

The East Coast War Channels in the First World War

Rediscovering a lost battlefield in the North Sea.

At the very start of the First World War, the *Kaiserliche Marine* – the Imperial German Navy – laid mines off the east coast of England, sinking several merchant ships and fishing vessels. This was a largely unexpected and potentially devastating assault. It was vital for both the transport of cargo and the supply of food that the safety of vessels up and down the east coast was maintained. The transport of coal from the north east to the south of England was especially important, especially when, after the initial German advance, France lost access to its own coalfields.

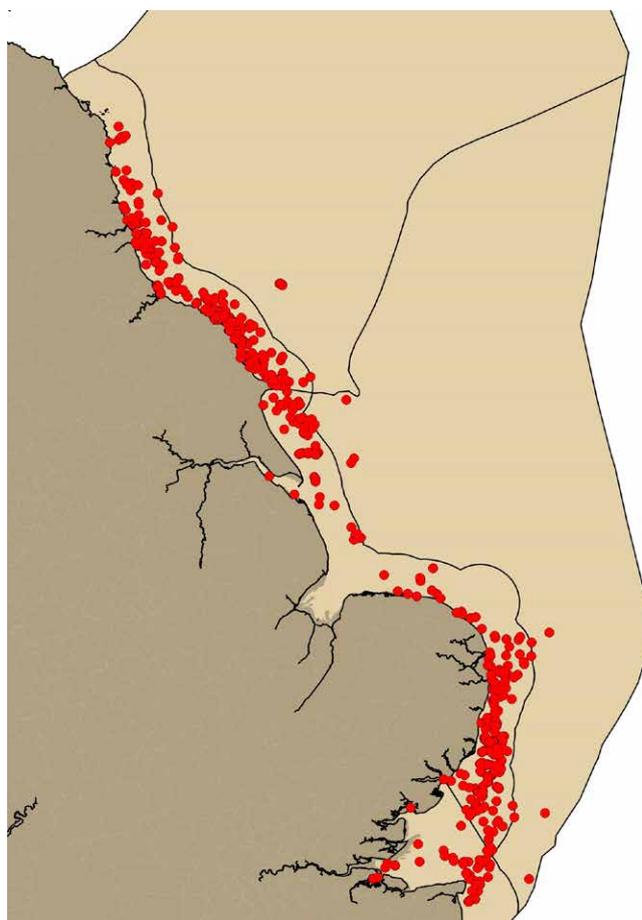
Faced with the invisible and extensive threat of mines off the east coast, the Admiralty concluded as early as August 1914 that attempting to remove entire minefields was not an option; minesweeping would have to be restricted to a specific channel. This became the known as the War Channel. As a result, Germany targeted the shipping that was confined to this channel and a fiercely contested battlefield developed that stretched from the Thames to the Tyne and beyond.

The battle on the east coast was fought throughout the First World War and was well-known at the time. As well as being a focus of huge operational and bureaucratic effort, the public were made aware of what was happening through posters, films, poetry, and songs; and through the impact that the many casualties had on families and communities. By the time of the current centenary, however, this battlefield had been almost forgotten. This is in spite of the fact that, unlike so many of the battlefields of the First World War on land, the East Coast War Channels are still covered in the standing remains of the conflict, including a huge assemblage of shipwrecks.

In order to raise the profile of the east coast battlefield and increase understanding of its importance, Historic England commissioned first a [scoping project](#) (Firth 2014)



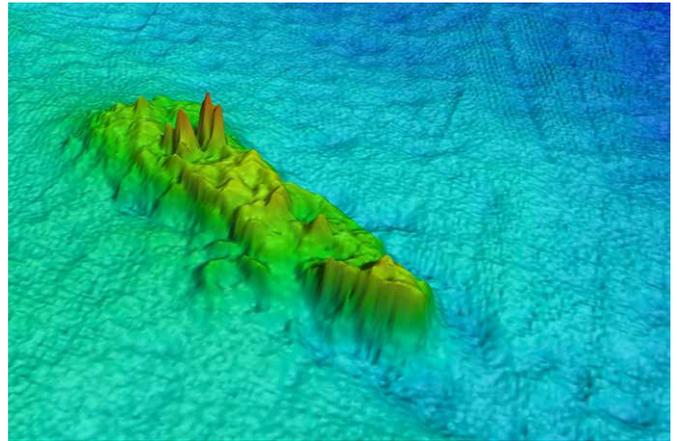
HMS Kale, one of the minor warships engaged in protecting the East Coast War Channels. The Kale hit a mine and sank in the outer Thames in March 1918. Tyne & Wear Archives & Museums



Distribution of known shipwrecks from the First World War on the east coast, as recorded in the National Record of the Historic Environment. Fjordr, data provided by Historic England



The Tower Hill Memorial records the names of thousands of fatalities from the Merchant Navy Marine. As just one east coast example, Madame Renee was torpedoed by a U-boat just off Scarborough in August 1918. AJ Firth / Fjodr



Multibeam image of the wreck of the SS Storm, sunk by a torpedo from a German floatplane in the outer Thames in September 1917. Multibeam data courtesy of London Gateway; image © Wessex Archaeology

and then a more extensive phase of work. The aim of this current phase is to work with a network of community-based initiatives to increase public awareness of the East Coast War Channels and generate additional information that can be incorporated into local and national historic environment records. On behalf of Historic England, Fjodr Ltd – a consultancy specialising in marine archaeology – has engaged with a range of local and national initiatives to improve records of wrecks and other sites.

The principal casualties of the battle were merchant ships, fishing vessels, and the minor warships such as minesweepers and patrol boats that sought to protect them. The wrecks number in their hundreds: the scoping project indicated over 550 known wrecks associated with the East Coast War Channels in the First World War; a further 800 losses are recorded from documentary sources but are not yet linked to physical remains.

Although the wrecks are predominantly of British cargo vessels, this generalisation masks great diversity. This was a world war, even on England’s east coast. Ships built, owned or operated from many places around the globe lie just beyond familiar beaches and cliffs.

Many people died in these ships; often, they have no grave but the sea. Their names are recorded far from where they died, on war memorials at Tower Hill, Chatham, Portsmouth, Plymouth and elsewhere; the wrecks themselves are all that marks their last resting place.. The seafarers display the same diversity

as their ships, and commemoration of their death has often separated them from their shipmates: Ghaus Muhammad and Muhammad Abdul of the Indian Merchant Service died when the SS *Audax* was torpedoed off North Yorkshire and are commemorated in Mumbai; whilst the only other casualty, Gustav Johansson – born in Sweden – is named alone at Tower Hill. Again, it is the wrecks themselves that can form the most powerful focus for piecing together the impact of the war.



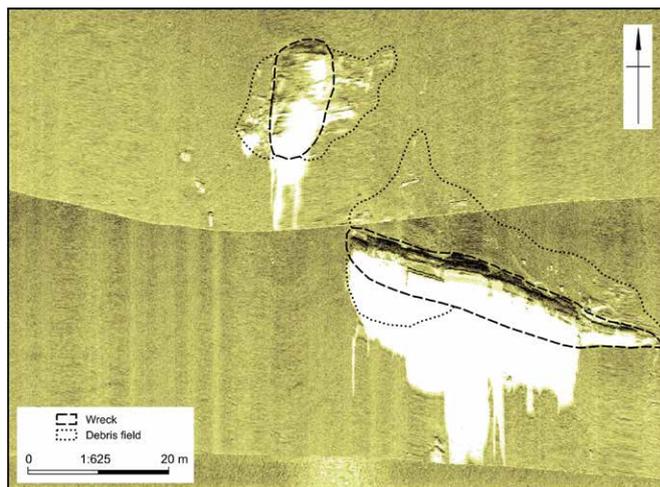
Airman’s chart showing the buoys that marked the East Coast War Channel. Courtesy of Cross & Cockade International

U-boats were the main cause of losses. They sank ships using torpedoes, especially from 1917 onwards, but it was their role as hidden minelayers that caused the most destruction. U-boats also sank ships by gunfire, and by sending crew aboard their targets to set off explosives or to let in water by opening seacocks. German surface ships accounted for some losses too, especially by minelaying in the early months of the war. For example, while Scarborough was being bombarded in December 1914 by the German battlecruisers *Derfflinger* and *Von der Tann* the accompanying light cruiser *Kolberg* laid mines which sank 15–20 merchant ships and minesweepers, causing far greater loss of life than occurred in the onshore attack. Later in the war, Germany developed floatplanes that could drop torpedoes, sinking merchant ships such as the *SS Storm* off Essex in some of the earliest ever uses of torpedo bombers in action.

Although the wrecks on the East Coast are numerous they are by no means randomly distributed. The assemblage displays patterns both chronologically and spatially and these inform our understanding of the conflict. Many ships lie where they were attacked, but vessels often struggled on before succumbing elsewhere; in other cases the vessel was saved or the wreck was entirely removed so there are no remains still present.

However the character of the East Coast War Channels as a battlefield – a structured space in which defensive and offensive capabilities were organised – was not so much determined by the U-boats as by the ways in which the British authorities sought to maintain the flow of shipping. As these efforts were largely successful, the wrecks provide insight not just into individual losses, but into all of those ships that carried on their business without loss. The wrecks are a trace, in summary, of a designed landscape at sea that was very heavily used.

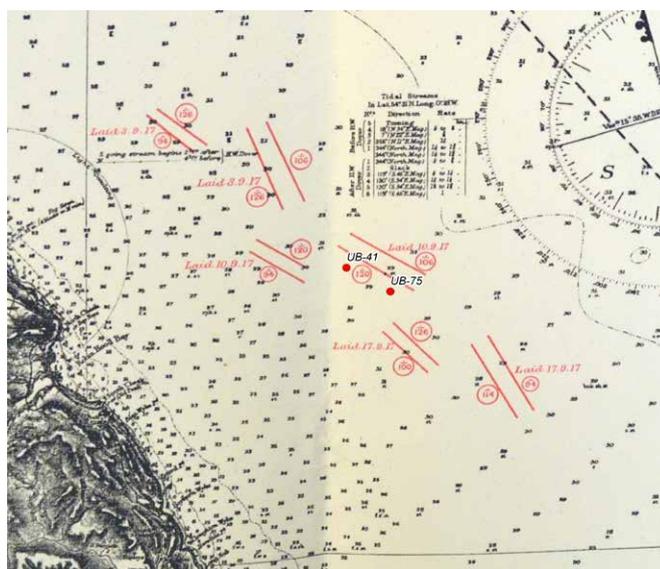
The East Coast War Channels themselves formed the spine of the battlefield. The main War Channel ran roughly parallel with the coast and had buoys marking its entire length. Other channels branched off landward from the War Channel to east coast ports, or seaward to join the principal routes to the Continent, the Baltic and Scandinavia.



Sidescan image of the wreck of UB-75, sunk in December 1917 with the loss of all hands. © Wessex Archaeology

The constant sweeping of these channels was extremely hazardous. Many of the wrecks in the East Coast War Channels are of minesweeping trawlers that had been requisitioned from the fishing fleet. Although depleted by the large numbers of fishermen and vessels that transferred to the Royal Navy, commercial fishing had to continue because it provided an essential source of food. As a result, those vessels still engaged in fishing also became a target for the Imperial German Navy, which would wipe out whole fleets at a time.

Fishing vessels also fell victim to mines. Beyond the War Channels, the Admiralty constructed its own minefields, principally as a form of defence. But British mines were

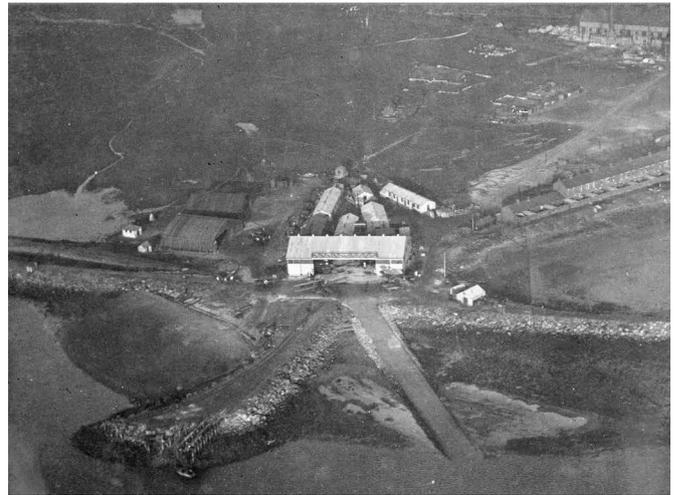


The positions of the wrecks of UB-41 and UB-75 relative to deep mines laid by the Navy in September 1917. © Wessex Archaeology. Background chart from material held at the UK Hydrographic Office



Women of the Women's Royal Naval Service wiring glass floats to anti-submarine nets at Lowestoft in 1918.

© Imperial War Museum, Q 19642



Seaton Carew air station, from which floatplanes patrolled the East Coast War Channels; the slipway here survives to this day.

Courtesy of Cross & Cockade International

also a hazard to any shipping – irrespective of loyalties – that strayed within them, whether through navigational error or stress of weather. As well as mines, obstructions were constructed at sea, especially off Essex and Kent. Formerly secret charts show the individual lines of these mines and obstructions, adding to the sense of a constructed landscape. The material remains of these features may still lie on the seabed in the form of anchors and cables, as well as the mechanical sinkers from which mines were deployed.

The Royal Navy also laid small groups of ‘deep’ mines at depths where they could trap U-boats without endangering craft at the surface. The evidence for such deep mines is apparent off Robin Hood’s Bay where the wrecks of UB-41 and UB-75, lost in October and December 1917 respectively, lie close to the charted position of mines laid that September.

Physical obstructions were deployed in rivers and estuaries approaching North Sea ports, including those of the Medway, Swale, Thames, Harwich, Humber, and Tyne. Submarine nets, torpedo nets, piles, rafts, and dolphins (wooden or concrete structures built into the seabed and extending above the water) formed booms across key approaches, which had gates tended by dedicated defence vessels.

Other port-related infrastructure included Port War Signal Stations, which controlled communications with ships entering and leaving harbour. These stations

were re-used in the Second World War when they were mapped at Blyth, Tynemouth, Sunderland, Hartlepool, South Gare (Tees), Spurn Head, Great Yarmouth, Lowestoft, and Great Nore Tower in the Thames. It seems likely that the shore establishments – known as ‘stone frigates’ – in each of the ports where naval vessels were based would also have seen material changes, both to their buildings and to their waterfront facilities. The same might also be true of the wharves and jetties where the merchant ships themselves loaded and discharged, reflecting the same pressures that were affecting the whole wartime economy. Certainly, shipbuilding underwent expansion both to provide naval vessels and to make good losses to merchant ships, whether on the east coast or in other theatres. Wartime shipbuilding facilities ranged from smaller yards building trawlers to entirely new ones built under emergency powers, such as the Haverton Hill yard on the Tees, the slips of which are still visible today.

The effect that the maintenance of shipping through the East Coast War Channels had on the landscape was not just limited to ports. Though more often associated with the Second World War, air power and signals intelligence were also important in 1914–18. Wireless stations were situated along the east coast both to intercept enemy signals and to fix the position of vessels by direction finding.

Air power was used very extensively above the East Coast War Channels, both to patrol for U-boats and



Women excavating the basin of a new shipyard at Haverton Hill, Stockton-on-Tees, in 1918. © Imperial War Museum, Q 20143

to escort convoys. As the endurance of First World War aircraft was quite limited, numerous air stations were built at or near the coast. As well as land-based planes, flying boats and floatplanes were deployed from waterfront air stations, the remains of which still survive at some locations. Lighter-than-air craft played a surprisingly important role, especially self-propelled balloons that could patrol for many hours, again represented by air stations whose remains still stand, for example at Seaton Carew, County Durham.

Losses to merchant ships and fishing vessels on the east coast carried on right up to the end of the First World War – and indeed afterwards, as stray mines continued to kill. Nonetheless, traffic kept flowing along the coast. The battlefield was not ceded to the enemy, though enormous military, organisational, and human resources had to be deployed in holding the line. As a monument to the industry and attrition of total war, the East Coast War Channels have a certain amount in common with other, better-known, battlefields on land. But this battlefield was right on England's doorstep with civilians in the firing line, and it is only now that it is starting to be recognised.



Hunstanton Wireless Station, part of the chain of stations that intercepted signals and calculated the positions of U-boats. © Historic England

Author



Dr Antony Firth MCifA

Director of Fjordr Limited (www.fjordr.com), and a member of the Historic England Advisory Committee and Historic Wrecks Panel.

Antony became involved in archaeology when working as a volunteer diver, and has since worked on a wide range of marine archaeological projects. He grew up in North Yorkshire near the east coast and continues to be fascinated by its hidden histories.

The East Coast War Channels 1914–18 project is due to continue until March 2016. For more information contact Antony Firth at info@fjordr.com.

Further Reading

Firth, A 2014 *East Coast War Channels in the First and Second World War*. Tisbury: English Heritage and Fjordr, available at: www.HistoricEngland.org.uk/images-books/publications/east-coast-war-channels-first-and-second-world-wars/