

Forgotten Wrecks
of the
First World War



LED BY IWM

2018

SS Maine

Site Report





**FORGOTTEN WRECKS
OF THE FIRST WORLD WAR**

SS MAINE
(Sunk 23 March 1917)
SITE REPORT

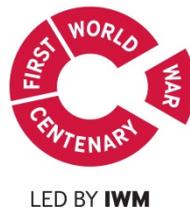


Table of Contents

i. Acknowledgments.....	3
ii Copyright Statement.....	3
iii List of Figures.....	3
1. Project Background.....	4
2. Methodology.....	4
2.1 Desk Based Historic Research.....	4
2.2 Associated Artefacts.....	5
2.3 Site Visit/Fieldwork.....	5
3. Vessel Biography: SS <i>Maine</i>	6
3.1 Vessel Type and Build.....	7
3.2 Pre-war Career.....	7
3.3 First World War Use & Loss.....	7
3.4 Associated Vessels.....	8
3.5 People Associated with the SS <i>Maine</i>	8
3.6 Post-loss Activity.....	9
4. Seabed Remains.....	10
4.1 Site Location and Environment.....	10
4.2 Archaeological Methodology.....	10
4.3 Description of Surviving Vessel Remains.....	11
4.4 Changes to Site Remains over Time.....	20
5. Recovered Artefacts.....	20
6. Site Significance & Potential Further Research.....	22
7. Bibliography.....	22

i. Acknowledgments

The Forgotten Wrecks of the First World War project was generously funded by the Heritage Lottery Fund through their Heritage Grants Programme.

MAT would like to thank all the volunteers who gave up their time to help with research and to dive on the SS *Maine* - Andrew Daw, Mark Hobbs, Izzy Holley, Jane Maddocks, Richard Wood, Kyle Abbots. We would also like to thank a number of people for their help with providing images for this report: John Liddiard, Max Ellis, Richard Wood and Richard Knights.

MAT staff involved in fieldwork: Jan Gillespie, Christin Heamagi, Garry Momber.

Mat staff involved in researching and reporting: Jan Gillespie, Jasmine Noble Shelley, Julie Satchell.

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.

iii List of Figures

FIGURE 1: SS <i>MAINE</i> WHEN IT WAS <i>SIERRA BLANCA</i>	6
FIGURE 2: SS <i>MAINE</i> AS VIEWED FROM THE BOW	7
FIGURE 3: RAISING THE <i>MAINE</i> PROPELLER BY TORBAY BSAC	9
FIGURE 4: LOCATION OF THE SS <i>MAINE</i>	10
FIGURE 5: DIVER CARRYING OUT PHOTOGRAMMETRY NEAR THE STERN OF THE <i>MAINE</i>	11
FIGURE 6: DRAWING OF SS <i>MAINE</i> (COPYRIGHT: JOHN LIDDIARD AND MAX ELLIS, WITH PERMISSION)	12
FIGURE 7: DRAWING OF SS <i>MAINE</i> (COURTESY OF RICHARD WOOD: WWW.TOTNES-BSAC.CO.UK/WRECKS.PHP)	12
FIGURE 8: LOOKING INTO OPEN GIRDERS BELOW THE UPPER DECK	12
FIGURE 9: ANCHOR AMONGST HULL PLATES.....	13
FIGURE 10: TWO MAIN BOILERS (COURTESY RICHARD KNIGHTS HTTPS://WWW.YOUTUBE.COM/WATCH?V=O4YT5ZTXSC)	13
FIGURE 11: TRIPLE EXPANSION ENGINE (COURTESY RICHARD KNIGHTS HTTPS://WWW.YOUTUBE.COM/WATCH?V=O4YT5ZTXSC).....	14
FIGURE 12: DECK WINCH NEAR THE STERN	14
FIGURE 13: LADDER STILL IN PLACE IN HOLD NO 3 (COURTESY RICHARD KNIGHTS HTTPS://WWW.YOUTUBE.COM/WATCH?V=O4YT5ZTXSC).....	15
FIGURE 14: COILED ROPE ON THE STERN DECK.....	15
FIGURE 15: REMAINS OF FALLEN AFTER MAST LYING ACROSS THE DECK	16
FIGURE 16: BOLLARDS FALLEN FROM THEIR MOUNTS.....	16
FIGURE 17: A LADDER LIES ON THE POOP DECK NEARBY THE BOLLARDS.....	17
FIGURE 18: COUNTER STERN	17
FIGURE 19: RUDDER POST FIXTURE	18
FIGURE 20: END OF PROP SHAFT	18
FIGURE 21: VIEW LOOKING UP UNDERNEATH STERN	19
FIGURE 22: GUN MOUNT NOW ON THE SEABED.....	19
FIGURE 23: MARINE GROWTH COVERS PLATES	20
FIGURE 24: SHIPS BELL FROM THE <i>MAINE</i> (PHOTO AND PERMISSION RICHARD WOOD, TORBAY SUB AQUA CLUB)	21

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, created as part of the MAT's Heritage Lottery funded, Forgotten Wrecks of the First World War project, collates information relating to one of the south coast's First World War wrecks, namely that of *SS Maine*.

2. Methodology

General detail on the methodologies employed during the project are outlined within *Forgotten Wrecks of the First World War: Project Methodology Report*, this report section concentrates on approaches and resources in relation to *SS Maine*.

2.1 Desk Based Historic Research

Research to gather information on the *SS Maine* and its crew took revealed a range of primary and secondary sources.

Online information/sources

The following is a list of websites in which information pertaining to the *Maine* was found:

Pastscape:	http://www.pastscape.org.uk/hob.aspx?hob_id=832169
Wrecksite EU:	http://www.wrecksite.eu/wreck.aspx?555
You Tube:	https://www.youtube.com/watch?v=OpeS4FMm_gE https://www.youtube.com/watch?v=E_Vt9_zGLM
Uboat.net	http://www.uboot.net/wwi/boats/index.html?boat=UC+17
Other URL:	http://www.atlantictransportline.us/content/40Maine.htm

	http://www.divernet.com/wreck-tours/p301712-wreck-tour:-1the-maine.html http://indepthphotography.co.uk/wp-content/uploads/2015/11/SCUBA-SS-Maine.pdf http://www.rod-macdonald.co.uk/index.php/English-Wrecks/ss-maine.html http://www.totnes-bsac.co.uk/wrecks.php
Historical RFA:	http://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MDV42472&resourceID=104

Records at The National Archives

Research was further extended through visits to view relevant material held at The National Archives at Kew:

What	Ref.	Where	Date accessed
English Channel: German submarines, March 1917	ADM 137 - 1294	TNA	2016
British Merchant Vessels sunk and captured by the enemy January – April 1917	ADM 137 - 2961	TNA	2016

BT365 Board of Trade and successors: War Risk Insurance Records

The War Risk Insurance records, comprising ledgers recording claims for values of ship cargoes lost by sinking during the First World War, were consulted at The National Archives (TNA). While they do not provide a complete list of cargo carried on a vessel, they can provide an interesting insight into the nature and insurance value of some of the cargo on board when the ship was lost. The MAT is grateful to Kyle Abbots for sharing his research collected over many years from The National Archives. The *Maine* was included within these records and detail of some of the cargo is included in Section 3.

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.

The following sources were consulted for information about artefacts associated with the SS *Maine*:

- Receiver of Wreck (RoW) Amnesty Database of reported finds;
- Divers and Dive Clubs
- Wrecksite EU search
- General online search

The following artefacts were discovered, see Section 5 for more details.

RoW records:	Seven portholes (Droit A/248), brass light fitting (Droit A/269), brass porthole backplate (Droit A/510) Firehose adaptor (Droit A/578) Valve (Droit A/2876), Porthole and wooden hinge bracket and door hinge and six shell cases (Droit A/3706) Porthole (Droit A/4048)
Other private collections:	Ships Bell (Torbay BSAC), 4.7in stern gun, bronze propeller, Spare Iron propeller

2.3 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: site sketch, measured survey, photography and/ or video.

Forgotten Wrecks diving from the dive boat *Falcon II* took place on the wreck of the *SS Maine* on 31 June 2016. Initial dives aimed to assess the condition of the remains and obtain a sketch drawing, then to build on this information with measured survey and photographic recording where possible.

A total of five divers undertook a total of 272 minutes diving on the wreck. The dive team used self-contained breathing apparatus (SCUBA) with a breathing gas of enriched air nitrox (EANx) using accelerated decompression procedures. Visibility was reported to be around 8m but the light was low which interfered with the shutter mechanism on the cameras requiring divers to be close to the wreck to obtain images.

3. Vessel Biography: *SS Maine*

SS Maine (Figure 1 and 2) was chosen as one of the Forgotten Wrecks case study sites because storms in recent years have caused changes to seabed levels which have affected the remains. As the wreck has been dived for many years there is an archive of photographs and video that can be used to map changes to the site over time.

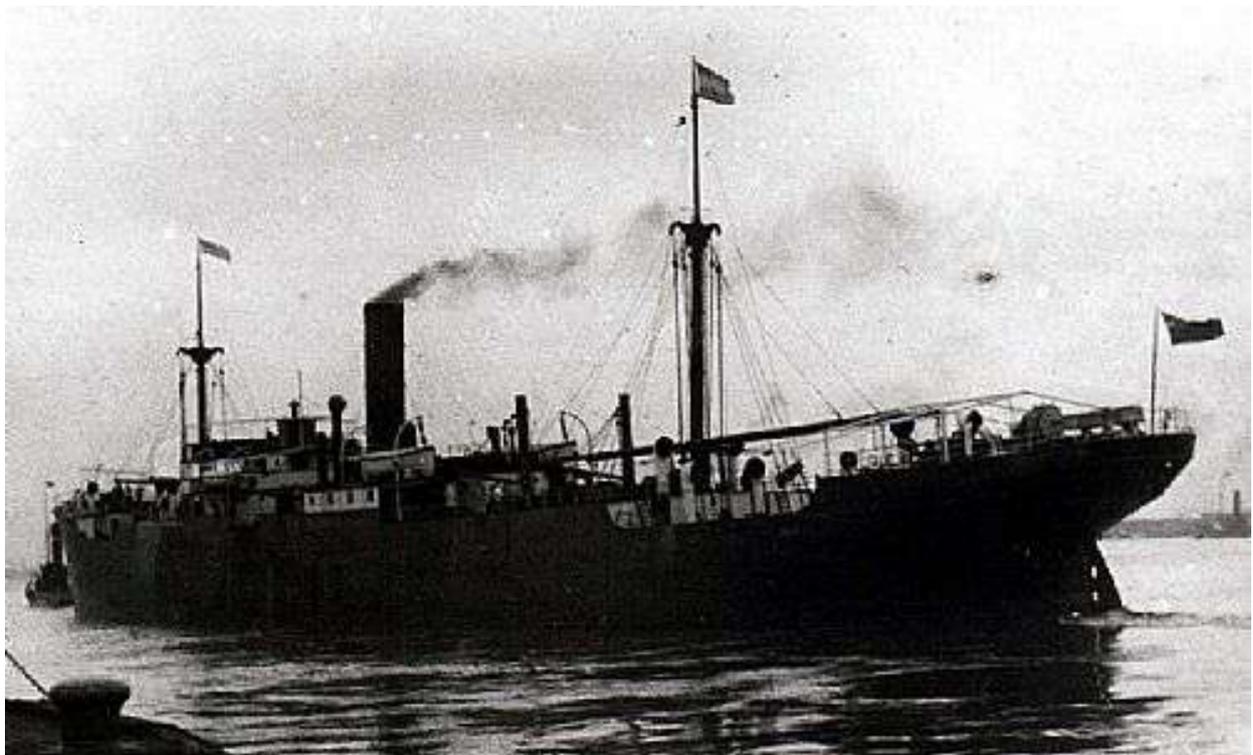


Figure 1: *SS Maine* when it was *Sierra Blanca*

(Source: <https://www.wrecksite.eu/wreck.aspx?555> states copyright unknown)

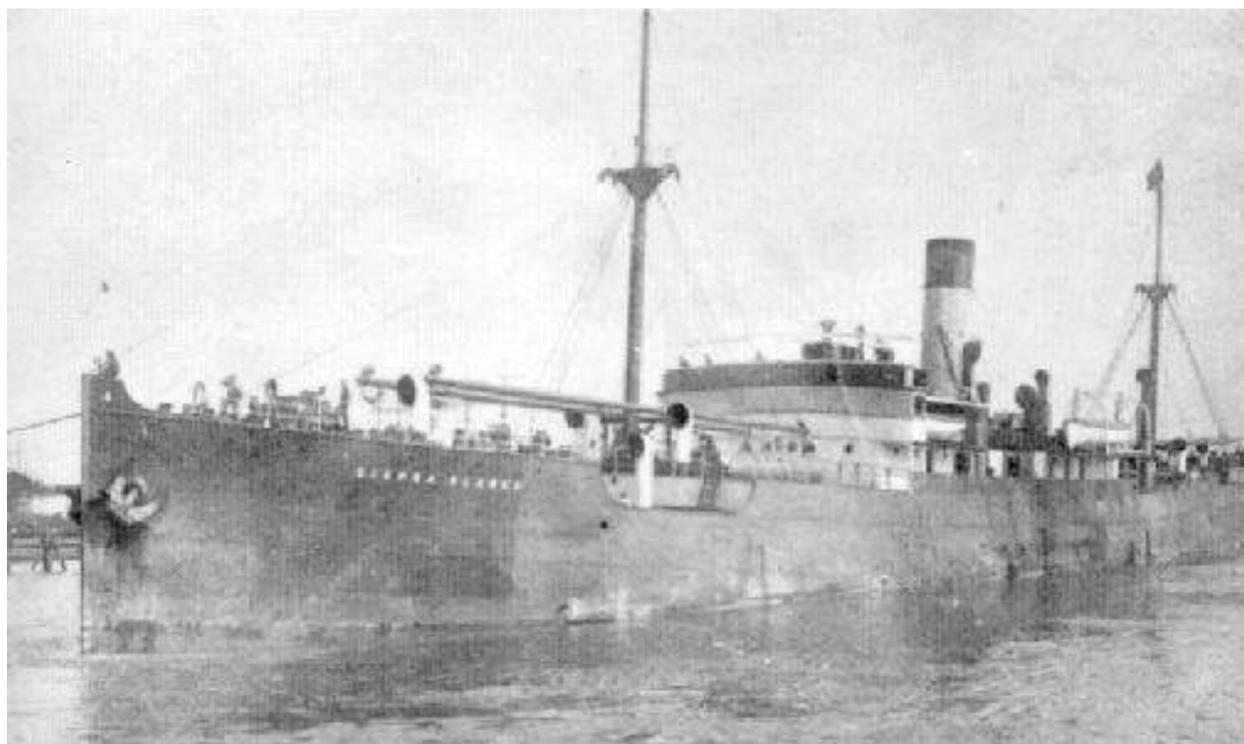


Figure 2: SS *Maine* as viewed from the bow
(Source: <https://wrecksite.eu/imgBrowser.aspx?191> no copyright stated)

3.1 Vessel Type and Build

SS *Maine* was built by W&D Henderson & Co in Glasgow and launched on 4 November 1904. The vessel was a single screw steam driven cargo ship with a three cylinder triple expansion engine with three boilers, having a gross tonnage of 3,616 tons. The 375 ft (c.114.3m) long ship had a beam of 46ft (c.14m).

3.2 Pre-war Career

The ship was built for the Sierra Blanca Steam Shipping Company of Liverpool (Thompson, Anderson & Co.) and named the *Sierra Blanca*. In 1913 it was acquired for the Atlantic Transport Line for \$38,500 and was renamed *Maine* (The Atlantic Transport Line 2005-2014). Although a freighter, *Maine* occasionally carried small numbers of passengers. The National Archives at Kew preserve a list of passengers landed by *Maine* at Plymouth and London in October 1915; on that occasion the ship had sailed from Philadelphia.

3.3 First World War Use & Loss

The *Maine* was a British vessel, owned by the Atlantic Transport Line and was operated at the time of loss by The Atlantic Transport Line (official number 120821). During the war the vessel was armed with one x 4.7in gun at the stern (Heritage Gateway, 2012). At the time of the sinking the *Maine* was on route from London bound for Philadelphia and was carrying a 50 tons of general cargo, including cowhair, horsehair, goatskins and fenugreek seeds, and 500 tons of chalk. The Board of Trade War Risk Insurance Records provide during detail on elements of the cargo and its specific value (see table below). The goat skins are the most valuable element of the cargo, with 'sporting rifles' appearing as the lowest value element of cargo claimed for.

Date of settlement	Insurer	Claimant	Nature of Goods	Value (£)
01/05/1917	B.M +J Strauss	Thomas Stephens + Sons Ltd	Cargo	110
02/05/1917	William Evans	Wingate + Johnstone	Sporting Rifle	25
03/05/1917	Forwood + Sellar	Hamilton Smith + Co	Fenagreek Seed	500
11/06/1917	De. Clermont + Donner	De. Clermont + Donner	Raw Goat Skins	900

On 23 March 1917, when the *Maine* was 13 miles south of Berry Head in Devon, a torpedo from *UC-17* hit the port side of the ship just forward of the bridge by No 2 hold. The blast blew the hatches off the holds, smashed the port gig and wrecked the bridge. It also blew a great hole in the side of the hull through which seawater poured on to the cargo. Hoping he might beach the ship, Captain Bill Johnston sent distress calls and set course for the nearest land with the engines still running; he tried to beach the vessel west of Start Point. The engine room and stoke hold were filling with water so they had to be abandoned and he was forced to stop.

At 9.30am assistance came from torpedo boat No 99 and later a patrol boat that attached cables and attempted to tow the ship to Start Point. At noon the bulkheads gave way and the Master, First and Second Mate, Bosun and cook (who were the only ones left on board as the rest of the crew having been taken off by the torpedo boat) eventually took to the gig to be rescued by the yacht *Lorna*. The *Maine* sank 2 miles south of Bolt Head at 12.45pm “gracefully upright and on an even keel”, no lives were lost. The ships masts still showed above the surface and a “Notice to Mariners No370, 1917” was issued warning of the dangers. The masts later collapsed and the vessel was wire-swept in 1920 (Pastscape, 2015; Wrecksite EU, 2016).

3.4 Associated Vessels

SS Maine was torpedoed by *UC-17* a UCII type U-boat captained by Oberleutnant Ralph Wenninger. *UC-17* was built by Blohm & Voss in Hambury (Werk 267) and launched on 29 February 1916, it was commissioned on 21 July 1916. During the U-boats operational life of 21 patrols, it sank 96 ships which totalled 144,423 tons of shipping with a further nine ships damaged at a total of 27,855 tons. On 26 November 1918 *UC-17* was surrendered and broken up in Preston in 1919-20 (u-boat.net).

Torpedo boat No99 that came to the aid of the *Maine* and took off most of the crew then took it in tow, was under the command of Percy Taylor DSC of the Royal Navy Reserve.

3.5 People Associated with the *SS Maine*

The Captain of the *Maine* was William Johnston, gunners were Ian Ramsey and William Mackintosh. The National Archives at Kew preserve a list of passengers landed by *Maine* (III) at Plymouth and London in October 1915, following passage from Philadelphia.

3.6 Post-loss Activity

The wreck was discovered by Torbay BSAC in the summer of 1961 and first seen by Dereck Cockbill, at this time the vessel was reported to be virtually intact. Torbay BSAC purchased it for £100 and later salvaged the bronze propeller which had "Stone's Bronze, London 1904" stamped on it (Figure 3). Research revealed its weight to be six and a quarter tons and it was sold for £840. The gun on the stern was later salvaged as was the spare iron propeller which was reportedly on display at the Victoria Shopping Centre, Paignton. In 1987 the ship's brass bell was recovered by two divers paying their first visit, they presented it to Torbay BSAC (Totnes Sub-Aqua Club), also see Section 5 for a photograph of the bell. The wreck continues to be a popular site for sport divers.

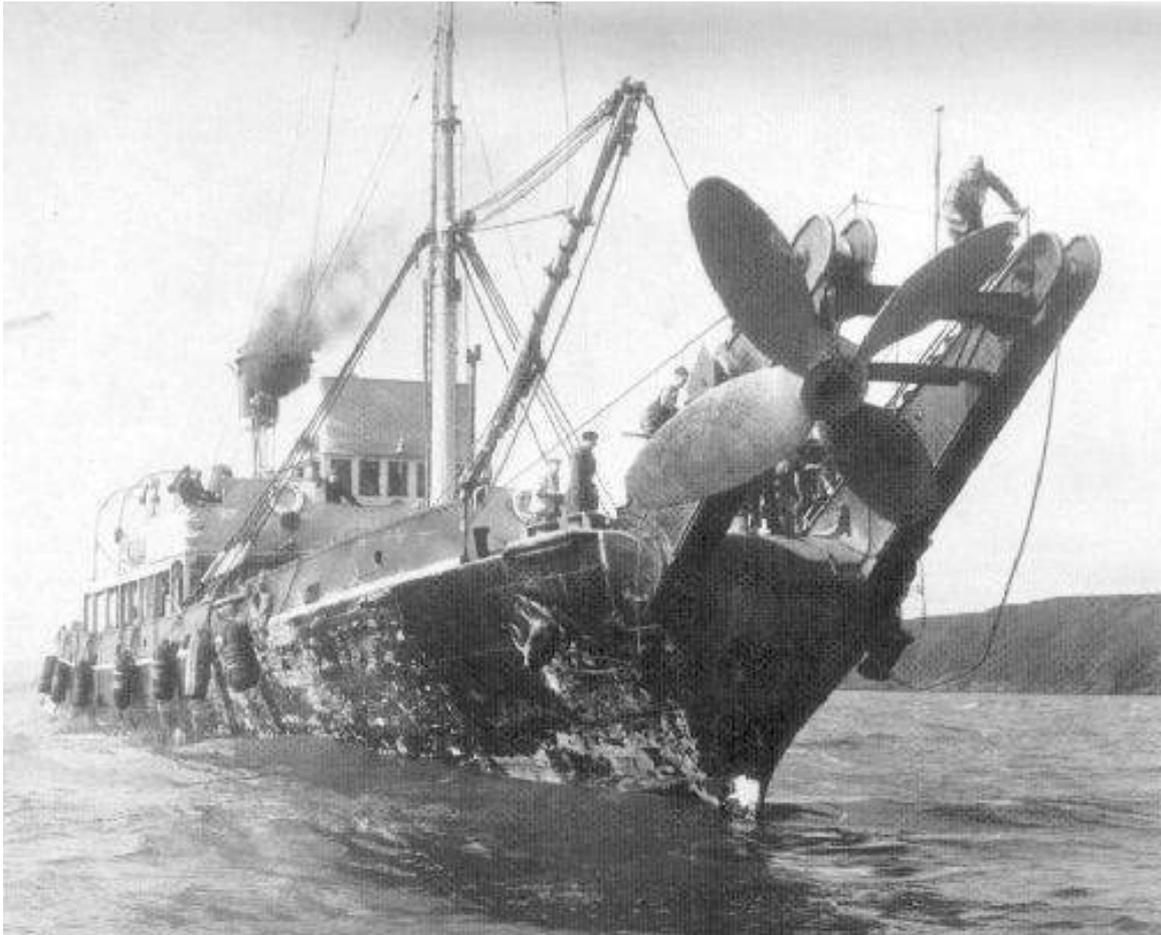


Figure 3: Raising the *Maine* propeller by Torbay BSAC
(<http://www.wrecksite.eu/wreck.aspx?555> no copyright stated)

4. Seabed Remains

4.1 Site Location and Environment

SS Maine sits upright off Bolt Head on a flat seabed of sand, shingle and mud in position 50.21361 - 3.8483 WGS84 (UKHO) (Figure 4). The wreck stands approx. 28ft (c.8.5m) high with around a 52ft (c15.8m) to 4ft (c1.2m) scour (Pastscape, 2015).

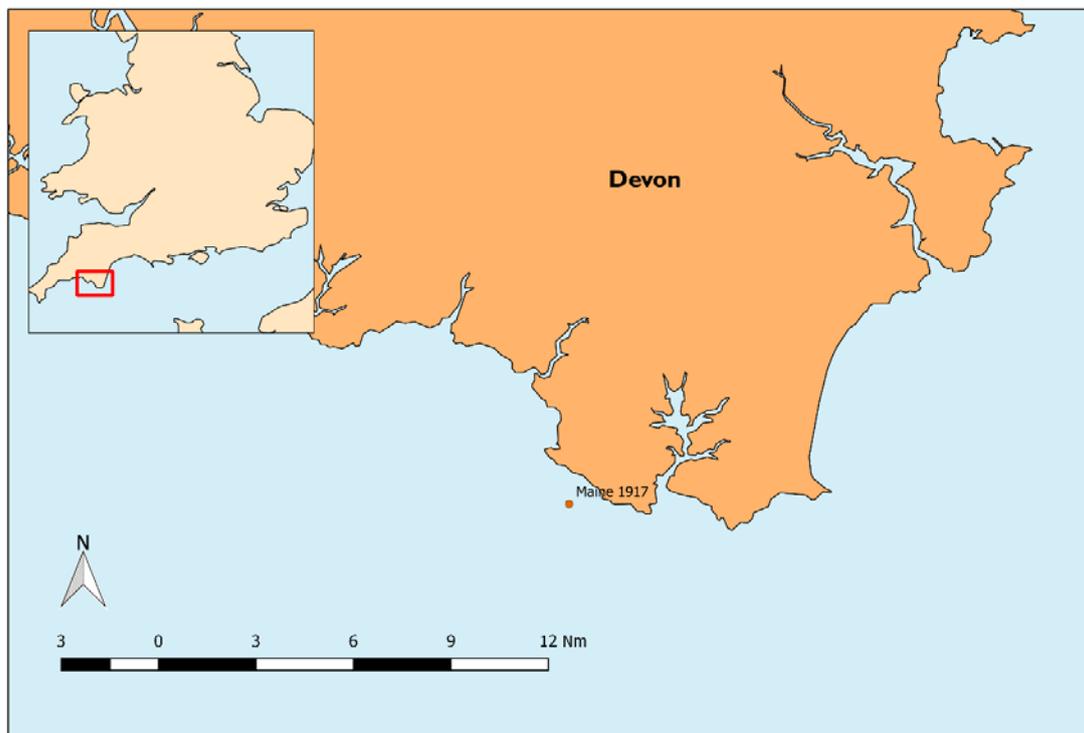


Figure 4: Location of the *SS Maine*

4.2 Archaeological Methodology

The aim of the dive on the *Maine* was to obtain photogrammetry of the wreck, or a section of the wreck (depending upon visibility). This series of photographs could then be used for assessment of the features visible on the site. This method allows close examination of features of the wreck.

To obtain this, two divers took an overlapping series of photographs, one diver using a Nikon D7000 and the other a Nikon D200 held within underwater camera housings. They each carried an Orca 3000 Lumin light each to illuminate the wreck as much as possible as conditions were fairly dark (Figure 5).

The divers concentrated on the stern of the vessel for the photogrammetry following a course from the seabed at the stern, up and across the poop deck and lower hold over to the edge of the upper deck. Other divers measured key features and depth and time recordings were taken against various features.



Figure 5: Diver carrying out photogrammetry near the stern of the *Maine*

4.3 Description of Surviving Vessel Remains

The ship is standing upright in around 35m of water on a sand and shingle seabed with the highest part being at the bow. The remains are fairly well intact and covered with marine growth (Figures 6 and 7). The masts have now been removed and the wreck has been swept to deck level as the upper works were a hazard to shipping. It is reported as being one of the most popular dives in Devon (Wrecksite EU, 2001-2016).

The wreck is broken up where the torpedo hit on the port side of the hull, as seen in Figure 6 which is an image by John Liddiard and Max Ellis created in 1999 (numbers on the image relate to a Diver Tour which can be accessed here: <http://archive.divernet.com/wreck-tours/p301712-wreck%20tour:%201,%20the%20maine.html>), this area gives access to the forward holds amid the remains of the deck and bulkheads where it is collapsing. The starboard side of the hull is more intact, as shown in Figure 7, a drawing by Richard Wood created in 2001 (Totnes BSAC). There is a hole on the starboard side which gives entry to the back of number two hold and there are many places to see inside the wreck (Figure 8). The holds are cavernous which is testament to the ships construction being built to carry substantial cargoes.

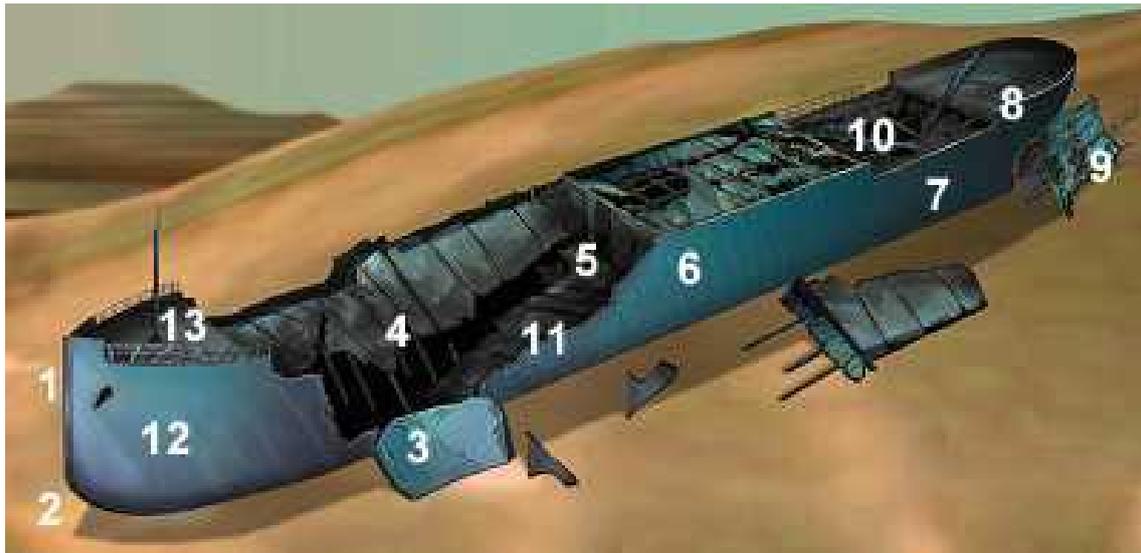


Figure 6: Drawing of SS *Maine* (copyright: John Liddiard and Max Ellis, with permission)

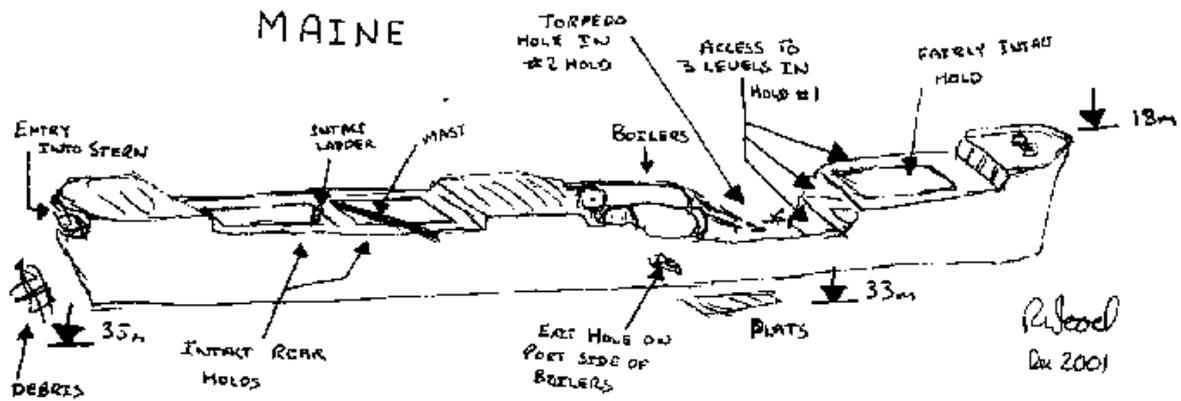


Figure 7: Drawing of SS *Maine* (Courtesy of Richard Wood: www.totnes-bsac.co.uk/wrecks.php)



Figure 8: Looking into open girders below the upper deck

At the bow there is debris on the seabed and nearby the starboard anchor lies amongst collapsed plates (Figure 9).



Figure 9: Anchor amongst hull plates

Swimming above the collapsed deck it is possible to swim into the engine room where the two main boilers (Figure 10) and triple expansion engine are sitting in the midships section, in front of these is the third boiler. The length of the main boilers is 350cm, the engine block measures 666cm from the front edge to the rear edge (Figure 11).



Figure 10: Two main boilers (Courtesy Richard Knights <https://www.youtube.com/watch?v=o4yTy5ZTXSc>)



Figure 11: Triple expansion engine (Courtesy Richard Knights <https://www.youtube.com/watch?v=o4yTy5ZTXSc>)

Moving further aft along the deck a winch is present with the drum and warp ends (Figure 12) before reaching the hold with the hatch coaming which measures 680cm. A ladder leading down into the hold is still in place (Figure 13).

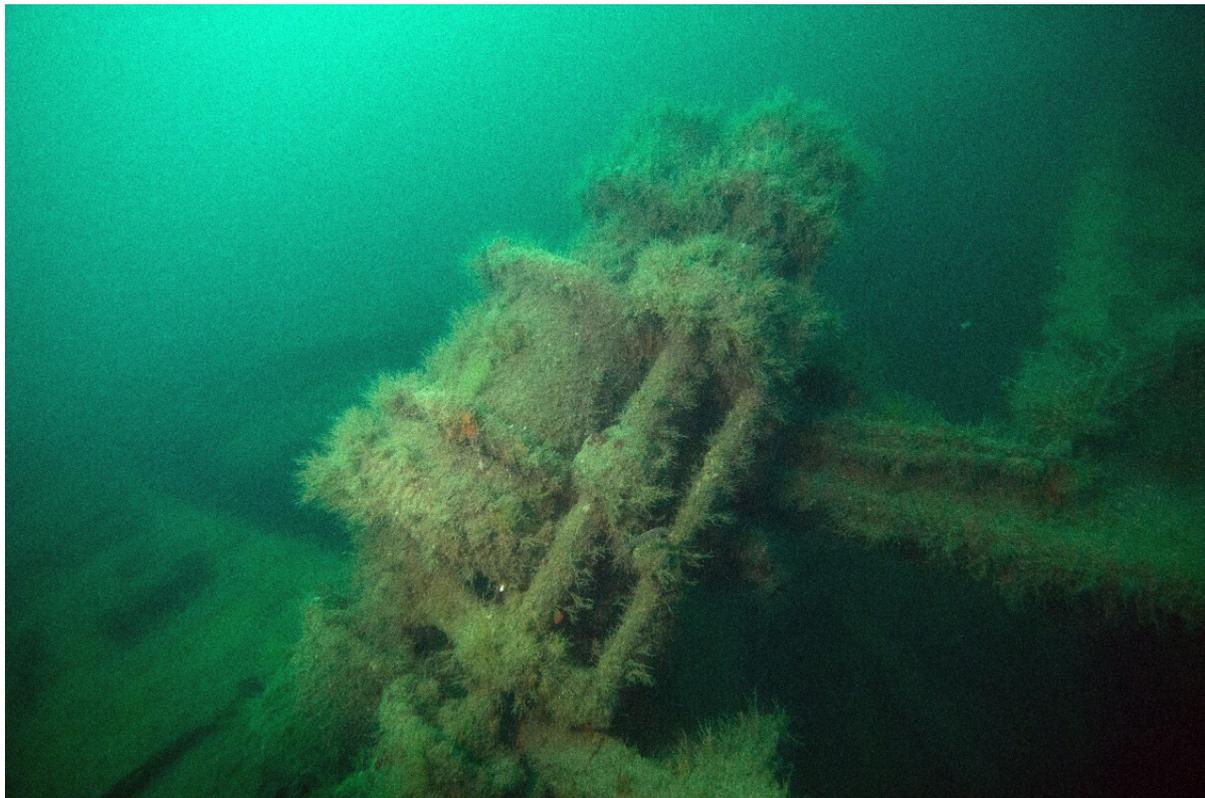


Figure 12: Deck winch near the stern



Figure 13: Ladder still in place in hold no 3 (Courtesy Richard Knights <https://www.youtube.com/watch?v=o4yTy5ZTXSc>)

Rope is still coiled on the back deck amongst metal fittings and debris (Figure 14) and the after mast, thought to have been flattened during a wire-sweep, lays across the deck (15).



Figure 14: Coiled rope on the stern deck



Figure 15: Remains of fallen after mast lying across the deck

Reaching the poop deck at the stern end of the ship bollards can be seen fallen from their mounts with a ladder lying nearby (Figures 16 and 17).

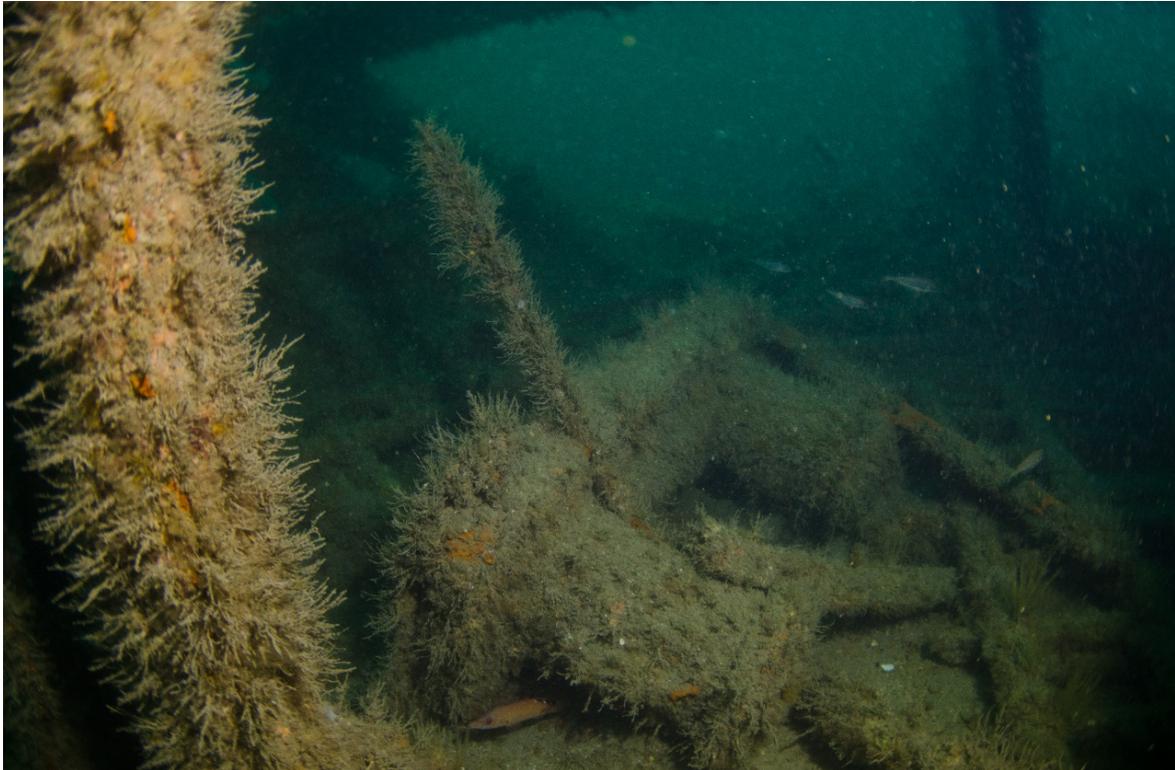


Figure 16: Bollards fallen from their mounts



Figure 17: A ladder lies on the poop deck nearby the bollards

Continuing to the stern of the ship, the once graceful counter stern is still discernible (Figure 18) and looking down from here the fixture for the rudder post is still recognisable (Figure 19).



Figure 18: Counter stern

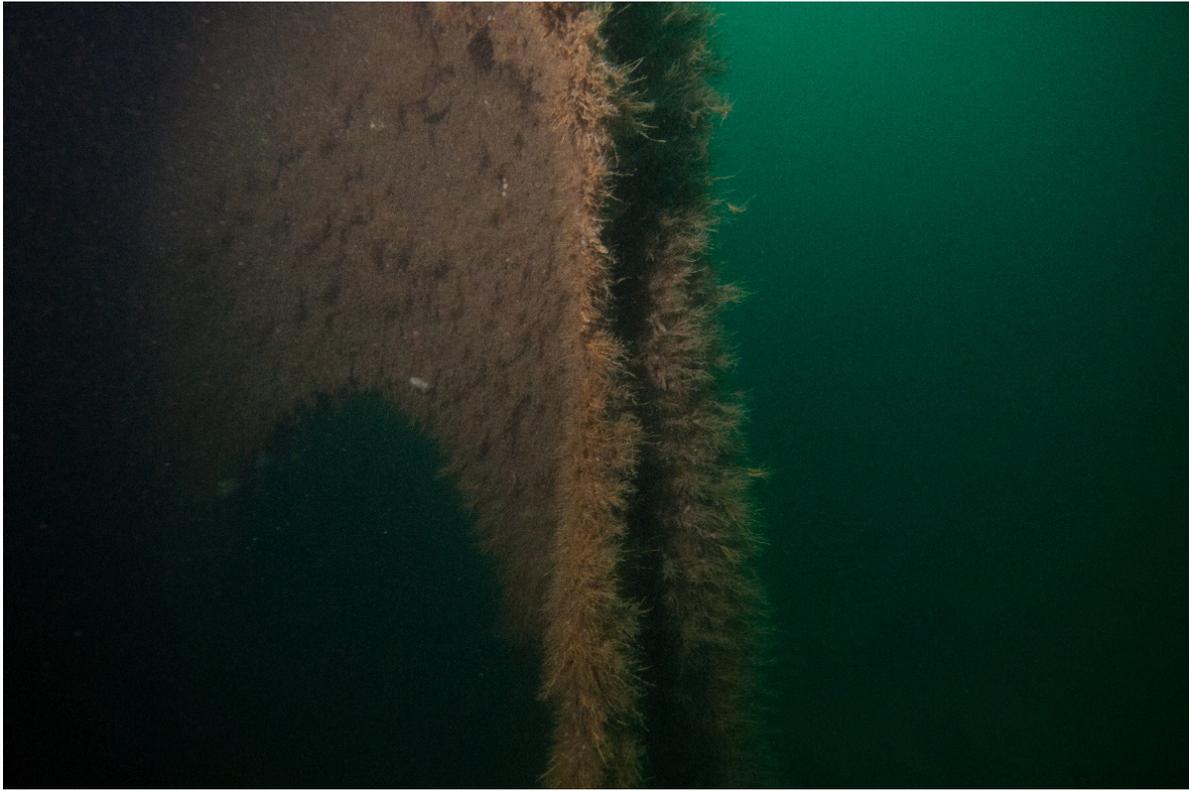


Figure 19: Rudder post fixture

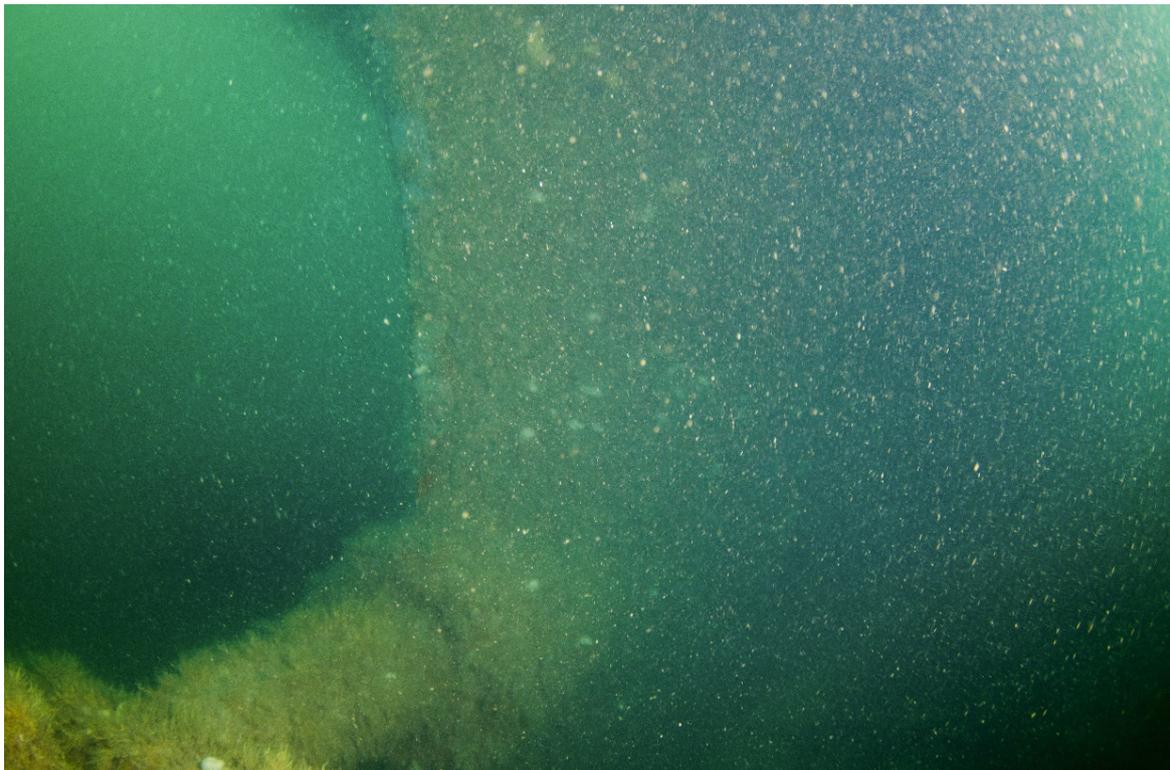


Figure 20: End of prop shaft



Figure 21: View looking up underneath stern

At the bottom of the hull, the end of the prop shaft protrudes (Figure 20) where the ship's bronze propeller was once fixed and on the seabed next to the prop lies the gun platform which has fallen from the stern (Figure 22).



Figure 22: Gun mount now on the seabed

The hull plates are coherent in some areas but broken down in others, the starboard side of the hull is fairly intact but partially collapsed at the back of no 2 hold, whereas there is a large gap where the hull has collapsed and broken down on the port side which is where the torpedo hit. Marine growth is heavy on many parts of the hull plating and plumose anemone and hydroids are in abundance (Figure 23).



Figure 23: Marine growth covers plates

Heritage Gateway reports that the ships funnel lies close by to the starboard side of the wreck although this was not established during diving.

4.4 Changes to Site Remains over Time

Much of the structural condition of the *Maine* is quite coherent and the wreck sits up on an even keel, but the collapsing decks opening up the inner structure is as expected due to the wreck having been wire-swept to remove the masts. This likely would have caused some damage to the decks along with the natural environmental processes the wreck has endured for the past century.

When the wreck was discovered in 1961 it was reported as being ‘virtually intact’ and although some parts of the hull and other structural remains still stand, other areas now appear to be breaking down and it will be interesting to observe if this trend accelerates with time as the onrush in deterioration takes its toll.

Comparison of the images of the site from 1999 (Figure 6) and 2001 (Figure 7), to the site remains as recorded in 2016 it is clear that changes continue to occur. There is now debris around the bow area where the hull plates are breaking down. Because of its popularity with divers, the *Maine* provides interesting potential for its deterioration to be monitored over time if information can be collected from divers.

5. Recovered Artefacts

Objects recovered from the *Maine* are held within a number of collections. The RoW records provide detailed information for objects which were either reported during the 2000 Amnesty, or have been reported subsequently:

RoW Records:

Ships equipment: Fixtures and fittings

- Eight Portholes
- One brass porthole backplate

- One brass light fitting
- Firehose adaptor
- Porthole and hinge bracket and door hinge
- Valve

Armament:

- Six shell cases

Private collections (Torbay BSAC):**Ships equipment: Fixtures and Fittings:**

- Spare Iron propeller
- Bronze propeller
- Ships Bell

The ships bell was recovered in 1987 and presented to Torbay BSAC. The two-foot high brass bell now hangs in Torbay Sub Aqua Club's compressor building at Torquay harbour (Figure 24).



Figure 24: Ships bell from the *Maine* (photo and permission Richard Wood, Torbay Sub Aqua Club)

Armament:

- 4.7 inch Stern Gun

(See section 3.6 for more information regarding the propellers and the stern gun).

6. Site Significance & Potential Further Research

The area in which the *Maine* shipwreck is situated is an area with a constantly shifting seabed. The conditions were not good for photogrammetry recording of the complete wreck during the dive carried out on the *Maine* within this project but there is potential to map this site more thoroughly when conditions allow. As the site has been a popular dive site for sport divers over many years, further research may bring to light other artefacts that have been removed from the wreck that could be recorded and 'virtually' reunited with the ship. There is also potential for comparing photographs of the site held by divers from the past to understand in more detail how the ship is deteriorating over time.

In terms of significance the SS *Maine* is an example of a typical ocean-going merchant ship that also carried a small number of passengers. Its design, propulsion and work as a cargo ship were common at the time of the War. The ship was armed with a deck gun in recognition of hostilities and was sunk by torpedo fired from a U-boat. However, being an example of the 'ordinary' type of vessel does not decrease its significance within the wider group of vessels lost to the on-going U-boat threat during the war.

7. Bibliography

Websites

Divernet (no date) Wreck Tour: 1 The *Maine*. Available at:

<http://www.divernet.com/wreck-tours/p301712-wreck-tour:-1the-maine.html> Accessed (19/03/2016)

Heritage Gateway (2012). Devon and Dartmoor HER, *Maine*. Available at:

http://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MDV42472&resourceID=104
Accessed 19/3/16

In Depth Photography (no date) SS *Maine*. Available at:

<http://indepthphotography.co.uk/wp-content/uploads/2015/11/SCUBA-SS-Maine.pdf> Accessed (19/3/2016)

Pastscape (2015) *Maine*. Available at: http://www.pastscape.org.uk/hob.aspx?hob_id=832169
Accessed (19/03/2016)

Rod Macdonald (2016) SS *Maine*. Available at: <http://www.rod-macdonald.co.uk/index.php/English-Wrecks/ss-maine.html> Accessed (19/3/16)

The Atlantic Transport Line (2005-2014) SS *Maine* III. Available at:

<http://www.atlantictransportline.us/content/40Maine.htm> Accessed (10/03/2016)

Totnes Sub-aqua club (no date). Available at: <http://www.totnes-bsac.co.uk/wrecks.php> Accessed (19/3/16)

u-boat.net (1995-2018) WW1 u-boats. Available at:

<http://www.uboat.net/wwi/boats/index.html?boat=UC+17> Accessed (19/01/2016)

Wreck Site EU (2001-2016) SS *Maine* II [+1917]. Available at:

<http://www.wrecksite.eu/wreck.aspx?555> Accessed (19/03/2016)

You Tube (2014). Dory Video. A dive on the wreck of the *Maine*. Available at:
https://www.youtube.com/watch?v=OpeS4FMm_gE Accessed (03/2016)

You Tube (2009). Paul Mason, Inside the *Maine* bow section 240509. Available at:
https://www.youtube.com/watch?v=E_Vt9_zGLM Accessed (10/03/2016)

Books

Larn, R. Larn, B. (1995). *Shipwreck index of the British Isles, volume 1: Isles of Scilly, Cornwall, Devon, Dorset*. Section 5, South Devon

Lloyd's war losses (1990). *The First World War: Casualties to shipping through enemy causes 1914-1918*. pp108

McDonald, K. and Cockbill, D. (1990). *Dive south Devon: a Diver guide*. 2nd Edition, revised 1990, No 251 pp136-138

MacDonald, K. (1982) *Dive south Devon: a Divers Guide*, 1st Edition. pp128-130

McDonald, K. (1995). *Dive south Devon: a Diver guide 3rd Edition*, No 151. pp142-145

McDonald, K. (1998). *Great British Wrecks Volume 2*. Underwater world publications

Tennent, A. J. (1990). *British merchant ships sunk by U boats in the 1914-1918 war*. pp16

Young, J. (1988). *British vessels lost at sea 1914-18 and 1939-45*. Section II. pp38