

Dredged Up

from the past

Autumn 2014

Archaeology Finds Reporting Service Newsletter

Protocol Update

Welcome to Issue 15 of Dredged Up, the newsletter of the Marine Aggregates Industry Protocol for the Reporting of Finds of Archaeological Interest. Since the last newsletter, 25 reports have been raised, detailing 46 individual finds. Some of these are highlighted on pages 2 and 3, including a ship's timber, further discoveries of aircraft material from Licence Area 395/1, and ordnance.



Bullets reported from Area 127

With 2014 marking the centenary of the start of the First World War, this issue focuses on the military archaeology of the conflict with a spotlight on the south-east coast. Read more about some of the ships, submarines and aircraft that were active off the coast of Kent during the war, some of which went to a watery grave, and whose remains have been identified by divers and archaeologists.

Also in this issue, we highlight exciting days out with a First World War theme that are local to some of the wharves serving the aggregate industry. These include the Admiralty Lookout at Dover Castle and the Heritage Lottery Fund supported 'Wor Life' events in Tyne and Wear. See page 8 for further details.

Awareness visits are available and Wessex Archaeology's staff are planning to visit wharves in Kent before the close of 2014. If you would like an awareness visit, which is structured flexibly to fit with the operation of your site, contact the Protocol team.

To contact the Protocol team at Wessex Archaeology:

protocol@wessexarch.co.uk
or call 01722 326 867



Fugro EMU



Finds from 2014

Over the last six months, a wide variety of material has been reported through the Protocol, from a ship's timber to aircraft material. These exciting finds can provide interesting clues to the past. Here is a round-up of recent discoveries.

Ship's Timber

A ship's timber was discovered by Anthony Greenway on board Hanson's *Arco Dijk*, within aggregate from Licence Area 240, off the Norfolk coast. Although badly damaged, the timber was still identifiable as a ship's timber as it has two treenail holes and shows signs of having been shaped. Wood analysis indicates that it is well-preserved oak, a common material for ship's timbers. Several other artefacts from ships have been recovered from Area 240, including a number of rigging blocks. These discoveries are not surprising as the area saw heavy traffic from a range of wooden vessels in the Age of Sail, from the 16th to the mid-19th century, and played host to several naval battles.



Further aircraft material from Area 395/1

Aircraft

Further reports relating to aircraft material have come from Licence Area 395/1. The material was recovered at Lafarge Tarmac's Burnley Wharf by J. Jerromes and N.C. Sait, and is likely to be associated with the wreck of a German *Luftwaffe* aircraft, believed on current evidence to be a Junkers Ju 87 *Stuka* dive bomber.

Images of the recovered material were examined by Ewen Cameron of the RAF Museum. One piece has been tentatively identified as part of the bomb release of a Junkers Ju 87. The other pieces of broken and undiagnostic material could not conclusively be proven to be related to the aircraft, although they are similar to what would be expected from a World War Two *Luftwaffe* aircraft, such as the Ju 87.

Parts of a Ju 87 bomber have been recovered from the area since the summer of 2013, many of which were included in **Dredged Up Issue 13**.

<http://www.wessexarch.co.uk/projects/marine/bmapa/dredged-up>

A review of geophysical data from the Licence Area has not revealed a distinct aircraft crash site. Based on current evidence, the rest of the aircraft is believed to be highly dispersed, to lie largely outside of the Licence Area or to be well buried by sediments.

Mystery Find

This was dredged by the *Arco Arun* and found by G. Price. It has not yet been conclusively identified. Suggestions range from the remains of ordnance, to fishing gear, to a device for tensioning chains onto a sub-sea tool such as a grapnel. Nothing like this has previously been reported through the Protocol, and we haven't seen anything like it before.

Do you know what it is? Let us know.
protocol@wessexarch.co.uk



Ordnance

A range of ordnance has been reported in the last few months, including a torpedo component discovered at Greenwich Wharf by Jamie Wallis, in mixed aggregate from Area 458/462, West Bassurelle, and Area 430, Southwold. George Burgess, former torpedoman of A-class submarines and volunteer at the Royal Navy Submarine Museum, confirmed the identification. The find is made of brass and copper which not only protects it against marine corrosion and rust, but also minimises the risk of potentially fatal sparks igniting the torpedo before it reaches its target. This example shows signs of damage consistent with the device having been fired. A torpedo is a self-propelled weapon with the capacity to explode on contact or in proximity to a chosen target. Developed in the 1860s, torpedoes were used in both the First and Second World Wars, and there are examples comparable to this find that date to the Second World War. Although this find exhibits clear markings, it has not yet been possible to determine its nationality or the location of manufacture.



Torpedo component found at Greenwich Wharf

Protocol discoveries link

Information about all recent finds can be found online:

<http://www.wessexarch.co.uk/projects/marine/bmapa/discoveries.php>

Some have also made it onto the Wessex Archaeology Twitter feed. Follow @wessexarch on Twitter for news about the Protocol, and all of our archaeological work.

A collection of six bullets was recovered from Lafarge Tarmac's Burnley Wharf by N.C. Sait, with material dredged from Area 127, to the west of the Isle of Wight. One of the bullets is a .50 BMG fired by a Browning machine gun, probably from an American aircraft during the Second World War. Four were fired by a British .50 Vickers, a gun prevalent on ships as an anti-aircraft gun. The last bullet is far rarer. It was identified by Jonathan Ferguson of the Royal Armouries Museum as a .276 Enfield bullet from the Pattern 1913 rifle, which was only produced in limited quantities for testing. The tests led to suggestions for design improvements and, as these had not been finalised before the outbreak of the First World War, the Pattern 1913 was never put into mass production, the Short Magazine Lee Enfield remaining the standard issue rifle during the conflict. Few examples exist today. Intriguingly, the Pattern 1913 was only tested on Whale Island, Portsmouth, but these bullets were found some 50km away. This mystery has not yet been solved.

The driving band pictured above, which would have been positioned around a projectile, was discovered by N.C. Sait at Lafarge Tarmac's Burnley Wharf in Southampton. It was amongst cargo from Licence Area 395/1. Driving bands form a tight seal with the breech of a gun, which ensures efficient firing. This driving band measures approximately eight inches in diameter, which is a common calibre for naval guns. Driving bands were used with breech loading and quick-firing guns from around 1880 onwards. The faint diagonal incisions on the outside indicate that the projectile had been fired.

Munitions should only be reported once appropriate site procedures have been followed and the object has been declared safe:

<http://www.thecrownestate.co.uk/media/5423/ei-dealing-with-munitions-in-marine-sediments.pdf>



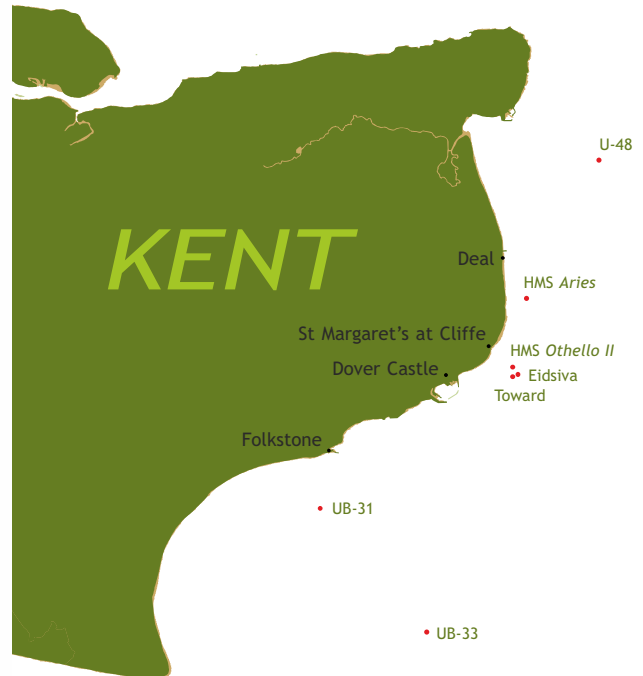
The First World War - 1914-1918 - Spotlight on Kent

On Monday 4 August 2014 commemorative events took place across the UK and abroad to mark the centenary of the start of the First World War. Thousands of lights were dimmed at 10pm to mark the anniversary. The First World War was characterised by trench warfare on the Western Front in France, but the conflict also had a big impact at sea, in regions where aggregate dredging is taking place today.

The First World War was the first major conflict where the war at sea took place in three different operational areas: on the surface, underwater and in the air.

Warfare on the surface was not a new idea, and during the race for naval armaments that led up to the war, Britain, Germany, the US, France, Italy and Japan began to build ever larger and more powerful warships. But the war was not destined to be fought between warships, and the only full-scale clash of battleships took place during the Battle of Jutland in 1916. Instead, one of the main maritime features of the war was Britain's naval blockade of Germany, where powerful warships and minefields were used to cut Germany off from overseas trade and resources.

Germany retaliated and began to use U-boats to cut off supply routes to and from Britain. Submarines could attack without warning, and although Germany agreed not to target passenger liners after the sinking of the passenger ship *RMS Lusitania* in 1915, British merchant ships were armed, placing them beyond the protection of 'cruiser rules' ('cruiser rules' or 'prize rules' govern the taking of vessels during war and require that attackers give warning and ensure the safety of ships' crews). Vast numbers of merchant ships were lost. To protect them, Britain introduced anti-submarine measures, and from 1916 British ships began to travel in convoy.



At the start of the First World War, aircraft were just coming into military use, and this was to be the first time that aircraft were used on a large scale. Initially aircraft were used for reconnaissance, but as the war progressed, they became more specialised, and were put into use as fighters and bombers.

Material recovered from merchant ships, warships, vessels hired by the Admiralty, submarines and aircraft on the seabed has the potential to inform us about technological advancements before and during the war, and also to remind us of the fascinating stories of the people involved in the conflict. A service revolver from the First World War has been reported through the Protocol previously (see [Issue 14 - http://www.wessexarch.co.uk/projects/marine/bmapa/dredged-up](http://www.wessexarch.co.uk/projects/marine/bmapa/dredged-up)) and there is great potential for more remains to be recovered in the future.

The following examples off of Kent exemplify First World War losses around the coast, and illustrate the interwoven battle between aircraft, ships on the surface of the water and submarines.



Ships

On October 31, 1915, four ships travelling separately fell victim to a minefield laid the night before by the German submarine *UC-6* off the coast of St. Margaret's at Cliffe, near Dover. The four ships, *HMS Othello II*, *HMS Aries*, *Toward* and *Eidsiva* are just four of the 54 ships sunk by the *UC-6* during the war, but they provide a fitting cross section of the types of vessels that were lost during the war.

HMS Othello II was a 206 ton Admiralty trawler that worked as a minesweeper, based in Dover. En-route to 'Section Two', an area between Goodwin Gate and the Gull Light Ship, she struck a mine. The vessel started sinking immediately, and the ship was so distorted by the explosion that the door to the wheelhouse jammed shut, trapping the crew inside. Only the cabin boy, small enough to squeeze through a partly open window, survived. This tragedy subsequently saved numerous lives because, as a result of this incident, orders were given to remove all the sliding doors of the trawlers' wheelhouses and to replace them with canvas screens, enabling ships' crews to escape. The wreck was positively identified by her builder's plate.

The wreck of *HMS Aries* was also identified by artefacts from the wreck. In this case, it was the crockery that provided the identity of this 268 ton yacht, hired by the Admiralty for boarding and inspecting suspect vessels.

The two merchant ships, *Toward* and *Eidsiva* illustrate the types of local and international trade that were at risk during the war. *Toward* was a 1218 ton British merchant steamer, built in 1899 by the Clyde Shipping Co. of Glasgow, and carrying a general cargo from London to Belfast. Divers have indicated that much of the wreck lies proud of the seabed, and the bow and the stern are about 10m apart. In the past, a variety of material was recovered from this wreck and reported through the Receiver of Wreck, including portholes, a bell and keys. The *Eidsiva* was a 1092 ton Norwegian steamer carrying coal to France. Divers indicate that she is lying on her port side, surrounded by her cargo of coal. Material recovered from this wreck, and reported through the Receiver of Wreck, includes a lamp guard and portholes.

Chatham Dockyard, which is very close to Frindsbury Wharf, commemorated the sinking of three First World War ships on 22 September: the *Aboukir*, *Cressy* and *Hogue*.

Read more on Wessex Archaeology's blog: <http://www.wessexarch.co.uk/blogs/news/2014/09/22/remembering-war-sea-part-1>



HMT Swansea Castle IWM FL 4393
Castle Class Admiralty Trawler
source <http://en.wikipedia.org>

U9 submarine

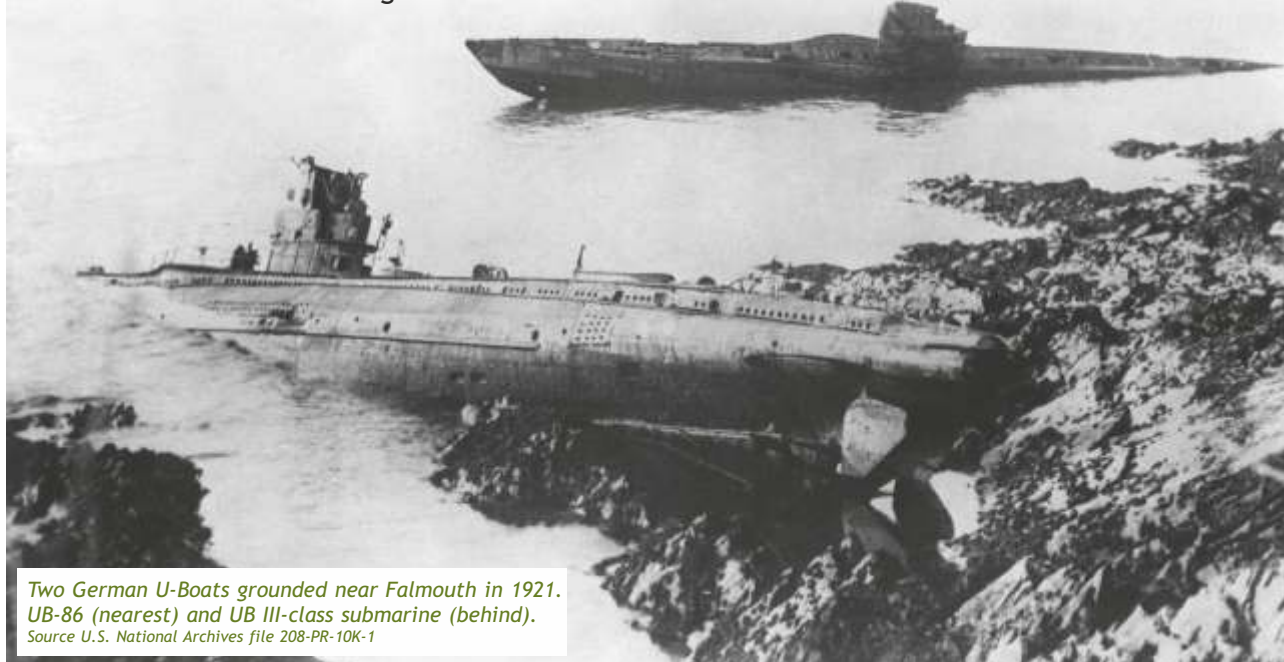


Submarines

Submarine technology advanced dramatically throughout the 19th century, from hand-powered vessels that could carry a single person, to multi-person vessels with diesel electric propulsion. These advancements, and many others, made submarines viable for military use, and by the beginning of the First World War, a number of countries had added them to their navies, including Britain, Germany, France, Russia and America. Submarines posed a considerable threat to ships, with armaments including deck guns and torpedoes, and in 1915 mine-laying submarines took to the seas.

In order to detect enemy advances in submarine technology, and in the hope of discovering further intelligence, military divers were deployed to explore sunken submarines shortly after their loss. A particularly exciting discovery awaited British naval divers when they explored the wreck of the *UB-33*. This German submarine was lost after hitting a mine off the coast of Dungeness on 11 April 1918. When Royal Navy divers reached the wreck, they found a steel box which, once recovered to the surface, turned out to contain the latest top secret German codes and signals.

The *U-48* was a 240 ton, 213ft long German submarine. On 24 November 1917, 60 miles from Dover, a seaplane spotted the submarine travelling on the surface, dropped a bomb, but missed. The submarine dived, and waited, but a strong westerly tide carried her on to nets off the North Goodwins, which entangled the propellers, leaving *U-48* stranded. The submarine jettisoned 60 tons of fuel, fresh water, gun ammunition and three torpedoes but could not get free. Spotted at dawn by the trawler *Meror*, and drifters *Majesty*, *Paramount*, *Present Help*, *Acceptable* and *Feasible*, a gun battle ensued between the drifters' six-pounders and the submarine's 4.1 inch gun. The battle was also joined by the destroyer *HMS Gipsy*. The submarine caught fire and the crew jumped into the water. Some sources say that no-one was rescued, while others indicate that about half of the crew were saved. The submarine is generally covered by the shifting Goodwin Sands, although it reappears from time to time. Because the wreck is often hidden, its identity has never been confirmed.



Two German U-Boats grounded near Falmouth in 1921. UB-86 (nearest) and UB III-class submarine (behind). Source U.S. National Archives file 208-PR-10K-1



Aircraft

The history of fixed wing aviation in the UK began in the early 20th century, but really expanded during the First World War when, for the first time, fixed wing aircraft were produced in large numbers. The majority of action took place in Continental Europe, but there was limited activity over the sea (as illustrated by the story of the *U-48* above), where aircraft were mainly used in patrol and reconnaissance roles, rather than in direct combat.

Additionally, the first German 'air-raid' was recorded at Dover Castle in December 1914, when a single bomb fell into the sea. Following this event, the castle was equipped with anti-aircraft guns and searchlights.

There are few records of First World War aircraft lost at sea. For example, *Aircraft Crash Sites at Sea*, a scoping study assessing records of known wrecks and reported losses, indicated that there were only six records of First World War aircraft losses in the Dorset to Suffolk study area, compared with over 2000 records from the Second World War. The difference in number is largely due to the different ways aircraft were deployed during the wars, but is also due to differences in record keeping and the

Further Reading

Canterbury Divers website:
<http://www.canterburydivers.org.uk/index.html>

English Heritage, 2012, *Ships and Boats: 1840-1950: Introductions to Heritage Assets*
<https://www.english-heritage.org.uk/publications/iha-ships-boats-1840-1950/>

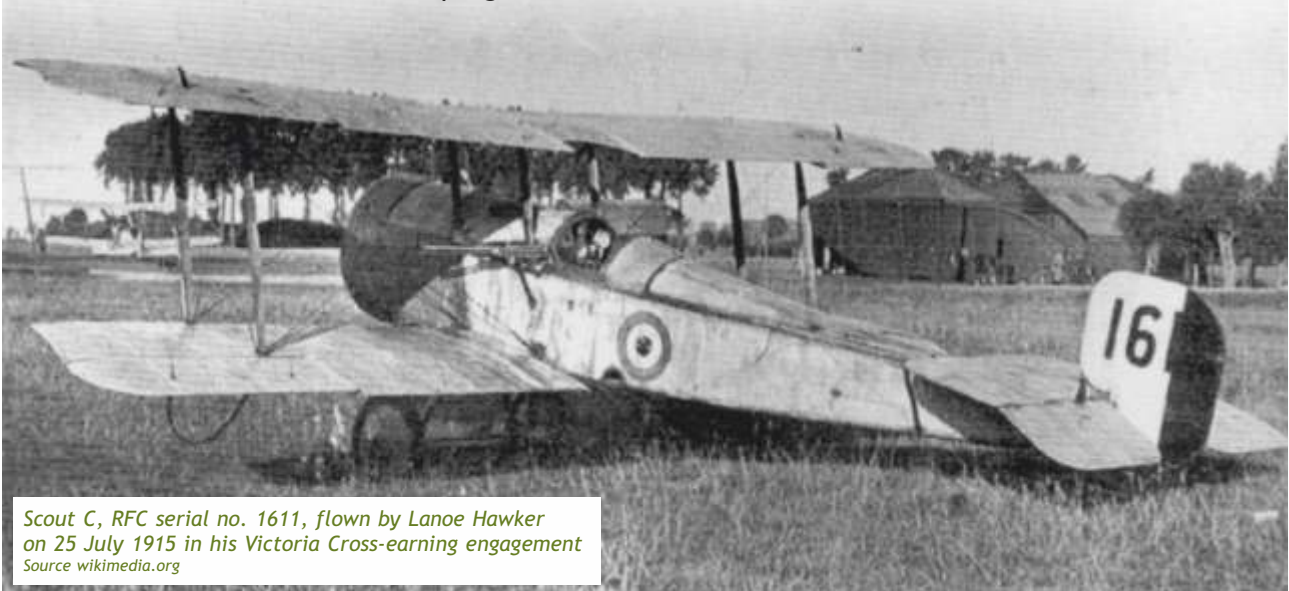
Grant, R.M., 2003, *U-Boat Hunters: Code Breakers, Divers and the Defeat of the U-Boats, 1914-1918*. Periscope Publishing Ltd

McCartney, I., 2003, *Lost Patrols: Submarine Wrecks of the English Channel*, Periscope Publishing Ltd

McDonald, K., 1994, *Dive Kent*, Underwater World Publications Ltd

Wessex Archaeology, 2008, *Aircraft Crash Sites at Sea: A Scoping Study Archaeological Desk-based Assessment* Unpublished report. Ref. 66641.02
<http://archaeologydataservice.ac.uk/>

survival of aircraft material on the seabed. Aircraft during the First World War were generally built from wood and linen, and therefore were relatively light, compared to the larger, heavier aluminium aircraft used during the Second World War, which are more likely to be identified on the seabed. Wrecks of aircraft from the First World War are extremely rare, and therefore would be considered to be particularly important. Additionally, all aircraft that were lost while in military service are automatically protected under the *Protection of Military Remains Act 1986*.



Scout C, RFC serial no. 1611, flown by Lanoe Hawker on 25 July 1915 in his Victoria Cross-earning engagement
Source wikimedia.org

Learn More!

Here are some events commemorating the start of the First World War that are local to some of the wharves involved in the Protocol.

Dover Castle, Kent

Want to learn more about shipping movements off the coast of Kent during the First World War? Why not explore the Admiralty Lookout at Dover Castle? During the First World War, Dover Castle played a key strategic role in the defence of Britain, and the signal station controlled shipping activity leaving and entering the newly created Admiralty harbour below the Castle.

<http://www.english-heritage.org.uk/daysout/properties/dover-castle/>

The Last Poppy Project, Essex

This website contains information about Essex during WW1, including a comprehensive list of local events and exhibitions.

<http://lastpoppyproject.wordpress.com/>

Tyne & Wear Museums, 'Wor Life'

Aggregate staff in the north-east can find out about life during the war in their area through a range of exhibitions, talks and events run through the 'Wor Life' project.

Find out more here:

<http://www.twmuseums.org.uk/worlife>

Royal Navy Submarine Museum, Hampshire

Ever wondered what it would be like to work on a submarine? Visit the Royal Navy Submarine Museum in Gosport, where you can go on board the very first Royal Navy submarine Holland 1, built in 1901. Although this submarine sunk in 1913 before the beginning of the First World War, it paved the way for later Royal Navy submarines. At the museum, there are lots of exciting hands-on activities for the whole family!

<http://www.submarine-museum.co.uk/>

Other English Heritage Properties

For other exciting days out inspired by the First World War visit:

<http://www.english-heritage.org.uk/daysout/inspireme/pick-of-season/first-world-war-connections/>



Dover Castle by Olivier Porez

To contact the Protocol team at Wessex Archaeology:
protocol@wessexarch.co.uk or call 01722 326 867