

Forgotten Wrecks
of the
First World War



LED BY IWM

2018

SS Gallia

Site Report





**FORGOTTEN WRECKS
OF THE FIRST WORLD WAR**

SS *GALLIA* SITE REPORT



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ii Copyright Statement

This report has been produced by the MAT with the assistance of funding provided by the Heritage Lottery Fund through their Heritage Grants Programme. Unless otherwise stated all images are copyright of the MAT.

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1 Project Background

Forgotten Wrecks of the First World War is a Heritage Lottery Funded project dedicated to raising the profile of a currently under-represented aspect of the First World War. While attention is often focused on the Western Front and major naval battles like Jutland, historic remains from the war lie, largely forgotten, in and around our seas, rivers and estuaries.

With over 1,100 wartime wrecks along England's south coast alone, the conflict has left a rich heritage legacy and many associated stories of bravery and sacrifice. These underwater memorials represent the vestiges of a vital, yet little known, struggle that took place on a daily basis, just off our shores. The study and promotion of these archaeological sites presents a unique opportunity to better interpret them and improve physical and virtual access.

The project focuses on underwater and coastal sites from the Isle of Thanet in Kent, to beyond the Isles of Scilly, and over half way into the English Channel. The sites include merchant and naval ships, passenger, troop and hospital ships, U-boats, ports, wharfs, buildings and foreshore hulks. These sites, under water and on the foreshore, have been degrading and deteriorating due to natural and human processes for approximately 100 years and, as a result, are extremely fragile. In many cases, this project represents a final opportunity to record what remains on the seabed and foreshore before it is lost forever.

The project aims to characterise the nature and extent of the maritime First World War archaeological resource surviving on the south coast's seabed and around the coast. This will enable an understanding of maritime activity just off our shores during the conflict and provide a window onto some of the surviving sites. While it will not be possible to visit and record all c.1,100 vessels dating to the First World War lost off the south coast of England, a representative sample of sites have been selected for more detailed study, analysis and interpretation.

This report collates information collected during the project, relating to one of the south coast's First World War wrecks, namely that of SS *Gallia*.

2 Methodology

2.1 Desk Based Historic Research

Research included a range of online sources, archives and publications.

Online information/sources

On-line research sources consulted for archive and documentary information include: Pastscape, Wrecksite EU, uboat.net, Wikipedia, War Graves Commission, the Imperial War Museum, The National Archives, the Great War Forum, Heritage Gateway, plus a general Google search. Those sources with information on the *Gallia* included:

Pastscape:	http://www.pastscape.org.uk/hob.aspx?hob_id=1148562
Wrecksite EU:	http://www.wrecksite.eu/wreck.aspx?128764
You Tube:	https://www.youtube.com/watch?v=SiQ3sBWZYNy
uboat.net	http://uboat.net/wwi/ships_hit/7042.html
Other URL:	https://en.wikipedia.org/wiki/List_of_shipwrecks_in_October_1917#24_October

Records at The National Archives

Research was further extended through visits to view relevant material held at The National Archives at Kew. A number of Admiralty records were consulted which gave reports pertaining to the sinking.

Documents relating to SS <i>Gallia</i>	Ref.	Where	Date accessed
English Channel: Particulars of Attacks on Merchant Vessels by Enemy Submarines	ADM 137/1344	TNA	2015
Certificate of British Registry	BT110-378	TNA	2015

2.2 Associated Artefacts

While the Forgotten Wrecks project had a non-recovery policy, where possible, the project aimed to 'virtually reunite' artefacts historically recovered from the Forgotten Wrecks. There are no records of any artefacts having been recovered from the *Gallia*.

2.3 Geophysical Data Sets

Consultation of the proposed Navitus Bay Wind Park, Preliminary Environmental Information 3 (Ch14 Offshore Archaeology) document took place to see if they held any geophysical data relevant to SS *Gallia*. The geophysical image located can be seen in Section 4.

2.4 Site Visit/Fieldwork

Forgotten Wrecks site visits and fieldwork aimed to:

- Provide opportunities for volunteers to access and take an active role in the recording and research of a range of different types of maritime First World War site.
- Record extant remains for heritage records.
- Record extant remains for public dissemination, enabling 'virtual' access for those not able to achieve physical access.

The most appropriate methods for site recording were chosen from the following, on a site-by-site basis including site sketch, measured survey, photography/photogrammetry and/ or video.

Forgotten Wrecks funded diving from the dive boat *Wight Spirit* took place on the wreck of SS *Gallia* on 25 and 26 June 2015.

Initial dives aimed to assess the condition of the remains and obtain a sketch drawing, then to build on this information with a measured sketch/survey and photographic recording where possible.

A total of nine divers (four professional divers from MAT and five volunteers) undertook a total of 764 minutes diving on the wreck over the two days. The dive team used self-contained breathing apparatus (SCUBA) with a breathing gas of Enriched Air Nitrox (EANx) using accelerated decompression procedures.

The diving conditions on both of the days that diving took place were exceptional with visibility estimated to be in excess of 30m which is an absolutely rare occurrence for this area.

3 Vessel Biography: SS *Gallia*

SS *Gallia* was chosen as one of the Forgotten Wrecks of the First World War as the geophysical survey instigated by Navitus Bay Wind Farm Ltd., produced a high resolution geophysical image of the *Gallia* with the identity described as 'possibly the *Gallia*'. Diving aimed to record features to help prove the identity.

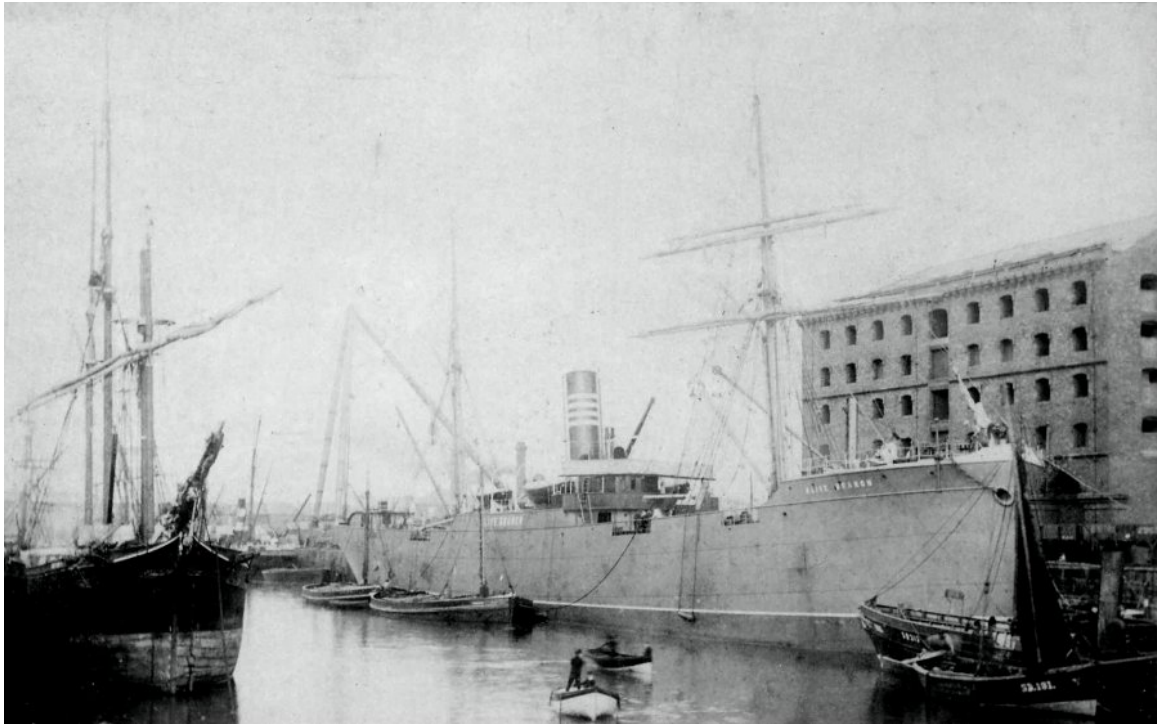


Figure 1: SS *Gallia* (courtesy of www.wrecksite.eu states copyright unknown)

3.1 Vessel Type and Build

SS *Gallia* was built by Bartram Haswell & Co, Sunderland, completed in 1887. *Gallia* was an Italian cargo ship carrying coal with a length of 91.4m a beam of 11.9m. With a gross tonnage of 2728 the ship was powered by a three cylinder triple expansion engine, a single shaft and one propeller.

3.2 Pre-war Career

SS *Gallia* started life as SS *Olive Branch* and was owned by Nautilus Steamship Co., Ltd from 1887 to approximately 1914, when sold to Medici Lucotti Cerrano, Genoa and the name changed to *Gallia*. At the time of loss, the ship was owned by Federazione Italiana Dei Consorze Agrari, Genoa and worked as a collier. It is reported that the vessel was armed with one 76mm gun (Wrecksite EU, 2001-2016. ADM137/1344).

3.3 First World War Use & Loss

SS *Gallia* was carrying coal from Tyne to Savonia under the command of Stefano Baracchini with 26 Italian crew on board. On the afternoon of 24 October 1917 suddenly, and without warning, it was torpedoed by the German submarine UB-40 24 nautical miles WNW of Portland Bill (Wrecksite EU, 2015).

Wrecksite EU puts the *Gallia's* position of loss on the chart in the same place as the wreck thought to be that of the *Gallia*, but also states its position of loss being WNW of Portland Bill which would put the wreck in Lyme Bay. Another source on Wrecksite EU quotes Maw (1999) who puts the position of loss as '6m off Beer head' which is a long way north and west of the wreck position. Pastscape (2015) states the position of loss as SE by S of Anvil point then quotes WNW of Portland from 1990 Lloyds War losses. SE by of Anvil point would put the position closer to the position of the wreck thought to be *Gallia*.

The torpedo hit the port side penetrating the engine room and the *Gallia* sank quickly, most of the crew got away in the large life boat while the pilot officers and a few other men left in the gig. The

men from both boats were picked up by the patrol vessel *Wyndham* and landed at Weymouth around 9pm where the Captain and three of the crew, who were injured, were taken to hospital.

It was reported that two of the crew were lost but one, the cook, had been rescued from the sea by the trawler *Florence* and transferred to another fishing boat who landed him ashore to be taken to hospital in Seaton. Contemporary records describe him as being “wounded and far from well”.

The incident report indicates that the two lookouts, two officers on the bridge along with the pilot and Captain did not see the periscope or track of the torpedo so thought it possible the ship had struck a mine but thought it more likely to have been UB-40 who claimed the hit (Sunderland Ships, 2017; Pastscape, 2015; Wrecksite EU, 2001-2017; Lloyd’s War losses, 1990).

3.4 Associated Vessels

The German submarine that claimed to sink the *Gallia* was the UB-40 commanded by Hans Howaldt who sank 63 ships in his career and survived the war. The submarine UB-40 was launched on 25 April 1916 and had a career which saw it responsible for the sinking of 99 ships, 15 ships damaged and one ship taken as a prize. The boat was scuttled on 5 October 1918 at Ostende during the German evacuation of Belgium (uboat net, 1995-2017).

4 Seabed Remains

4.1 Site Location and Environment

The wreck of the *Gallia* lies 11 miles SE by S off Anvil Point, Dorset in position 50.13333 -2.2166. The remains rest in around 40m of water on a sandy/shelly seabed.

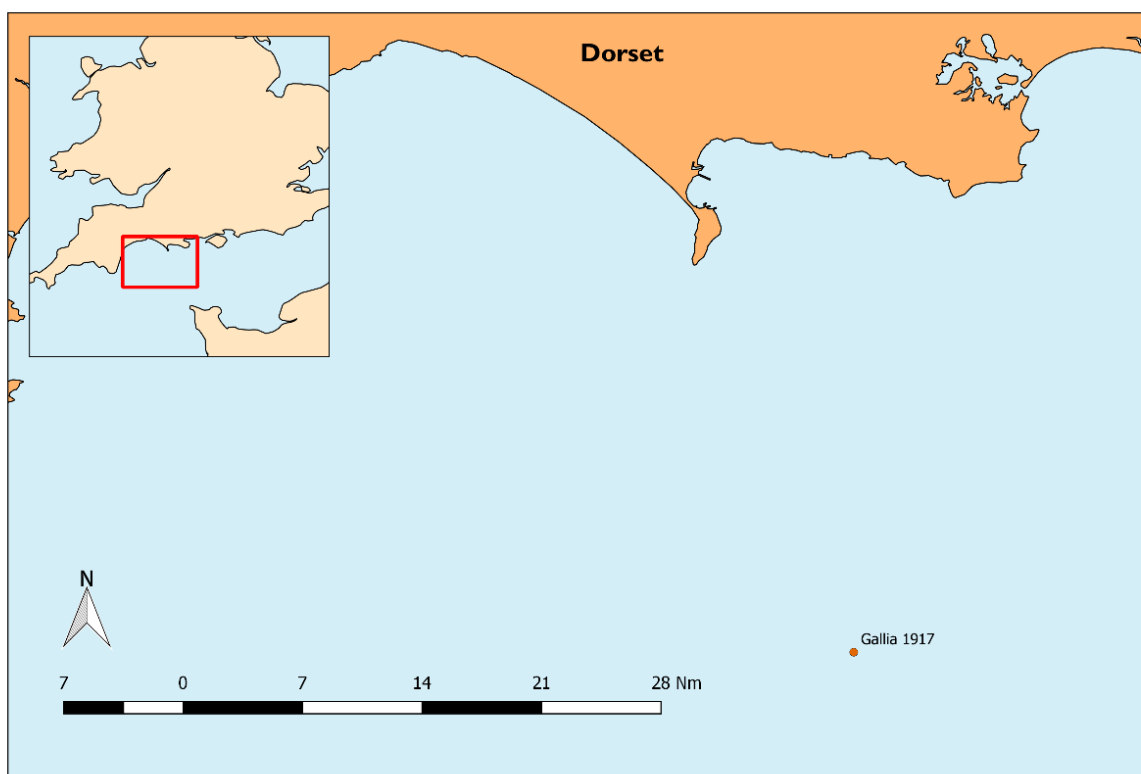


Figure 2: Location of SS *Gallia*

4.2 Archaeological Methodology

The work to be undertaken to attempt to prove the identity of the site as the *Gallia* included:

Visual survey

- Identify key features of the vessel for more detailed recording through photograph and video.
- Look for evidence of the cargo of coal

Photographic survey

- Gather general photographs of the wreck and divers on the wreck
- Photograph key features with archaeological scale from multiple angles
- Undertake photogrammetry to produce a 3D model

Video survey

- Conduct general video of the wreck and divers on the wreck
- Gain footage of key features of the wreck
- If conditions allow conduct a video 'tour' of the length of the wreck

Measured survey

- Take measurements of main features to help calibrate the 3D model

4.3 Description of Surviving Vessel Remains

The substantial remains of the wreck can be clearly seen in the geophysical image, lying towards its port side with the bow section collapsed. One of the boilers can be seen having rolled away from the wreck and an area of scour is evident leading away from the wreckage to the right of the structure (Figure 3).

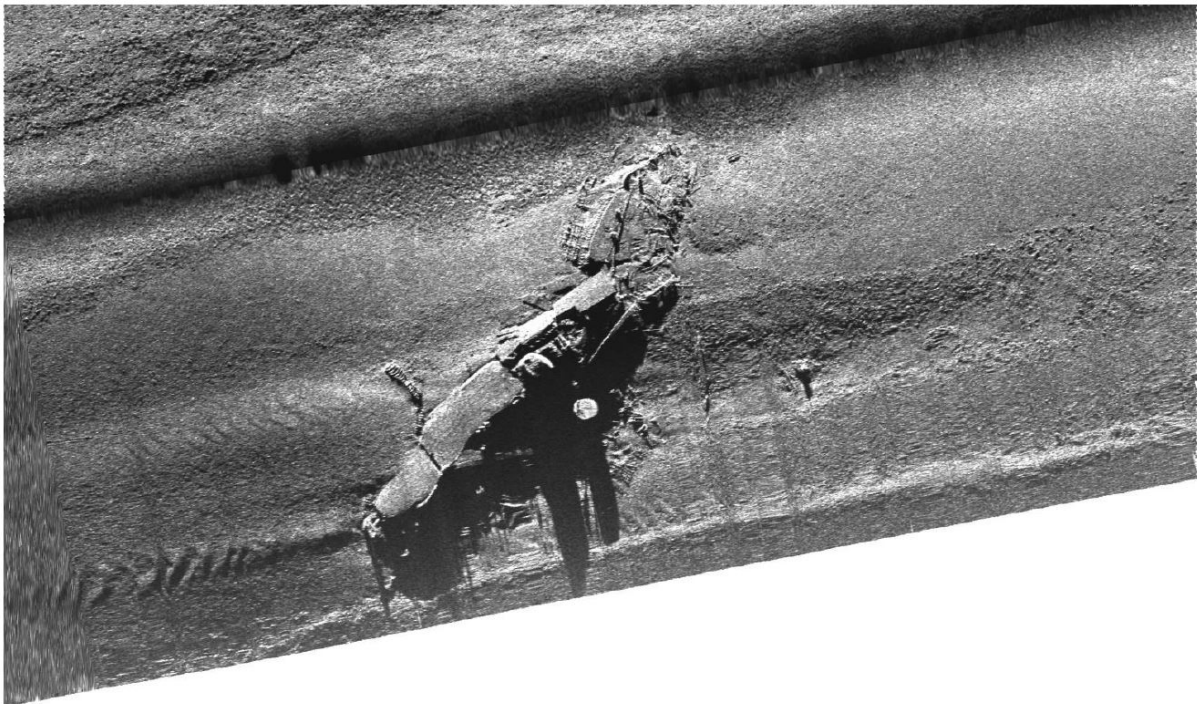


Figure 3: Geophysical image of SS *Gallia* (Courtesy of Navitus Bay Development Ltd)

From the geophysical survey data, it can be seen that the wreck is breaking up but not widely scattered. Due to the excellent visibility on the days that the diving took place this became apparent as a good overview of the wreckage could be made by divers on reaching the remains (Figure 4).

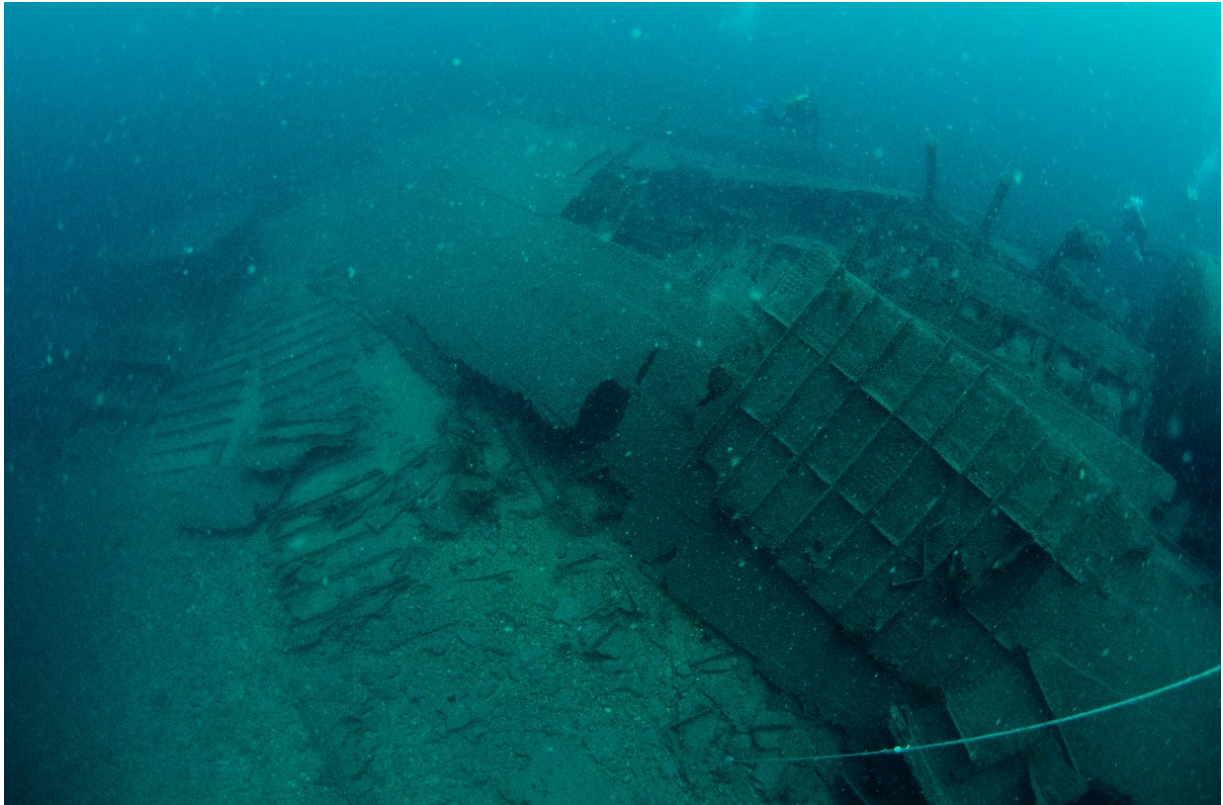


Figure 4: An overview seen by divers on reaching the wreck (Shot line can be seen in the right hand corner of the image, engine leg mounts can be seen sticking up towards the right hand side of the image)

The wreck lies in around 40m of water in a SW/NE orientation with the collapsed bow section pointing south west. Much of the hull plating is still in place and some of the larger features of the wreck, such as one of the three boilers, have rolled out onto the seabed (Figure 5).

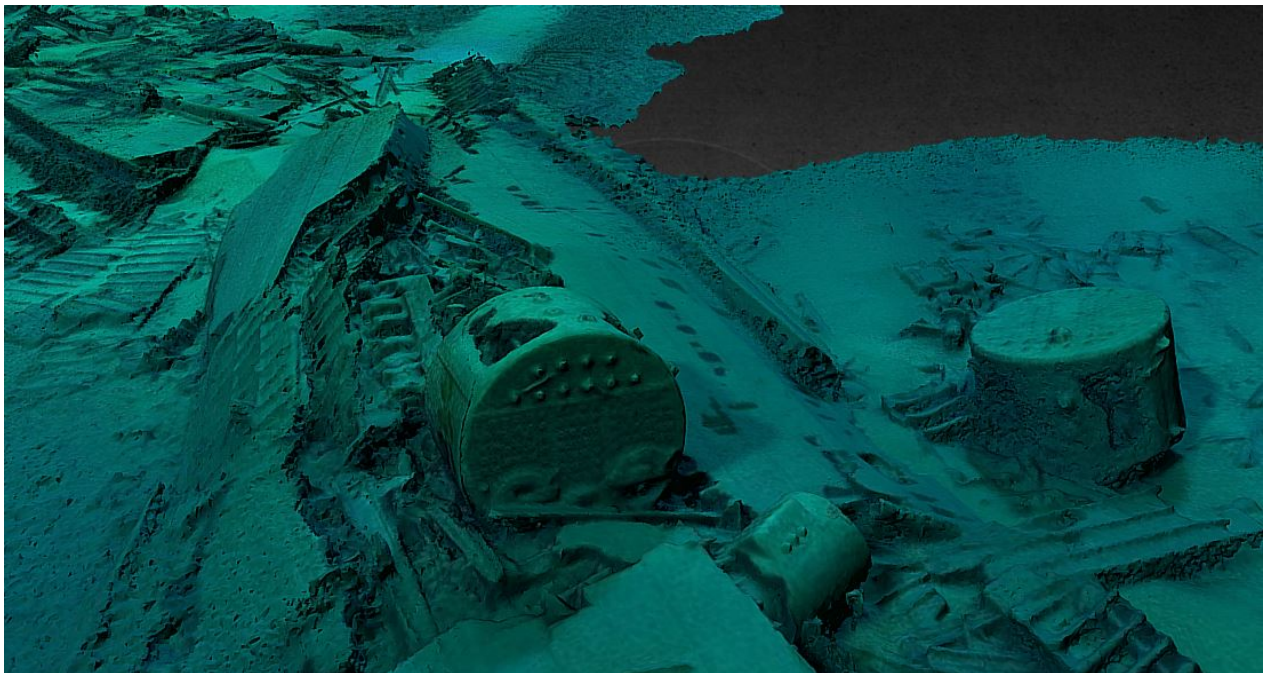


Figure 5: View of the three boilers with one lying on the seabed having rolled out of its mountings (screengrab taken from the 3D model)

The visibility was such that it enabled over 2,000 images to be taken using a Nikon D700 DSLR camera with a Tonkina fisheye 10-17mm lens and an Orcalight Seawolf 1860 underwater light over the whole length of the wreck and a 3D computer model produced (Figure 6). Divers took measurements of key identifiable features around the wreck to calibrate the 3D model.

The stern section is very collapsed and broken with a jumble of plates, frames and structural elements. This extends for about a quarter of the length of the ship before it meets more intact structure. The relatively broken section lies on the seabed at a different orientation to the main body of the vessel, from which it takes a turn of 30 degrees towards the north. This is reflected by the propeller shaft that is visible on the seabed.

The break in the wreck's orientation lies less than 15m from the engine. This would have happened when the vessel crashed into the seabed stern first. It was reported that a torpedo hit the ship in the engine room on the port side. The holed section would have caused the ship to list to port, initiating sinking from the stern. The part of the ship that hit the seabed first would have been weakened by the explosion which would explain why the wreck is more badly broken at the stern. The break would then have allowed the main section of the ship to twist and turn, resting on the seabed at a different angle.

The engine, being a three cylinder triple expansion steam engine, has fallen to the port. The pistons, measuring 3.9m in length with a circumference of 67cm, are resting on their side while the feet of the three engine mounts are inverted and rise up from the wreck (Figure 7 and 10). This provides evidence that the main section of the wreck turned as it sank and hit the seabed partially upside down; a wrecking process that would explain how the boilers had become dislodged from the vessel and why there is more structure lying to the south west. Much of this material would have fallen from the wreck as it sank. A drawing of a triple expansion steam engine standing on its 'leg' mounts can be seen in Figure 8, which helps to demonstrate the three mountings seen in the wreckage.



Figure 6: Photogrammetric image of SS *Gallia*



Figure 7: Engine area showing the engine mountings and pistons below

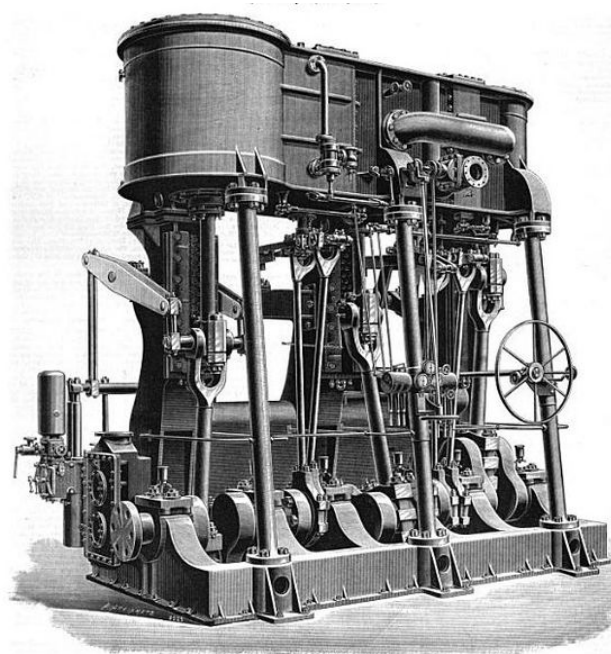


Figure 8: A drawing demonstrating how the triple expansion steam engine sits on its mountings (WikiMedia commons)

At the midships section a boiler with the fire tubes visible inside (Figure 9) has a length of 3m and sits inside the wreckage with the second boiler having rolled out onto the seabed beside the wreck, and is now lying 12.3m to the south east which can be seen in Figure 5. The donkey boiler (used as a smaller auxiliary boiler) lies within the wreck a few metres ahead of the larger one.



Figure 9: Boiler with fire tubes inside visible (the engine mountings can be seen standing up behind, and to the right of the picture the second boiler is just in view)



Figure 10: Divers on the wreck give scale to the remains in the exceptional visibility

Forward of the boiler, the bunker and holds are now hidden below the large sections of hull that have collapsed into the wreck. The configuration of the hull section is confused by the wrecking process that caused the vessel to breakup and turn. The structure covering the holds made it unsafe to investigate within the wreck meaning the cargo could not be identified. Coal was found near the propeller shaft but there was not enough to confirm it as cargo.

5 Site Significance & Potential Further Research

The identification of the site as '*Gallia*' is listed as 'possible' in several sources. Research and recording of the site as part of the Forgotten Wrecks project has gathered further information to help confirm this identity.

In many ways the *Gallia* is an example of the 'ordinary' rather than the 'extraordinary' ship that was in use and sunk during the First World War. As a 91 metre long cargo ship, powered by a triple expansion engine with a single screw the ship was of average size and powered by the most common type of engine. This does not diminish the significance of the role of the vessel or the archaeological potential of the remains as it is important to understand the typical ships operating at the time, especially when the remains are relatively coherent, although collapsed. So, despite being 'ordinary' the ability of the project team to visualise the entire wreck highlights the magnitude of wrecks such as this to have a powerful social and emotional impact, and with that, demonstrate their significance as underwater cultural heritage assets.

Gallia is one of 13 Italian steamships lost within the Forgotten Wrecks project area during the war. Of these 13, eight are recorded as carrying coal at the time of loss. Three of these losses are recorded as being armed at the time of loss, although there is potential for others to have been armed but for this not to have been recorded. Only one of these vessels, the *Quarnero*, is registered as being owned by the Italian Government (Ministry of Marine) at the time of loss, the others, like the *Gallia* being run by private shipping companies.

A report by Wessex Archaeology (2011) reviewed the assessment of ships and boats 1914-38, within this publication they outline a number of potential attributes a vessel would have to be able to contribute to 'special interest', one of these attributes is that the ship "illustrates a key narrative, for example the unrestricted submarine war of 1917-18". *Gallia* clearly falls within this category. Although the numbers of vessels within this broad group are large, *Gallia* has additional special interest as it was an Italian owned ship, and it is believed to be the only one lost which was owned by the Italian Government within this south coast area.

An additional factor put forward for contributing to 'special interest' is whether there has been archaeological investigation of a wreck (2011: 26), this is due to the rarity of planned archaeological work on vessels of this period. As such the work undertaken on the *Gallia* which has gathered data to produce a detailed 3D model of the site, is now helping enhance it's significance.

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7 Appendices

Video held by the MAT:

Publishing date	In MAT Archive	Publisher	MAT
Last accessed	2017	Licence	None
Length	2 min 15 secs	Description	Dive footage
Notes: Tour of part of SS <i>Gallia</i> , concentrated around the boilers and engine area. Excellent visibility.			