

= SM UB @-@ 16 =

SM UB @-@ 16 was a German Type UB I submarine or U @-@ boat in the German Imperial Navy (German : Kaiserliche Marine) during World War I. The submarine was sunk by a British submarine in May 1918 .

UB @-@ 16 was ordered in November 1914 and was laid down at the AG Weser shipyard in Bremen in February 1915 . UB @-@ 16 was a little under 28 metres (92 ft) in length and displaced between 127 and 141 tonnes (125 and 139 long tons) , depending on whether surfaced or submerged . She carried two torpedoes for her two bow torpedo tubes and was also armed with a deck @-@ mounted machine gun . UB @-@ 16 was broken into sections and shipped by rail to Antwerp for reassembly . She was launched in April 1915 and commissioned as SM UB @-@ 16 in May .

UB @-@ 16 spent her entire career in the Flanders Flotilla and sank 23 merchant ships , about half of them British fishing vessels . The U @-@ boat was also responsible for sinking the new British destroyer Recruit in 1917 . In 1918 , UB @-@ 16 was converted into a minelayer with the replacement of her torpedo tubes with four mine chutes . On 10 May 1918 , UB @-@ 16 was torpedoed by the British submarine E34 off the British east coast . Of the 16 men on board , only UB @-@ 16 's commander survived the attack .

= = Design and construction = =

After the German Army 's rapid advance along the North Sea coast in the earliest stages of World War I , the German Imperial Navy found itself without suitable submarines that could be operated in the narrow and shallow seas off Flanders . Project 34 , a design effort begun in mid @-@ August 1914 , produced the Type UB I design : a small submarine that could be shipped by rail to a port of operations and quickly assembled . Constrained by railroad size limitations , the UB I design called for a boat about 28 metres (92 ft) long and displacing about 125 tonnes (123 long tons) with two torpedo tubes .

UB @-@ 16 and sister boat UB @-@ 17 comprised an order of two submarines placed on 25 November from AG Weser of Bremen , a little more than three months after planning for the class began . UB @-@ 16 was laid down by Weser in Bremen on 21 February 1915 . As built , UB @-@ 16 was 27 @-@ 88 metres (91 ft 6 in) long , 3 @-@ 15 metres (10 ft 4 in) abeam , and had a draught of 3 @-@ 03 metres (9 ft 11 in) . She had a single 59 @-@ brake @-@ horsepower (44 kW) Körting 4 @-@ cylinder diesel engine for surface travel , and a single 119 @-@ shaft @-@ horsepower (89 kW) Siemens @-@ Schuckert electric motor for underwater travel , both attached to a single propeller shaft . Her top speeds were 7 @-@ 45 knots (13 @-@ 80 km / h ; 8 @-@ 57 mph) , surfaced , and 6 @-@ 24 knots (11 @-@ 56 km / h ; 7 @-@ 18 mph) , submerged . At more moderate speeds , she could sail up to 1 @-@ 500 nautical miles (2 @-@ 800 km ; 1 @-@ 700 mi) on the surface before refueling , and up to 45 nautical miles (83 km ; 52 mi) submerged before recharging her batteries . Like all boats of the class , UB @-@ 16 was rated to a diving depth of 50 metres (160 ft) , and could completely submerge in 33 seconds .

UB @-@ 16 was armed with two 45 @-@ centimeter (17 @-@ 7 in) torpedoes in two bow torpedo tubes . She was also outfitted for a single 8 @-@ millimeter (0 @-@ 31 in) machine gun on deck . UB @-@ 16 's standard complement consisted of one officer and thirteen enlisted men .

After work on UB @-@ 16 was complete at the Weser yard , she was readied for rail shipment . The process of shipping a UB I boat involved breaking the submarine down into what was essentially a knock down kit . Each boat was broken into approximately fifteen pieces and loaded on to eight railway flatcars . In early 1915 , the sections of UB @-@ 16 were shipped to Antwerp for assembly in what was typically a two- to three @-@ week process . After UB @-@ 16 was assembled and launched on 26 April , she was loaded on a barge and taken through canals to Bruges where she underwent trials .

= = Early career = =

The submarine was commissioned into the German Imperial Navy as SM UB 16 on 12 May 1915 under the command of Oberleutnant zur See (Oblt .) Hans Valentiner , a 26 year old first time U boat commander . On 1 June , UB 16 joined the Flanders Flotilla (German : U boote des Marinekorps U Flotille Flandern) , which had been organized on 29 March . When UB 16 joined the flotilla , Germany was in the midst of its first submarine offensive , begun in February . During this campaign , enemy vessels in the German defined war zone (German : Kriegsgebiet) , which encompassed all waters around the United Kingdom , were to be sunk . Vessels of neutral countries were not to be attacked unless they definitively could be identified as enemy vessels operating under a false flag .

On 3 June , two days after joining the flotilla , Valentiner and UB 16 sank three British fishing vessels while patrolling between 40 and 50 nautical miles (74 and 93 km ; 46 and 58 mi) off Lowestoft . All three of the sunken ships were smacks ? sailing vessels traditionally rigged with red ochre sails ? which were stopped , boarded by crewmen from UB 16 , and sunk with explosives . On 12 June , UB 16 torpedoed and sank the 3 ,027 ton British cargo ship Leuctra 1 @ 5 nautical miles (2 @ 8 km ; 1 @ 7 mi) from the Shipwash Lightship . Nine days later , the U boat torpedoed the British steamer Tunisiana off Lowestoft . After being hit , the 4 ,220 ton ship 's master beached her on Barnard Sands to save the cargo of wheat shipped from Montreal , but the ship was a complete loss . Tunisiana was the largest ship sunk by UB 16 . In her first month of action , UB 16 's totals were five ships sunk of 7 ,432 tons , more than half of the flotilla 's June total of 14 ,080 tons . No lives were lost on any of UB 16 's June victims .

UB 16 's next two successes came on consecutive days in late July . On the 27th , Westward Ho ! , a 57 ton smack was boarded and sunk by UB 16 's crew 25 nautical miles (46 km ; 29 mi) southeast of Lowestoft . The following day , the 1 ,821 ton Mangara was torpedoed without warning one quarter nautical mile (500 m) from the Sizewell Buoy at Aldeburgh . Eleven men died when the ship and her cargo of iron ore were sent to the bottom .

Although the Flanders Flotilla sank 31 ships in August , UB 16 did not add to that total . In a four day span in September , however , she accounted for three of the eight ships sunk by the flotilla during the month . On the 7th , she sank two more fishing smacks , Emblem and Victorious , 44 nautical miles (81 km ; 51 mi) from Lowestoft . On 10 September , UB 16 sank the 51 ton Nimrod in the same vicinity .

Germany 's submarine offensive was suspended on 18 September by the chief of the Admiralstab , Admiral Henning von Holtzendorff , in response to American demands after German submarines had sunk the Cunard Line steamer Lusitania in May 1915 and other high profile sinkings in August and September . Holtzendorff 's directive from ordered all U boats out of the English Channel and the South Western Approaches and required that all submarine activity in the North Sea be conducted strictly along prize regulations . UB 16 did not sink any vessels over the next four months , but resumed attacks on 18 January 1916 , sinking three more smacks ? Evelyn , Foam Crest , and Sunshine ? between 25 and 35 nautical miles (46 and 65 km ; 29 and 40 mi) from Lowestoft .

= = Second submarine offensive = =

By early 1916 , the British blockade of Germany was beginning to have an effect on Germany and her imports . The Royal Navy had stopped and seized more cargo destined for Germany than the quantity of cargo sunk by German U boats in the first submarine offensive . As a result , the German Imperial Navy began a second offensive against merchant shipping on 29 February . The final ground rules agreed upon by the German Admiralstab were that all enemy vessels in Germany 's self proclaimed war zone would be destroyed without warning , that enemy vessels outside the war zone would be destroyed only if armed , and ? to avoid antagonizing the United States ? that enemy passenger steamers were not to be attacked , regardless of whether in the war zone or not .

UB @-@ 16 's first successes in the new offensive came on 6 March when she sank the smacks Springflower and Young Harry about 30 nautical miles (56 km ; 35 mi) east of Lowestoft . Valentiner and UB @-@ 16 attacked another pair of ships in early April . The 653 @-@ ton British ship Perth was torpedoed and sunk near Yarmouth on the 1st , while the Dutch sailing vessel Elziena Helena was damaged in an attack two days later east of Southwold .

On 5 April , Valentiner was succeeded by Kapitänleutnant Paul Hundius , a 27 @-@ year @-@ old , first @-@ time U @-@ boat skipper . In the first two weeks under Hundius ' command , UB @-@ 16 sank two British steamers : the 2 @-@ 978 @-@ ton Robert Adamson on the 10th , and the 3 @-@ 091 @-@ ton Tregantle on the 22nd . Robert Adamson was sunk 3 nautical miles (5 @-@ 6 km ; 3 @-@ 5 mi) from the Shipwash Lightship while en route from Dundee to Le Havre with a cargo of props . Tregantle had sailed from Galveston , Texas , via Norfolk , Virginia , with a load of wheat for Hull , but was sunk off Lowestoft .

Near the end of April 1916 , Admiral Reinhardt Scheer , the newest commander @-@ in @-@ chief of the German High Seas Fleet , called off the merchant shipping offensive and ordered all boats at sea to return , and all boats in port to remain there . UB @-@ 16 did not sink any more ships for the next eight months .

= = Grand Fleet ambush attempts = =

In mid @-@ May , Scheer completed plans to draw out part of the British Grand Fleet . The German High Seas Fleet would sortie for a raid on Sunderland , luring the British fleet across " ' nests ' of submarines and mine @-@ fields " . In support of the operation , UB @-@ 16 and five other Flanders boats set out at midnight 30 / 31 May to form a line 18 nautical miles (33 km ; 21 mi) east of Lowestoft . This group was to intercept and attack the British light forces from Harwich , should they sortie north to join the battle . Unfortunately for the Germans , the British Admiralty had intelligence reports of the departure of the submarines which , coupled with an absence of attacks on shipping , aroused British suspicions .

A delayed departure of the German High Seas Fleet for its sortie (which had been redirected to the Skagerrak) and the failure of several of the U @-@ boats stationed to the north to receive the coded message warning of the British advance caused Scheer 's anticipated ambush to be a " complete and disappointing failure " . In UB @-@ 16 's group , only UB @-@ 10 sighted the Harwich forces , and they were too far away to mount an attack . The failure of the submarine ambush to sink any British capital ships allowed the full Grand Fleet to engage the numerically inferior High Seas Fleet in the Battle of Jutland , which took place 31 May ? 1 June .

UB @-@ 16 's activities over the next two months are not reported , but on 2 August the submarine was patrolling off the Mass Lightship and torpedoed the Norwegian steamer John Wilson , sending her cargo of food destined for London to the bottom . Later in August , Scheer set up another ambush for the British fleet , when he drew up plans for another High Seas Fleet raid on Sunderland (as had been the original intention in May) . The German fleet planned to depart late in the day on 18 August and shell military targets the next morning . As in May , UB @-@ 16 was part of a group intended to attack the Harwich forces . As one of five boats forming the second line of boats from the Flanders Flotilla , UB @-@ 16 was stationed off Texel by the morning of 20 August . Once again , British intelligence had given warning of the impending attack and ambush , causing the Grand Fleet to sortie at 16 : 00 on 18 August , five hours before the German fleet sailed . Faulty intelligence caused Scheer initially to divert from Sunderland , and then to eventually call off the whole operation . Although U @-@ boats to the north sank two British light cruisers , UB @-@ 16 and her group played no part in the action .

Later , on 24 August , UB @-@ 16 was again patrolling off the Mass Lightship when Hundius stopped Velox , another Norwegian steamer headed for London . Crewmen from UB @-@ 16 boarded the 312 @-@ ton cargo ship , planted explosives , and sank the vessel and her general cargo . Velox was the last ship sunk by the UB @-@ 16 for nearly eight months , and the last sunk by Hundius before he was replaced by Oblt . Ernst Müller @-@ Schwarz late in the month . Neither Müller @-@ Schwarz , nor his January 1917 replacement , Oblt . Hans Ewald Niemer , sank any

ships while in command of UB @-@ 16 .

= = Unrestricted submarine warfare = =

By the time of the so @-@ called " turnip winter " of 1916 ? 17 , the Royal Navy blockade of Germany had severely limited imports of food and fuel into Germany . Among the results were an increase in infant mortality and as many as 700 @,@ 000 deaths attributed to starvation or hypothermia during the war . With the blockade having such dire consequences , Kaiser Wilhelm II personally approved a resumption of unrestricted submarine warfare to begin on 1 February 1917 to help force the British to make peace . The new rules of engagement specified that no ship was to be left afloat .

With the new campaign already underway , Niemer was replaced as UB @-@ 16 's commander by Oblt . Hugo Thielmann on 18 March . Although only in command of UB @-@ 16 for little more than a month , Thielmann sank one ship on UB @-@ 16 . The 107 @-@ ton Dutch motor vessel Arie was sunk in the Hoofden area on 20 April ; there were no reports of casualties .

Kapitänleutnant Wilhelm Rhein was assigned to UB @-@ 16 on 23 April , and under his command , UB @-@ 16 may have been responsible for damaging the Norwegian cargo ship Kongsli on 26 April . On 9 August , UB @-@ 16 torpedoed and sank the British destroyer Recruit 3 nautical miles (5 @.@ 6 km ; 3 @.@ 5 mi) from the North Hinder Lightship . Recruit , commissioned four months earlier , sank with 54 of her complement . Rhein was succeeded by Oblt . Günther Bachmann on 26 August , and he , in turn , was succeeded by Oblt . Alfred Krameyer on 25 December .

= = Conversion to minelayer = =

UB @-@ 16 and three sister boats , UB @-@ 10 , UB @-@ 12 , and UB @-@ 17 , had all been converted to minelaying submarines by 1918 . The conversion involved removing the bow section containing the pair of torpedo tubes from each U @-@ boat and replacing it with a new bow containing four mine chutes capable of carrying two mines each . In the process , the boats were lengthened to 105 feet (32 m) , and the displacement increased to 147 t (145 long tons) on the surface , and 161 t (158 long tons) below the surface . Exactly when this conversion was performed on UB @-@ 16 is not reported , but UB @-@ 12 was at the dockyard from November 1916 to January 1917 . The lack of reported successes by UB @-@ 16 during this same span makes it a possibility that her conversion was accomplished in a similar timeframe .

On 13 March , UB @-@ 16 , now under the command of Oblt . Rudolf Stier , was responsible for sinking the 895 @-@ ton steamer Lisette near the Shipwash Lightship . One month later , on 13 April , the fishing smack Ruth was boarded and sunk by UB @-@ 16 ; Ruth was the final ship sunk by UB @-@ 16 .

On 28 April , British forces attempted to block the canal at Zeebrugge and bottle up the vessels of the Flanders Flotilla in the Zeebrugge Raid . In the raid , the British succeeded in sinking two obsolete cruisers , Iphigenia and Intrepid , in the narrowest part of the canal . British admiral Roger Keyes , who had planned the raid , believed that the Flanders Flotilla ships were bottled up for a long period of time . However , the following day , after the Germans had removed two piers , UB @-@ 16 ? under Oblt . Vicco von der Lühe , her newest commander ? made the first sortie from Zeebrugge after the raid .

= = Sinking = =

UB @-@ 16 departed Zeebrugge for what would be the final time on 6 May 1918 for a patrol off Harwich . At 18 : 50 on 10 May , the British submarine E34 spotted UB @-@ 16 on the surface near Harwich . Although E34 's commanding officer Lieutenant Pulleyne initially believed that UB @-@ 16 was a British submarine , he submerged out of caution because of UB @-@ 16 's proximity to Harwich . After identifying the submarine as a German boat , Pulleyne maneuvered to attack . At 19 : 15 , E34 launched two torpedoes at UB @-@ 16 from a distance of 400 yards (370 m) . The first

hit UB @-@ 16 's bow and failed to detonate , but the second hit below the conning tower and exploded , sinking UB @-@ 16 at position 52 ° 6 ? N 2 ° 1 ? E in less than five minutes . After a further five minutes , E34 surfaced near where UB @-@ 16 had gone down , and rescued von der Lühe from the oily water ; he was the only survivor . Von der Lühe was imprisoned in a British prisoner of war camp , where he died of influenza on 1 March 1919 . British divers dispatched to the site of UB @-@ 16 's demise a week later could only find some plating and a few pipes and concluded that UB @-@ 16 had disintegrated after the torpedo hit .

= = Ships sunk or damaged = =