons, bound from Swansea to Honfleur, was sunk near the same spot.¹ *U.C.47* was back in Zeebrugge by July 22.

208. "**U.C.17," July 14-29.**—*U.C.17* left Zeebrugge on July 14, and on July 17 laid all her 18 mines off Falmouth.² The field was discovered the same day at 11 a.m., through a floating mine, and the port was closed and was not fully open till July 21.³ *U.C.17* then proceeded to the westward for on July 20 at 6.20 a.m. in 47° 45' N., 9° 45' W., she torpedoed and sank the British s.s. *City of Florence*, 5,399 tons, bound from Valencia to London, proceeding at 8 knots, unescorted. It may have been she that at 10.45 p.m. in 47° 29' N., 6° 20' W.,⁴ torpedoed and sank the Japanese s.s. *Kageshima Maru*, 4,687 tons, proceeding from New York to Brest, unescorted. The next day, July 21, at 6.30 p.m. in 47° 20' N., 7° 45' W., she stopped and sank with gunfire the American s.v. *Augustus Welt*, 1,222 tons, bound from New York to Havre. She sank three ships, and 11,308 tons, and was back at Zeebrugge on July 29.

209. "**U.C.65," July 18-29, Cruise to the Channel.**—*U.C.65* sailed from Zeebrugge on July 18. On July 20 she was off the Needles where she laid nine mines in three fields.⁵ That night about 10 p.m. a motor launch reported that a submarine had been heard on the hydrophone about 5 miles west of the Needles. The next morning three pairs of drifters started sweeping the area. Two mines were swept up and exploded in 50° 35' N., 1° 44' W., and one was salvaged and sent to H.M.S. *Vernon* for examination.⁶

In the meantime at 8.5 p.m. on July 20, in 50° 26' N., 1° 52½' W., *U.C.65* had torpedoed and sunk the British s.s. *Fluent*, 3,660 tons, from New York, which had left Plymouth that morning for London under the escort of the armed trawler *Lord Stanhope*. After sinking the *Fluent*, *U.C.65* moved westward, and next day, July 21, laid nine mines off Portland.⁷ She was fortunate to escape destruction for she laid them very close to a deep minefield of 520 mines which had been laid by the *Angora* and *Wahine* on July 8 and July 14 between 50° 29' N., 50° 32' N., 2° 17' W., and 2° 22' W. Her mines were discovered when *M.L.213* sighted one of them on the surface and sank it by gunfire. Sweeping operations were carried out in the

¹ Marine-Archiv, H.S./Q.58, but it seems possible that one of them struck one of *U.C.17*'s mines (*see infra*). See H.S. 1301/403.

² Field 462 in about 50° 3' N., 5° W.

³ H.S.B. 170/953.

⁴ Position doubtful; possibly 48° 49' N., 7° W., near British s.s. *Huntsend*.

⁵ Three in 50° 38' N., 1° 34½' W.; three in 50° 39½' N., 1° 36½' W.; three in 50° 37' N., 1° 40½' W. O.U. 6020B, Fields 458, 458a, 458b.

⁶ H.S.B. 170/951.

⁷ Five in 50° 31½' N., 2° 21' W.; four in 50° 30½' N., 2° 19½' W. O.U. 6020B, Fields 458c, 458d. (*See Plan 12.*)

area from the 24th to the 28th, and three more mines were brought to the surface and destroyed. A fifth mine was swept up by trawlers on a routine sweep.¹

For more than six days after sinking the *Fluent*, Steinbrinck scored no further success in the Channel. It is barely possible however that he may have visited his favourite area, the Irish Sea, for on July 24 at 6.30 p.m. in $54^{\circ} 19' N.$, $5^{\circ} 5' W.$ the Greek s.s. *Mikelis*, 2,430 tons, bound from Bilbao to Glasgow with 3,500 tons, unescorted, was torpedoed without warning; and at midnight in $54^{\circ} 6' N.$, $5^{\circ} 4' W.$, H.M.S. *Berwick* reported she had been missed by four torpedoes.² On July 26 he was in the Channel for on the morning of that day a submarine, probably *U.C.65*, was sighted at 6.5 a.m. in $55^{\circ} 33' N.$, $0^{\circ} 3' E.$ (south-west of Beachy Head) and a general warning was sent out,³ which Portsmouth passed to Dover by landwire at 8.13 a.m. At 1.32 p.m. the Commander-in-Chief at Portsmouth informed his auxiliary patrol vessels that submarines, probably hostile, were in sight in a position 5 miles W.S.W. from the Royal Sovereign Light Vessel⁴ and 18 minutes later, at 1.50 p.m., Steinbrinck sighted a four funnel ship escorted by destroyers pass close by the Royal Sovereign Light Vessel, and at 2.12 p.m. alter course from S. 72 W. to N. 78 W.⁵ Ten minutes later, at 2.22 p.m. in $50^{\circ} 43' N.$, $0^{\circ} 22' E.$, he fired his starboard tube at her at a range of 1,000 yards, scoring a hit. The vessel was the minelayer *Ariadne*, 11,000 tons, escorted by the destroyers *Peregrine* and *Norman*, on her way from Immingham to Plymouth to lay a deep minefield.⁶ During the next 50 minutes four paddlesweepers and three trawlers came hurrying to the rescue and at 3.12 p.m., when one of the paddlers was slowly moving ahead with the *Ariadne* in tow, Steinbrinck let go a second torpedo at 600 yards. It passed under the paddler's forefoot and struck the *Ariadne* on the port side. Four minutes later the minelayer, Steinbrinck's hundredth victim, was lying bottom upwards.⁷

After this bold attack Steinbrinck moved down Channel once more, and it was probably he who at 2.15 a.m. next morning, July 27, in $50^{\circ} 33' N.$, $0^{\circ} 35' W.$, off the Owers Light Vessel, put a torpedo into the British s.s. *Bellagio*, 3,919 tons, bound from London to Barry, unescorted. Although he proceeded to fire some 30 rounds at her making 20 hits, he was unable to sink her, and two destroyers, three trawlers and two tugs coming on the scene got her in tow, and

PLAN 12.



N. S. I. D. Sept 1937

¹ H.S.B. 170/953.

² See S.289. The distance is 525 miles, requiring a speed of 11 knots.

³ H.S. 485/468.

⁴ H.S. 485/603.

⁵ This led him to believe that she was zigzagging, but actually she was on a straight course.

⁶ H.S. 484/598, 874, 910.

⁷ For details of the sinking of the *Ariadne*, see S.195.

finally beached her off Selsey Bill. *U.C.65* was not far off, and at 4 a.m. that morning (July 27) in 50° 32' N., 0° 26' W., off the Owers Light Vessel, torpedoed and sank the British s.s. *Candia*, 6,482 tons, homeward bound from Melbourne to London, unescorted.¹

On the evening of the following day, July 28, Steinbrinck was on his way home when at 10 p.m. in about 50° 47' N., 0° 44' E., he put a torpedo into the small French s.s. *Saint Emilion*, 1,135 tons, bound for Rouen, and escorted by the armed trawlers *H. E. Stroud* and *Arcady*, the last victim of his cruise. *U.C.65* reached Zeebrugge safely next day, July 29, having sunk three merchant vessels totalling 11,277 tons, and the minelayer *Ariadne*, of 11,000 tons.

210. "U.C.62," July 21–August 5.—*U.C.62* left Zeebrugge on July 21, and may have been the submarine (or *U.B.40*) that on July 22 at 8.30 p.m. in 50° 25' N., 3° 17' W., in Lyme Bay torpedoed and sank the British s.s. *Rota*, 1,152 tons, bound from Beni Sef to Middlesbrough, then proceeded to lay mines off Plymouth early on July 24. The sighting of a periscope off the port on July 23 had aroused suspicion of minelaying, and as a convoy² was due to leave the Sound on July 24, sweepers were reinforced at daylight, and found four mines almost immediately; after sweeping a channel for the convoy which left in the evening of July 25, they took the area in hand, sweeping up 17 mines by July 27 without loss, the port remaining closed, save for a special channel, till that date. Meanwhile, on July 24 at 5 p.m. in 50° 12' N., 4° 22' W., off Plymouth, H.M.S. *Ruby* had sighted a periscope, probably *U.C.62*, and dropped two depth charges.³ *U.C.62* then went off to the entrance of the Channel, where on July 25 at 8.30 a.m. in 48° 55' N., 5° 47' W., she sank by gunfire the Norwegian s.v. *Vaarbud*, 362 tons, bound from Havre to British Honduras, unescorted.

On July 27 at 9 a.m. in 49° 33' N., 5° 9' W., the American s.v. *Carmela*, 1,379 tons, bound from Havre to New York, met a similar fate. It was probably *U.C.62* that on July 28 at 5.13 p.m. in 48° 2' N., 7° 29' W., opened fire on the British s.s. *Alexandria*, 3,864 tons, outward bound, unescorted, from Leith to Torre dell'Annunziata (Italy), and shortly afterwards at 5.20 p.m. on the British s.s. *Livonia*, 1,879 tons, from the Forth to Reggio, unescorted, both of which returned the fire with 12-pdrs. at about 5 miles, and escaped.

The next day (July 28) she (or possibly *U.C.50*) was more fortunate, for at 10.15 p.m. in 48° 40' N., 6° 55' W., she torpedoed

¹ H.S. 1341/307, 319. As *Bellagio* and *Candia* were in sight of one another, the latter's time appears to be incorrect.

² Morea's troop convoy, outward bound for Sierra Leone. Telegram, H.S. 484/968, 989.

³ I.D. Log A, July 24/12.

and sank the British s.s. *Glenstrae*¹, 4,718 tons, from Dakar to Dunkirk, unescorted.

It was probably *U.C.62* that on July 30 at 7.10 a.m. in 49° 32' N., 6° 34' W., was sighted by the U.S. destroyer *Benham*, 1,500 yards away, 3 points before the beam. The *Benham* turned at full speed, opened fire and let go four depth charges on the spot.

On July 31 at 7.20 p.m. in 49° 59' N., 3° 17' W., off the Start, the American s.s. *Motano*², 2,730 tons, from New York with 3,580 tons of oil, was coming up Channel to Portsmouth, in convoy with two other ships, escorted by *P.59*, *P.40* and *P.13*, when she was struck by a torpedo and sank in one minute with a loss of 24 men out of 46. This may have been the work of *U.C.62*, or *U.C.47*, or *U.B.31*. *U.C.62* does not appear to have sunk any other ships though she was not back in Zeebrugge till August 5.

211. "U.B.23," July 23–26 (Interned July 29).—*U.B.23* left Zeebrugge on July 23, never to return.

On July 26 at 4.5 p.m. in 49° 57' N., 5° 8' W., the British s.s. *Carmarthen*, 4,262 tons, bound from Genoa to the Tees, and proceeding up Channel unescorted, was struck by a torpedo off the Lizard. The armed trawler *St. Hubert*, 4 miles off, saw the explosion, came up and got her in tow, and assisted later by two tugs got her beached at 8.5 p.m. off Beagle Cove (east side of Lizard).³

To the westward, off the Wolf Rock, *P.67* and *P.60* (Lieutenant F. A. Richardson), escorting an oiler, the s.s. *Tacoma*, took in the *St. Hubert's* wireless message for tugs, and *P.60*, detached to investigate, came up to find the *Carmarthen* in tow.

On the way back at 7.42 p.m. in 49° 57½' N., 5° 15' W., *P.60* sighted a periscope 3 points on the starboard bow, 600 yards away, about to attack a steamer, and made for it at full speed. The helm was steadied, and she passed the periscope not more than 16 ft. away on her port side. Then with the helm to port to bring her stern over the submarine the starboard depth charge was dropped about 6 to 8 ft. away and exploded. Two destroyers, the *Narwhal* and *Peyton*, arrived on the spot and dropped depth charges, but nothing more was seen of the submarine, and at 9 p.m. all three vessels proceeded on their various duties. A good deal, however, had happened. The submarine was *U.B.23* which had been so intent on attacking a steamer that she had not seen *P.60* approaching, and had

¹ Marine-Archiv states that *Glenstrae* was sunk by *U.C.62*, though *Glenstrae* reported submarine as a "very small" one. It could not, however, have been *U.B.23* (damaged by *P.60* on July 26).

² H.S. 1341/375.

³ H.S. 1351/257. It seems probable that the *Carmarthen* was torpedoed by *U.B.23*, though allotted to *U.C.50* by Marine-Archiv.

just time to dive when she heard her close at hand. The first depth charge gave her a severe shock and damaged the accumulators so badly that she could not use the main motors. She heard two more depth charges exploding, and remained on the bottom till 11.30 p.m. when she rose quietly and starting the Diesels with compressed air made for Corunna (Spain) 400 miles away, where she arrived on July 29 and was interned at Ferrol for the remainder of the war.

Later in 1919, *P.60* was awarded £300, and Lieutenant Richardson received a D.S.C.¹

212. "U.C.50," July 23-31.—*U.C.50* sailed from Zeebrugge on July 23, and on 25th laid all her 18 mines off the Owers and Nab, off Portsmouth, round about 50° 37' N., 0° 40' W., which were found the same morning, and a dangerous area announced.² *U.C.50* seems to have proceeded westward, for she is stated on German authority to have torpedoed the British s.s. *Carmarthen*, 4,262 tons, off the Lizard on July 26, though it appears probable that this was the work of *U.B.23*. Nothing more is known of her movements though she was possibly one of two submarines (the other possibly *U.C.62*) sighted in 49° 30' N., 5° 34' W., on July 27 at 9.40 a.m. by H.M.S. *Goshawk*, ahead of the *King Alfred's* troop convoy from Sierra Leone, and 20 miles ahead of the *Sachem's* Atlantic convoy from Hampton Roads (HH8), which altered course to evade them. *U.C.50* was back in Zeebrugge on July 31.

213. "U.C.47," July 25-Aug. 2.—*U.C.47* left Zeebrugge on July 25, laying mines³ on July 27-28 in La Deroute on the French coastal route between Jersey and Guernsey, round about 49° 22' N., 2° 19' W. apparently with no subsequent result. On July 28 at 4.30 a.m. in 49° 14' N., 2° 58' W. off Guernsey, she was sighted by the French ship *Thérèse et Marie* at the head of a coastal convoy of five ships, which fired two shots at her and turned the convoy away. On July 31 at 2.30 a.m. in 48° 55' N., 4° 11' W., she torpedoed and sank the British s.s. *Fremona*, 3,027 tons, bound from Montreal to Leith with a cargo of grain. The ship was in a French coastal convoy of seven ships and had been missed by a torpedo at 1.20 a.m. At 2.30 a.m. she was struck by a second torpedo and sank in three minutes, a third torpedo missing the French torpedo boat *Tromblon* when it came up to assist her. *U.C.47* returned to Zeebrugge on August 2.

¹ H.S. 1351/264; I.D. Vol. 590/107. *U.B.23* gave the date of attack as July 27, but no German submarine was attacked in home waters on that day, and the only attack off the Lizard between July 7 and 31 was *P.60's* on July 26. The position and details given by *U.B.23* correspond to *P.60's* report.

² H.S. 485/119.

³ Field 464. O.U. 6020B.

214. "U.C.61," July 25-26.—*U.C.61* (Lieut.-Commander Georg Gerth) left Zeebrugge on July 25 at 1 p.m., and passed the Goodwin-Snoww barrage (Dover barrage) at night shaping course along the coast between Gravelines and Gris Nez, intending to lay mines off Boulogne and Havre, and then operate to the westward. While hugging the shore in a thick fog, she stranded at 4.20 a.m. on July 26 at the top of high water on the Wissant shoal,¹ off the village of Wissant near Cape Gris Nez. As there was no hope of getting her off, the crew jumped overboard and waded ashore, being made prisoners by a detachment of Belgian cavalry. A violent explosion tore her nearly in two and was followed by a fierce fire, which took some two hours to burn out. The commander and crew became prisoners of war.

215. Flanders Submarines Lost, July 1917.—Five Flanders submarines were lost during July, three in the Hoofden (*U.C.1*, July 18; *U.B.20*, July 28; *U.B.27*, July 29), and two in the Channel (*U.C.61*, July 26, and *U.B.23*, July 26).

On July 18, *U.C.1* left Zeebrugge with orders to lay mines off Calais, being due back about July 20. She never returned, and nothing definite is known of her fate. In October 1918, her loss was allotted to an attack on July 24, 1917, at 9.50 a.m., by three seaplanes,² N.65, S.P.8676 and S.P.8689, in 52° N., 2° 36' E. but this position is more than 30 miles from her probable track, and it is now known that she should have returned to Zeebrugge before that date. On four previous occasions laying mines off Gravelines, she had returned to Zeebrugge, reloaded with mines, and sailed again within 7 days. Her loss is now attributed by the German Historical Section to one of the following British minefields laid off the Flanders coast in July, viz.: 160 B.E. mines laid by *Telemachus* on July 14 round about 51° 19' N., 2° 40' E., or 96 Service mines by *Osta*, *Ostrich II*, and *Carmania II* (on July 16) round about 51° 14' N., 2° 32' E.³

On July 26 at about 4.20 a.m., *U.C.61*, which had sailed from Zeebrugge at 1 p.m. the previous day to lay mines off Boulogne and Le Havre, and then to work in the Atlantic, stranded in thick weather at the top of high water on the Wissant Shoal off the village of Wissant near Cape Gris Nez, and was blown up (see S.214). Coastguards rowed out and hailed her.

¹ The precise latitude and longitude is not given; it was approximately 50° 54' N., 1° 40' E. Extracts from M.09826/17 (not seen) in H.S. 1383/111.

² H.S. 1548/117.

³ Fields K.2 (*Telemachus*), Z.19 and Z.20 on Mine Chart X.14. Exchange, H.S./Q.52 (33). Memo. to accompany Mine Chart gives the dates which are not in Leith. These are Fields 87, 103 and 104 in Leith's Chart.

On July 26, *U.B.23*, badly damaged by a depth charge from *P.60* off the *Lizard*, was forced to make for *Corunna* where she was interned on July 29, and took no further part in the war. (S.211.)

On July 28, *U.B.20* (Lieutenant Hermann Climpp) left *Zeebrugge* for a four hours trip to carry out trimming trials off *Ostend*. She never returned, and it appears probable that she was lost on the same minefield as *U.C.1* (*Telemachus* of July 14 or *Osta* of July 16).¹

U.B.27 left *Zeebrugge* to operate in the *Hoofden*, and never returned. On July 29, at 10.57 a.m., in 52° 47' N., 2° 24' E., H.M.S. *Halcyon* (Lieut.-Commander Bertrand Bannerman, R.N.) sighted an object on the starboard bow 400 yards away, which turned out to be a periscope going 3 to 4 knots on an opposite course. He turned to ram going 17 knots; the periscope disappeared only 20 yards away; the ship was felt to hit something, and a 300-lb. depth charge was dropped which exploded and another was let go after the ship had turned 16 points. On July 30, the position was swept, and an obstruction was located, and while heaving in on the sweep oil came to the surface. The incident was classified as "Probably Sunk," and Lieut.-Commander Bannerman received a D.S.O.²

CHAPTER XV.

TRAFFIC AND LOSSES, CHANNEL, JULY 1917.

216. Traffic and Escorts.—The question of convoy as an anti-submarine measure is closely related to the amount of traffic moving in any particular area and to the percentage of it in convoy or unescorted. Of the ships sunk in the South-West and West

¹ Marine-Archiv, Exchange, H.S./Q.53 (30). Her loss was previously attributed to an attack by *S.P.8676* and *S.P.8662* on July 29, at 6.33 a.m., in 52° 6' N., 2° 26' E. Marine-Archiv, however, considers that this could not have been *U.B.20*, and was probably *U.C.17* on her way home, who reported being attacked by aircraft about 7 a.m. G.M.T. in that area.

² M.09773 in H.S. 1380/179, 192. Marine-Archiv, H.S./Q.53 (30), is of opinion that if the *Halcyon's* attack resulted in the loss of a submarine, it could only have been *U.B.27*.

Approaches and in the Channel and Bay something like 90 per cent. were unescorted in July 1917, as may be seen from the following tables:—

Ships Sunk, July 1917. *South-West and West Approaches, Channel and Bay.* *Escort and No Escort.*

| | British. | | Foreign. | | Total. | |
|---------------|----------|------|----------|-----|--------|------|
| Escorted .. | 4(a) | 5.3% | 1(c) | 1% | 5 | 3.7% |
| In convoy .. | 4(b) | 5.3% | 3(d) | 6% | 7 | 5.1% |
| No escort .. | 66 | 88% | 58 | 93% | 124 | 90% |
| Not stated .. | 1 | 1.3% | — | — | 1 | .7% |
| | 75 | — | 62 | — | 137 | — |

(a) July 5, *Cuyahoga*, A.T. escort; July 7, *Bellucia*, T.B.D. escort; July 7, *Condesa*, T.B.D. escort; July 20, *Fluent*, A.T. escort.

(b) July 16, *Henry R. James*, French coastal convoy; July 24, *Blake*, convoy to White Sea; July 25, *Oakleaf*, oiler convoy; July 31, *Fremona*, French coastal convoy.

(c) July 27, French *St. Emilion*, armed drifter escort.

(d) July 5, Norwegian *Bjerko*, French coastal convoy; July 13, French *Ascain*, French coal trade convoy; July 31, U.S.A. *Motano*, oiler convoy of three P-boats.

Ships Sunk, July 1917. *South-West and West Approaches, Channel and Bay.* *Homeward and Outward Bound.*

| | British. | | Foreign. | |
|----------------------|----------|-------|----------|-------|
| Homeward bound | 34 | 45.5% | 21 | 34% |
| Outward bound | 33 | 43.5% | 22 | 35.5% |
| Cross channel | 4 | 5.3% | 2 | 3.4% |
| Coastal convoy | 3 | 4% | 6 | 9.6% |
| Not stated | 1 | 1.3% | 11 | 17.7% |
| | 75 | — | 62 | — |

It is noticeable that in the case of homeward and outward bound ships there is very little difference in the incidence of loss—a clear indication of progress in the system of routing. In the case of "Escorts" and "No Escorts" 90 per cent. of the losses consisted of unescorted ships, though in the Channel this percentage was

considerably less, viz., about 70 per cent. This figure, however, refers only to ships sunk, but what of the ships not sunk? What percentage of the total traffic was unescorted? On this point there is little information in contemporary records,¹ but in the case of the Channel it is possible to arrive at an estimate of the total amount of traffic and of the proportion of it unescorted.

Traffic in Channel, July 1917.
Eastward and Westward.

| | Number of Ships. |
|---|-------------------------|
| A. <i>Oceanic Traffic—Through, Eastward.(a)</i> | |
| From North Atlantic and West Indies | 86 |
| From South America, Cape and West Africa | 16 |
| From India and Australia | 44 |
| From Gibraltar and Mediterranean | 26 |
| From Spain and Bay of Biscay | 60 |
| Total, through | — 232 |
| B. <i>Oceanic Traffic to Channel Ports, Eastward(b)</i> | 50 |
| C. <i>Coastal, Eastward.</i> | |
| West coast (England) to east coast | 48 |
| Channel ports to east coast | 104 |
| West coast ports to Channel | 200(c) |
| French coastal convoy | 120 |
| Total, coastal | — 472 |
| Traffic eastward | 754 |
| Traffic westward(d) | 754 |
| Total traffic through Channel | 1,508 or 49 a day(e) |

(a) From Downs Boarding Flotilla Report, Record of Ships Boarded, Books No. 48, 49 (June 19 to September 16, 1917).

(b) Estimate only. Ships for Havre would be in French coastal convoy.

(c) Estimate only; the plan in Statistical Review, December 1918, gives a figure of about 10 a day for April 1-20, 1918.

(d) On the assumption of the same amount of traffic east to west.

(e) Statistical Review for April 1-20, 1918, gives Eastward 543, Westward 544 = 1,091 in 20 days, or 54 per day. It may be accepted that the number of ships in the Channel, eastward and westward, was between 1,400 and 1,700 per month.

¹ No analysis on this basis for Home Waters has been found. The Statistical Review of the War, Admiralty, December 31, 1918, gives a plan, with figures, of traffic for April 1 to 20, 1918. Statistical Section Records (Losses, Merchant Tonnage) gives tables for August 1917 of number of sailings in convoy, local escort and non-convoy. Mediterranean Anti-Submarine Report (monthly) gives traffic figures (escorted and unescorted) for Mediterranean.

217. **Cross Channel Traffic.**—The bulk of the Cross Channel traffic was in convoy on passage to France, but a considerable number of ships returned unescorted.

Traffic, Cross Channel Passages, July 1917.

To France.

| | |
|--|----------------|
| A. <i>Troop Transports, Stores, to Havre, Dieppe, etc.</i> | 868(a) |
| B. <i>French Coal Trade.(b)</i> | |
| Falmouth and Mounts Bay to Brest | 296 |
| Portland to Cherbourg | 226 |
| Portsmouth (St. Helens) to Havre(c) | 506 |
| Downs to Dieppe | 120—1,148 |
| | — |
| | 2,016 |
| <i>From France</i> | 2,016 |
| | — |
| Total Crossings | 4,032(d) |
| | say 130 a day. |

(a) From telegrams, "Transports Crossing," sent nightly (H.S. 477-486); the Naval Staff gave the following figures for vessels in Portsmouth and Dover areas working between England and France for Army requirements in June 1917: Escorted 581, unescorted 549 = 1,128 (H.S. 1339/83). Transport Department (E. J. Foley) gave the figures for military ships: Escorted 633, unescorted 547 = 1,180 (H.S. 1339/91).

(b) French coal trade figures from French Coal Trade volume, H.S. 1393; Auxiliary Patrol Reports, Falmouth (H.S. 588); Portland (H.S. 675); Portsmouth, H.S. 595. Also an important letter from C.-in-C., Portsmouth, July 3, 1917, in H.S. 1339/75.

(c) The Portsmouth to Havre empty vessels seem to have returned unescorted (C.-in-C., Portsmouth, September 11, 1917, H.S. 1393/336).

(d) This, of course, represents crossings; the number of ships employed was probably not more than 150 transports and 800 coal trade vessels. Statistical Section figure is 1931 for sailings to France, Cross Channel, July 1917.

218. **Channel, Convoy, Escort and No-Escort, July 1917.**—The following are the figures of Traffic and Losses in the Channel, between Dover and the Scillies.

Channel Traffic, East and West.

| | Ship Passages. | Losses. | Percentage, Loss. |
|----------------------------|----------------|---------|-------------------|
| In escort— | | | |
| Destroyers or "P" boats .. | 120 (8%) | 2(a) | 1.6 |
| Armed trawlers | 180 (12%) | 2(b) | 1.1 |
| In convoy— | | | |
| Atlantic | 65 (4.5%) | 0(c) | Nil |
| French coastal | 240 (16%) | 3(d) | 1.2 |
| Unescorted | 903 (59.5%) | 17 | 1.9 |
| Total | 1,508 | 24 | 1.5 |

(a) *Bellucia*, July 7 1917; *Motano*, July 31. Note.—The oiler *Motano* sunk off Start Point was being escorted with two other oilers by three P-boats from Plymouth to Portsmouth.

(b) *Fluent*, July 20; French *St. Emilion*, July 27.

(c) *Wabasha*, in convoy HH4, torpedoed July 6; salvaged.

(d) Norwegian *Bjerko*, July 5, 1917; *Henry R. James*, 16 July; *Fremona*, July 31.

There were also sunk in the Channel; on July 7 by *U.C.61*, the destroyer H.M.S. *Ettrick*, while escorting Atlantic convoy HH4; the minelayer H.M.S. *Ariadne* by *U.C.65* on July 26 under escort of two destroyers and s.s. *Beatrice* mined on July 20.

It will be seen that of the traffic up and down in July 1917 some 20 per cent. was in convoy, 20 per cent. was escorted and some 60 per cent. unescorted, the actual percentage of loss being greatest (1.9 per cent.) among unescorted ships, though the difference is not so great as might be expected.

The Cross Channel traffic amounted to some 4,032 passages to and fro in the month. In the case of 868 troop transports to France, escorted over by night, none were lost and of 1,148 coal trade vessels proceeding to France only one vessel (French s.s. *Ascain*, July 13 1917) was lost. Though the vessels engaged in the Cross Channel traffic were smaller, the volume of tonnage was almost certainly as great as that of the Through Traffic¹ and in view of this point it is noteworthy that not a single transport was lost and the loss in the French coal trade, south bound, was less than 1 in a 1,000. The immunity of the latter trade was attributed by Admiral Colville (Commander-in-Chief, Portsmouth) not to the strength of the escorts,

¹ The mileage, however, of the Cross Channel traffic was considerably less. The mileage of the Through Traffic would be about 450,600 miles; that of the Cross Channel, about 176,800 miles—a total of 627,400 miles.

which were only armed trawlers, but to the reluctance of German submarines to attack a convoy with escorts "in rather irregular formations without lights during hours of darkness."¹

219. **Analysis of Attacks in Channel, July.**—The number of merchant ships sunk by submarines in the Channel was 25² of 56,699 tons, of which five were sailing vessels sunk by bombs. Of the remainder 17 were sunk by torpedo and three by gunfire. Only four of these ships were over 4,000 tons.³

The number of merchant ships attacked but not sunk was 18; of these there were:—

| | |
|-----------------------------------|---|
| Torpedoed and salvaged | 4 |
| Gunfire, salvaged | 1 |
| Torpedo missed | 6 |
| Escaped by course and speed | 3 |
| Not stated | 4 |

There were therefore in all 43 attacks of which 25 (58 per cent.) were successful and 18 (42 per cent.) unsuccessful, the principal cause of failure being a "miss" by the torpedo (14 per cent. of attacks). In addition two men-of-war were sunk, the minelayer *Ariadne* on July 26 and the destroyer *Ettrick* on July 7, which may be regarded as sunk, though her after part was salvaged. One man-of-war, the French torpedo boat *Tromblon*, was torpedoed on July 31, when escorting a French coastal convoy but did not sink. The total number of attacks on men-of-war and merchant vessels was therefore 46 of which 27 (or 58.5 per cent.) were successful. The number of torpedoes carried was 105, of which only 34 appear to have been fired.

220. **Attacks on Submarines, Channel.**—The number of attacks on submarines was 33, viz. :—

| | Ram. | Gun. | Torpedo. | D. Charge. | Bomb. |
|-------------------------------|------|------|----------|------------|-------|
| T.B.D., T.B. or P-boat .. | — | — | — | 7 | — |
| Armed Trawlers or Drifters .. | — | 5 | — | 6 | — |
| Merchant vessels | — | 4 | — | — | — |
| Q-ships | — | 3 | — | — | — |
| Aircraft | — | — | — | — | 8 |
| Total | — | 12 | — | 13 | 8 |
| S.Ms. put out of action .. | — | — | — | 1 | — |

¹ C.-in-C., Portsmouth, July 11 1917, in H.S. 1393/259. Admiral Colville was opposing a suggestion that the French coal trade should cross by day.

² Not including one ship, s.s. *Beatrice*, sunk by mine.

³ *Bellucia*, 4,368 tons; *Carmarthen*, 4,262 tons; *Salsette*, 5,842 tons; *Candia*, 6,482 tons.

The number of submarines damaged or put out of action in the Channel¹ was two—viz., *U.B.23*, damaged by depth charge from *P.60* on July 26 off the Lizard and interned later at Corunna (Spain); and *U.C.61* lost by stranding on July 26 on the Wissant shoal off Griz Nez in the Dover area.

In addition there were 22 sightings of submarines in which no attack was made on either side making altogether 101 contacts as follows:—

| | |
|------------------------------------|----|
| Vessels sunk | 27 |
| Vessels attacked, not sunk | 19 |
| Attacks on submarines | 33 |
| Sightings | 22 |

101

As five of the attacks on submarines were conjoined with attacks by submarines the actual contacts were 101 — 5 = 96. The number of submarine cruises was 14; the number of submarines operating was 11 (three of them out twice); the number of submarine-days was 125, making $\frac{96}{125}$ or say one contact per submarine-day. In terms of mileage, as the mileage covered by ships must have been about 627,000 miles, submarines apparently made contact only once in 6,500 miles. These figures in conjunction with the fact that submarines do not appear to have fired more than one-third of their torpedoes indicate that submarines either could not find the traffic (which is improbable in the case of a limited area like the Channel) or that the measures for keeping them down were effective.

CHAPTER XVI.

MEASURES, CHANNEL.

221. Routeing.—The principal measures against the submarine may be regarded as Routeing, Patrols, Escort and Convoy, while in technical matters progress was being made in hydrophones, depth charges and deep mines. In the case of Routeing, new orders had been issued in March under the title of "English Channel Routes."² All vessels were to zig zag during daylight and moonlight and always to hug the land as closely as safe navigation would permit. All ships bound up Channel were to call at Falmouth for orders and during dark hours were to follow a course 7 miles off Start Point, Portland Bill, St. Catherines, Beachy Head and Dungeness, showing no navigation lights except dimmed bow lights in certain stretches

¹ *U.B.32* lost on July 28, 1917, on mines off Ostend is included in North Sea area.

² In M.02787/17, March 12, 1917, in Case 1356.

where the cross traffic passed. Ships bound down channel were on the other hand to pass close to the principal headlands, thus keeping well clear of the up-Channel traffic. The essential points of the system were that all ships were by day to hug the coast and by night to proceed without lights, the up-Channel traffic at night keeping 7 miles from shore to avoid collisions.

In the case of cross-Channel traffic of transports and French coal trade, sailings were by night and under escort.

222. Patrol Forces.—The commands and forces in the Channel in July 1917 were as follows:—

T.B.D. = Destroyer; T.B. = Torpedo-boat; A.Y. = Armed Yacht; A.T. = Armed Trawler; P.M.S. = Paddle Mine Sweeper; M.L. = Motor Launch.

| A.P. Area. | Command. (a) | T.B.D. | "P" Boats. | T.Bs. | A.Y. | A.T. | P.M.S. | M.L. | Drifter. |
|------------|-----------------------|--------|------------|-------|---------|-------------|--------|------|----------|
| XI | <i>Dover</i> — | | | | | | | | |
| | 6th Flotilla .. | 40 | 7 | 2 | 3 | — | — | — | — |
| | Auxiliary Patrol.. | — | — | — | 3 | 73 (57 (b)) | 13 | 25 | 102 |
| | Ramsgate .. | — | — | — | 1 | — | — | — | 29 |
| XII | <i>Portsmouth</i> — | | | | | | | | |
| | 1st Flotilla .. | 13 | — | — | — | — | — | — | — |
| | Escort Flotilla .. | 9 | 12 | 2 | — | — | — | — | — |
| | Convoy Flotilla (c) | — | 6 | — | — | — | — | — | — |
| | Auxiliary Patrol.. | — | — | — | 2 | 44 (42) | — | 40 | 20 |
| | Newhaven .. | — | — | 5 | — | 18 (16) | — | 5 | — |
| | Poole .. | — | — | — | — | — | — | 4 | 40 |
| Havre .. | — | — | — | — | 14 (14) | — | 2 | 26 | |
| XIII | <i>Portland</i> | — | — | — | 2 | 30 (25) | 4 | 12 | 9 |
| XIII | <i>Plymouth</i> — | | | | | | | | |
| | 2nd Flotilla .. | 18 | — | — | — | — | — | — | — |
| | 4th Flotilla .. | 23 | — | — | — | — | — | — | — |
| | Auxiliary Patrol.. | — | — | — | — | 33 (31) | — | 15 | 20 |
| XIV | <i>Falmouth</i> | — | — | — | — | 34 (19) | — | 8 | 26 |
| | <i>Penzance</i> | — | — | — | — | 21 | — | — | — |
| | | 103 | 25 | 9 | 11 | 267 | 17 | 111 | 290 (d) |

(a) These figures are from the daily Positions and Movements ("Pink List"), July 14, and the weekly Auxiliary Patrol ("Red List"). The figures for June 1917, Portsmouth and Dover, are in Naval Staff paper, August 4, 1917, in H.S. 1339/88.

(b) Figures in brackets are minesweepers. Of the 267 armed trawlers, 225 (84 per cent.) were fitted for minesweeping and 88 (33 per cent.) with wireless.

(c) For convoying ships of Atlantic convoy bound up Channel.

(d) All the drifters, except the 29 at Ramsgate, were net drifters.

223. **Dover, Area XI.**—In the Dover area, Vice-Admiral Sir Reginald Bacon (Vice-Admiral, Dover), the destroyers were employed chiefly in patrolling the Straits and a continuous day and night patrol of 22 armed trawlers was also maintained between the South Goodwin and Beachy Head, the trawlers being stationed 3 miles apart and doing four days at sea, those fitted as minesweepers sweeping their section at daylight (H.S. 530/33). These trawlers also acted as escorts to special ships through their areas (about four ships a day) and two were stationed east and west of the "Gate" at Folkestone to control traffic. The net drifters worked on the barrage, where there were usually 15 to 20 at work, but during July a large number, some 40 or so, were making special preparations to lay a new net barrage off the Belgian coast on July 24.

The French coal trade in this area (Crossing D) assembled at Southend, crossing independently as directed by V.A. Dover (May 31, 1917. H.S. 1393/114). The Auxiliary Patrol was under Captain W. V. Howard, R.N. and the Barrage and net drifters under Captain Frederick G. Bird.

224. **Portsmouth, Area XII.**—In the Portsmouth area, under Admiral the Hon. Sir Stanley Colville, Commander-in-Chief, Portsmouth, the principal task was the nightly escort of transports to France performed by the Escort Flotilla and the Newhaven torpedo boats. The Auxiliary Patrol, under the direction of the Flag Captain, Captain Francis A. Marten, R.N., patrolled between Beachy Head and St. Alban's Head and, assisted by the 1st Flotilla, escorted special ships. The Convoy Flotilla of six "P" boats in conjunction with the 1st Flotilla, escorted the Atlantic convoy ships up Channel, taking them over usually from the Devonport destroyers at Portland. Net drifters worked off the Needles and St. Catherine's, Isle of Wight. The French coal trade (Crossing C) assembled at St. Helens, Isle of Wight, and were escorted over every night by armed trawlers, which sailed so as to arrive 8 miles north of Caen Light at daylight (H.S. 1393/113). This was the principal Channel crossing for the coal trade. At Portsmouth too in July there were three motor launch hydrophone flotillas completing for Poole, Dartmouth and Newhaven.

At Poole there were a number of net drifters which worked between Anvil Point and the Isle of Wight, and it was also the base of a hydrophone flotilla (H.S. 595/473).

225. **Portland, Area XIII.**—Portland, under the Commander-in-Chief, Portsmouth and Commodore Richard Harbord, dealt with the French coal trade crossing (Crossing B) to Cherbourg, escorted valuable ships from Portland Bill to St. Catherines, and became in the latter part of 1917 the principal centre of hydrophone instruction. (Technical History 7/47.)

226. **Plymouth.**¹—At Plymouth, under Admiral the Hon. Sir Alexander E. Bethell, Commander-in-Chief, Plymouth, the Auxiliary Patrol did the minesweeping, the patrol work and the escorting of valuable ships. Net drifters worked off the Eddystone and Dartmouth (H.S. 741). The two Destroyer Flotillas, 2nd and 4th, under Captain (D), Captain Arthur E. Wood, R.N. in H.M.S. *Hecla*, were employed, partly in patrolling and hunting, partly in escorting valuable ships and partly in convoy work, the 2nd Flotilla usually taking the troop convoys from Sierra Leone and the 4th Flotilla the Atlantic convoys. The following is an analysis of their work in July 1917—the 2nd Flotilla of 18 destroyers (558 days) and the 4th Flotilla of 24 destroyers (744 days).

Destroyer Flotillas, Plymouth.

Days Employed, July 1917.

| Work. | 2nd Flotilla. | 4th Flotilla. | Total. | Percentage. |
|----------------------------|---------------|---------------|--------|-------------------|
| Convoy, Mercantile | 10 | 203 | 213 | 16.3 |
| Convoy, Troop Transport .. | 220 | 80 | 308 | 23.5 |
| Escort, Valuable Ships .. | 78 | 31 | 109 | 8.3 |
| Escort, Men-of-War | 18 | 0 | 18 | 1.3 |
| Patrolling | 2 | 138 | 140 | 10.7 |
| Available | 25 | 35 | 60 | 4.6 |
| Resting | 33 | 48 | 81 | 6.2 |
| Repair and maintenance .. | 103 | 162 | 265 | 20.2 ² |
| Detached | 62 | 35 | 97 | 7.4 |
| Not stated | 7 | 12 | 19 | 1.4 |
| | 558 | 744 | 1,302 | 99.9 |

It is noteworthy that actual mercantile convoy occupied only 16 per cent. of their time in July.

227. **Falmouth, Area XIV.**—Falmouth, Rear-Admiral John S. Luard, was an important port of call. Its armed trawlers escorted valuable ships (44 during July) up to Plymouth and Start Point or down to the Bishop. It also dealt with a portion of the French coal trade to Brest (Crossing A), though most of these sailed from Mount Bay and were dealt with by Lieut.-Commander David Blair, R.N.R. at Penzance.

¹ Auxiliary Patrol "Red Book" has "Area XIII, DEVONPORT" and uses the term C.-in-C., Devonport. The official designation, however, was C.-in-C., Plymouth.

² Dover, on July 14, out of 40, had 11 refitting or repairing = 27 per cent. Portsmouth, out of 20, had 3 refitting = 15 per cent.

228. **Patrols.**—The destroyers on patrol sighted submarines occasionally, but were usually too far off to make a successful attack. Plymouth had four destroyers on patrol between July 8 and 14; the *Christopher*, 4th Flotilla, Plymouth, sighted submarines six times between June 27 and July 7 (H.S. 741/261). On July 2, escorting with the *Cockatrice*, she went off in search of a submarine reported as damaged by the Q-ship *Penshurst* in 49° 10' N., 8° 55' W.; on July 3 patrolling, she sighted at 6.10 p.m. a submarine on the horizon, which immediately submerged. On July 4 at 11.40 a.m. she proceeded at 27 knots to answer an SOS from s.s. *Navajo*, but by the time she reached her (2.48 p.m.) there was nothing at sight; at 7.55 p.m. she sighted a submarine on the surface 5 miles away which submerged when she opened fire. Incidents of this sort indicate that patrolling, though efficacious to some extent in keeping submarines down, was seldom able to effect their destruction.

229. **Escorts.**—Instructions as to what ships were to be escorted by Auxiliary Patrol vessels were issued in May 1917.¹ Vessels "to be given escort" were: oilers, munition ships, cable ships, ships with valuable Government stores and special ships belonging to Allies. Unarmed ships in these categories with a speed of 11 knots or less were to be escorted. Also oilers with a speed of 11 knots or less, armed or unarmed; armed ships, except oilers and cable ships were not to be escorted. The number of ships escorted daily in each of the Channel areas varied from 3 to 6 (see S.217). On July 23rd the Admiralty called for a weekly return from all areas of all escorts performed round the coast,² which produced a mass of information on this point.

230. **Hydrophone Flotillas.**—Hydrophone experiments at Hawkraig (Firth of Forth) up to January 1917 and then at Parkeston Quay, Harwich had evolved the General Service Hydrophone. By June 1917, a new model, the Fish Hydrophone had been produced and as a result of promising trials on July 31, 1917, it was decided to equip 200 vessels with it and to erect an experimental station at Portland. There were some five hydrophone "hunts" in the Channel during July (three of them after *U.B.31*) but none of them achieved anything.

On July 4th after *M.L.133* had sighted *U.B.31* and attacked her with a depth charge, a Hydrophone Flotilla of four drifters took up listening stations off Torquay (H.S. 1341/49). On July 17 the Portland Flotilla sighted a submarine (probably *U.B.40*) in 50° 22' N., 2° 35' W., and picking it up followed it towards Portland Bill (H.S. 1341/185). The Devonport M.L. Hydrophone Flotillas were operating off Berry Head on July 23, 24, 25. The night of the

¹ M.05165 of May 11, 1917 in H.S. 1456/36.

² See reports in H.S. 1456, 1458.

24th was dark, clear and calm and *M.L.211*, who could hear the *Sunfish* 5 miles away, heard a submarine, sighted it (possibly *U.B.40*) and dropped a depth charge, but nothing more was seen or heard.¹ July seems to have been an encouraging month for the hydrophone but certainly it had not developed sufficiently to accomplish the actual destruction of a submarine.

231. **Q-Ships, Channel.**—In the Channel (Dover to Scillies) three were three actions between Q-ships and submarines.

On July 9th at 6.37 a.m. off Plymouth, the *Puma*, Lieut.-Commander Charles Land, a Portsmouth ship was attacked by *U.B.31*, replied with a 3-pdr. and smokescreen and then as the submarine would not close, opened fire at 3,000 yards with her 4-in. and 12-pdr., claiming two hits. *U.B.31* dived and made off undamaged.²

The next day July 10 at 2.30 p.m. she fell in with another Q-ship, the s.v. *Glen*, Sub-Lieutenant K. Morris, R.N.R., off Portland Bill and brought her to with gunfire at 3,000 yards. The *Glen* "abandoned ship," *U.B.31* closed and went down with periscope showing and after circling round the ship at 100 yards, raised her conning tower and opened the hatch to hail the boat. The *Glen* opened fire claiming three hits, but according to the German report, *U.B.31* succeeded in getting down before a shot fell³ (see S.203) and suffered no damage.

On July 11 at 6.50 a.m. off the Scillies, the *Helgoland*, Lieutenant Evan S. MacLennan, R.N.R., a brigantine with four 12-pdrs. was attacked at 4,000 yards by a submarine which then submerged, reappearing and opening fire at 500 yards. The *Helgoland* replied with 20 rounds of 12-pdr. claiming three hits. The submarine which was possibly *U.C.77* does not appear to have been damaged.⁴

There were four other attacks by Q-ships in the Channel Approach in July, none of which were successful.⁵ Their day was almost over, though they continued for a time to impose a measure of caution on the submarine.

232. **Deep Mines.**—Two minefields had been laid in the Channel in 1915,⁶ but no submarine was apparently lost on them and two years elapsed before anything more was done in this direction. On

¹ Report, Commander Adrian Keyes to C.-in-C., Plymouth, July 26, 1917. H.S. 1339/195.

² H.S. 1341/128. Marine-Archiv, H.S./Q.52 (24).

³ H.S. 1295/547 and Marine-Archiv, Q.53 (25).

⁴ M.08798/17 in H.S. 1438.

⁵ *Penshurst*, July 2, possibly *U.84*; *Aubretia*, July 5, possibly *U.84*; *Aubretia*, July 7, and *Cullist*, July 13.

⁶ Off Beachy Head, 256 service mines, September 24, 1915, and off Dartmouth, May 2, 1915.

May 7, 1917, the Commander-in-Chief, Portsmouth (Admiral Colville), put forward a proposal for laying deep mines on the transport routes. It was not adopted, however, on these routes as it would have interfered with a plan already in preparation for laying deep mines round the coast. In conjunction with this plan it was proposed to reduce the visibility of lightvessels and shorelights with the object of forcing submarines to come closer in. The first deep minefield was laid on June 26th by the *Angora* (Captain Walter R. Petre) and *Wahine* (Captain Harry Smyth) off Portsmouth between the Owers and Dunnose Head and another close to it on July 1st.¹ It was to this field that *U.B.81* fell a victim on December 2, 1917, at 4.30 p.m.² Orders were issued the same day (June 26) to reduce the visibility of the Shambles, Owers, Nab and Dean lights.³ On July 8 a minefield of 270 service mines was laid off Portland by the *Angora* and *Wahine* and another of 260 mines close to it on July 14. These consisted of seven lines (round about 50° 31' N., 2° 18' W.) laid at depths between 18 and 42 ft. from the bottom. (For details, see Leith, 69, 371.)

On July 20 and 29 and on August 5 minefields were laid off Beachy Head (Leith 70).

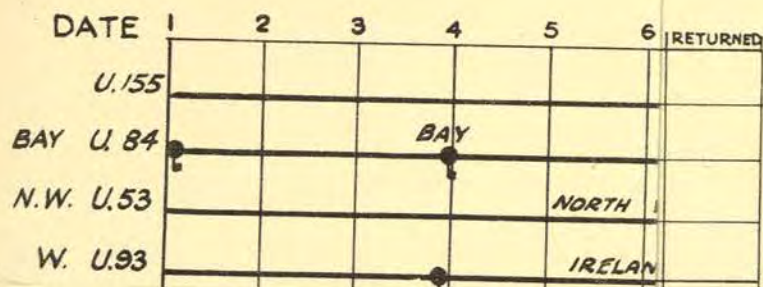
There is no evidence that any submarine was lost on these fields but *U.C.65* (Steinbrinck) must have been very close to the Portland field when he was laying mines on July 21. (Plan 12.)

The *Ariadne* was on her way to lay a field off Plymouth when she was sunk on July 26. Minefields were laid later in the year off the Lizard on September 25, October 3 and 10, off Mounts Bay on October 29, off Plymouth on October 15 and November 17, off Prawle Point on November 5 and 11. These fields, all of service mines, were responsible for the loss of two submarines—*U.C.51* off Prawle Point on November 17, and *U.B.81*² off Portsmouth on December 2, 1917.

¹ Leith, 68, Chart Cutting III. Its limits were 50° 40' N., 50° 36' N., 1° 3' W. and 0° 47' W.

² The position where *U.B.81* struck a mine was stated to be 2 miles south-east of Owers (Telegram, H.S. 635/698), which is some 4 miles from the minefield. It seems possible that in the interrogation of prisoners this was mistaken for Owers Light, S. by E., 2 miles, which would be on the edge of Line C of the minefield in 50° 37' N., 0° 45' W.

³ Lockhart Leith, 69.



CHAPTER XVII.

HIGH SEA FLEET SUBMARINES TO WESTWARD.

233. **High Sea Fleet Submarines.**—The following High Sea Fleet submarines were operating to the south-west and west of Ireland in July (asterisks denote that cruise is given below):—

| Submarine. | Left. | Re- turned. | Area.(a) | July. Days. | July. Ships. | Tons Sunk. |
|-------------|-------|----------------|------------------|----------------|-----------------|---------------|
| U.155 .. | 23.5 | 5.9 | Azores | 31 | 10 | 25,842 |
| U.84* .. | 17.6 | 15.7 | S.W., Bay | 15 | 4 | 14,596 |
| U.53* .. | 18.6 | 13.7 | W. | 13 | 10 | 5,013 |
| U.93 .. | 18.6 | 13.7 | W. | 13 | 1 | 308 |
| U.C.31 (M) | 20.6 | 10.7 | W. | 10 | 2 | 5,651 |
| U.80 .. | 23.6 | 10.7 | N.W. | 10 | 1 | 3,651 |
| U.C.44*(M) | 23.6 | 9.7 | S.W. | 9 | — | — |
| U.88 .. | 25.6 | 19.7 | S.W. | 19 | 4 | 4,217 |
| U.45* .. | 26.6 | 29.7 | S.W. | 29 | 7 | 15,882 |
| U.49* .. | 27.6 | 23.7 | S.W. | 23 | 9 | 15,989 |
| U.57* .. | 28.6 | 22.7 | S.W. | 22 | 4 | 8,310 |
| U.48* .. | 1.7 | 24.7 | S.W. | 24 | 3 | 9,764 |
| U.87* .. | 1.7 | 24.7 | S.W. | 24 | 8 | 28,865 |
| U.58 .. | 3.7 | 27.7 | W. | 25 | 3 | 6,578 |
| U.66* .. | 4.7 | 29.7 | W. | 26 | 3 | 7,453 |
| U.71 (M) .. | 7.7 | 26.7 | N.W. | 20 | 1 | 223 |
| U.69* .. | 10.7 | 12.7 | W. (sunk)(b) | 3 | — | — |
| U.96 .. | 10.7 | 30.7 | S.W., W. | 21 | 4 | 2,080 |
| U.30 .. | 11.7 | 9.8 | W. | 21 | 1 | 293 |
| U.95 .. | 11.7 | 5.8 | S.W. | 21 | 3 | 8,714 |
| U.C.41*(M) | 11.7 | 28.7 | S.W. | 18 | 2 | 11,348 |
| U.46* .. | 14.7 | 5.8 | S.W. | 18 | 6 | 17,086 |
| U.54* .. | 14.7 | 6.8 | S.W. | 18 | 4 | 23,633 |
| U.82* .. | 15.7 | 8.8 | S.W., W. | 17 | 3 | 14,275 |
| U.101 .. | 16.7 | 8.8 | W. | 16 | — | Nil |
| U.44* .. | 17.7 | 12.8 | W. (sunk)(c) | 15 | 2 | 4,353 |
| U.100 .. | 17.7 | 12.8 | W. | 15 | — | — |
| U.C.75 (M) | 22.7 | 5.8 | Irish Sea | 10 | 1 | 1,117 |
| U.61* .. | 23.7 | 14.8 | W. | 9 | — | — |
| U.55* .. | 26.7 | 21.8 | S.W. | 6 | 1 | 4,765 |
| U.78 (M) .. | 27.7 | 13.8 | W. | 5 | — | — |
| U.C.54 .. | 29.6 | — | Mediterranean(e) | — | — | — |
| 32 | | | | 526 | 99 | 240,006(d) |

(a) W. = West of Scotland and Ireland; N.W. = North-West of Scotland; S.W. = South-West of Ireland; (M) = Minelayer.

(b) U.69 was possibly sunk in the North Sea, outward bound, on July 12 at 11.25 a.m., in 60° 28' N., 1° 32' E., by an explosion seen by H.M.S. *Patriot*. See, however, S.241A.

(c) U.44 was sunk in the North Sea, homeward bound on August 12, at 6.17 a.m. in 58° 51' N., 4° 20' E., by H.M.S. *Oracle*.

(d) This figure includes some tonnage sunk in North Sea and to northward, going and returning; cf., figure 237,101 tons in S.196.

(e) U.C.54 left Kiel for the Mediterranean on June 29 and arrived at Cattaro on July 28. She was off the West of Scotland probably about July 7-9.

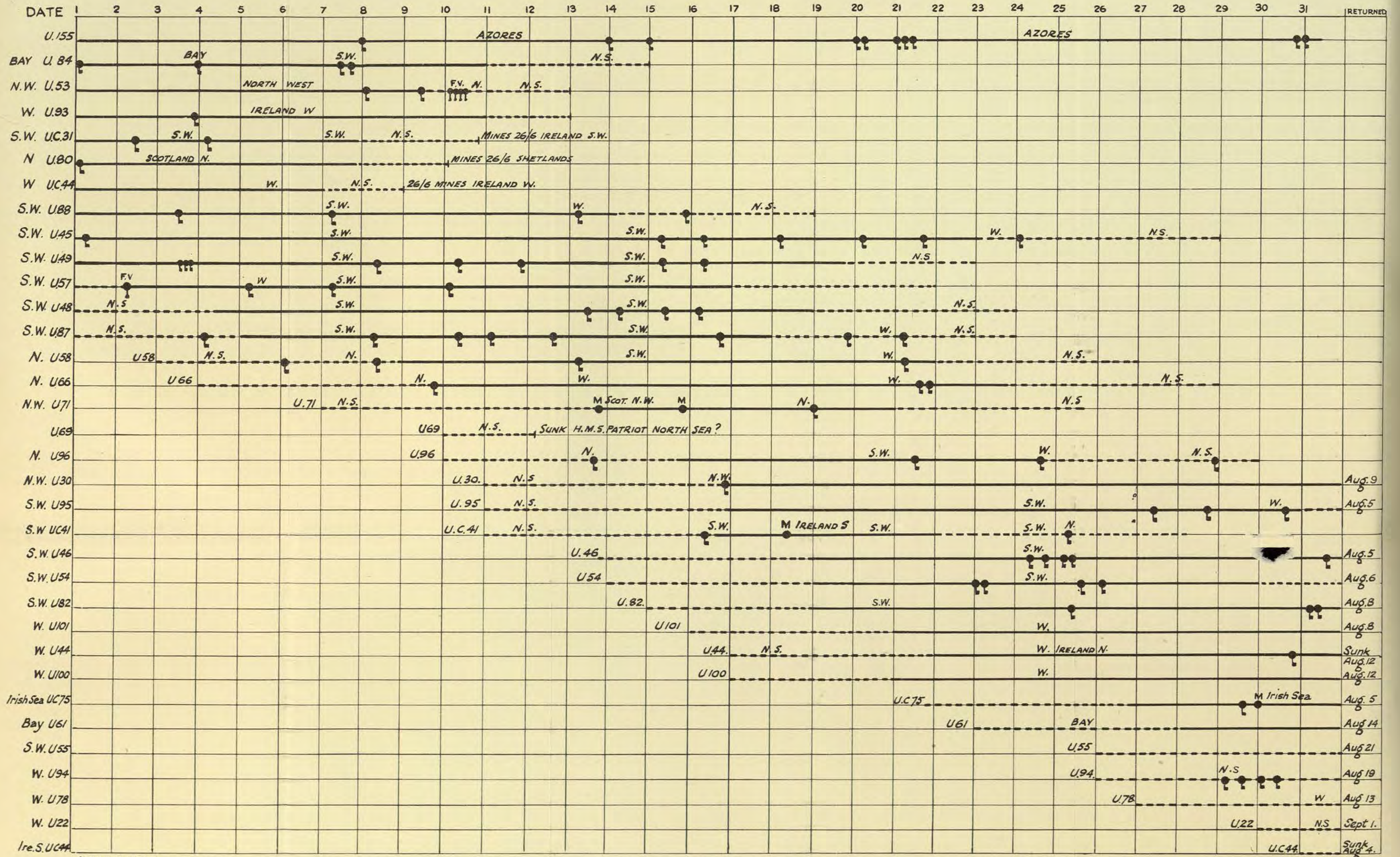
The average tonnage sunk per submarine per day was 466 tons.

HIGH SEA FLEET SUBMARINES, JULY 1917 (S.233)

PLAN 15.

REFERENCE

- N SCOTLAND N.
- W SCOTLAND W.
- S.W. IRELAND S.W.
- F.V. FISHING VESSELS
- M LAID MINES
- N.S. NORTH SEA
- OUTWARD OR HOMEWARD BOUND
- FISHING VESSEL SUNK
- SHIP SUNK



N.S.I.D Sept 1937
590 W. 34068 1/4 3634 250.11.39

Hydro. Dep^t

234.—**Submarine Cruises, "U.84," June 17–July 15.**—*U.84*, Lieut.-Commander Walter Roehr, left Emden on June 17 and in July was working in the Bay. On July 1 at 4 a.m. in 46° 28' N., 1° 50' W., she met a French coal trade coastal convoy of 12 ships, escorted by three patrol vessels, and torpedoed the British s.s. *Demerara*, 11,483 tons, outward bound from Liverpool to South America via Santander. The *Demerara* did not sink and was towed by French patrol vessels to La Pallice where she was beached. *U.84* followed the convoy and at 5 a.m. in about 46° 26' N., 1° 58' W. torpedoed and sank the Spanish s.s. *Bachi*, 2,184 tons, from Newport to Bilbao with coal. The convoy was proceeding at 8 knots and the *Demerara*, which could go 13, ought not to have been in a French coal trade convoy; at Penzance she had been told to cross the Channel independently, but at Quiberon had been placed in convoy (H.S. 1349/23). On July 2 at 11 a.m. in 47° 10' N., 2° 50' W., *U.84* was fired at by a French patrol and at 11 a.m. near the same spot had an encounter with the French "Q" ship *Michel et Renée*, without being hit. On July 4 at 2 a.m. in 47° 15' N., 3° 15' W. she torpedoed the British s.s. *Goathland*, 3,044 tons, proceeding from St. Nazarre to the Gulf, unescorted; it was a clear moonlight night and the ship sank in 2 minutes with a loss of 20 men.

On July 5 at 4 p.m., *U.84* was seen off Belle Isle and attacked by two French planes which dropped bombs (Etudes, July 1917, p. 9). She went westward and on July 7 at 1.15 p.m. in 49° 23' N., 8° 17' W. torpedoed and sank the Norwegian s.s. *Oxo*, 831 tons, from Jamaica to Havre with logwood. At 9.30 p.m. in 49° 23' N., 8° 56' W., she found a bigger victim and torpedoed the British s.s. *Condesa*, 8,537 tons, from Montevideo to Falmouth with frozen meat, being escorted by the destroyer H.M.S. *Lizard* which let go depth charges. The *Lizard* made a signal for tugs while the armed yacht *Rovenska*, which had come up, got her in tow; two tugs were sent from the Scillies and then a third, but a heavy sea was running, none of them were ocean going, and they all put back, and the *Condesa* sank the next day, July 9, at 2.20 p.m. (Enquiry, in H.S. 1349/196). This was the last ship sunk by *U.84*, which got back to Emden on July 15. She had sunk in July, four ships of 14,596 tons, and in her cruise six ships of 18,615 tons. Of the five ships torpedoed, two were in coastal convoy, one under escort and two unescorted. She had been attacked once by a "Q" ship (French), once by aircraft (French) and once by an escorting destroyer.

234A. "**U.53," June 18–July 13.**—*U.53* left Heligoland for the west on June 18. On July 1 at 10.40 a.m. in 48° 26' N., 9° 45' W., she fired a torpedo, which missed, at the British s.s. *Tintoretto*, 4,181 tons, Liverpool to Montreal, then rising chased her unsuccessfully for 40 minutes. On July 4 at 6 p.m. in 50° 22' N., 12° 30' W. she missed the British s.s. *Cowrie*, 4,893 tons. On July 8 at 5.30 a.m. in 55° 30' N., 7° 45' W., she sank with gunfire the

Norwegian s.v. *Asheim*, 2,147 tons, bound from Dublin to New York and on July 9 at 11.30 p.m. in 57° 30' N., 8° 30' W. the Danish s.v. *Atlantic*, 1,150 tons, bound to Denmark from Cardiff with coal. On her way back in about 60° 30' N., 6° W. she sank seven British fishing vessels on July 10, arriving home on July 13.

234B. "**U.C.44," June 23–July 9.**—*U.C.44* left Heligoland on June 23; on June 28 she laid nine mines off the Shannon in about 52° 32' N., 9° 52' W., which were found on July 6, and on June 29, the remaining nine off Inish Tearaght in about 52° 4' N., 10° 43' W. She sank two vessels on June 30, the Italian s.s. *Phoebus*, 3,132 tons, by torpedo, at 6.15 p.m. in 51° 5' N., 14° 6' W. and the Norwegian s.v. *Asalia*, 2,348 tons, at 8.30 p.m. by bombs in 51° 16' N., 14° 59' W. On July 2 at 3.30 p.m. in 51° 27' N., 12° 12' W. she was engaged by the "Q" ship H.M.S. *Gaelic* but would not approach within 1,500 yards. She was back at Heligoland on July 9.

235. "**U.45," June 26–July 29.**—*U.45*, Lieut.-Commander Erich Sittenfeld, left the Bight on June 26 and proceeding north about on July 1 in 59° 7' N., 6° 23' W. sank the British f.v. *Eclipse*, 185 tons. She apparently was working in the approach to the Bay and it was probably she that on July 6 at 8.10 a.m. in 46° 8' N., 14° 48' W., was fired at by the British s.s. *Siamese Prince*, 4,846 tons; and on July 8 in 46° 2' N., 13° 52' W. by the British s.s. *Clan Chisholm*. On July 10 at 11 a.m. in 46° 32' N., 13° 5' W., the American s.s. *Gold Shell* was fired at by a submarine which was probably *U.45*. A cruise to the northward was more successful. On July 15 about 3 a.m. in 50° 52' N., 11° 38' W. (where the sole survivor was picked up), she torpedoed the British s.s. *Mariston*, 2,908 tons, carrying 5,500 tons of copper ore from Spain to Glasgow, which sank at once, with the whole crew except one survivor (H.S. 1350/298). On July 16 at 10 a.m. in about the same position she torpedoed the British s.s. *Ribston*, 3,372 tons, with 4,700 tons iron ore from Mellila to Glasgow, unescorted, which sank in 2 minutes, with a loss of 24 lives out of 27 on board. On July 17 at 11.30 a.m. in 51° 19' N., 11° 20' W., she torpedoed the British s.s. *Haworth*, 4,456 tons, carrying 5,800 tons of wheat from Philadelphia, unescorted. The ship remained afloat for some time but sank on July 18, an endeavour to tow her proving ineffectual. On July 19 at 11.42 a.m. in 50° 30' N., 12° 10' W. the British s.s. *Blakemoor* was missed by a torpedo and an hour later in 50° 43' N., 12° 34' W. the U.S. destroyer *Tucker* dropped a depth charge on a supposed track. On July 20 about 1 a.m., *U.45* was located by directionals in 50° 40' N., 11° 20' W., and at 5.30 p.m. in 50° 39' N., 11° 42' W. torpedoed the British s.s. *Nevisbrook*, 3,140 tons, with 5,000 tons of iron ore from Algeria to Barrow, unescorted, which sank in 8 minutes. On July 21 at 5.53 a.m. in 50° 53' N., 11° 36' W., she torpedoed and sank the British s.s. *Dafila*, 1,754 tons, with iron ore from Spain to Liverpool, as she was

coming under the escort of the U.S. destroyer *Jacob Jones*. *U45* was on her way home by July 23 and on July 24 in 57° 35' N., 10° 42' W., sank by gunfire the Russian s.v. *Zateja*, 67 tons. She was back by July 29 having sunk seven ships, including one fishing vessel, of which five were sunk by torpedo—a total of 15,882 tons, which she gave as 23,700 tons. Of the six merchant ships sunk, five were unescorted and one was meeting an escort, when attacked.

236.—“*U.49*,” June 27–July 23.—*U.49*, Lieut.-Commander Richard Hartmann, left the Bight on June 27. On July 3, about 4 p.m. round about 59° 55' N., 6° W. (off the Faroe Islands) she sank with gunfire two Dutch fishing vessels the *Proefnemeng*, 112 tons, and the *Thor*, 105 tons; the Danish f.v. *Mary Suderoyes*, 50 tons, and the Danish s.v. *Cimbria*, 234 tons. Her first area of operations was between 52° N. and 54° N. as far out as 18° W. to 20° W. On July 8 at noon, in about 52° 10' N., 17° 16' W., she attacked the British s.s. *Onitsha*, 3,921 tons, and *Obuasi*, 4,416 tons, sailing in company, unescorted, from Dakar to Liverpool. The *Onitsha* was missed by torpedo and escaped; the *Obuasi* had three torpedoes fired at her of which two hit and one went under; she sank in 2 hours. *U.49* came up and took the master (Mr. P. Sola) prisoner. The U.S. destroyer *Cushing* took in an S.O.S. from the *Onitsha* and coming up, picked up 54 survivors and took them to Queenstown (H.S. 651/91). *U.49* proceeded north-west and on July 10 at 12.30 p.m. in 53° 16' N., 20° W. met the British s.s. *King David*, 3,680 tons, from Brest to Archangel unescorted and attacked her with gunfire; the *King David* replied with her 13-pdr. Vickers and fired about 83 rounds. The ship received six or seven hits and was abandoned and sunk. The survivors making for the Irish coast were picked up on July 15 by H.M.S. *Prize*. *U.49* on July 10 in 52° 5' N., 18° W. reported a strong convoy on course east (I.D. War Diary, July 1917, p. 23). On July 11 at 5.20 a.m. in 52° 50' N., 21° 30' W., she opened fire on the British s.s. *Muirfield*, 3,086 tons, Norfolk, Virginia to Dublin; the *Muirfield* altered course and returned the fire with her 12-pdr. and the chase continued for about 3 hours. At 10.30 p.m. in 53° 20' N., 18° 30' W. she was torpedoed and finally sunk by bombs, the master (Mr. D. M. Draper) and the wireless operator being taken prisoner. Two men were killed when the ship was torpedoed; the rest were picked up by s.s. *Phrygia* on July 13. *U.49* then proceeded to the south-east and on July 14 at 9.51 a.m. in 50° 36' N., 13° 55' W. she (or possibly *U.58*) fired a torpedo which missed the British s.s. *Rhesus*, 6,704 tons, coming in with the s.s. *Idomeneus* under escort of the U.S. destroyer *Allen* (H.S. 651/135). On July 15 at 5 p.m. in 50° 14' N., 12° 32' W. she attacked the British s.v. *Dudhope*, 2,086 tons, bound from Barry to Rio with 3,300 tons of coal, and sank her with gunfire and bombs, the master and crew being picked up by the armed trawler *Weymouth II* (Milford) on July 20.

On July 15 at 4.40 p.m. in 50° 38' N., 13° 6' W. she fired a torpedo which missed by 2 ft. astern, at the British s.s. *Abinsi*, 6,365 tons, bound from Sierra Leone to Liverpool, armed with a 6-in. gun and unescorted. The *Abinsi* with 220 persons on board (91 passengers, went on at full speed, 13 knots, and escaped. The ship was felt to bump something and may have given the submarine a slight blow (H.W.S.A. I.D. Vol. 651).

On July 16 at 5.45 a.m. in 50° 35' N., 14° W., the British s.s. *Tamele*, 3,700 tons, bound from Dakar to Liverpool, was attacked, probably by *U.49*, by a torpedo which missed astern and at 6.10 a.m. by gunfire, 40 rounds being fired of which seven hit; the *Tamele* returned the fire with her 12-pdr. 8 cwt. but was outranged, the ship being saved for a time¹ by the appearance of the U.S.S. *Cushing* at 7.20 a.m. when the submarine submerged.²

On July 16 at 10.20 a.m. in 50° 37' N., 14° 13' W., the Italian s.s. *Lamia L.*, 2,220 tons, bound from Bougie to Glasgow, unescorted, was attacked by gunfire by two submarines, abandoned, and sunk by gunfire by *U.49*. The *Cushing* seeing the flashes, came up at full speed, and sighted two submarines (*U.49* and possibly *U.87*), which submerged when the *Cushing* opened fire. The *Cushing* after picking up the survivors went off to escort another ship in sight, the s.s. *Korana*, 3,779 tons, out of the danger zone. On July 16 at 6.15 p.m. in 50° 13' N., 14° 12' W. the British s.s. *Saturnia*, 8,611 tons, Montreal to Glasgow, sighted a periscope (probably *U.49*) and was missed by a torpedo; in answer to her call, a U.S. destroyer, probably *Cushing*, came up at 9.15 p.m. and escorted her till midnight. On July 18, *U.49* reported that she was returning home and had sunk 17,631 tons (War Diary). She arrived at Wilhelmshaven on July 23. She had sunk nine ships of 15,989 tons (of which three were fishing vessels). Of these, two had been sunk by torpedoes and seven by gunfire. Of nine torpedoes fired, six had missed. The ships sunk were all unescorted. *U.49* had been engaged thrice by armed merchant ships and once by an United States destroyer.

237. “*U.57*,” June 28–July 22.—*U.57*, Lieut.-Commander Ritter Karl von Georg, one of the most skilful submarine commanders, left Heligoland on June 28, to cruise on the south coast of Ireland. On July 2 he sank the Swedish f.v. *Mayflower*, 55 tons (position not known). On July 5 at 3.10 a.m. in 55° 12' N., 12° W. he torpedoed the British s.s. *Cuyahoga*, 4,586 tons, a tanker proceeding from Liverpool to Philadelphia in ballast. The ship was being escorted by an armed trawler, the *Sethon* (Buncrana) which engaged *U.57*

¹ The *Tamele* was sunk by torpedo that night by *U.87*.

² Report of *Cushing* in H.S. 651/132.

with her 6-pdr., firing off 64 rounds. *U.57* sent another torpedo into the ship at 7 a.m. and sank her. She was on her way south again, when at 8.30 a.m. (July 5) in 54° 57' N., 11° 40' W., H.M. submarine *D.4* (one of the six submarines working from H.M.S. *Vulcan* at Killybegs, Donegal Bay) fired a torpedo at her which missed¹

By July 7 she was off the Fastnet and at 8.40 a.m. in 51° 26' N., 10° 12' W., torpedoed and sank the British s.s. *Tarquah*, 2,440 tons, bound from Sierra Leone to Liverpool, unescorted. The passengers and crew, numbering 155, were all saved, the boats being picked up at 10 a.m. by the U.S. destroyer *Perkins*. The Queenstown "Q" ship *Aubretia*, Admiral John L. Marx, Captain R.N.R., cruising in the vicinity, at 8.57 p.m. (July 7) in 51° 18' N., 9° 30' W., on a course S.E. by S. sighted a submarine 6 points on the starboard bow, heading south-west 2 miles off. The submarine dived, appearing again at 9.45 p.m. on the starboard quarter 1½ miles away going south. By 10.4 p.m. it was growing dark and the *Aubretia*² opened fire at 3,000 yards, getting off ten rounds of which four appeared to be hits (one 3-pdr., two 12-pdr. one 4-in.). The only submarine in the vicinity was *U.57*, which went off to the eastward, not being heard of again till July 10 when at 8.40 p.m. in 51° 49' N., 6° 52' W., she torpedoed the British s.s. *Garmoyle*,³ 1,229 tons, proceeding from Cork to Glasgow. The ship sank almost at once, with a loss of 11 drowned out of a crew of 22. The ship was unescorted and four patrol vessels in sight 7 miles to the eastward were too far off to do anything but pick up the survivors which was done by the armed trawler *Sarba*.

On July 12 at 9.3 a.m. in 51° 33' N., 7° 56' W., the British s.s. *Mercian*, 6,305 tons, proceeding from Boston to Manchester, unescorted, was missed by a torpedo. On July 13 at 8.15 a.m. in 51° 26' N., 8° 28' W., the British s.s. *Pentwyn*, 3,587 tons, bound from Montreal to Manchester with 5,133 tons of wheat escorted by the U.S. destroyer *Benham*, and zig-zagging at 9 knots, was missed by a torpedo.⁴ The *Benham* made for the wake and dropped a depth charge and after turning the ship over to the U.S.S. *McDougal*, searched for half an hour.

At 1.18 p.m. (July 13) in 51° 20' N., 8° 52' W., the U.S. destroyer *Warrington* sighted a submarine on the surface, 4 miles off on the port beam and making for it at full speed dropped a depth charge, which exploded, at the end of an oil "slick" leading south.⁵

¹ *U.57*'s report, July 20/2355.

² Admiral Marx's report in Queenstown Decoy Ship Reports, June to December 1917, H.S. 650/238.

³ Report in H.S. 1349/518.

⁴ Report in H.S. 1350/196; the *Benham* reported three torpedoes.

⁵ Queenstown Station Reports, June-December, 1917, in H.S. 651/132.

At 8.20 p.m. in 51° 28' N., 8° 14' W., the "Q" ship *Helgoland* sighted the track of two torpedoes which passed under her.¹ This was the last appearance of *U.57* on this cruise; she returned home on July 22 having sunk four ships (one of them a fishing vessel) 8,310 tons in all. She had been attacked four times—by a submarine (torpedo missed), by a "Q" ship and twice by U.S. destroyers. She had missed two ships and a "Q" ship, and apparently fired seven torpedoes.

238. "U.48," July 1-24.—*U.48*, Lieut.-Commander Karl Edeling, left Borkum on July 1. It was possibly she that on July 11 at 1.15 p.m. in 47° 32' N., 7° 12' W., chased the Japanese s.s. *Tosa Maru*, 5,595 tons, which escaped. On July 12 at 4.40 a.m. in 48° 30' N., 7° 35' W., she fired a torpedo, which missed, at the British s.s. *Tredegar Hall*, 3,648 tons, bound from Montreal to London, unescorted. *U.48* then rose and opened fire to which the *Tredegar Hall* replied with her 4.7-in. gun and escaped after the master, Mr. B. W. George, had been wounded and the ship hit six times. Two hours later at 6.40 a.m. in 48° 45' N., 7° 48' W., the Italian s.s. *Onesta*, 2,660 tons, bound from Valencia to the Tyne with iron ore, unescorted was attacked with gunfire and replying with her 3-in. gun, escaped. At 7.45 p.m. in 48° 57' N., 7° 33' W., the British s.s. *Dunrobin*, 3,617 tons, bound from Sunderland to Genoa, was missed by a torpedo. On July 13 at 12.15 p.m. in 47° 59' N., 8° 50' W., *U.48* opened fire on the British s.s. *Gibel Yedid*, 949 tons, proceeding from Newport to Gibraltar with coal; the ship was unarmed and unescorted and was sunk by gunfire and bombs. The crew of 20 were picked up by s.s. *Florentina* after 23 hours in the boats. On July 14 at 4.50 a.m. in 47° 16' N., 11° W., the British s.s. *Kelbergen*, 4,751 tons, from Falmouth to Montreal unescorted, was chased till 8.40 a.m. by a submarine (possibly *U.48*) which fired seven rounds; the ship returned the fire with a 4.7-in. gun and escaped with the use of smoke boxes. On July 14 at 2 p.m. in 46° 48' N., 8° 50' W., the British s.s. *Exford*, 5,886 tons, bound from New York to Brest with oats, steel and locomotives, unescorted, was struck by two torpedoes and sank in 40 minutes. The submarine was *U.48* and the commander after interrogating the master courteously told him he would meet a British patrol vessel 15 miles off. Of the crew of 36, six were killed or drowned. The remainder were picked up at 7 a.m. on July 15 by s.s. *Trelissick*, which was sunk the same afternoon by *U.C.72*. On July 15 at 11.20 a.m. in 47° 64' N., 9° 13' W., the British s.s. *Cayo Bonito*, 3,427 tons, was chased by a submarine, and sent out an S.O.S. (received by H.M.S. *Christopher*) omitting however to give her course and speed. At 1.5 p.m., H.M.S. *Christopher* on patrol could see three steamers—the Danish s.s. *Unda*, the British s.s. *Torcello* and the French s.s. *Amiral Rigault de Genouilly*, which

¹ H.S. 651/100.

latter she ordered to steer S.S.W. away from the danger area. At 2.35 p.m. in 47° 36' N., 9° 22' W., the *Torcello*, 2,929 tons, bound from Oran to Hull with hemp and fruit, unescorted, but in sight of H.M.S. *Christopher* was torpedoed by U.48 and sank in four minutes. The crew of 28 and one passenger were picked up by H.M.S. *Christopher*¹ (Lieutenant Frederic T. Peters).

On July 16 at 12.10 a.m. in 48° 45' N., 10° 25' W., the British commissioned fishing trawler *Asama* was attacked by U.48 by gunfire and after a gallant fight for over an hour at 3,000 yards with her single 3-pdr. was sunk with a loss of one man killed and three wounded. The 10 survivors, picked up by H.M.S. *Hardy* at 4.30 p.m., were taken to Plymouth and the master, Mr. Albert L. Petheridge, was subsequently awarded a D.S.C. for his plucky fight.²

At 1.30 in 49° 11' N., 10° 29' W., the British s.s. *Agamemnon*, 7,011 tons, was attacked by gunfire but escaped.³

This was U.48's last attack; she was back at Wilhelmshaven on July 24, having to return early owing to lack of fuel.⁴ She had sunk three ships, all unescorted, and an armed trawler, totalling 9,764 tons. She had been engaged by an armed merchant ship and by an armed trawler.

239. "U.87," July 1-24.—U.87, Lieut.-Commander Rudolf Schneider, left Borkum on July 1. On July 4 at 2 p.m. in 60° 30' N., 4° 50' W. off the Faroe Islands, she sank with gunfire the British fishing vessel *Loch Katrine*, 151 tons. Her next appearance was in the South-West Approach where on July 8 at 5.35 p.m. in 51° 49' N., 12° 22' W., she torpedoed and sank the British s.s. *Valetta*, 5,871 tons, bound from Montreal to Dublin. The ship was armed with a 12-pdr. gun and unescorted. A U.S. destroyer, the *Jacob Jones*, came up and rescued the crew, 44 in all. U.87 reported heavy traffic in this area on July 9 (War Diary, July) but did not get another ship till July 10 when at 4 p.m. in 51° 10' N., 9° 41' W., she torpedoed the British s.s. *Seang Choon*, 5,807 tons, bound from Dakar to Liverpool. The ship was armed with a 12-pdr., 12 cwt., which did not open fire. She was unescorted and sank in five minutes with a loss of 19 killed or drowned, out of 130. The four boats with the survivors were picked up by a motor launch and towed into Crookhaven. On July 11 about 1.20 a.m. in 51° 7' N., 9° 51' W., U.87 torpedoed the British s.s. *Kioto*, 6,182 tons, from New York to Manchester, unescorted, armed with a 4-in. Q.F. The U.S. destroyer *Trippe* about 3 miles away, hearing the explosion and receiving an S O S. came up at full speed and after being attacked by a torpedo which missed, dropped a depth charge (H.S.651/102).

¹ Reports in H.S. 1350/345

² Reports in H.S. 1350/419, 433.

³ No details. Telegram, H.S. 482/202.

⁴ I.D. Vol. 3030, Diary, North Sea, July 22/0150.

Two other U.S. destroyers the *Peyton* and *Conyngham* appeared on the scene and circling round the *Kioto* picked up all the 72 survivors before she sank. The next day, July 12, at 9 a.m. in 48° 57' N., 7° 33' W., the British ship *Dunrobin*, 3,617 tons, proceeding from Sunderland to Genoa in company with s.s. *Mars* was missed by a torpedo. At 5 p.m., July 12, in 48° 50' N., 6° 18' W., U.87 fired a torpedo at the British s.s. *Castleton*, 2,395 tons, bound from Tunis to Middlesbrough with 3,250 tons of iron ore, unescorted. The torpedo missed astern. U.87 then opened fire at 5,500 yards, to which the *Castleton* replied as well as she could with her 6-pdr. gun. The master was wounded and the ship after being hit was abandoned and sunk by gunfire. All the crew were saved. Four days elapsed before U.87 got another ship. On July 16 at 9.20 p.m. in 50° 57' N., 11° 9' W., she torpedoed the British s.s. *Tamele*, 3,932 tons, from Dakar to Liverpool, with a cargo of 6,400 tons of produce; the ship was unescorted and sank at 10.20 p.m. the crew of 51 and eight passengers were saved, except one fireman drowned, the boats being picked up by an armed trawler on July 17. U.87 was then on her way home.

On July 19 at 10.45 p.m. in 54° 32' N., 11° 7' W., she met the Norwegian s.v. *Artensis*, 789 tons, bound from Glasgow to Hampton Roads and sank her with bombs. The crew, of 20 were all picked up by the armed trawler *Ben Earn* (Galway, Area XIX). On July 21 at 3.45 a.m. in 59° 29' N., 7° 36' W., she torpedoed and sank the British s.s. *Coniston Water*, 3,738 tons, carrying 6,000 tons of coal from Cardiff to Archangel, unescorted. The crew of 34 were all saved, being picked up by an armed trawler off the Butt of Lewis. This was U.87's last ship and she was back on July 24 having sunk seven ships and a fishing vessel totalling 28,865 tons. She had fired eight torpedoes of which three missed, had been once engaged by an armed merchant ship and once attacked by a depth charge. The ships sunk were all unescorted.

240. "U.58," July 3-27, North Ireland Approach.—U.58, Lieut.-Commander Gustav Amberger, or Karl Scherb, left Heligoland on July 3 to work on North of Ireland Approach with U.66. In July she is stated to have sunk a Danish sailing vessel.¹ She shaped course well over to the Faroes for on July 8 at 5.30 a.m. she sank a Norwegian s.v. *Fiorella*, 1,168 tons, in about 61° 20' N., 5° W. She was working for a time to the southward for on July 13 at 8.15 a.m. in 52° 30' N., 13° 7' W., she torpedoed and sank the Greek s.s. *Charilaos Tricoupis*, 2,475 tons, bound from Dakar to Sligo, the crew of 23 being all picked up by the U.S. destroyer *Fanning*. On July 15 at 7 a.m. in 56° 12' N., 11° 45' W., E.56 one of the *Vulcan's* flotilla at Killybegs sighted a submarine too far off to attack. On

¹ Not confirmed in neutral lists.

July 16 at 11.45 a.m. in 54° 30' N., 13° 40' a torpedo missed the British s.s. *Benguela*, 5,520 tons, bound from Liverpool to Montreal in ballast. The submarine came to the surface and at 12.15 p.m. opened fire, to which the ship replied with her 12-pdr. and escaped after five hours chase and a good fight for which the master, Mr. W. P. Purdon, was awarded a D.S.C.¹

On July 21 at 9.30 a.m. in 55° 57' N., 11° 58' W., the British s.s. *Ramillies*, 2,935 tons, bound from Cardiff to Huelva with 4,465 tons of coal was attacked by gunfire, to which she replied with her 13-pdr. gun; the smoke boxes gave good results for a time, but after being hit thrice the ship was abandoned and sunk, by gunfire, the crew of 26 being picked up by H.M.S. *Poppy*, that forenoon, with the exception of the master who was taken prisoner. At 8.20 p.m. in 57° 15' N., 11° 3' W., 80 miles to the northward, the British s.s. *Polyphemus*, 4,968 tons, bound from Liverpool to Montreal, with no escort was missed by a torpedo and then attacked by gunfire to which she replied with her 4.7-in. gun and escaped. The submarine which had two guns was probably *U.58*. This was her last encounter on this cruise, and she was back on July 27. She had sunk three ships of 6,578 tons, two with torpedoes and one with gunfire. Two others had been missed by torpedo and unsuccessfully chased.

241. "U.66," July 4-29, North Ireland Approach.—*U.66* (Lieut.-Commander Gerhardt Muhle) left Emden on July 4 to operate on the North of Ireland approach. On July 9 at 7 p.m. in 59° 8' N., 6° 40' W., she met the Spanish s.s. *Iparraguire*, 1,161 tons, on a voyage from Bergen to Santander, being taken into port with an armed guard on board. The submarine opened fire at about 5 miles, and after firing a torpedo which missed sank her with gunfire and bombs, taking prisoner Sub-Lieutenant B. W. Durrant, R.N.R., who was Officer of the armed guard. On July 15th at 5.20 a.m. in 56° N., 12° 10' W., *D.7* fired two torpedoes, which missed, at a submarine, which was probably *U.66*. On July 21 at 12.10 p.m. in 56° N., 9° 40' W., the British s.v. *Harold*, 1,376 tons, bound from Liverpool to Santos, with coal, was making westward in tow of a tug when she was torpedoed and sank almost immediately, only 10 out of the crew of 23 being saved. Some two hours later at 2.30 p.m. in 55° 56' N., 9° 34' W., *U.66* torpedoed the British s.s. *African Prince*, 4,916 tons, bound from Liverpool to Newport News, unescorted and armed with a 12-pdr. gun which had no opportunity to fire. Her S O S was taken in by the sloop *Laburnum*, which was on the horizon escorting the *Clan MacCorquodale*, 5,121 tons. The *Laburnum* came up at full speed and after ordering her escort to steer south out of the danger zone picked up the 71 survivors of the *African Prince*

¹ Report in H.S. 1364/93. The submarine had two guns, and so was not *U.66*.

which sank an hour or two later.¹ This was the last ship sunk by *U.66*. On July 23 at 2 a.m. directionals placed her in 57° 55' N., 9° 15' W. (Etudes, July), where she reported a strong convoy passing² which may have been two oilers for the Grand Fleet coming in under the escort of the *Napier* and *Rowena*.³ She was on her way home north about on July 24 and arrived on July 29. She had sunk three ships of 7,453 tons and been once attacked by one of the submarines, working from Killybegs.

241A. "U.69," July 10—Did not Return.—*U.69* (Lieut.-Commander Ernst Wilhelm) left Emden on July 9 for List, leaving that port on July 10 at 8 a.m. to operate off the west coast of England. On July 11 at 1.30 a.m. (G.M.T.) she signalled her position in 57° 24' N., 7° 10' E.⁴ and that was the last heard of her. On July 12 five Grand Fleet destroyers had left Scapa with kite balloons to hunt submarines. A submarine was sighted at 5.37 a.m. by H.M.S. *Patriot* but dived when she was still 6 miles away. It was seen again at 7.5 a.m. in 60° 20' N., 1° 33' E., 4 miles away and was attacked by the *Patriot* with two depth charges. Some 4 hours later at 11.25 a.m. a very heavy explosion was felt and a large patch of thick brown oil was found in 60° 33' N., 1° 32' E.⁵ No report of the kite balloon destroyers was brought back by any submarine that returned and the explosion was regarded as the cause of *U.69's* destruction. On July 20 however a submarine was reported in the Irish Sea;⁶ on July 24 at 6.30 p.m. in 54° 19' N., 5° 5' W., the Greek s.s. *Mikelis* was torpedoed and sunk there and reports of a submarine continued to come in up to July 26. These reports from the Irish Sea have not been traced to any submarine that returned and appear to be only attributable to *U.69* or *U.44*. The latter however left Wilhelmshaven on July 17 and could not have been in the Irish Sea before July 22.⁷ The sinking of the Greek s.s. *Mikelis* remains therefore something of a mystery and till it is cleared up the cause and location of *U.69's* loss cannot be conclusively stated. (See Plans 17, 18.)

242. "U.95," July 11–August 5.—*U.95*, Lieut.-Commander Athalwin Prinz, left on her third cruise on July 11, going north about to cruise to the West of Ireland. She would reach her station about July 17 but a whole ten days elapsed before she got her first ship. On July 27 at 1.35 p.m. in 51° 30' N., 14° 1' W., she torpedoed the British s.s. *Belle of England*, 3,877 tons bound from Cartagena to

¹ Report in H.S. 1364/143.

² War Diary, July 24.

³ H.S. 484/526.

⁴ Marine-Archiv, Q.54 (13).

⁵ For details see S.186.

⁶ See Irish Sea, July, S.289; also S.209 (*U.C.* 65).

⁷ *U.B.23* left Zeebrugge on July 23 and could not have been in the Irish Sea before July 25. She was attacked and disabled by *P.60* on July 26.

Barrow with iron ore. The ship was not escorted, nothing was seen of the submarine and the 12-pdr. gun had no opportunity to open fire. The ship sank in 20 minutes and the whole crew of 57 were picked up by the U.S. destroyer *Fanning* the next day. *U.95* proceeded to the south-west and on July 28 at 10 p.m. in 50° 11' N., 16° 4' W., torpedoed the British s.s. *Whitehall*, 3,158 tons, from Montreal with a cargo of wheat. She was proceeding at 10 knots, unescorted, for she had lost her convoy (H.S. 2, H.M.S. *Virginian*, from Sydney, Cape Breton) in a fog; her 12-pdr. gun did not open fire; she sank in 10 minutes with a loss of one out of her crew of 28, who were picked up by the U.S. destroyer *Winslow* the next day. On July 29 at 10.29 a.m. in 51° 22' N., 14° 41' W., the British s.s. *Cornishman*, 5,749 tons, sighted a submarine which dived when the U.S. destroyer *Burrows* in answer to her signal appeared on the horizon.¹ *U.95* was on her way home the next day, July 30, when at 6 p.m. in 54° N., 15° W., she torpedoed and sank the Italian s.s. *Eolo*, 1,679 tons bound from Glasgow to Genoa, unescorted. Her 3-in. gun did not fire and three lives were lost out of the crew of 28. *U.95* was home by August 5 having sunk three ships of 8,714 tons.

243. "U.C.41," July 11-28.—*U.C.41* left the Bight on July 11 and, proceeding probably by the Channel on July 16, at 12.55 p.m. in 49° 22' N., 8° 12' W., torpedoed the British s.s. *Valentia*, 3,242 tons, bound from Cardiff to Dakar with coal. The ship was unescorted; her 12-pdr. gun did not fire and she sank in 10 minutes, with a loss of three out of a crew of 35. On July 17 at 5.30 a.m. in 49° 22' N., 8° 12' W., she fired a torpedo, which missed, at the British s.s. *Kaiser-i-Hind*, 11,430 tons.² She then went off to the south coast of Ireland and on July 18 laid her mines off Mine Head, Ram Head and Pollock Rock, six off each,³ nine of which were swept up by the end of the month without any losses. On July 20 at 6.53 p.m. in 50° 12' N., 9° 15' W., she opened fire on the "Q" ship H.M.S. *Viola*, submerging when the *Viola* returned the fire. At 7.55 p.m. in about 50° 28' N., 9° 35' W., the "Q" ship H.M.S. *Vala* was fired at by a submarine which made off on the surface, and was possibly *U.C.41*. On her way home north about on July 25 at 4.40 a.m. in 59° 1' N., 7° 26' W., *U.C.41* met a Grand Fleet convoy of five empty oilers proceeding from Scapa to Texas with an escort of five destroyers (*Grenville*, *Obdurate*, *Pelican*, *Nepean* and *Orpheus*) and torpedoed the British s.s. *Oakleaf*, 8,106 tons, which sank in 2 hours, the crew of 65 being picked up without loss by the armed whaler *Finwhale* of the Stornoway Auxiliary Patrol. *U.C.41* returned safely on July 28, having sunk two ships of 11,348 tons.

¹ Queenstown report in H.S. 651/144.

² Exchange Q.62 (11).

³ Field 301 in 51° 58' N., 7° 35' W.; Field 302 in 51° 55' N., 7° 40' W.; Field 303 in 51° 45' N., 8° 6' W. O.U. 6020A.

244. "U.46," July 14-August 5, Ireland, South-West and West.—*U.46* left Heligoland on July 14, proceeding north about to cruise in the south-west Approach. On July 23 in 48° 23' N., 11° 12' W., the British s.s. *Waipara*, 6,393 tons, was missed by a torpedo (*U.46* or *U.82*). At 8.16 a.m. in 48° 50' N., 9° 11' W., the "Q" ship *Penshurst* was missed by a torpedo and the submarine coming to the surface fired nine shots at 8,000 yards then went off after another ship.¹ On July 24 at 7.50 a.m. in 48° 2' N., 11° 45' W., the British s.s. *Brumaire*, 2,324 tons, bound from Hartlepool with 3,400 tons of coal to Spezzia, unescorted, armed with a 12-pdr. was torpedoed and sank in an hour. The submarine did not come to the surface and the crew of 24 were all picked up the same day by the s.s. *Inanda*, bound for Dakar. At 2.40 p.m. in 47° 40' N., 13° 40' W., *U.46* torpedoed the British s.s. *Zermatt*, 3,767 tons, bound from Barry to the River Plate with 5,400 tons of coal. The ship, armed with a 4-in. gun and unescorted, sank in about an hour. The submarine came to the surface, asked her name and that of the *Brumaire* then went off; the crew of 43, except three killed by the explosion, were picked up 4 hours later by the s.s. *Queen Maud*.² On July 25 at 5.15 a.m. in 48° 8' N., 11° 35' W., the British s.s. *Purley*, 4,500 tons, bound from Barry to Malta on Admiralty charter with 6,600 tons of coal, was torpedoed, and sank in 25 minutes. She was armed with a 12-pdr. gun, and was unescorted. The submarine came to the surface and spoke to the Captain's boat; the crew of 45 were all picked up by the U.S. destroyer *Wilkes* on her way to St. Nazaire. At 9.50 a.m. in 48° N., 11° 10' W., *U.46* got another victim the British s.s. *Peninsula*, 1,384 tons, bound from London to Lisbon with general cargo, unescorted. The ship sank in 5 minutes and the crew of 26, except one man lost, were picked up by a destroyer the same afternoon. *U.46* did not come to the surface till the ship had sunk (H.S. 1351/201). *U.46* then went off to the northward, for on July 27 at 10.43 in 51° 14' N., 11° 43' W., the British s.s. *Begona IV*,³ 2,407 tons, bound from Algiers to Cork, was lying disabled having lost her propeller, when a periscope was sighted and a torpedo hit the ship, which sank in 3 minutes. The two boats with the crew of 26, except two who were lost, were picked up an hour later by the U.S. destroyer *McDougal*.

U.46 seems then to have gone on to the northward for she was apparently located by directionals on July 31 at 8 a.m. in 55° 24' N., 17° 50' W.⁴ It may have been she (or *U.44* or *U.55*) that sank the Norwegian s.v. *Alcides*, 2,704 tons, which was last seen not far off at this time. The *Alcides* left Lough Swilly for Savannah on July 28,

¹ Queenstown report, H.S. 651/125.

² Reports in H.S. 1351. The longitudes of *Brumaire* and *Zermatt* are probably incorrect.

³ Historical Exchange, H.S./Q.57 (2). *U.46* read her name on the bows.

⁴ I.D. 606, *U.46*.

in tow of the tug *Flying Falcon* and escorted by the armed trawler *Lord Lister*. On July 31 at 5 a.m. in 55° 10' N., 17° 40' W. the tow was cast off and the escort left her. The crew of 23 were never heard of again.¹ *U.46* was then on her way home north about and was back on August 5, having sunk five ships of 14,382, or possibly six ships of 17,086 tons.

245. "U.54," July 14–August 6.—*U.54* left Heligoland on July 14 to cruise in the south-west Approach. On July 23 at 6.21 a.m. in 47° 2' N., 12° 38' W., she torpedoed the British s.s. *Ashleigh*, 6,985 tons, proceeding from Newcastle to Port Said, unescorted. She sank in 10 minutes, the whole crew of 44 being saved. The master reported that he saw two submarines (possibly *U.46* was there). Proceeding north *U.54* at 3.15 p.m. in 47° 15' N., 12° 28' W., torpedoed the British s.s. *Huelva*, 4,867 tons, proceeding from Newport, Mon., to Malta, not escorted. She sank at 6 p.m. and the crew of 38 were all saved. On July 25 at 8.45 p.m. in 46° 25' N., 10° W., *U.54* torpedoed the British s.s. *Rustington*, 3,071 tons, bound from Aguilar to Cardiff with 5,110 tons of iron ore, not escorted. The crew and passengers, 62, were all saved. On July 26 at 5.20 a.m. in 46° 9' N., 9° 32' W., *U.54* torpedoed the British s.s. *Somerset*, 8,710 tons, bound from Monte Video to Brest, not escorted. The ship sank at 6 a.m. and the crew of 74 were all saved.

It was probably *U.54* that on July 27 at 10 a.m. in 45° 11' N., 14° 6' W., fired a torpedo, which missed astern, at the British s.s. *Ocamo*, 1,910 tons, bound from New York to Havre. The submarine came to the surface at 10.35 a.m. about 5,000 yards off and on the *Ocamo* opening fire with her 12-pdr. made off and submerged. At 4.50 p.m. in 46° 4' N., 14° 9' W., the British s.s. *Khiva*, 8,947 tons, sighted a submarine 5 miles off and turning stern on escaped. *U.54* probably started home about July 30 and returned on August 6, having sunk the respectable total of four ships and 23,633 tons.

246. "U.82," July 15–August 8.—*U.82*, Lieut.-Commander Hans Adams, left Heligoland on July 15, proceeding north about to the south-west and west of Ireland. On July 25 at noon in 48° 45' N., 12° 7' W., the British s.s. *Monkstone*, 3,097 tons, bound from South Shields to Mudros with 4,400 tons of coal, unescorted, was torpedoed, and sank in 50 minutes. The ship was not carrying out her instructions to zig-zag. With the exception of one man killed by the explosion, the crew of 24 were saved, being picked up by a Norwegian vessel after 5 days and nights in the boats. *U.82* then went north to cruise on the North of Ireland Approach. On July 29

¹ Report of *Flying Falcon* in H.S. 1364/194. The *Alcides* is not mentioned in "Foreign Vessels sunk or damaged." Other submarines in the area were *U.44* and *U.55*. The "lost without trace" would indicate *U.55* (an "atrocious" submarine). *U.46* never did any harm to boats; Berlin gave the *Shimosa* to *U.46*, but this was possibly the work of *U.44*, *q.v.* S.248.

at 7 a.m. in 54° 54' N., 15° 51' W., the American s.s. *St. Louis*, 11,629 tons, bound from New York to Liverpool, unescorted, zig-zagging at 18 knots, sighted a submarine 3 miles on the starboard quarter. The *St. Louis* was armed with one 6-in. and four 4-in. and, bringing the submarine astern and opening fire, escaped. The submarine, a very large one with two guns, was probably *U.82*. At 10.30 p.m. in 55° 25' N., 10° W., the British s.s. *Ajana*, 7,759 tons, reported that she was being chased by a submarine.¹ On July 31 at 4.10 a.m. in 55° 10' N., 12° 55' W., the British s.s. *Quernmore*, 7,302 tons, bound from Liverpool to Baltimore was struck by a torpedo and sank in an hour and a half. The crew of 97, except one killed were picked up later by H.M.S. *Anchusa*. At 11 a.m. in 54° 42' N., 14° 30' W., the British s.s. *Orubian*, 3,876 tons, bound from Liverpool to Barbadoes was torpedoed and sunk. The crew of 48 were all picked up by the s.s. *Hunsbrook*. The submarine was a very large one and did not interrogate the boats. At 2.20 p.m. in 54° 29' N., 15° 8' W., the British s.s. *Worsley Hall*, 5,310 tons, bound from Liverpool to the Red Sea, unescorted, was attacked by a submarine which came up off the port beam, 500 yards away and fired a torpedo which missed 10 yards ahead just as the *Worsley Hall* started a new leg of a zig-zag. The submarine came to the surface; the ship brought it astern and at 2.30 p.m. it opened fire at 10,000 yards being joined by a second submarine (probably *U.46*), which opened fire at 8,000 yards. The ship replied with her 12-pdr. 12 cwt. at 7,000 yards. The ship used her smoke apparatus and at 3.44 p.m. the submarines disappeared.² At 6.55 p.m. in 54° 50' N., 16° W., the British s.s. *Hunsbrook*, 4,463 tons, was missed by a torpedo and attacked with gunfire, but escaped. *U.82* must have left the area for home about August 3 for she was back on August 8. She had sunk three ships of 14,275 tons, which were all unescorted.

246A. "U.61," July 23–August 14.—*U.61* left Heligoland on July 23 and on July 28 at 6.15 a.m. in 56° 30' N., 12° 45' W., attacked a convoy of three oilers, escorted by H.M.S. *Tirade*, *Medina* and *Delphinium*, torpedoing the British s.s. *Comanchee*, 5,588 tons, which was able to return to Lough Swilly. *U.61* followed the convoy and at 9.20 p.m. in 56° 25' N., 16° 39' W., fired a torpedo at the British s.s. *Tahchee*, 6,508 tons which missed. She did nothing more in July, though she sank four ships in August, returning on August 14.

247. "U.55," July 26–August 21.—*U.55*, Lieut.-Commander Wilhelm Werner, left Heligoland on July 26 to cruise off the Fastnet and south of Ireland. On July 31 at 8 p.m. in 55° 50' N., 13° 20' W., she torpedoed the British s.s. *Belgian Prince*, 4,765 tons, bound from Liverpool to Newport News. The torpedo struck the port side at the

¹ *Buncrana* considered this was H.M.S. D.7 (I.D. Log F.30/3).

² Report in Home Waters, Ships Attacked, I.D. Vol. 652.

after end of the engine room, stopping the engines and the dynamo. The crew of 44 including two stowaways got into the two lifeboats and the Captain's dinghy. The sea was smooth and calm. The submarine came up some 500 yards away and ordered the boats alongside. The Master was taken prisoner. The crew were ordered out of the boats, lined up, their lifebelts taken off and most of them kicked overboard. The oars, gratings and bailers were taken out of the boats and thrown overboard; one of the boats was damaged with an axe and both boats were then cast adrift. The submarine then went ahead and submerged leaving the crew in the water. Three men who had managed to retain their lifebelts remained afloat. One man, George Sileski, got back to the *Belgian Prince* and saw the submarine return and blow her up with bombs at 5.30 a.m. Thomas Bowman, the Chief Engineer and William Snell, Cook were picked up by H.M.S. *Gladiolus* about 7 a.m.¹ *U.55* then went on to the Fastnet and South of Ireland. On August 6 at 2.15 p.m. in 50° 20' N., 9° 47' W., the Italian s.s. *Eugenia*, 4,836 tons, from Liverpool to Italy, unescorted, with 6,000 tons of coal, was torpedoed and sunk. The whole crew of 45 were picked up by the Berehaven armed trawler *John Burlingham*. Nothing was seen of the submarine. On August 9 at 12.30 a.m. she was located by directionals in 51° 6' N., 8° 14' W. The same day at 1.15 p.m. in 51° 32' N., 8° 23' W., the British s.s. *Oakfield*, 3,618 tons, bound from Tralee to Barry, in ballast unescorted, was torpedoed. The crew left the ship²; the submarine was coming to the surface, when the first mate fired three shots at it and the U.S. destroyer *Wainwright* which was in company with the *Trippe* escorting two oilers to Queenstown, came up and drove it down. H.M.S. *Crocus* also came to her assistance and the *Oakfield* managed to reach Queenstown. On August 11 at 1.25 p.m. in 51° 42' N., 7° 56' W., the British s.s. *Belgic*, 24,540 tons, bound from Liverpool to New York, escorted by the sloop *Camellia* and proceeding at 17½ knots, sighted a periscope and was missed by a torpedo which was avoided by the skilful manoeuvring of the Master (Captain W. E. Ingham). On August 12 at noon in 51° 52' N., 7° 20' W., the British s.s. *Falkland*, 4,877 tons, bound from Philadelphia to Liverpool, with cargo of 6,500 tons of lubricating oil, unescorted, was torpedoed and sunk. Nothing was seen of the submarine. Of the crew of 37, 26 were saved. *U.55* was on her way home about August 14. On August 17 at 12.26 a.m. in about 61° 20' N., 6° W. (off the

¹ Reports in H.S. 1364/238. *U.55* reported she had torpedoed a ship at 9 p.m. which had remained afloat till 5.30 a.m., when she sank it with bombs. Exchange, H.S./Q.58, Anlage 4.

² The question arose as to whether the gun's crew who had left the gun and ship without orders could be tried by Court Martial. Having been demobilised it was considered that they were not subject to the N.D.A., H.S. 1352/343, but the Judge-Advocate of the Fleet was of opinion that guns' crews in defensively armed ships had not been demobilised.

Faroes Island) she sank with gunfire the British s.s. *Edina*, 455 tons, bound from Leith to Iceland. *U.55* was back on August 21, having sunk four steamers of 14,843 tons,¹ all unescorted.

248. "U.44," July 17–August 12 (sunk).—*U.44*, Lieut.-Commander Paul Wagenfuhr, left on July 17 to cruise on the North of Ireland Approach. On July 24 she was located by directionals in 56° 14' N., 14° 40' W. On July 27 at 12.30 in 57° 10' N., 17° 50' W., it was probably she that attacked with gunfire and sank the American s.v. *John Hayes Hammond*, 132 tons, bound from Fleetwood to Iceland, the crew of seven being all saved. The submarine that attacked her had one gun. On July 28 at 6.15 a.m. in 56° 24' N., 12° 30' W. a torpedo struck the British oiler *Comanchee*, 5,588 tons, bound from Liverpool to New York in company with *Tahchee* and *Senator* escorted by the destroyers *Medina* and *Tirade* and the sloop *Delphinium*. The *Comanchee* was able to reach Lough Swilly under her own steam. This however was the work of *U.61*. On July 28 at 9 p.m. in 56° 7' N., 17° 30' W., the *Delphinium's* convoy was again attacked and a torpedo missed the British s.s. *Tahchee*, 6,508 tons.² On July 30 at 11 p.m. in 55° 14' N., 15° 5' W., the British s.s. *Shimosa*, 4,221 tons, bound from Havre to Montreal, unescorted, was torpedoed and sank in 2 minutes with a loss of 17 lives out of 41—the work of *U.44* or *U.46*.³ On August 3 at 10 a.m. in 55° 15' N., 9° 8' W., the American s.s. *Philadelphia*, 10,786 tons, from New York to Liverpool with 400 passengers, going 18½ knots was attacked by *U.44* and *U.94* and missed by a torpedo. On August 5 at 4.10 a.m. in 56° 30' N., 10° 52' W., the "Q" ship *Chagford*, Lieutenant Douglas G. Jeffrey, R.N.R., from Buncrana (Rear-Admiral F. S. Miller) was struck by a torpedo, which flooded the engine room and disabled all the voice pipes. The "panic" party left and at 4.30 a.m. when a submarine with one gun broke surface, 800 yards on the starboard bow, fire was opened with two 12-pdr. and Lewis and Maxim guns, nine rounds being fired with apparently three or four hits. The submarine went down and at 4.40 a.m. a second torpedo struck the ship. About 5.30 a.m. when a third torpedo hit, the ship was abandoned with the exception of five volunteers who remained on board. During the day a submarine was seen on the surface, some five miles off. On August 6 at 12.25 a.m. the ship was abandoned and the crew were picked up at 7.30 a.m. by the armed trawler *Saxon*. A valiant attempt was made to get her in tow but she sank finally in a rough sea on August 7 at 7.50 a.m. The submarine which was *U.44*, had

¹ She reported sinking five steamers of 19,200 tons, probably including the *Oakfield* (I.D. Vol. 3031, August 19/1400).

² This was also *U.61*. These ships were originally credited to *U.44*.

³ Berlin states that *U.44* sank *G.1820*, which was the *Shimosa's* transport number, but *U.46* also reported sinking a steamer on July 31 at 12.5 a.m. in 55° 14' N., 16° 22' W. Exchange H.S./Q.58.

been hit and damaged, and water had got into the accumulators which subsequently affected her diving ability.¹ Lieutenant Jeffrey was awarded a D.S.O., Sub-Lieutenant Allen was given a bar to his D.S.C., two other Officers received a D.S.C. and an award of £300 was made to the ship.

On August 6 at 10.38 a.m. in 55° 35' N., 10° 35' W., the British s.s. *Argalia*, 4,641 tons, from Newport News to Glasgow with a cargo of 5,680 tons of grain and horses, was torpedoed and sunk. She was the leading ship in the port column of a homeward convoy (H.H.11) of 20 ships under H.M.S. *Isis*, escorted by four destroyers and three sloops (*Medina*, *Restless*, *Rob Roy*, *Tirade*, *Laburnum*, *Rosemary*, *Poppy*) from Buncrana. The ship sank in about ten minutes, the crew of 89 being all saved. Nothing was seen of the submarine.² A second torpedo missed the s.s. *Minnie De Larinaga*.

On August 7 at 3.57 p.m. the destroyers *Martin* (Commander L'E. Rede), *Lyra*, *Lapwing*, *Goshawk*, *Ruby*, *Hydra* were leaving Lough Swilly to meet and bring in the *Orama* homeward bound with troops, when off Fanad Head a periscope and conning tower were sighted breaking surface 1,200 yards away. The *Martin* made for it at full speed, dropped a depth charge and was followed by the others who dropped 13 depth charges all of which exploded. This was possibly a submarine which could not keep down and was possibly *U.44*.³ On August 8 at 10 a.m., *U.44* was located by directionals in 58° 15' N., 11° 15' W., and met *U.84* there, telling her of the *Chagford's* action. On August 9 the Commander-in-Chief, informed of a raider returning, had sent out the *Yarmouth*, Captain Thomas D. Pratt, with two light cruisers and six destroyers of the 13th Flotilla to cruise off Utsire.

On August 12 at 1.44 a.m., *U.44* was off Norway homeward bound in 59° 9' N., 3° 25' E. The light cruisers that morning were patrolling off the Norwegian coast in line abreast at visibility distance (5 to 10 miles) with the *Yarmouth* in the centre; the *Birkenhead* with the *Oracle* was on her port bow to the westward. Course was N. 15 W. magnetic, speed 17½ knots. They were making by chance straight for *U.44*. On August 11 at dusk strong German wireless had been heard, and in the *Oracle* the men had been at quarters all night. Just as they fell out at daylight, about 6 a.m., Acting Lieutenant Claude M. Butlin, Officer of the Watch, sighted a vessel N.W. by W. on the horizon and, though no one else could see it, reported it to Commander Tippet. The position then was 58° 48' N., 4° 33' E. Gradually it grew more distinct and at 6.3 a.m. he saw a bow and

¹ Lieutenant Jeffrey's report in H.S. 1364/292; *U.44's* report to *U.84* on August 8. Exchange, H.S./Q.51 (24).

² Report in H.S. 1364/324. Berlin gives *Argalia* to *U.94* (Q.63).

³ Report in H.S. 1364/336. *U.44* returned with defects on two previous occasions. Berlin thinks *U.69* may have been there (S.241A).

stern lift out of the water. He decided it was a submarine steering about S. 75 W., at once informed the Captain, altered course to N.W. by W., put the telegraphs to full speed and hoisted Red Flag No. 3 Flag. The submarine dived about 6.7 a.m. and Commander Tippet who had come on deck reduced to 22 knots to save fuel. At 6.10 a.m. all hands were ordered to Action Stations and speed was reduced to 15 knots in order to get out the High Speed Submarine Sweep. At 6.13 a.m. the submarine broke surface 2 to 3 miles off, 2 points on the port bow. She appeared to be steering W. ½ S. and disappeared within 10 seconds. The *Oracle* at once turned to S. 78 W. (mag.) to cut her off. At 6.15 a.m. she was seen about half a mile ahead apparently in difficulties with first her bow then her stern rising out of the water. The *Oracle* made for her at full speed and opened fire, getting off four rounds none of which hit. At 6.17 in 58° 51' N., 4° 20' E. going 27 knots she rammed the submarine on the port side between the conning tower and stern. It was then inclining down at an angle of 15° with the top of the conning tower visible and about 3 ft. of free board showing right aft. The destroyer with the whole of her forefoot cut away, drifted over the spot. The bows of the submarine appeared for a moment on her port side rising some 3 ft. out of the water at an angle of 45°, then disappeared for ever stern first. The *Birkenhead* and *Patrician* closed and began a search but beyond cork and oil and quantities of the *Oracle's* stores nothing was found. Lieut.-Commander Wagenfuhr and all his crew perished.¹

This was the end of *U.44*. At 8 a.m. a call went out to her to report position, but she did not reply. She was lying in the North Sea, 137 fathoms down. She had sunk three ships of 8,994 tons and H.M.S. *Chagford*, whose guns had helped in her subsequent destruction.

¹ *Oracle's* report is in X.13091/17 in H.S. 1290.

CHAPTER XVIII.

MEASURES, ANTI-SUBMARINE, JULY.

249. **Measures, July.**—First and foremost of the measures for combating the submarine in July comes Convoy, supported in the background by Routeing, Patrols, Escorts, Submarine patrols and "Q" ships.

Seventeen convoys sailed homeward bound across the Atlantic in July, viz.:

| | Number. | Ships. |
|-----------------------------|---------|--------|
| Convoys, mercantile | 13 | 245 |
| Convoys, troop | 4 | 6 (a) |

Of these one ship the s.s. *Argalia*, 4,641 tons, in convoy (Hampton Roads, 11) was torpedoed and sunk off Tory Island on August 6; one ship, the s.s. *Wabasha*, which sailed on June 19 in HH4, was torpedoed off the Lizard on July 6 at 5.20 a.m. but managed to reach Falmouth (see S.169) under the protection of the *Achates* and *Garland* who made a vigorous counter attack with depth charges. The same submarine, *U.B.32*, an hour before, at 4.26 a.m. had fired a torpedo (which missed) at the *Karoo*, 6,127 tons, being escorted by the *Cockatrice* who counter-attacked with five depth charges. The convoy was then sighted 6 miles away and the *Cockatrice* reported a submarine but did not give its bearing (H.S. 1349/103, 121). This convoy (HH4) met with another mishap. Four destroyers¹ and four "P" boats from Portsmouth took over the five ships for London at Portland on July 7 at 1.50 a.m. to take them up to Folkestone. By 7.45 a.m. (July 7) they were off Beachy Head in 50° 29' N., 0° 11' E. when the H.M.S. *Ettrick* (Lieutenant A. E. Gudgeon, R.N.R.) was struck by a torpedo apparently fired at the oiler *Madrono*; the *Ettrick* broke in two; the forepart turned turtle and sank in a few minutes; the after part remained afloat and was towed into Portsmouth by *P.25*.² The submarine which sank her was *U.C.61*.

250. **Convoys.**—At the beginning of July, the Hampton Roads (HH) convoy was running every four days. The general administration of the system has been described by Paymaster Rear-Admiral Sir Eldon Manisty,³ and need not be repeated.

(a) Not including from Sierra Leone, 14 ships, viz., *Mantua* and six ships sailed July 7, and *King Alfred* and eight ships July 14. For estimate of traffic on North Atlantic see Appendix F.

¹ *Landrail* (Lieut.-Commander C. Denison), *Beaver*, *Forester*, *Ettrick* and P-Boats 22, 25, 32 and 54.

² For report and enquiry see H.S. 1341/99.

³ See C.B. 1515 (14), Technical History Series (T.H. 14), the "Atlantic Convoy System, 1917-18," pp. 43-50.

In view of the success of the HH convoys two new routes were started in July—one from Sydney, Cape Breton, in Canada (HS) every eight days for ships from Canadian ports and one from New York (HN) every 8 days for ships from U.S. Atlantic ports north of Philadelphia. The first HS convoy of 17 ships sailed under H.M.S. *Highflyer* (Captain H. N. Garnett) on July 10 and the first H.N. convoy of 19 ships under the U.S.S. *Albany* on July 14. Both arrived safely. On July 11, it was decided to organise convoys for west coast and east coast ports alternately.¹ On July 12, 13 and 20, a series of conferences were held between the War Cabinet, the Admiralty and the Ministry of Shipping, dealing more particularly with convoy and in order to cover a larger proportion of homeward trade, the Admiralty decided to consider the use of smaller destroyer escorts.²

Thirteen mercantile convoys sailed in July 1917, across the Atlantic as follows:—

| No. | Left. | Arrived. | Ocean Escort. | No. of Ships. | Tonnage. | Torpedoed. |
|------|-------|----------|----------------------------|---------------|-----------|------------|
| HH6 | 2.7 | 18.7 | H.M.S. <i>Roxburgh</i> (a) | 24 | 115,315 | Nil |
| HH7 | 6.7 | 23.7 | H.M.S. <i>Berwick</i> .. | 24 | 114,789 | Nil |
| HH8 | 10.7 | 27.7 | <i>Sachem</i> | 14 | 71,714 | Nil |
| HS1 | 10.7 | 22.7 | H.M.S. <i>Highflyer</i> | 17 | 88,312 | Nil |
| HN1 | 14.7 | 30.7 | U.S.S. <i>Albany</i> .. | 19 | 94,162 | Nil |
| HH9 | 14.7 | 1.8 | <i>Knight Templar</i> .. | 20 | 96,556 | Nil |
| HH10 | 18.7 | 5.8 | H.M.S. <i>Cumberland</i> | 16 | 88,374 | Nil |
| HS2 | 20.7 | 1.8 | <i>Virginian</i> | 19 | 92,473 | Nil (b) |
| HN2 | 22.7 | 9.8 | U.S.S. <i>Cleveland</i> | 18 | 105,564 | Nil |
| HH11 | 22.7 | 6.8 | H.M.S. <i>Isis</i> .. . | 22 | 120,743 | 1 (c) |
| | | | H.M.S. <i>Cambrian III</i> | 24 | 119,149 | Nil |
| HH12 | 27.7 | 12.8 | <i>Almanzora</i> .. . | 11 | 41,836 | Nil |
| HS3 | 28.7 | 9.8 | <i>Kildonan Castle</i> .. | 17 | 70,886 | Nil |
| HH13 | 27.7 | 16.8 | | | | |
| — | — | — | — | 245 | 1,219,873 | — |

Out of 245 ships only one, the s.s. *Argalia*, was torpedoed and sunk in convoy, representing a loss of .41 per cent. in numbers and .38 per cent. in tonnage. The ships convoyed safely included 46 oilers of special importance at the time.

251. **Convoys.**—The preliminary difficulties of organisation of which the following were the principal, were gradually overcome.

(a) Arrived Plymouth, July 19/0500.

(b) The s.s. *Whitehall*, 3,158 tons, which lost this convoy in a fog on July 20, was torpedoed and sunk, July 28.

(c) s.s. *Argalia*, 4,641 tons, was torpedoed, probably by *U.44*, and sunk off Tory Island, August 6.

¹ Telegram, July 11, H.S. 657/26, 29. This began for Sydney, Cape Breton, convoys on July 26.

² Naval Operations, Newbolt, Vol. 5/98.

Firstly there was the difficulty of ships unable to maintain the convoy speed. This meant that the convoy would either be late at the Escort Rendezvous or that a destroyer would have to be detached to look after the "slowcoaches." Rear-Admiral E. R. Le Marchant (HH9) was of opinion that there should be no ships of less than 9 knots.¹ The lack of signalmen was severely felt. In one convoy there were only 11 signalmen for 20 ships. Difficulties arose too over the lack of codes. On July 7, Rear-Admiral P. Nelson-Ward in the *Cambrian III*, outward bound, was stopped by H.M.S. *Devonshire* who sent an officer on board to demand why she was flying a white ensign and a Rear-Admiral's flag. Wireless however was a great help and in convoy HS1, when ten ships were lost in a fog they were all reassembled by wireless except one.

The escorts of six to eight destroyers or sloops met the convoy at rendezvous somewhere about 10° W. to 17° W. in the Southern Approach and in 17° W. in the north. From the very beginning the escorting vessels displayed conspicuous skill in picking up the convoy at the scheduled time and place. In the case of the Southern Approach, ships going up the Irish Sea were met by Admiral Dare's Milford "P" boats and ships going up Channel were taken as far as Portland or St. Catherines by the Devonport destroyers and then on to Folkestone by Portsmouth destroyers.

There were no collisions in the actual convoys though there were three with other ships.²

The following convoys crossed in July³:—Convoy HH6, ocean escort H.M.S. *Roxburgh*, Captain F. A. Whitehead, 23 ships, left Hampton Roads on July 2. The destroyer rendezvous was in 46° 6' N., 10° 30' W. on July 18, 4 a.m. where the convoy was to be met by eight destroyers of the 4th Flotilla (Plymouth). Six "P" boats (Portsmouth) were to be off St. Catherines to take them on to Folkestone. No submarines were sighted and all ships arrived safely.

Convoy HH7, H.M.S. *Berwick*, Captain W. F. Blunt, 24 ships, left Hampton Roads, July 6, proceeding North of Ireland were to be met in 53° 50' N., 17° W. by eight escorts (Buncrana, Rear-Admiral F. S. Miller). The convoy ran into a dense fog in the North Channel

¹ *Cheviot Range* in HS3 could only make 7½ instead of 8¼ knots. In HN2 the slow speed of *Tregarthen* added 40 hours to the estimate. Convoy Records (Manisty), Vols. 13 and 23. HS3 (*Almanzora*) was six hours late on August 6, 1917, on account of two slow ships.

² On July 23, 1917, the s.s. *Richard D. Larinaga* in HH11 ran into H.M.S. *Devonshire*; on July 24 the *Clan Macpherson* in HH7 ran into s.s. *Scindia*, outward bound; on July 27 the s.s. *Janeta* collided with H.M.S. *Poppy* (HH11). See Convoy Records (Manisty).

³ The reports of all mercantile convoys are in the collection of Convoy Records (Manisty).

on July 24. The *Clan Macpherson* collided with the s.s. *Scindia* outward bound from the Clyde, but was towed safely in by a tug and H.M.S. *Gladiolus*. The *Kaiping* ran ashore but was got off. All arrived safely, though there was a submarine in the North Channel at the time, which torpedoed and sank the Greek s.s. *Mikelis* on July 24. (Convoy Records, Vol. 1.)

Convoy HH8, H.M.S. *Sachem*, Rear-Admiral Herbert A. S. Fyler, 14 ships, left Hampton Road, July 10. The destroyers rendezvous was 48° 35' N., 15° 30' W., where they were to be met on July 25 at noon (they were met at 8 a.m.) by six destroyers of the 4th Flotilla. "P" boats from Portsmouth were to take over the escort off St. Catherines. All arrived safely, without a single report of submarines. (Convoy Records, Vol. 1.)

Convoy HS1, H.M.S. *Highflyer*, Captain H. N. Garnett, 17 ships, left Sydney C.B. on July 10. They were to be met by eight destroyers of the 4th Flotilla in 50° 32' N., 17° W., at 6 a.m. on July 20. The weather was very foggy for six days, but convoy was re-assembled by means of wireless. The *Lord Dufferin* which had no wireless was lost in the fog. The 11 ships for the west coast were to be taken on by four destroyers and two "P" boats (Milford). The ships for the east coast were to be taken on by the Plymouth destroyers to Spithead. On July 16 at 8.15 p.m. the destroyer rendezvous was moved 85 miles to the southward on account of a submarine (U.49) operating on the route. All arrived safely. No submarines were seen. (Convoy Records, Vol. 13.)

Convoy HN1, U.S.S. *Albany*, 19 ships, left New York, July 14. The destroyer rendezvous was 48° 36' N., 15° 37' W., at 10 p.m. on July 28, where they were to be met by eight destroyers of the U.S. Flotilla to be taken to Milford. On July 30, four destroyers of the 4th Flotilla joined to escort five ships up Channel. On July 29 at 10.55 p.m., the U.S. destroyer *Wadsworth* sighted a phosphorescent streak and dropped a depth charge. All ships arrived safely. (Convoy Records, Vol. 13.)

Convoy HH9, *Knight Templar*, Rear-Admiral Evelyn R. Le Marchant, 20 ships, left Hampton Roads, July 14. They were to be met in 55° 56' N., 17° W. on July 29 at 5 a.m. by eight vessels from Buncrana. On July 29 at 7 a.m. the s.s. *Louis* reported being attacked by a submarine (U.82 or U.46) in 54° 55' N., 15° 50' W. and to avoid it the convoy at 9.17 a.m. altered course 24 miles to the northward. On July 29 a submarine (U.C.75) had appeared in the Irish Sea and all sailings through the North Channel had been suspended (July 29, 2304). Buncrana asked whether the convoy was to proceed to Liverpool and was told on July 30 that it was to proceed with its escort. All arrived safely. U.C.75 on July 29 was laying mines in the southern portion of the Irish Sea. (Convoy Records, Vol. 2.)

Convoy HH10, H.M.S. *Cumberland*, Captain Henry Blackett, 16 ships, left Hampton Road, July 18. The convoy was to be met in

46° 53' N., 12° 17' W., at 4 a.m. on August 8 by eight destroyers of the 4th Flotilla and five Portsmouth "P" boats were to take it on to Folkestone. All arrived safely.

Convoy HS2, H.M.S. *Virginian*, Commander M. H. Wilding, 19 ships, left Sydney, C.B., July 20. The destroyer rendezvous was 49° 58' N., 17° W., July 29 at noon, there to be met by eight U.S. destroyers (S.N.O. Commander A. W. Johnson, in U.S.S. *Conyngham*). On July 24 the s.s. *Whitehall* (no wireless) lost the convoy and was subsequently torpedoed on July 28 by U.95. On July 31, six destroyers of 4th Flotilla met the convoy to take ten ships up Channel. All arrived safely except the *Whitehall*.

Convoy HN2, U.S.S. *Cleveland*, 18 ships, left New York on July 22, to be at destroyer rendezvous in 47° 43' N., 14° W., on August 5 at 4 p.m., there to be met by eight destroyers of the U.S. Flotilla (Queenstown). In 7° 30' W. to be met by five destroyers of the 4th Flotilla (Plymouth) to take seven ships up Channel, to be relieved off St. Catherines by four "P" boats (Portsmouth) to take them on to Folkestone. The convoy dispersed off the Smalls on July 27. All arrived safely, including one ship, s.s. *Cheviot Range* which had lost the convoy. (Convoy Records, Vol. 23.)

Convoy HH11, H.M.S. *Isis*, Captain J. T. Bush, 22 ships, left Hampton Roads, July 22, to be at destroyer rendezvous 55° 17' N., 17° W., on August 5 at 8 a.m., to be met by five destroyers and two sloops from Buncrana. On August 6 at 10.38 a.m. in 55° 35' N., 10° 35' W., about 60 miles west of Tory Island, the s.s. *Argalia*, 4,641 tons, leading ship of the port column, was torpedoed the starboard side, probably by U.94, and sank in 12 minutes. The weather was clear and sea smooth. Nothing was seen of the submarine. This was the only ship lost in convoy of those that sailed in July. All other vessels arrived safely.

Convoy HH12, *Cambrian III*, Rear-Admiral Philip Nelson-Ward, 24 ships, left Hampton Roads on July 27 for destroyer rendezvous 46° N., 10° 35' W., on August 11 at 8 a.m., there to be met by eight destroyers of the 4th Flotilla (Plymouth), to be relieved off St. Catherines by six "P" boats (Portsmouth) to take them on to Folkestone. All arrived safely. Rear-Admiral Ward pointed out the necessity of signalling equipment and that his wireless range was only 200 miles. (Convoy Records, Vol. 2.)

Convoy HS3, *Almanzora*, Captain W. D. Church, 11 ships, left Sydney, C.B., on July 28, for destroyer rendezvous in 49° 14' N., 17° W., on August 6 at midnight to be met by six destroyers of the U.S. Flotilla. To reach the rendezvous, he had to part with two ships which could not make more than 7 $\frac{3}{4}$ knots. On August 9, the escort was joined by three destroyers of the 4th Flotilla (H.M.S. *Owl*) to take ships up to St. Helens. All arrived safely.

Convoy HH13, ocean escort *Kildonan Castle*, Captain John F. Warton, 17 ships, left Hampton Roads, on July 27, for destroyer

rendezvous in 55° 48' N., 17° W., on August 14 at 4 a.m., there to be met by eight sloops and destroyers from Buncrana¹ and thence to steer for 57° N., 10° W. (thus to avoid the submarine activity off Tory Island), thence to Oversay. Sea and wind and the delay caused by two ships which could not keep up made the convoy five hours late at the rendezvous, but the escort picked it up almost to time. On August 15, on account of submarine reports in the North Channel, orders were given for six minesweeping gunboats to be off Rathlin Island at daylight August 16 to sweep ahead of the convoy and for careful searches of Belfast and Mersey entrances.² All ships arrived safely.

252. **Convoy, Attacks On.**—One great advantage of the system was that right through the voyage the convoy could be kept in touch with the latest intelligence. Thus in the case of the *Highflyer's* convoy (HS1) the destroyer rendezvous was moved on July 16 85 miles to the southward to avoid an area where a submarine (U.49) was operating.³ On July 29 at 9.17 a.m. in about 56° N., 17° W., the *Knight Templar* (Convoy HH9) altered course 24 miles to the northward to avoid a submarine (U.82 or U.46) which the American s.s. *St. Louis* reported attacking her in 54° 54' N., 15° 51' W., at 7 a.m. On August 14 the Admiralty ordered Convoy HH13 to take a route up to 57° N., 10° W., to avoid a submarine off Tory Island and on August 15 the *Kildonan Castle* (HH13) altered course straight for Oversay to avoid a submarine reported off St. Kilda. It was probably on this account that the number of attacks was considerably smaller than in the case of independent sailings, as may be seen from the following tables.

Ships, British, Allied and Neutral, arriving in U.K. and France from United States and Canada (Atlantic Ports).

July 1917.

| | Due. | Arrived. | Attacked. | Sunk. |
|-----------------------------|--------|----------|--------------|--------------|
| Mercantile convoys .. | 175 | 175 | 1 | 0 |
| Troop convoys .. | 6 | 6 | 0 | 0 |
| Independent sailings (a) .. | 247(b) | 237 | 24 (9.7%) | 10 (4%) |
| | 428 | 418 | 25 | 10 (2.3%) |

(a) From Telegrams sent by Vice-Consuls in United States ports (H.S. 656, 657). See also Appendix on North Atlantic Traffic.

(b) The total number of independent sailings was 292, of which 45 were for Gibraltar.

¹ The *Primrose*, *Gladiolus*, *Buttercup*, *Restless*, *Rob Roy*, *Portia*, *Trenchant*, and *Orestes* left Buncrana on August 11 at 8.40 p.m. to meet it.

² Telegram, August 15, 1855 and 1843.

³ Telegram, July 16, 1917, 2015 in Convoy Records (H.S.1), Vol. 13.

The above figures include ships sailing in the latter part of June. The extension of the Convoy system in July led to a large increase in convoy with a corresponding decrease in independent sailings. It will be seen that about 41 per cent. of the North Atlantic traffic was in convoy in July and that the losses of that month were entirely in ships sailing independently.

253. Navy Department, Washington.—There were difficulties of another kind on the other side of the Atlantic. On July 1, Commodore Gaunt, Naval Attaché, despatched a telegram urging that the routing and control of all merchant ships should come under one head. The naval authorities in the States were "inclined to want control," though he had pointed out "that we already have an organisation which works well to which they agree."¹ Admiral Benson was by no means in entire agreement with the convoy policy, and was inclined to be influenced by the French Naval Attaché, though Captain Pratt and Admiral Sims were staunch supporters of British policy. Unfortunately that policy was not clearly understood. Admiral Jellicoe had asked for eight American gunboats at Gibraltar to see the convoys clear from that port and for eight cruisers for convoy work, but Admiral Benson, though he was ready to send them, was inclined to think it a "waste of ships."² On July 3, Admiral Sims sent a despatch pointing out that delays, misunderstandings and confusion must arise if the States started to establish a new convoy system, urging that it would be a fundamental error to attempt to change the system and submitting that a central control for all shipping should be concentrated in London where all information of enemy methods is constantly available. He asked for 11 destroyers immediately.³ In the States, it was evidently thought that they should know more of British policy and plans, for on July 4 Gaunt sent a wire to Sims on behalf of the Navy Department to say that they had no information as to any definite plans for future operations and "must insist that any operations under consideration be submitted for our study."⁴ Fourteen of the largest interned German ships had been taken up as troop transports to carry 4,000 men each and Sim's opinion was asked on July 9 as to whether they should sail singly or in convoy and what destroyer protection they would need. There was a disinclination to alter the American battleship building programme, though Gaunt wired on July 10 to say that if the future was assured after the war and any alteration in their building programme of capital ships was made up to them, he thought they would be able to do a great deal more.⁵ This feeling

¹ N.A., Washington to Admiralty, Telegram, July 1, 1917. H.S. 656/882.

² *Idem*, H.S. 656/885, 1023, 1057.

³ Sims to Secretary of Navy, July 7, H.S. 656/1107.

⁴ Telegram, July 4, 1917, H.S. 656/981, 1119.

⁵ H.S. 656/1145.

evidently persisted through July, for on July 20 Admiral Browning, C-in-C., North America and West Indies, wired to say that the United States Navy Department thought that they were not being taken into the Admiralty confidence with regard to naval operations. Admiral Benson wanted fully and heartily to co-operate but got very little information—in fact nothing. To which the First Sea Lord sent an immediate reply asking him to explain that it was very difficult to state questions of general naval policy by wire.¹ For the solution of this difficulty, Admiral Jellicoe suggested that the Navy Department should send some of its most competent officers to work in London in the Naval Staff, a proposal which Admiral Benson accepted and which contributed largely to successful co-operation between the two navies.

254. Convoy Organisation.—In the States, the convoy organisation had to be brought under one centre. On July 28, Commodore Gaunt urged that the whole business should be left to himself or to some other person to organise. Guthrie could not get any information regarding ships south of New York; he knew nothing of Admiral Tower being at Philadelphia, and when he said so, the United States Navy Department thought there was "some scheme on."² The First Sea Lord accordingly asked the Commander-in-Chief, North America and West Indies, Vice-Admiral Sir Montagu Browning, to proceed to Hampton Roads and consult with Wells, suggesting that he might be put in charge of all arrangements for United States ports. There was evidently difficulty in establishing a single centre of information, for Gaunt was told by the Admiralty that it would be impossible to arrange convoys unless accurate and definite information was available at least ten days in advance of sailings. The United States authorities were not at first prepared to give this information, and Wade could not get any answer from the United States Local Transport Officer, who stated that he was authorised to communicate only with Commodore Gaunt and with him only through the Navy Department, Washington.³ These telegrams all tend to show that unity of control was one of the principal considerations at issue in July.

The Ocean Escorts, for the protection of convoys against raiders, were principally drawn from the cruisers on the North American Station, supplemented by eight armed merchant cruisers withdrawn from the 10th Cruiser Squadron in June 1917.⁴

¹ H.S. 657/216.

² Telegram, July 28, H.S. 656/367, 420, 498.

³ Telegram, August 1, H.S. 657/442, 462, 487. It may be noted that the policy of secrecy was not confined to one side of the Atlantic. "A copy of the secret chart is not to be given to Captain Wade." Telegram, July 5, H.S. 656/1010.

⁴ Later on merchant ships were specially armed to act as commissioned escort ships. See Manisty's Atlantic Convoy (Technical History No. 14), 69.

255. Routeing, Outward Bound, North of Ireland.—Convoys in July dealt only with a proportion of homeward bound ships. Outward bound ships sailing independently were given routes based on the Western Trades Routes issued by the Trade Division in November, 1916.¹ In the case of the North of Ireland route controlled by Commodore, Larne (Commodore Robert S. Cuming, R.N.R.), the Admiralty on July 2 informed the Rear-Admiral, Buncrana (Rear-Admiral F. S. Miller), that 52 vessels were sailing from Liverpool and Glasgow by routes 42 and 58² and directed him to give them the maximum protection possible. These ships apparently all got away safely. On July 5 at 3.10 a.m. in 55° 12' N., 12° 10' W., the oiler *Cuyahoga*, 4,586 tons, bound to Philadelphia was sunk by *U.57*. Traffic was detained on routes 42 and 58 and released on July 7. The very next day (July 8) owing to the sinking of the Norwegian s.s. *Asheim* and an attack on the British s.s. *Plutarch*, 5,613 tons, missed by two torpedoes fired by *U.53* off Lough Swilly, the traffic was held up again on routes 42 and 58 till July 10 when it was released.³ On July 19, routes 42 and 58 were closed and routes 43 and 57 which took ships some 90 miles to the northward were opened.⁴ They had only been open a couple of days when on July 21 at 9.30 a.m. s.s. *Ramillies*, 2,935 tons, was sunk by gunfire by *U.58* in 55° 57' N., 11° 54' W., and s.s. *African Prince*, 4,916 tons, at 2.30 p.m. by torpedo. This led to the detention of traffic on routes 43 and 57, their closure on July 23, and the reopening of routes 42 and 58.⁵ On July 24, in consequence of reports of submarines in the Irish Sea (the Greek s.s. *Mikelis*, 2,430 tons, was torpedoed and sunk at 6.30 p.m. in 54° 19½' N., 5° 51½' W.), traffic bound north through the Irish Channel was detained⁶ and on July 25 all sailings in the Irish Channel were suspended till July 27. On July 25, Admiral Miller (Buncrana) asked if he might send merchant ships at Lough Swilly to the westward under escort of the destroyers going out to meet convoy (HH9) on July 29 and was told, "Yes, route them through 56° 30' N." They

¹ Case 504, Vol. I. Revised February 5, 1917, M.09748/16. See Staff Monograph, Home Waters VIII, Plan 18 for map of routes.

² Route 42, Clyde and Irish Sea to North Atlantic. Through Rathlin Sound; hug Irish coast; pass south of Inishtrahull. Leave Irish coast between Inishtrahull and Aran Island. Steer to cross 9° W. at dark between 55° 30' N. and 54° 50' N.; proceed at high speed with lights; steer to cross 17° W. between 55° 30' N. and 54° N. Route 58 the same as 42, Clyde and Irish Sea to South Atlantic and Mediterranean.

³ Telegram July 8/1200, July 10/1058.

⁴ Routes in Force, Telegram, July 19/1113. Route 43, Clyde and Irish Sea to North Atlantic ports. Rathlin Sound; hug Irish coast; pass south of Inishtrahull. Steer to cross 10° W. between 56° N. and 57° N., then steer due west (true). Route 57, Clyde and Irish Sea to South Atlantic and Mediterranean, same as Route 43.

⁵ Telegram 21/1130; 23/1240. The *Ramillies* had orders to steer west, south of 55° 30' N., 10° W., so that she was apparently to northward of her route.

⁶ Telegram 24/2341.

apparently all got away safely. A group of three oilers was not so lucky. These were the oilers *Comanchee*, *Tahchee* and *Senator* proceeding west, escorted by the *Delphinium*, *Medina* and *Tirade*; they were attacked on July 28 at 6.15 a.m. in 56° 24' N., 12° 30' W., and the *Comanchee* was torpedoed though she managed to get back to Lough Swilly. This was the work of *U.61*. These oilers had a special route to 55° 24' N., 8° 15' W., then to 56° 30' N., 10° W., then to 56° 30' N., 23° W. July was nearly over when the North of Ireland route sustained its worst blow. On July 30, the *Shimosa*, 4,221 tons, was sunk by *U.44*; the next day *U.82* sank the *Quernmore*, 7,302 tons, and the *Orubian*, 3,876 tons, while the *Belgian Prince* was sunk by *U.55*. All four were outward bound and unescorted. Traffic was suspended by routes 42 and 58 and was not released till August 2.¹ The activity of *U.44* off Tory Island led to another suspension of traffic on routes 43 and 57 on August 3, which was resumed the next day,² though at first it was decided to send traffic from Liverpool by the South of Ireland. The sinking of the British s.s. *Argalia*, 4,641 tons, by *U.94* on August 6 in convoy led to the closure of routes 43 and 57 till August 9. It will be seen that except in the last two days of July the routeing system by the North of Ireland worked effectively. Its weakness was that it could not react quickly enough to the sudden appearance of a submarine. Thus in the case of the attacks by *U.44*, *U.82* and *U.55* on the North of Ireland route on July 30 and 31, the *Shimosa*, 4,221 tons, was torpedoed by *U.44* on July 30 at 11 p.m. She sent out a wireless but received no reply. The survivors were picked up about 9 a.m. on July 31 by the armed trawler *Lord Lister* (Lough Swilly, fitted with wireless) and Buncrana passed the information to the Admiralty at 5.25 p.m.³ The *Quernmore*, 7,302 tons, which left Liverpool on July 29⁴ at 11.30 a.m. was torpedoed by *U.82* on July 31 at 4.10 a.m. in 55° 10' N., 12° 55' W. She sent out a wireless but received no reply. Survivors were picked up at 9.25 a.m. by H.M.S. *Anchusa*. The Admiralty had the information at or before 6 p.m.⁵ The *Orubian*, 3,876 tons, which left Liverpool on July 29 was torpedoed by *U.82* on July 31 at 11 a.m. in 54° 42' N., 14° 30' W. She sent out a wireless and the information reached the Admiralty at 2 p.m. The survivors were picked up by the s.s. *Hunsbrook*, transferred to the *Gladiolus* and taken to Lough Swilly. The *Belgian Prince*, 4,765 tons, which left Liverpool on July 28, was torpedoed by *U.55* on July 31 at 9 p.m. in 55° 50' W., 13° 20' W. The dynamo was disabled and the three survivors were picked up exhausted off

¹ Telegram July 31/1429, August 2/2003. Berlin gives the *Shimosa* to *U.46*.

² Telegram 3/1118, 4/2044.

³ It may be assumed that the survivors, picked up off wreckage and a raft, took some hours to recover. Report in H.S. 1364/170.

⁴ The s.s. *Louis* reported an attack on July 29/0814 in 54° 54' N., 15° 51' W., and the s.s. *Canada* sent an Allo on July 29/0500 in 55° 6' N., 12° 55' W., received at Admiralty July 29, 11 a.m. I.D. Log D 29/1 and 29/2.

⁵ Report in H.S. 1364/201.

wreckage at 6.30 a.m. by H.M.S. *Gladiolus*. The information reached the Admiralty on August 2 at 4.25 p.m.¹ On July 31 at 12.49 p.m.² traffic was suspended on routes 42 and 58 and on August 1 instructions were given that vessels ready at Liverpool and Glasgow to sail by the North of Ireland routes were to proceed to Lough Swilly for orders. But it had not been possible to save the *Orubian* and *Belgian Prince*.

256. Routeing, Outward Bound, South of Ireland.—The South of Ireland route was apparently not open for outward bound traffic during July.³ *U.88* was off the Fastnet on July 3 to 7, and *U.57* was working on the south coast from July 7 to 14, but the five ships sunk were all homeward bound.

257. Routeing, Outward bound, South-West.—From July 2 to 13, the routes in force for outward bound ships were route 70 (Bristol Channel to North Atlantic, from Scillies due west to 50° N., 12° W.); route 19 (English Channel to North Atlantic), 29 (English Channel to South Atlantic) and 89 (Bristol Channel to South Atlantic). Routes 19, 29 and 89 though they had different destinations were the same route, viz., Scillies to 6° 30' W., passing Wolf Rock at dark; proceed high speed, showing no lights, cross 7° W. between 48° N. and 49° 30' N., cross 10° W. between 45° N. and 48° N., cross 17° W. between 43° and 47° W.⁴ On route 70 which was open till July 13, no ships outward bound were sunk. Routes 19, 29 and 89 corresponded roughly to the new Approach Route A⁵ issued on June 26. There were a number of attacks on these routes and traffic was held up on them from July 7 to 9, but apparently only one outward bound ship was sunk—the s.s. *Gibel Yedid*, 949 tons, on July 13 at 11.30 a.m. in 47° 59' N., 8° 43' W., by *U.48*, bound from Newport, Mon., to Gibraltar. Probably owing to the number of attacks in them, these routes were closed on July 13, and from July 13 to 25, the routes in force were routes 18, 26, 79 and 86,⁶ viz., Scillies to 6° 30' W.; cross 10° W. between 49° N. and 48° 30' N. then steer west true. Only one outward bound ship, the s.s. *Monkstone*, 3,097 tons, South

¹ Report in H.S. 1364/238.

² Telegram 31/1249, "Suspend traffic on Western Trade Routes 42 and 58." Trade Division Records.

³ Telegrams, Routes in Force, May 12/2124, July 2/1127, July 13/1935, July 19/1113, July 23/1240, July 25/1636.

⁴ Western Trade, May 17, 1917, M.05956 in Case 1356.

⁵ Old Approach Route A of March 2, 1917, was shifted roughly 100 miles to the south-east on June 26. Telegram, June 26/1215.

⁶ Telegram July 13/1955. Route 18, English Channel to North Atlantic; Route 26, English Channel to South Atlantic and Mediterranean; Route 79, Bristol Channel to North America; Route 86, Bristol Channel to South Atlantic and Mediterranean. The numbers refer to different destinations; the route was the same.

Shields to Mudros, was sunk on this route, by *U.82* on July 25 at 11.55 a.m. in 48° 45' N., 12° 7' W. On July 24 and 25 however, *U.46* sank four outward bound ships¹ close to the parallel of 48° N. between 11° W. and 14° W. These four ships seem however to have been some 30 miles south of the routes in force² between July 13 and 25. From July 25 to 31, the routes in force were routes 70, 19, 29, 89 again³ and no outward bound ships were sunk on them up to the end of the month.

258. Routeing, Approach Routes.—The Approach Routes for homeward bound ships had been instituted on March 2, 1917.⁴ On May 8, Approach Route E (for ships to French Channel and Bay ports) was added; ships by this route were to cross 17° W. between 44° N. and 48° N., and cross 6° W. between 46° N. and 48° N., and make French coast at dawn.⁵ On May 30, instructions were issued that if the special rendezvous (*i.e.*, given by consuls and officers abroad) was in an area prohibited by a War Warning message, masters were to cross the given meridian between the parallels authorised by the War Warning.⁶ On June 11 an important change was introduced on Approach Route B (West of Ireland), instituting a system of rendezvous in 15° W. to 16° W. to be changed at intervals with fixed lines of approach.⁷ On June 16 another Approach Route F was added for ships inward bound to Portugal. They were to cross 17° W. between 40° N. and 42° N. and make the Portuguese coast at dawn.⁸ On June 21 Approach Route A was shifted some 100 miles to the south-east. Ships were to cross 17° W. between 43° N. and 47° N.; 10° W. between 45° N. and 47° 30' N. and 7° W. between 48° N. and 49° 30' N.⁹ Approach Route E was also made narrower. Ships by this route were to cross 17° W. between 43° N. and 47° N. and 6° W. between 46° N. and 47° 45' N.

¹ S.S. *Brumaire*, 2,324 tons, Hartlepool to Spezzia, left July 19, sunk July 24 at 8.50 a.m., in 48° 2' N., 11° 45' W.; *Zermatt*, Barry to Plate, left July 21, sunk July 24, 2.40 p.m., in 47° 40' N., 13° 40' W.; *Purley*, 2,834 tons, Barry to Malta, left July 22, sunk July 25, 5.14 a.m., in 48° 8' N., 11° 25' W.; *Peninsula*, 1,384 tons, London to Lisbon, left July 21, sunk July 25, 9.45 a.m., in 48° N., 11° 10' W.

² The actual routes issued to them have not been seen.

³ Telegram July 25/1636.

⁴ Telegram March 2/0450 in Case 636, Vol. I, p. 4. See Staff Monograph, Home Waters VIII, S.247.

⁵ Telegram, May 8/0400, Case 636, Vol. I, p. 58.

⁶ Telegram, May 30/1345.

⁷ See S.163. This system was not applied to Approach Routes A and C until August 19, 1917.

⁸ Telegram June 16/2115, in *Idem*, p. 81.

⁹ Telegram, June 21/1215, in *Idem*, p. 89.