German submarine U @-@ 47 was a Type VIIB U @-@ boat of Nazi Germany 's navy (Kriegsmarine) during World War II. She was laid down on 25 February 1937 at Friedrich Krupp Germaniawerft in Kiel as yard number 582 and went into service on 17 December 1938 under the command of Günther Prien.

During U @-@ 47 's career , she sank a total of 31 enemy vessels and damaged eight more , including the British battleship HMS Royal Oak on 14 October 1939 . U @-@ 47 ranks as one of the most successful German U @-@ boats of World War II .

= = Design = =

German Type VIIB submarines were preceded by the shorter Type VIIA submarines . U @-@ 47 had a displacement of 753 tonnes (741 long tons) when at the surface and 857 tonnes (843 long tons) while submerged . She had a total length of 66 @.@ 50 m (218 ft 2 in) , a pressure hull length of 48 @.@ 80 m (160 ft 1 in) , a beam of 6 @.@ 20 m (20 ft 4 in) , a height of 9 @.@ 50 m (31 ft 2 in) , and a draught of 4 @.@ 74 m (15 ft 7 in) . The submarine was powered by two Germaniawerft F46 four @-@ stroke , six @-@ cylinder supercharged diesel engines producing a total of 2 @,@ 800 to 3 @,@ 200 metric horsepower (2 @,@ 060 to 2 @,@ 350 kW ; 2 @,@ 760 to 3 @,@ 160 shp) for use while surfaced , two AEG GU 460 / 8 @-@ 276 double @-@ acting electric motors producing a total of 750 metric horsepower (550 kW ; 740 shp) for use while submerged . She had two shafts and two 1 @.@ 23 m (4 ft) propellers . The boat was capable of operating at depths of up to 230 metres (750 ft) .

The submarine had a maximum surface speed of 17 @.@ 9 knots (33 @.@ 2 km / h ; 20 @.@ 6 mph) and a maximum submerged speed of 8 knots (15 km / h ; 9 @.@ 2 mph) . When submerged , the boat could operate for 90 nautical miles (170 km ; 100 mi) at 4 knots (7 @.@ 4 km / h ; 4 @.@ 6 mph) ; when surfaced , she could travel 8 @,@ 700 nautical miles (16 @,@ 100 km ; 10 @,@ 000 mi) at 10 knots (19 km / h ; 12 mph) . U @-@ 47 was fitted with five 53 @.@ 3 cm (21 in) torpedo tubes (four fitted at the bow and one at the stern) , fourteen torpedoes , one 8 @.@ 8 cm (3 @.@ 46 in) SK C / 35 naval gun , 220 rounds , and one 2 cm (0 @.@ 79 in) anti @-@ aircraft gun . The boat had a complement of between forty @-@ four and sixty .

= = Service history = =

U @-@ 47 carried out ten combat patrols and spent a total of 238 days at sea . She sank 31 enemy ships (totalling 164 @,@ 953 tons) and damaged eight more. Prior to her disappearance in March 1941, U @-@ 47 lost one crewman, Heinrich Mantyk, who fell overboard on 5 September 1940.

= = = First patrol = = =

U @-@ 47 was assigned to the 7th U @-@ boat Flotilla on 17 December 1938 , (the day she was commissioned) . She was an operational boat in the 7th Flotilla for her entire career . U @-@ 47 was sent to sea in a pre @-@ emptive move before war broke out in September 1939 , this move would enable her to engage enemy vessels as soon as the war began . She left for her first war patrol on 19 August 1939 (two weeks before the commencement of hostilities) , from the port of Kiel . During her first patrol , she circumnavigated the British Isles and entered the Bay of Biscay . It was here that U @-@ 47 sank her first three ships , SS Bosnia on 5 September , SS Rio Carlo on 6 September and SS Gartavon on 7 September 1939 .

= = = Second patrol and the sinking of HMS Royal Oak = = =

On 8 October 1939, U @-@ 47 began her second patrol. On 14 October 1939 (six days after leaving port), she succeeded in penetrating the Royal Navy 's primary base at Scapa Flow.

Although most of the Home Fleet was not at the base at the time , U @-@ 47 managed to find a target , the battleship HMS Royal Oak . Once she had spotted Royal Oak , she opened fire with her torpedoes . Her first two salvos did nothing more than sever an anchor chain . After reloading the bow tubes the last salvo of three torpedoes struck the British warship , causing severe flooding . Taking on a list of 15 degrees , her open portholes were submerged , worsening the flooding and increasing the list to 45 degrees ; Royal Oak sank within 15 minutes with the loss of over 800 men . Following the attack , Prien received the nickname Der Stier von Scapa Flow (" The Bull of Scapa Flow ") ; the emblem of a snorting bull was then painted on the conning tower of U @-@ 47 and the image soon became the emblem of the entire 7th U @-@ boat Flotilla . Prien was awarded the Knight 's Cross of the Iron Cross , the first sailor of a U @-@ boat and the second member of the Kriegsmarine to receive this decoration . The rest of the crew members were awarded the Iron Cross . Two other U @-@ 47 crew members also earned the Knight 's Cross later on during World War II : the chief engineer (Leitender Ingenieur) Johann @-@ Friedrich Wessels and 1st watch officer (I. Wachoffizier) Engelbert Endrass .

Many years later , in September 2002 , one of the unexploded torpedoes that U @-@ 47 had fired during the attack on Royal Oak rose to the surface from its resting place on the bottom . The unexploded torpedo , minus its warhead , gradually drifted towards the shore , where it was spotted by a crewman aboard the Norwegian tanker Petrotrym . A Royal Navy tugboat intercepted the torpedo , and after identifying it as having belonged to U @-@ 47 63 years earlier , EOD (explosive ordnance disposal) personnel discarded it a mile from shore .

On 16 April 2016 Royal Navy bomb disposal experts detonated a World War Two torpedo found in Scapa Flow in Orkney. It is believed to have been one of those fired at HMS Royal Oak by a German U @-@ boat in 1939.

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= = = Third patrol = = =
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Following a lavish celebration in Berlin for the sinking of HMS Royal Oak in which the crew members of U @-@ 47 were received by Adolf Hitler and decorated , the boat returned to sea on 16 November 1939 . Once the U @-@ boat had left Kiel on 16 November , she headed out into the North Sea . After traveling around the British Isles into the Bay of Biscay and the English Channel , U @-@ 47 sank a further three vessels , Navasota on 5 December , the Norwegian steamer MV Britta on 6 December and Tajandoen on 7 December . Following the sinking of Navasota , British destroyers briefly fired depth charges at the U @-@ boat but she managed to safely evade the attack without any damage .

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= = = Fourth patrol = = =
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U @-@ 47 left the port of Wilhelmshaven and began her fourth patrol on 11 March 1940 . For 19 days , she roamed the North Sea in search of any Allied convoys . However , she only managed to torpedo the Danish steam merchantman Britta north of Scotland on 25 March . Following the sinking of Britta , U @-@ 47 returned to Wilhelmshaven on 29 March .

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= = = Fifth patrol = = =
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U @-@ 47 's fifth patrol was her first one that resulted in no ships sunk . She left Wilhelmshaven on 3 April 1940 , and headed once again out into the North Sea . While she did not sink any Allied vessels on her fifth patrol , around 19 April , she fired a torpedo aimed at the British battleship HMS Warspite but the torpedo missed its target or failed to detonate upon impact . Several nearby destroyers attempted to sink the U @-@ boat using depth charges . U @-@ 47 managed to escape

= = = Sixth patrol = = =

U @-@ 47 's sixth patrol was much more successful . Having left Kiel on 3 June 1940 , she ventured out into the North Sea and operated off the southern coast of Ireland . Along with six other U @-@ boats in Wolfpack Prien , she attacked Convoy HX @-@ 47 and the first ship to fall victim to the U @-@ boat was the British vessel , SS Balmoralwood ; which was sunk on 14 June . Within less than a month , the boat sank a further seven vessels , San Fernando on the 21st , Cathrine on the 24th , Lenda and Leticia on the 27th , Empire Toucan on the 29th , Georgios Kyriakides on the 30th , and SS Arandora Star on 2 July . The German submarine returned to Kiel on 6 July after 34 days at sea and eight enemy vessels sunk .

= = = Seventh patrol = = =

U @-@ 47 's seventh patrol consisted of her travelling north of the British Isles and into the North Atlantic , south of Iceland . During a period of 30 days , she sank a total of six enemy vessels and damaged another . U @-@ 47 's first victory during her seventh patrol was the sinking of the Belgian passenger ship Ville de Mons on 2 September 1940 . This was followed by the sinking of a British vessel , Titan , on 4 September and Gro , José de Larrinaga , and Neptunian on the 7th . On the 9th , U @-@ 47 sank the Greek merchant ship Possidon , and on 21 September she damaged the British merchant ship Elmbank . Following these victories , on the 25th , U @-@ 47 entered the French port of Lorient , which was now under German control following the decisive Battle of France

= = = Eighth patrol = = =

U @-@ 47 's eighth patrol began on 14 October 1940 when she left her home port of Lorient . While her eighth patrol lasted ten days , she sank four enemy vessels and damaged a further two in only two days . On 19 October , U @-@ 47 damaged the British vessel Shirak and sank Uganda and Wandby , both of which were British registered . The next day , the U @-@ boat damaged the British vessel Athelmonarch and sank La Estancia as well as Whitford Point . She returned to port three days later on the 23rd .

= = = Ninth patrol = = =

U @-@ 47 left her home port of Lorient on 3 November 1940 and moved out into the North Atlantic in search of Allied convoys . During her ninth patrol , she damaged three ships , Gonçalo Velho , Conch and Dunsley and sank another , Ville d´Arlon . U @-@ 47 returned to Lorient for the last time on 6 December .

= = = Disappearance = = =

U @-@ 47 departed Lorient on her tenth and last patrol on 20 February 1941 . She went missing on 7 March 1941 and was believed at the time to have been sunk by the British destroyer HMS Wolverine west of Ireland , when a submarine was attacked by Wolverine and HMS Verity . The British ships took turns covering each other 's ASDIC blind spots and dropping patterns of depth charges until the submarine rose almost to the surface before sinking and then exploding with an orange flash visible from the surface . Postwar assessment showed that the boat attacked there was U @-@ A , part of the foreign U @-@ Boat corps . To date , there is no official record of what happened to U @-@ 47 , although a variety of possibilities exist , including mines , a mechanical failure , a victim of her own torpedoes , or possibly a later attack that did not confirm any claims by the corvette team of HMS Camellia and HMS Arbutus . U @-@ 47 had a crew of 45 officers and men during her last North Atlantic patrol in early 1941 , all of whom were presumed to have died .

= = = Wolfpacks = = =

U @-@ 47 took part in one wolfpack , namely . Prien (12 ? 17 June 1940)

= = Summary of raiding history = =

During her service in the Kriegsmarine , U @-@ 47 sank 30 commercial ships totalling 162 @,@ 769 GRT and one warship of 29 @,@ 150 tons ; she also damaged eight commercial ships totalling 62 @,@ 751 GRT and one warship of 10 @,@ 035 tons .