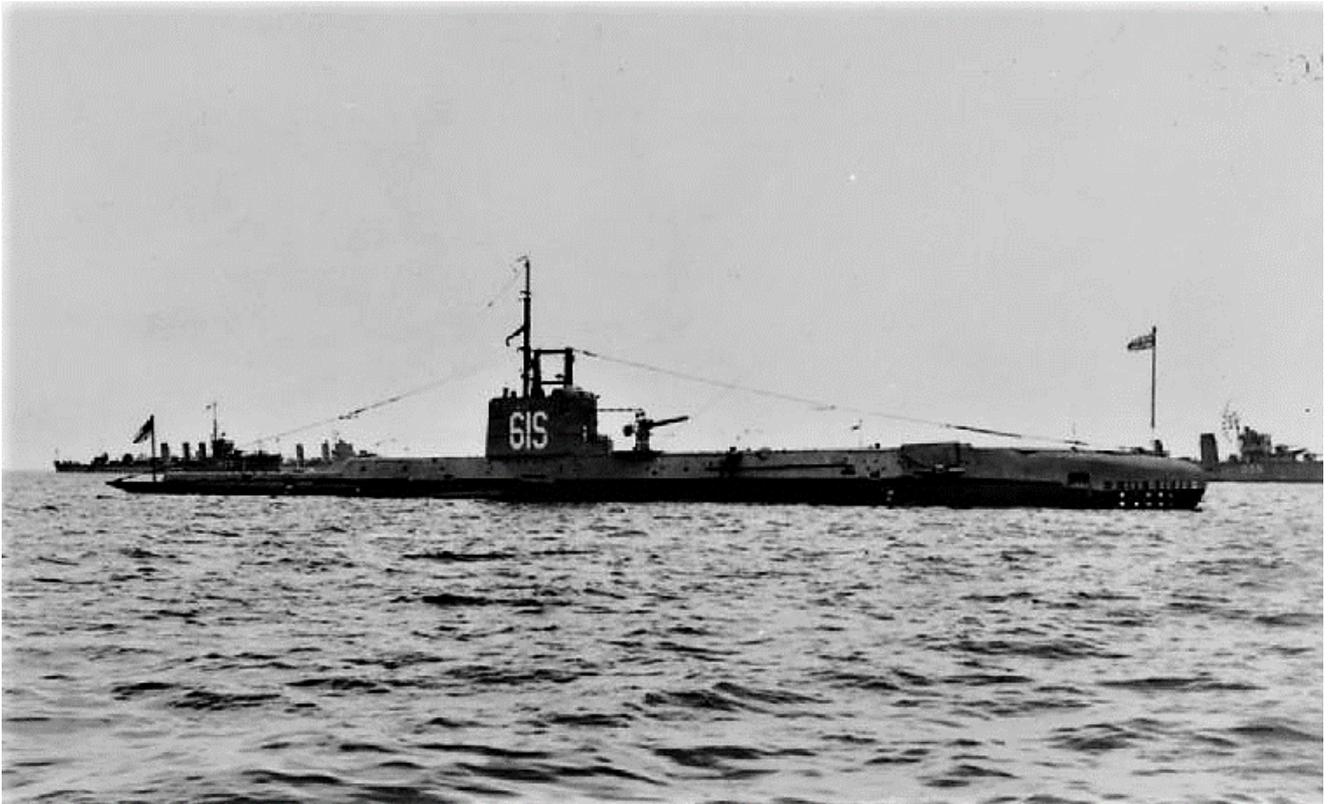
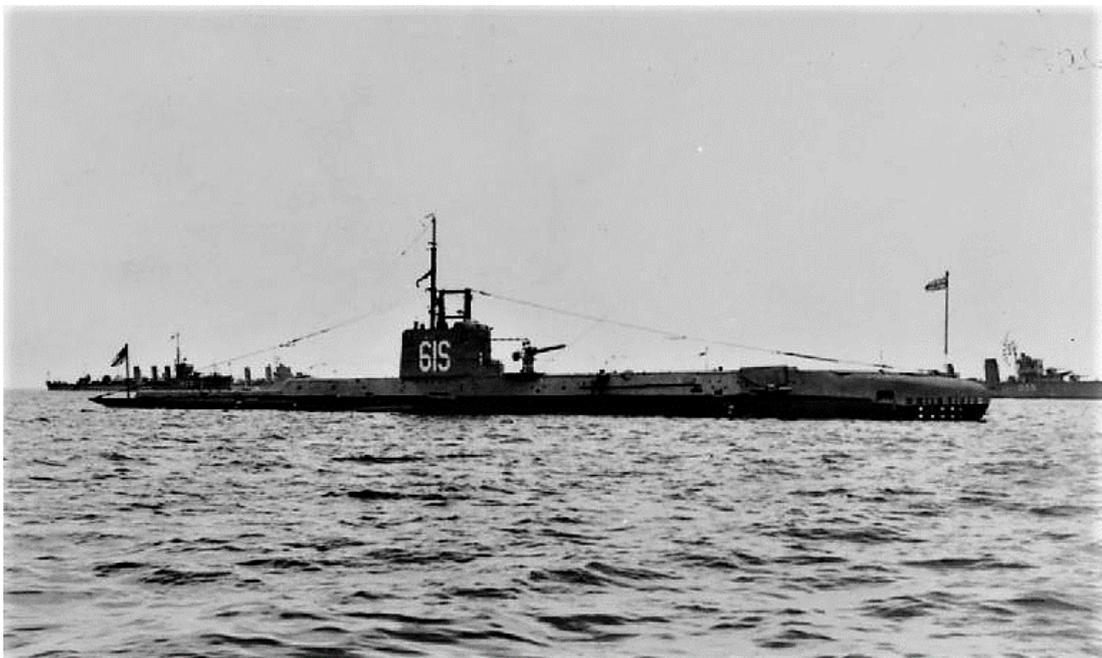




# HMS *SWORDFISH* (N61)



H.M. Dockyard, Chatham launched *Swordfish*, the first of the "S" Class submarines, on 10 November 1931 for the Admiralty. The "S" Class, second generation patrol submarines, represented a change in approach, as the previous "R" class were all bigger and heavier. Steel hulled, 61.72m long with breadth of 7.16m and a draught of 3.12m, the submarine displaced 927 tons submerged, and test dived to 91m. Its twin screws were each powered by one 1,550bhp diesel engine and one 1,300 hp electric motor which respectively could propel it at 13.75 knots surfaced and 10 knots submerged. The range was 4,300 miles at 10 knots surfaced and 74 miles at 2 knots submerged. Designed for a complement of 38, the armament comprised 6 x 533mm torpedo tubes, each pre-loaded with a G-type torpedo with another six carried for reloading at sea, and 1 x 76mm deck gun.



**Figure 1: HMS Swordfish (61S) at anchor at Weymouth**

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Commissioned as tender to the *Dolphin*, parent ship of the Fifth Submarine Flotilla, on 16 September 1932, its preliminary trials in the Thames and Medway estuaries in October 1932 were successful, and was followed by a 30-hour assessment which included full power tests and diving tests out of Sheerness at the end of October. Leaving Chatham on 30 November 1932 when it was formally completed by the builders, arriving at Portsmouth the next day, *Swordfish* then left on 5 December for Portland to undertake work-up practices, returning to Portsmouth. On 11 January 1933, further work-up trials began with a voyage to Campbelltown and subsequently included a deep dive, anti-submarine followed by torpedo discharge trials.

It is instructive to consider briefly how the "S" Class evolved. It had become apparent in 1928 that a new type of submarine was required, as existing ones were becoming aged, and the need for training and for conducting patrols in the relative vicinity of bases and in confined waters during war was recognised. Requirements were specified, including 10 day on-station patrols

500 miles from base with sufficient fuel to recharge batteries, six bow tubes with two stern tubes being desirable provided design was not compromised, and habitability had to be good enough for crew to undertake their tasks properly. The 500 miles also meant the installed wireless equipment would not have to be significantly bigger. Outline design for *Swordfish*, first in Class, was approved on 28 November 1929 but building was delayed until after the *London Naval Treaty*, as it was known, officially the *Treaty for the Limitation and Reduction of Naval Armament*, was ratified as of 27 October 1930. Signatories were America, Britain, France, Italy and Japan, and the Treaty was designed to limit proliferation of a naval arms race following the *Washington Naval Treaty* after the First World War. The provisions of the *London Treaty* resulted, inter alia, in the vessel's weight to be kept in check and this caused stability to be less desirable than had been hoped for. During the wait for the Treaty provisions to be published, the *Swordfish* design underwent some changes and was re-approved, building starting in July 1930. HMS *Sturgeon* was of the same class as *Swordfish*, and all subsequent submarines in "S" Class underwent continual adjustment to their designs. The deck gun was originally of the "Disappearing" type, to reduce resistance when submerged but resistance was found to be negligible; furthermore, its platform had been changed at the request of the authorities during construction, rendering the platform unsatisfactory, and so was very soon replaced during trials by 1 x 76mm HA fixed type gun mounted on the superstructure casing which also saved weight.

In July 1935, HMS *Swordfish* was open to the public during Navy Week at Portsmouth, and in 1936 it was included in the Autumn Cruise with other warships. Multiple newspapers reported that the Admiralty had announced that the *Swordfish*, with five officers and 35 ratings on board, during diving exercises off Portland Bill on 2 February 1937 had touched the seabed, or an obstruction, and had reportedly lost a "*secret sound-detecting device*" which divers were to try and recover, but *Swordfish* was otherwise seaworthy. *Swordfish* was moored in St. Katherine's Dock in London for the 1937 Coronation celebrations and Aberdeen was visited as a courtesy call with several other naval vessels in November 1938.

With the Second World War imminent, HMS *Swordfish* was assigned to the Second Submarine Flotilla which was moved between 23 and 26 August 1939 to bases at Dundee and Blyth. *Swordfish* was based at Dundee, and was despatched on 1 September 1939 to patrol south west of Stavanger, Norway. Three weeks later, *Swordfish* was mistaken for a U-Boat by HMS *Sturgeon*, the second of the "S" Class submarines, firing three torpedoes at *Swordfish* which dived, causing all three to miss.

On 23 September 1939, *Swordfish* left Dundee for its second patrol, west of Denmark. Informed the next day of a German attack which damaged HMS *Spearfish*, *Swordfish* was ordered to stay away from the area and returned to Dundee on 3 October. A newspaper report in the *Lichfield Mercury* of 19 January 1940, likely refers to this second patrol as it was "crippled" and then refitted, Able Seaman Clifford Elsmore's recounts his *Swordfish* experience:

*"Recalls Hair-raising Submarine Exploit*

*Until recently he was serving on H.M. Submarine Swordfish, and was a member of the crew when, in the first month of the war the vessel was almost destroyed by depth charges whilst on patrol in enemy waters.*

*The epic story of how the submarine lay on the ocean bed whilst the enemy groped about in search of them with sweep wires, electrically operated bombs and depth charges made 'front page news' at the time, and its exploits in escaping and returning home, crippled but with its crew safe, will be recorded as a great feat of skill and endurance in naval records. For hour after hour while the vessel lay on the bottom, its crew laid down to conserve oxygen, depth charges fell all around until lights were extinguished and one motor and both engines put out of action. Throughout this time Able Seaman Elsmore was one of a crew who to relieve the monotony started a sweepstake on the time at which the next explosion would shake the hull, and who exchanged jokes whilst death faced them as they prepared torpedo tubes, Lewis guns and rifles preparatory to surfacing. Crippled engines were somehow repaired; as if by miracle the wireless was put in order, and the hazardous homeward journey followed, once threatened by enemy bombers before British destroyers arrived to escort them safely to a home port. A.B. Elsmore received lengthy leave after this unpleasant experience, and recounted his adventure first hand to many friends in the City. He is now serving with another unit of the submarine service".*

Between 3 October 1939 and 11 February 1940, *Swordfish* refitted in Dundee, then conducted training exercises at Scapa Flow, arriving on 13 March at Blyth from which it departed on 22 March for another patrol in the western approach to the Skagerrak strait. *Swordfish* sighted only neutral ships during this patrol and returned, this time, to Blyth on 8 April. *Swordfish* departed Blyth again on 16 April 1940 and returned to the Skagerrak for another patrol and four days later on 20 April, sighted and attacked a German convoy, comprising three heavy transports and four escorts voyaging about 80 miles south of Oslo. The six torpedoes all missed, and *Swordfish* was attacked at periscope depth by a German aircraft, then depth charged until the evening by the convoy's escorts. Two days later, *Swordfish* sighted another convoy of trawlers and escorts but did not attack due to the shallow draught, which would have caused the torpedoes to run under the ships. In the morning of 26 April, *Swordfish* sighted several drifting mines approaching it and one struck as *Swordfish* was diving, but fortunately failed to explode, and two days later returned to Blyth thus ending its fourth patrol.

*Swordfish* conducted an uneventful fifth patrol from 10 to 25 May in the North Sea returning to Blyth leaving again on 5 June, for its sixth war patrol in the North Sea. The next day *Swordfish* was bombed in error by a Lockheed Hudson of No. 224 Squadron RAF, but no damage was sustained. After returning to Blyth, *Swordfish* conducted its seventh patrol between 1 and 12 July, but only aircraft were sighted. On the eighth patrol, *Swordfish* encountered the Norwegian yacht *Maski*, whose four occupants were fleeing to the United Kingdom. Taking in the yacht's crew, and sinking the yacht with gunfire, the Norwegians remained aboard while *Swordfish* patrolled off Lindesnes and unsuccessfully attacked a merchant ship, returning to Blyth on 8 August. The ninth patrol, 27 August to 13 September, was uneventful and four days later it

departed for Portsmouth via Sheerness. The tenth patrol starting 26 September was off Cherbourg, and it was attacked without damage two days later; on 1 October, *Swordfish* encountering four German torpedo boats, fired four torpedoes at one, sinking it but when going deep, struck the seabed suffering damage. It returned to Portsmouth on 5 October, commenced the eleventh patrol on 21 October, again off Cherbourg, unsuccessfully torpedoing one enemy merchant ship, then docked on 30 October. Lieutenant P. J. Cowell R.N., who had assumed command on 11 February 1940, thus completed his tour of duty. For its disastrous twelfth patrol, Command of *Swordfish* had only just passed to Lieutenant Michael A. Langley R.N (who had previously received the D.S.C for gallantry when in control of HMS *H49 (N49)*).

Submarines patrolled off the Western Approaches near Brest, France, and were relieved on a pre-determined rota, wartime conditions requiring that radio silence was maintained between exchanging patrol submarines. HMS *Swordfish* departed Portsmouth on 7 November 1940, commanded by Langley with 39 crew, for a planned exchange with HMS *Usk (N65)*, a slightly smaller "U" Class submarine. HMS *Swordfish* was never heard of again, failing to signal as planned on 15 and 16 November. The assumption was that it had been mined or sunk by a German destroyer in the Bay of Biscay but reassessment was necessary when Martin Woodward found it in July 1983, in 46 metres of water about 12 miles south of St. Catherine's Point, Isle of Wight with the conclusion that it had struck a mine soon after sailing.



Figure 2: DSEA Example  
Source: GFDL CC-BY-SA

The wreck when found was in very good condition but in two halves, the "break just forward of the gun mounting, the stern section lying upright, the bow on its port side. The forward hydroplanes were set to 'dive' and the bridge telegraph was still at 'slow ahead' and hull damage strongly suggested that it had struck a mine, possibly whilst catching a trim underwater, before surfacing to make the long, fast run for Ushant at night". There were indications that some of the crew had tried to escape via the open after escape hatch, either by using Davis Submerged Escape Apparatus (DSEA), or by free ascent. The DSEA, Figure 2, had been invented in 1910, refined in 1927 and adopted by the Royal Navy in 1929, intended as emergency escape apparatus for submarine crews. Certain

items were subsequently recovered from the wreck to confirm identification, which you can see on display here.

The Admiralty had officially announced on 23 December 1940 that the *Swordfish* was overdue and must be presumed lost, and that next of kin had been informed. On 5 February 1941, the detailed list of those lost was published in newspapers, being five officers and 36 ratings. The news of the discovery featured in several newspapers dated 11 August 1983, mentioning that *Swordfish* was the first Second World War submarine wreck to be found and noted that the Ministry of Defence had asked the Royal British Legion and the Royal Navy Association to help finding relatives of the crew. Mention was also made that it would be considered a war grave. Thereafter, newspapers carried some reports of relatives remembering when those dear to them had failed to return, including one of how Kathleen Butterworth of Dundee had been engaged

to a leading stoker who in June 1939 lost his life in the *Thetis* submarine disaster - she then married *Swordfish's* telegraphist John Wood just weeks prior to his death.

A memorial service was held on 7 November 1983, attracting 230 relatives and friends of the deceased crew and the *Swordfish* wreck is included in the list of designations under the Protection of Military Remains Act, 1986 including subsequent re-enactments.

There are two YouTube videos:

- <https://www.youtube.com/watch?v=xiKdZagtMii> - 9½ minutes diving on the wreck, observing requirements of the War Grave status, with good underwater visibility, showing the damage and 2009 condition.
- <https://www.youtube.com/watch?v=NBakCDdQDVQ> - short explanatory video of the loss by Martin Woodward.