

War at sea 1939 - Facts and events (2_13)

Introduction

The theme

What caused the deep fall in winter temperatures and the consequent extreme weather conditions in Europe within just four months after the start of WWII? This study concludes that the cause for this must be attributed to changed seawater conditions in Northern European waters. (A) and the Eastern Atlantic including the Norwegian coast and the English Channel, due to war at sea. In these sea areas surface water and the water column below were most severely affected by ‘turning the sea upside down’ at many places thousands of times every day from the start of the Second World War on September 1st 1939. Every excessive mixing of the sea during autumn time has had an adverse impact on heat conditions of the sea area in question. “Forcing” warm surface water to greater depths will have its own consequence in the atmosphere. To “stir” the heat out of seawater earlier than it would otherwise happen naturally, must inevitably invite cold arctic air to invade earlier, fiercely and to make it stay longer. The result speaks for itself. Northern Europe plunged into the coldest winter in 110 years. (B) For three war winters the ‘axis of cold’ stretched from Stockholm to London.

Further details: (A) Baltic Sea, 2_17, and the North Sea (2_16); (B) Europe in arctic conditions, 2_11; (C) Three-year-package, 3_31.

Similarities



From the first day of WWII sea was ‘abused’ as never before. Something similar had happened only once before during World War One. Between August 1914 and November 1918 a modern sea mining and submarine warfare was waged to cut the enemy off its supply lines. (A) In 1939 the combatants wanted to achieve a similar effect from day one of the war itself. Twenty years earlier when the war at sea became fierce in 1915, war winters of 1915/16,

1916/17 and 1917/18 had turned out to be very snowy and very cold as far as Britain was concerned. (B) Similarly, as in the previous World War, when fighting at sea in 1939 started seriously at hour zero, the winters of 1939/40, 1940/41 and 1941/42 had been extremely cold and snowy in respect of the British Isles. By comparison, in WWI, while war at sea took 16 months to provide Britain with an extreme winter; it took WWII only four months, not only to provide Britain a similar harsh winter again, but also to drag whole Northern Europe and the north of Switzerland into the coldest winter for 100 years. This proves beyond doubt the effect tremendous naval activities set in motion from ‘hour-zero’ with numerically higher, bigger and powerful equipment under, on and above the sea surface.

Further details: (A) War at sea 1914-18, 5_13, Sea mines 1914-18, and 5_14. (B) Europe weather WWI, 5_11.

The presentation

An overview of some of the events will be given here to provide a glimpse of what happened in Northern European seas during the first four months of war, i.e. September-December 1939. The focus of attention is on the ‘abuse’ and ‘shaking’ of the seas, consequences of which cannot be ignored while trying to understand changes that occurred in the winter weather conditions. This presentation does not in any way attempt to provide a complete picture of naval events, but will restrict itself to providing only a very random and small collection of facts and figures to underline the enormous activities that the seas experienced during a short time of only a few months.

The following text briefly presents a number of topics concerning the impact of naval activities on sea during the first four months of war in 1939, to be read together with two additional papers, one, relating to bombing and depth charging of U-boats, and the other describing the impact of sea mines on sea (A)

Further details: (A) Sea mines, 2_14, and Depth charging, 2_15.

Comparing these initial four months of war with those that followed the after end of the year 1939 with continuously accelerating military activities which caused tremendous stirring of the seas, make it appear that the role of the initial four months was almost modest. One of the principal aims of this study will be fulfilled, if it is able to establish that the war at sea had actually caused inordinate weather

developments within a short period of four months leading to the arctic winter of 1939/40 in Europe.

Some general data

Naval Fleets



On 1st September 1939 the number of main naval ships belonging to Germany, Great Britain, France, Italy, the Soviet Union and Italy amounted to more than 1,000 vessels (including submarines, torpedo

boats) with a total tonnage of 2.8 million. Additionally there were about 400 smaller naval vessels (e.g. mine-sweepers) with a total tonnage of 350,000 as mentioned below:

- Great Britain: 250 big naval vessels, (183 destroyers and bigger vessels) and ca. 57 submarines;
- Germany: 30 big naval vessels (21 destroyers and bigger vessels), and ca 12 torpedo boats and 57 U-boats.

Depth Charges

“During the first six months of war an estimated number of 33 U-boats were destroyed in about 4,000 depth charge attacks”¹. “Once a submarine is located, British naval plans, so far as they were known before the war, call for attack by familiar methods of an enclosing diamond pattern of depth bombs”, explains the New York Times (NYT 16 September 1939) on the procedure for attacking U-boats. Each attack possibly could mean a few to many dozens of depth charges. The total number of depth charges dropped per month could easily reach the figure of 10,000. During the first four war months 20,000 to 40.000 explosions could have occurred below the sea surface. (A)

Further details: (A) Depth charging, 2_15.

¹ Hackmann, p.303

Ships; Available and Lost

Tonnage of British ships available in 1939: ca. 18 million tons, ca. 7,000 vessels, ca. 27% of world tonnage. The German merchant fleet was a quarter with 4,5 million tons. The world fleet in 1939 comprised 30,000 ships with about 70 million tons.

Summary of British, Allied and neutral ships lost in UK waters:

- September 1939: 33 ships of 85,000 tons
- October_1939: 24 ships of 63,000 tons
- November 1939: 43 ships of 156,000 tons
- December 1939: 66 ships of 152,000 tons.

(source: www.navalhistory.net/WW2CampaignsWFront1939.htm)

British naval vessels lost

One battle ship; three destroyers; one aircraft carrier; one armed merchant cruiser; ca. 10 trawlers; two U-boats; and others.

Some warfare aspects

British Naval “Cavalry” Riding the Sea

The sea around Britain was ploughed by a naval flotilla from day one of WWII. Mr Winston Churchill supported the naval tactic. A group of three to five naval vessels would systematically search large areas of sea ‘like a cavalry division’ and guard sea-lanes². Especially the Navy’s few and precious aircraft carriers with an escort of destroyers were put into action during the early days of the war. Thus, at any time, thousands and thousands of miles of sea were criss-crossed by a number of British naval flotillas searching for enemy U-boats, dropping depth charges whenever a threat was suspected, real or assumed. The number of depth charges dropped during the four war months of 1939 was never counted. It could have been many thousands.

Enormous search activities to detect and destroy U-boats that “stirred the sea” around the



² Winton, p.130

British island find little mention in naval historical essays. These activities without any military results were quickly forgotten, although their impact on the “summer heat storage” position of the sea remained significant. The work of the ‘Cavalry’ was recorded only if something happened; either success or doom, both had great impact on the sea. The following two cases are shown as examples from the first month of war to illustrate a similar situation.

On 14th September 1939: U-39 operating off the Hebrides shot its torpedo at the 22,000-ton aircraft carrier ‘*Ark Royal*’, but missed. Escorting destroyers *Faulkner*, *Foxhound* and *Firedrake* depth-charged U-39 in a series of attacks. U-39 surfaced briefly and sank. The crew was captured³.

However, the next U-boat attack succeeded. The 22,000-ton British aircraft carrier ‘*Courageous*’ was on an enemy hunt along with four destroyers in the Southwest approaches (Southwest of Ireland), 150 nautical miles WSW of Mizen Head, Ireland, in the early evening of 17th September 1939. The carrier could travel at a speed of 30.5 knots (56 km/h). But HMS *Courageous*’ days were numbered. “A German submarine struck a telling blow at the British Navy last night by sinking the 22,000-ton aircraft carrier *Courageous*, with loss of an unknown number of her complement of 1,100 officers and men. It was the first real success scored by the German Navy in this war.” (NYT, 19 September 1939).

She was attacked by U-29. From a salvo of three torpedoes the *Courageous* was hit at portside by two. The destruction was devastating as described by Sub-Lieutenant Charles Lamb:

‘There were two explosions, a split second apart, the like of which I had never imagined possible. If the core of the earth exploded, and the universe split from pole to pole, it could sound no worse... In the sudden deathly silence which followed I knew the ship had died.’

The *Courageous* turned over and sank within fifteen minutes, with loss of 519 of her crew⁴. Lieutenant Wesmacott ‘heard two violent explosions which seemed to lift the ship’. (NYT, 19 September 1939).

Another crewmember reported: “Then the order to “Abandon Ship” was given by the Captain. I waited a few more minutes and then took the last of my clothes off and dived in. I swam out in the direction of the destroyer. After about fifty yards I turned and saw the last of the ship as she went under. After that I was swimming and catching hold

³ Winton, p.129

⁴ Winston, p.129

of pieces of wood for about 45 minutes. The water was black with men and oil, of which I drank mouthfuls!"

Other ships hurried to the spot where *Courageous* went down and assisted in the rescue operation. Survivors reported that destroyers scurried over the water after the submarine and it was believed that one of the depth charges they dropped sank the U-boat (NYT, ditto). However, that was not the case; U29 returned to its home base safely.

"The night was dark, weather fine and the sea smooth", survivors said. Visibility was described as moderate' (NYT, ditto).

Hunting German vessels

The Royal Navy formed small groups of naval vessels to control traffic (Northern Patrol) and seize enemy vessels. Within the first 6 weeks, about 300 vessels were controlled and more than 60 brought to the port of Kirkwall/Orkney.

The 'diamond pattern'

The New York Times reported in September 1939 on procedures for U-boat hunting as follows: "Once a submarine is found, British naval plans, so far as they were known before the war, call for attack by familiar methods of an enclosing diamond pattern of depth bombs, supplemented, of course, by shell fire and ramming if the submarine could be forced to the surface. In the diamond-pattern attack, the destroyer goes at full speed for the spot where the submarine, slow and clumsy under water, is thought to be. One depth bomb is let go just before the spot is reached. A few seconds' later two more are lobbed out by a Y-gun so that they land out on either side of the destroyer's wake. The forth point of the diamond is another depth bomb dropped over the stern some distance ahead of where the Y-gun fired. In this way a large area of the sea is covered by the diamond pattern. The effect is further increased by the fact that the bombs are timed to go off at different levels, so that the area is covered not only horizontally but vertically as well. The bursting area of a modern depth bomb is considerable". (NYT, 16 September 1939).

Arming the merchantmen

By the end of September 1939, Churchill said that 2,000 ships would receive guns (NYT, 1 October



1939). Within twelve months after the outbreak of the war 3,000 vessels were armed. The key defence was a 4.7 inch gun⁵. A story about the heroic act of gun personnel in 1939 reads as follows: “As *Culebra* sank ‘in a heavy cloud of smoke and steam’ the survivors, which included her six gunners, took to the remaining lifeboat. Sadly, no one survived the gale which sprang up twenty-four hours later”⁶.

Minesweeping

Minesweeping became a pressing issue for the major countries at war. Particularly Britain needed an effective force for minesweeping operation. The naval minesweeping branch requisitioned some 800 trawlers, drifters, whalers and fishing vessels. In December 1939 it was indicated that more than 100,000 men would be engaged in the sweeping of German mines in British sea-lanes. (NYT, 10 December 1939). By the end of the year the sweeping force consisted of a



searching force with 150 trawlers and 100 drifters, and a clearing force with 16 fleet sweepers and 32 paddle sweepers⁷. (A)

Further details: (A) Sea mines 1939, 2_14.

Convoy

Sending merchantmen in convoys escorted by naval forces had been proved very successful during WWI. ‘The previous war had proved the sovereign merits

of convoy’, Winston Churchill had acknowledged. Implementation of the convoy system in 1939 went quite smoothly. The first convoy of eleven troop transporters sailed on September 5 from Clyde for Gibraltar, escorted by the battleship *Ramillies* and eight destroyers. By December 1939, 5,756 ships had sailed in convoys⁸. By year’s end only twelve vessels in convoys and five stragglers from convoys were torpedoed by U-boats and sunk, with a total tonnage of 421,156 tons⁹.

⁵ Slader, p. 56

⁶ Slader, p.57

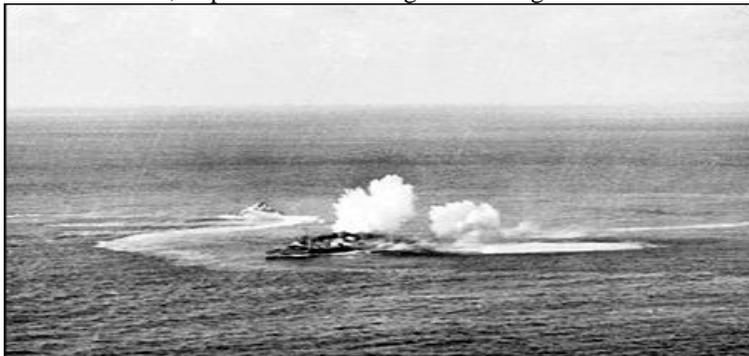
⁷ Elliot, p.31

⁸ Winton, p.128

⁹ Winton, p.130

Aerial bombing and mining

Neither the German navy nor the British had a fully operational aerial arm at the start of the war. The German Navy never got one. British Royal Air Force Coastal Command became operational sometime in 1940. However, airplanes for bombing and mining missions were



operating frequently, the British planes in the Helgoland Bight and the German on England's East coast. On September 3, 1939, Britain possessed an operational strength of 2,600 aircraft¹⁰; and the Germans presumably not less. (A)

Further details: (A) Bombing and depth charge (2_15).

Summary

Even though historical information have been written down abundantly, little has been said on the impact naval and military activities have had on seas and estuaries during the first few months of war. The temperature condition of ocean and seas determine weather and climate. This paper demonstrates that from the first day of WWII the war at sea had turned about large areas of Europe's seas. (A) At least the winter of 1939/40 responded to the changed seawater status in the North and Baltic Sea and succeeded in bringing arctic conditions to Europe during the winter 1939-40. (B)

Further details: (A) On sea-mines, bombing and depth charges, 2_14, and 2_15; (B) Arctic winter 1939/40, 2_11.

¹⁰ Sauders, p.379