

Forgotten Wrecks of the First World War



LED BY IWM

February 2016

German Destroyers

V44 & V82

*Archaeological
Report*





**FORGOTTEN WRECKS
OF THE FIRST WORLD WAR**

V44 & V82

SITE REPORT



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i Acknowledgments

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

The Maritime Archaeology Trust would like to thank WO1 Jim Rooney (HMS *Excellent*), Caroline Barrie-Smith, William Pounds, Professor Ian Buxton, Mike Greaves, Timo Inwich (webmaster of www.navy-history.com), Queen's Harbour Master Portsmouth, the Defence Reserve Ships Organisation, all of whom assisted or volunteered to help with the fieldwork, post-fieldwork processing or research relating to V44 and V82.

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. If copyright is unknown, this is indicated in the caption.

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Cover image: Painting by German naval artist Willy Stower, titled 'Torpedo boats on manoeuvre'.

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 1,000 wartime wrecks and dozens of coastal sites along England's south coast alone, the conflict has left a rich heritage legacy and many associated stories of bravery and sacrifice. The 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 the record of maritime activity created during the conflict and provide a window onto some of the surviving sites. While it will not be possible to visit and record every site dating to the First World War along the south coast of England, a representative sample of sites have been selected for more detailed study, analysis and interpretation.

With particular regard to coastal, rather than fully submerged archaeological remains, it has been noted in wider commentaries on England's coastal heritage (Murphy, 2014: 94) that there are relatively few surviving sites because of subsequent reuse and/or destruction during or following the Second World War. As a result, from the perspective of identifying coastal research priorities an emphasis has been placed (Murphy, 2014: 119) on the need to differentiate First World War sites from those of the Second World War. With all of this in mind, the following report addresses one of the coastal sites dating to the First World War.

This report, created as part of the MAT's Heritage Lottery funded, Forgotten Wrecks of the First World War project, presents information collected during the project, relating to one of the south coast's First World War intertidal sites, in this case located at Whale Island within Portsmouth Harbour (Figure 1 and 2) and comprising the hulked remains of two German destroyers, SMS¹ V44 and SMS V82. The main subject of this report is the desk-based research undertaken in conjunction with an initial site visit carried out in September 2015. Following a brief description of the developing research methodology, the historical and geographical background to the site is outlined. A summary historical biography of both ships is then presented and key research questions identified. This is followed by a

¹ SMS: Seiner Majestät Schiff, equivalent to His Majesty's Ship.

description of the vessel remains as currently understood, and an assessment of their identity as V44 and V82. Finally, possible methodologies for future archaeological investigation are outlined. The report constitutes one of the project outputs and will be lodged with the Archaeological Data Service, ensuring free public access beyond the life of the project.

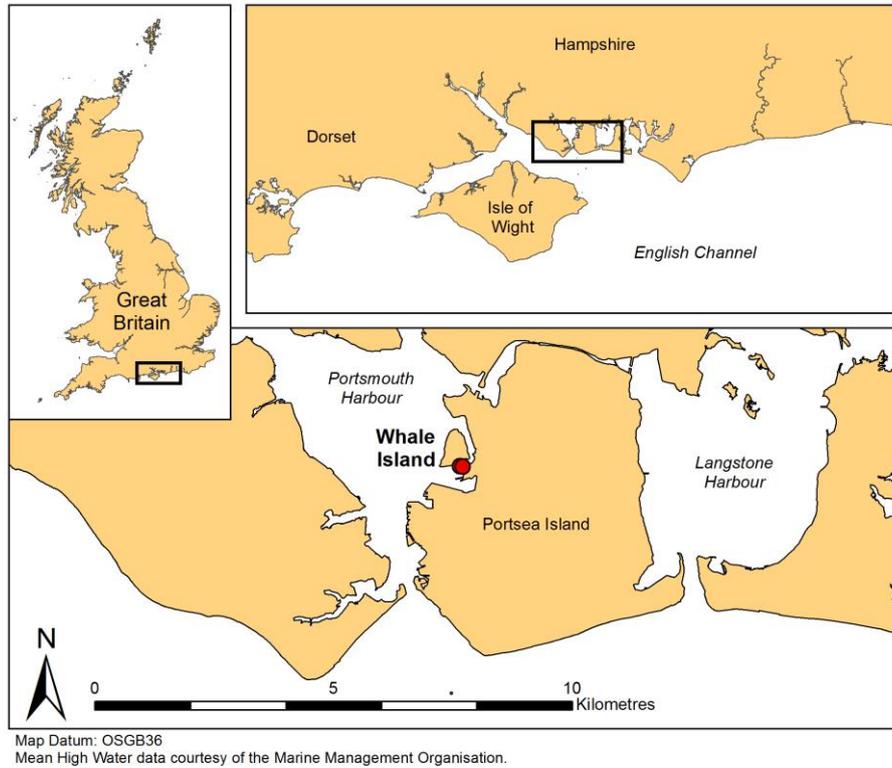


Figure 1. General location of the remains of V44 and V82 at Whale Island, Portsmouth Harbour.



Figure 2. Whale Island and surroundings.

2 Research and Fieldwork Methodology

Forgotten Wrecks Project site visits and fieldwork aim 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 hulked remains of two metal wrecks are located on the southern side of Whale Island, on the eastern side of Portsmouth Harbour (Figure 1 and 2). The site was identified as being of potential First World War interest during initial Forgotten Wrecks research into inter-tidal/coastal sites located within the wider project study area. This research included appraisal of the *Rapid Coastal Zone Assessment* (RCZA) surveys covering the study area, within which a brief reference (Hamel & Lambert, 2011: 23) to a pair of "possible torpedo boat destroyers... visible as structures in aerial photographs taken in 1939", was noted. Further research within UK Hydrographic Office (UKHO) archives provided a record (H3360/27) that HMS *Insolent* (scrapped nearby in 1922) lay adjacent to two ex-German destroyers. Meanwhile, the UKHO records for the two hulked vessels confirmed that their location and alignment matched the remains visible at the site today.

With a working assumption that a pair of German destroyers were only likely to have reached Portsmouth Harbour as a result of the division of the German fleet in the aftermath of the First World War, the two vessels were considered as being of high potential for involvement in the Forgotten Wrecks project. Research into the fate of German destroyers in the post-war period revealed that two vessels, numbered V44 and V82, were taken to Portsmouth for breaking up having been awarded to Britain as war reparation. This followed their salvage from Scapa Flow where they had been sunk as part of the German scuttling of the High Seas Fleet on the 21st June 1919. These combined pieces of information made it highly likely that the two hulked vessels on Whale Island were the remains of German destroyers SMS V44 and SMS V82, and the intertidal remains of two such vessels situated within the project study area represented a unique site for the Forgotten Wrecks project. A decision was therefore made to conduct further historical research, in conjunction with an initial site visit, to reveal more information about the site, the history of the two vessels, and to provide an informed assessment of the potential additional information that archaeological fieldwork might provide.

2.1 Desk Based Research

The majority of the material presented in Section 3 has derived from a phase of desk-based research undertaken into the site. This has concentrated upon two main elements, firstly gathering suitable information from sources such as the UKHO, Admiralty documents, dockyard records, etc. to allow the chronological history of the site to be understood in terms of when the vessels arrived, when the main period of salvage occurred, etc.

The second element has been concerned with identifying sources related to the construction, use and characteristics of V44 and V82 specifically, and both British and German in origin. The importance of that work lies in its ability to establish the historical significance of either ship, as well as providing detailed data relating to their constructional features that can then be used in conjunction with the archaeological remains to provide a fuller account of the two vessels.

2.2 Fieldwork Methodology

Initial Site Visit

As noted above, no extended archaeological work has so far been conducted on V44 or V82. An initial site visit was undertaken during a very low tide on 1st September 2015 (Figure 3) as a means to initiate work on the site and to make contact with Royal Navy personnel stationed on Whale Island with responsibility for managing foreshore access. This visit also facilitated the visual inspection of the two sets of remains from an adjacent pontoon and acted as a means to assess the potential for further access to the site. Finally, it also served as a means to check observations previously made on the basis of aerial photographs alone, allowing the outline archaeological description provided below (Section 4) to be established.



Figure 3. General view of the site looking south-east during a site visit undertaken at a low spring tide at 7am on the 1st September 2015. The upstanding remains of the eastern vessel are visible at the far edge of the mudflats, while the western remains comprise the low-lying remains in front of the marina pontoon. The dredged Rudmore Channel lies between the eastern remains and the ferry.

2.3 Data Processing and Management

Georeferenced sources consulted during the DBA phase were assembled into an ArcGIS file to allow them to be rationalised with one another and to allow the development of the map progression outlined below. Additionally, modern aerial photographs were sufficiently detailed to allow the visible remains to be annotated into a dedicated shapefile comprised of a series of polylines representing the extant, upstanding vessel structure. Visual sources lacking spatial information, for example RAF aerial photos, were georeferenced against existing features to allow their integration into the wider dataset.

3 Context and History: V44 and V82

3.1 Site Context

Whale Island is situated on the eastern side of Portsmouth Harbour to the north of the main Royal Navy Base (Figure 2). The island is c.800m north/south, c.500m west/east and separated from Portsea Island by a narrow north/south channel, currently 120-175m in width that curves to the south-west around the southern side of Whale Island. The area of water directly to the south of Whale Island and north of the Royal Navy base is known as Fountain Lake, a large eastern section of which was reclaimed during the construction of the international ferry terminal, immediately to the south-east of Whale Island in the late 1970s. Associated with this construction work was the dredging of the Rudmore Channel along the north-west side of the ferry terminal as far as the bridge between Whale Island and the mainland. As a result of these changes, the area is significantly different from how it would have been at the end of the First World War.

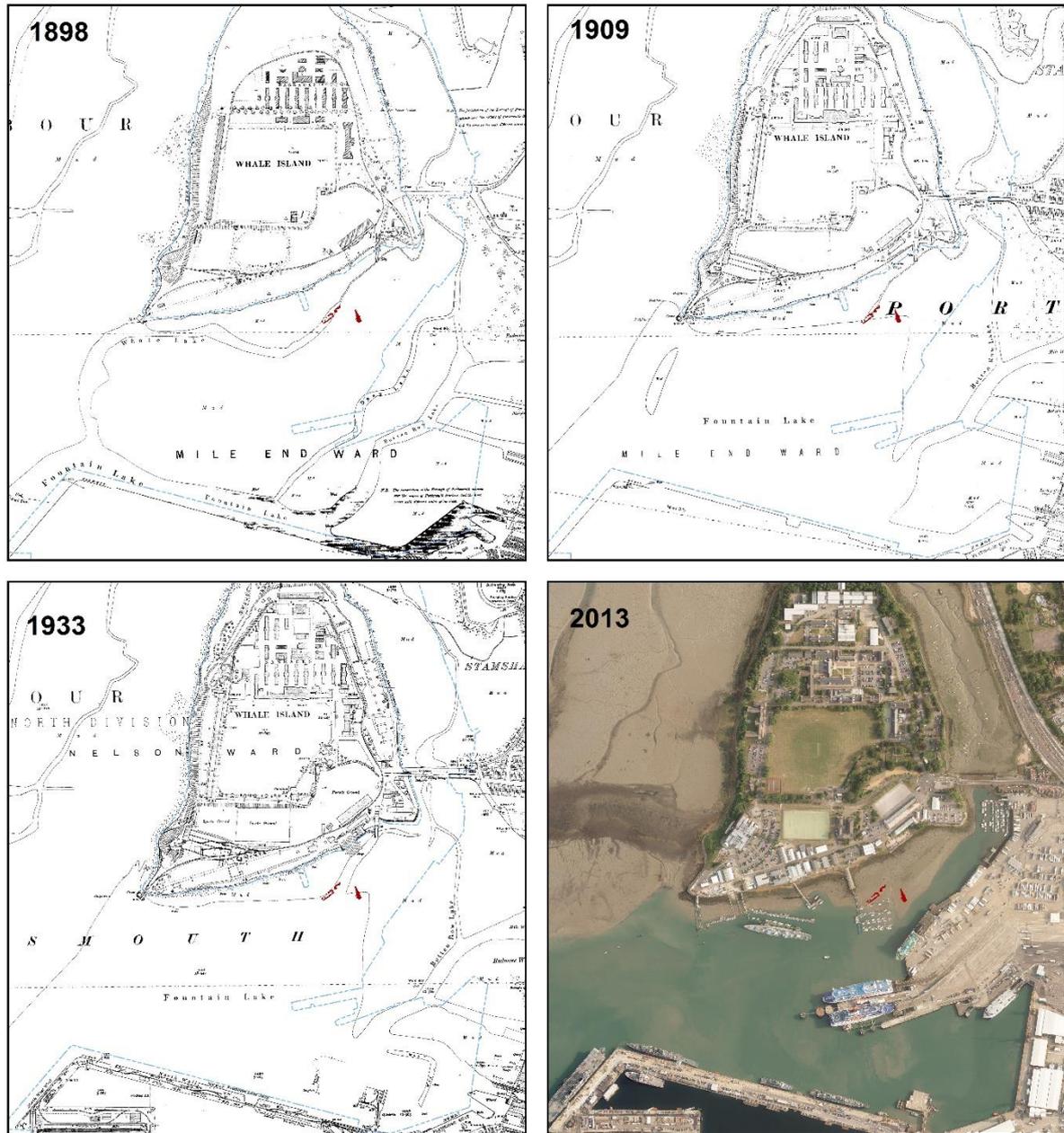
Fountain Lake itself was originally much smaller and located further to the south, along the north wall of basin No.3 within the Royal Navy dockyard. Comparison between the 1898 and 1909 Ordnance Survey maps (Figure 4) illustrate the extensive dredging that occurred to expand Fountain Lake to the north, while at the same time the edge of Whale Island itself was formalised into a shape recognisable today. At this time, in the early 20th century, the eastern side of Fountain Lake and the southern edge of Whale Island were characterised at low tide by a number of small channels and rivulets, with surrounding mudflats, all of which were covered at high tide. This situation remained relatively static, as recorded by the Ordnance Survey in map revisions published in 1933, 1952 and 1968, until the changes resulting from the construction of the ferry terminal. As noted above, that work resulted in land reclamation across most of the eastern mudflats as well as the channel dredging to the south-east of Whale Island.

The wider sediment regime around Portsmouth harbour is described in detail by the SCOPAC sediment transport project in the section relating to Portsmouth, Langstone and Chichester Harbour². SCOPAC suggests that sediment with the harbour is likely to be 2-4m in depth, overlaying chalk bedrock. It is unclear if this depth is applicable to the areas of mudflat, such as the location of the two vessels, or is in addition to that. In general, the entrance to Portsmouth Harbour is too narrow to allow significant bedload transport of coarse sand and gravel in to the harbour, although the extended flood tide is likely to permit net transport of suspended load sediments from the eastern Solent. Similarly, the volume of freshwater flowing into the harbour is small and carries little in the way of suspended fluvial sediment.

Sediment movement within Portsmouth Harbour is reported by SCOPAC to be poorly understood, but is suspected to be confined to a closed circulation within the harbour. The most significant impact on sediment within the harbour has come from land reclamation and dredging activity related to the dockyard and ferry terminal, both observed above in relation to historic mapping of the area. In particular, the area of Fountain Lake dredged out in the early 20th century, now has a maintained depth of -8mCD. The mudflats to the south-east of the ferry terminal have now gone, with a dredged

² Standing Conference on Problems Associated with the Coastline <http://www.scopac.org.uk/sediment-transport.html>

depth of -9mCD in 2011. Finally, the Rudmore Channel, directly adjacent to the vessel remains had a dredged depth in 2011 of -6.5mCD at its south-western end, and -2.7mCD at the north-eastern end.



Map Datum: OSGB36
Aerial photograph courtesy of the Channel Coastal Observatory.
Historic Ordnance Survey maps courtesy of EDINA Historic Digimap Service.
Mean High Water data courtesy of the Marine Management Organisation.

Figure 4. Historical map progression of Fountain Lake and the southern shore of Whale Island, 1898-1933, illustrating the dredging of Fountain Lake post 1908 and the extent of the modern ferry port in an aerial photo from 2013. For comparison, the visible remains of V44 and V82 are shown in all images, but were not in place until the 1920's.

The tidal streams at the south-western end of Fountain Lake are weak, with maximum speeds of 0.5 knots on the ebb spring tide and 0.3 knots on the flood spring tide. The tidal range is 0.8 to 4.7mCD for mean high water spring tides, giving a mean range of 3.9m. Comparative figures for mean neap

tides are 1.9m to 3.8mCD, with a mean range of 1.9m. The vessel remains are fully exposed at spring tides, including the southern end of the eastern vessel, which lies closest to the Rudmore Channel. Observation during a site visit on September 1st 2015 with a spring low tide of 0.3mCD (giving some indication of the variation from the mean) confirmed that all parts of both vessels were fully exposed and that a practical working window on the eastern vessel might extend to around 90 minutes after a similar low water. The same site visit also confirmed that significant depths of sediment exist around both vessels and that access on foot across the mud is likely to be impractical.

3.2 Site History

The two sets of vessel remains are situated on mudflats on the southern shore of Whale Island, adjacent to a small marina and the Rudmore Channel (Figure 3). The remains of both ships are clearly visible protruding above the mud on recent aerial photographs (Figure 5), and from ground level via the nearest marina pontoon. The remains of the western vessel are aligned 45°/225° and at present, the remains are visible over a length of 56m (183ft). The same alignment is reported in a UKHO record (H1270/77) from 1977, which also records a comparable length of 175 feet (53.5m). The first UKHO mention of the western vessel is on 25th May 1927 (H3360/27) when its position is noted. Cross-referencing of the visible vessel remains with historic OS maps (Figure 4) indicates that the vessel was run ashore in line with the mouth of a small channel, parallel to Whale Island, port-side towards the shore at about the mean low water mark. The visible remains are truncated and cut-off at roughly the level of the mud (Section 4, below), and the shape of the remains at their southwestern end strongly suggest that they are the stern of the vessel; no evidence for the bow of the vessel can be seen. The vessel's UKHO entry (19227) identifies it as a German Destroyer, but how this conclusion was arrived at is unclear as this identity is not described in any survey reports.

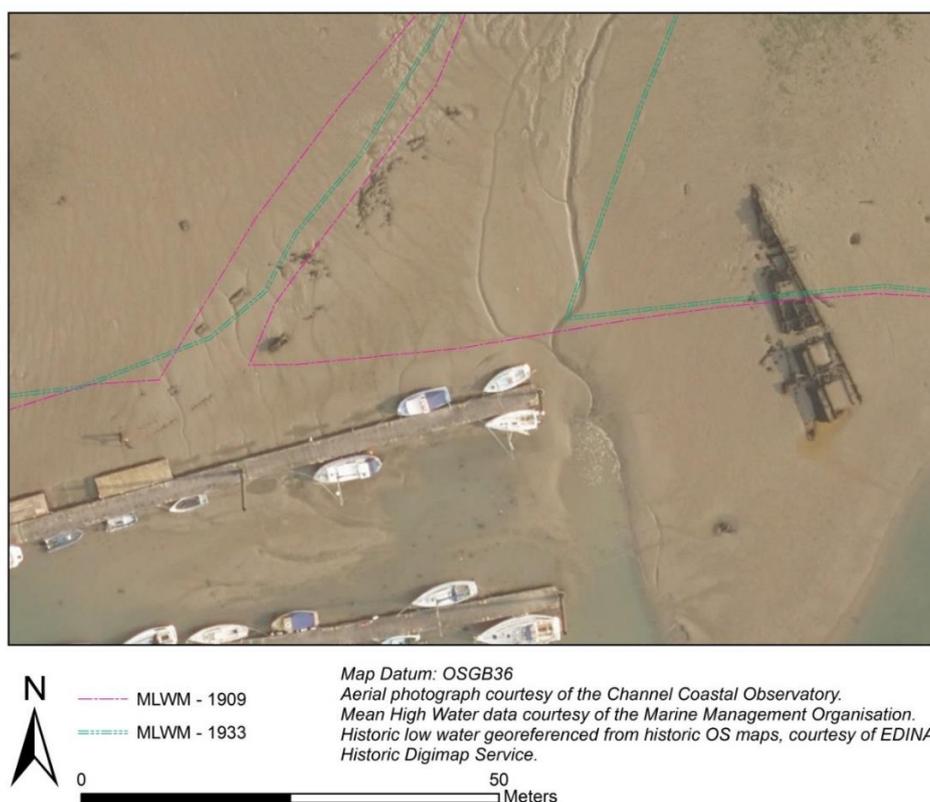


Figure 5. Close up aerial photo of the two vessels taken in 2013. The reduction to mudflat level of the western remains and the cutting in half of the eastern remains are both clearly discernible. The mean low water mark from historic maps is also illustrated to provide further context.

The remains of the eastern vessel are aligned 340°/160° and are currently visible over a length of 30m (98ft). The bow of the vessel clearly lies to the north and it is visibly truncated at the southern end of the remains (Section 4, below). The first UKHO mention of the wreck is on 25th May 1927 (H3360/27) when its position is noted, along with the fact that it was being demolished. As with the western vessel, the full UKHO listing (19224) reports the wreck as a German destroyer, but once again does not use this identity in any survey reports. The current alignment is reported in a UKHO record (H1270/77) from 15th December 1977, which records a comparable length of 80 feet (26m). The same record also contains additional information which records that the vessel is visible in aerial photos (1240/230) dating to 7th July 1976 when it measured 255ft (78m) in length. The date of the removal of the southern half of the vessel would therefore seem to date between the aerial photo in July 1976 and the UKHO record in December 1977, and can probably be correlated with the construction of the ferry terminal and the related dredging of the Rudmore Channel. Cross-referencing of the visible vessel remains with historic OS maps (Figure 4) indicates that the vessel was run ashore perpendicular to the edge of the mudflats, with the bow towards Whale Island, straddling the mean low water mark.

As noted above, a critical factor in the original identification of the two vessels as German destroyers was a UKHO record (H3360/27) from the 25th May 1927 regarding HMS *Insolent*, which had been sunk nearby in 1923 and sold for salvage the following year. The 1927 record specifically states that the King's Harbour Master for Portsmouth (KHM Portsmouth) reports that HMS *Insolent* "*Lies sunk adjacent to two ex-German TBDs*" (torpedo boat destroyers), which can only refer to the two vessels and their corresponding UKHO entries just described. It is possible that this survey report led to the identification used in the two UKHO entries mentioned above. In the case of HMS *Insolent* and the eastern vessel, it is stated that both are to be demolished or scrapped, and it can probably be assumed that the same fate was intended for the western vessel.

Ship-breaking activity in the far north-east corner of Fountain Lake can therefore be reconstructed as having taken place in the aftermath of the First World War, and to have encompassed Royal Naval ships such as HMS *Insolent* as well as the two German vessels that are the focus of this report. UKHO records therefore broadly indicate the arrival of the two destroyers in the early/mid 1920s with a subsequent period of salvage activity. Subsequent aerial photographs indicate that the western vessel is likely to have assumed its present state of dismantling by the late 1930s. Meanwhile, the eastern vessel remained far more complete, perhaps until the mid/late 1970s when the stern half of the vessel was removed to allow the deepening of the Rudmore Channel in conjunction with the construction of the adjacent ferry terminal.

Aside from the two UKHO records for these wrecks (simply listing the wrecks as German destroyers) and the RCZA report (which does not record the nationality), there are no archaeological or historical entries that identify V44 or V82 in Portsmouth Harbour. However, the vessels do appear in the Canmore database for Scottish Heritage. Both V44 and V82 are listed as sites in Scapa Flow³ with a general position marking the site of the post-war German destroyer anchorage in Gutter Sound, along with a list of different fates as described in various published sources. Some of these incorrectly list

³ Canmore record for V44 at <http://canmore.org.uk/site/226109> and V82 at <http://canmore.org.uk/site/225945>.

the vessels as sunk and subsequently raised, which leads the Canmore records to state that they are *“considered a 'casualty' rather than a craft on account of its successful salvage, the available evidence being written rather than material. In the absence of diver survey, however, artifacts, fittings and, possibly, structural elements may survive on or in the seabed at the location of scuttling. Depressions in the seabed may also represent the locations of the turrets or superstructure”*. In fact both vessels were beached rather than sunk, and recovered shortly after. As a result it is extremely unlikely that any physical remains exist in Scapa Flow (see section 3.3).

Thus far, no previous investigation, either archaeological or historical, into the two vessels has been identified, despite their relatively clear documentation within UKHO records and designation as German naval ships in existing wreck databases (see www.wrecksite.eu). Moreover, at the time of the site visit in September 2015 no recollection of their origins in the German High Seas Fleet seemed to be present amongst naval personnel on Whale Island. The two German destroyers had seemingly become completely forgotten wrecks.

3.3 Vessel History

The UKHO records consulted during background research, in conjunction with the nature of the vessel remains themselves, clearly pointed to the presence of two ex-German destroyers in Fountain Lake in the years following the First World War. But, the exact identification of the two vessels, and their associated service history, was not clear from the UKHO records which do not provide an identification for either set of remains. The following section therefore outlines the historical research undertaken to provide an account of how the two vessels came to be hulked in Portsmouth Harbour, where they came from, their historical identification and related service history. Establishing this basic information is critical for any wider understanding of the archaeological remains, including the relative significance of the two vessels.

Service History V44

SMS V44 was part of the German Imperial Navy's 1914 programme of torpedo boats, ordered on the 22nd April 1914. The 1914 programme was essentially an extension of the 1913 programme and the design of the vessels was little changed from previous years (although small differences between individual ships ostensibly of the same class were common – a result of variances in designs at different shipyards) (Groner, 2010: 151). Although comparable to Royal Navy destroyers in terms of size, these vessels were technically designed and classed as torpedo boats by the German Imperial Navy. They carried a stronger torpedo armament than their Royal Navy counterparts and placed less emphasis on gun firepower and are, therefore, more correctly described as torpedo boats (ADM 186/383). However, contemporary Royal Navy reports and modern English sources frequently use the term destroyer, as does this report.

The 1914 order for twelve vessels was split between two of the three most prominent shipyards at the time: AG Vulcan Stettin and Germaniawerft in Kiel. Yard numbers 215 to 220 were constructed by Germaniawerft (becoming G37 to G42) and 358 to 363 were built by AG Vulcan Stettin (becoming V43 to V48). V44 was launched on the 24th February 1915 and fitting out was completed on the 22nd July (Groner, Jung, Maass, 1999: 63, 65).

According to a 1917 British intelligence report, V43 to V46 had a displacement of 750 (English) tons and were 270 foot (82.3 m) in length. They were equipped with AEG Vulcan turbines and three Schulz boilers generating 23,000 horsepower and an average speed of 34 knots. They had sufficient space for 300 tons of fuel oil, providing an endurance of 3,250 nautical miles at 15 knots. They were armed with three 4.1" guns in separate mounts (one on the foredeck, one mounted on a platform amidships and one abaft the after wheel house) and six torpedo tubes (four tubes mounted in pairs on the centre line of the ship, before and abaft the amidships gun and two single tubes abreast the bridge). They also carried two machine guns and two searchlights. The ships each had a complement of 98 men (ADM 186/383).

This contrasts with German sources, which put the tonnage at 1106 (gross) and 852 (displacement), the length at 79.65 m (261 foot) at the top of the hull and 78.8 m (258.5 foot) at the water line, and the ship's breadth at 8.32 m. With a capacity for 296 tons of fuel oil they had an endurance of 1750 miles at 17 knots or 1270 at 20 knots (Groner, Jung, Maass, 1999: 63). It is hard to be certain, but it seems more likely that the German language sources are more accurate on these details, as the British source was produced when Britain did not have access to the ships.

Most of the vessels from the 1914 order joined the High Seas Fleet's 6th Torpedo Boat Flotilla. Although it has not been ascertained if V44 went straight to this flotilla on completion, she was the lead ship of the 11th Half Flotilla (which, along with the 12th Half Flotilla formed the 6th Torpedo-Boat Flotilla) at the time of the Battle of Jutland in May 1916 (Campbell, 1986: 25).

At Jutland, under the command of Leutnant Karl von Holleuffer, V44 and the rest of the 6th Flotilla were attached to Admiral Raeder's Scouting Force. Along with the rest of the Scouting Force, the 6th Flotilla came into action from the very start of the battle when they engaged Admiral Beatty's fleet. During the phase of the action known as the 'Run to the South' V44 and other ships of the flotilla fired torpedoes at the British 5th Battle Squadron and Admiral Beatty's battlecruisers as the Royal Navy vessels passed each other on their respective journeys south and north (Campbell, 1986: 58).

Later in the evening when the full fleets of both sides had joined in action, Admiral Scheer attempted to disengage from the Royal Navy. Having once turned away and then back towards the Royal Navy again, Scheer realised he would need to turn away to the west once more. The 6th Flotilla and the 9th Flotilla were ordered to launch a torpedo attack against the Grand Fleet as Admiral Scheer executed this second turn away from the British at 7.15pm. The 6th Flotilla led and advanced through the smokescreen (at this point V44 was most probably second in the line), to fire its torpedoes which were launched between 7.22 and 7.24pm. They were quickly followed by the 9th Flotilla. With the exception of one destroyer of the 9th, all of the destroyers then managed to disengage and retreat back into the smoke (Campbell, 1986: 210-211). Although no hits were scored on the Royal Navy's ships, it was these torpedoes that caused Admiral Jellicoe to turn away from the German fleet and lose them in the following hours. This is arguably the most significant part of the battle and has caused the most controversy since; had Jellicoe not turned away, a Trafalgar type victory may have been inflicted on the Germans (Steel & Hart, 2003: 265-266). V44 and the rest of the 6th Flotilla made their way back to port overnight, in company with the main fleet (Campbell, 1986: 315).

In January 1917, the 6th Flotilla was assigned to the German Marinekorps Flandern, essentially becoming part of the larger Flanders Flotilla based at Bruges and using the Belgian seaports of Ostend and Zeebrugge (Karau, 2014: 112). The flotilla took part in several engagements with the Royal Navy during this deployment. On their journey down the coast to Zeebrugge on 22nd January, they were engaged by destroyers of the Harwich Force (Karau, 2014: 113). On the 25th they bombarded Southwold on the Suffolk coast and attacks on the Dover Barrage took place on 25th February and the 17th March (Karau, 2014: 115-122). On 23rd March, 1917, V44, in company with G86 and G87, attacked and sank the Dutch transport SS *Amstelstroon*, bound for London from Amsterdam (Gladisch, 1937: 307). However, the 6th Flotilla returned to the High Seas fleet on the 29th March and in October were moved to the Baltic to take part in Operation Albion – the successful German amphibious operation to invade the West Estonian Archipelago (Firle & Gagern, 1921: 269). By mid-November, V44 was back in the North Sea, under the command of Leutnant Kautter, and had moved from the 11th Half Flotilla to the 12th Half Flotilla. On the 17th November the flotilla was engaged in the Second Battle of Heligoland Bight (Gladisch, 1965: 56).

V44 is listed as being in the 12th Half Flotilla in 1918 in one German source (Gladisch, 2006: 223), but as the flotilla leader of the 6th Flotilla, under the command of Kapitanleutnant Wehr an Bord, in another (Fein, 1938: 110). It is possible that she briefly fulfilled both these roles.

Service History V82

SMS V82 was part of the German Imperial Navy's 1914 mobilisation programme of torpedo boats, ordered on the 6th August 1914 in response to the outbreak of war. Following so soon after the April 1914 order, the mobilisation programme was essentially an extension of that programme and once again the design of the vessels differed little from those of the earlier 1913 programme (Groner, 2010: 151). In appearance V82 differed little from V44. The most notable change was a conspicuous ventilating trunk that curved up from the well deck and into the bridge structure behind it. Further back, V44 had a small raised platform (most likely the rangefinder platform) between the forward pair of torpedo tubes and the amidships gun. On V82 this platform was located in front of the tubes immediately behind the second funnel.

The order for forty-eight vessels was split between the three most prominent shipyards at the time: AG Vulcan Stettin, Schichau-Werke in Elbing and Germaniawerft in Kiel. Yard numbers 11 to 18, 370, 371, 373-375, 379, 381 to 383 were built by AG Vulcan Stettin and became V67 to V84. Yard number 383 was launched as V82 on the 5th July 1916 and fitting out was completed on the 30th August of that year (Groner, Jung, Maass, 1999: 63, 65).

According to the 1917 British intelligence report, V73 to V83 had a displacement of 750 (English) tons and were 270 foot (82.3 m) in length. They were equipped with turbine engines and three Schulz boilers generating 23,000 horsepower and an average speed of 34 knots. They had sufficient space for 325 tons of fuel oil, providing an endurance of 3,400 nautical miles at 15 knots. They were armed with three 4.1" guns in separate mounts (one on the foredeck, one mounted on a platform amidships and one abaft the after wheel house) and six torpedo tubes (four tubes mounted in pairs on the centre line of the ship, before and abaft the amidships gun and two single tubes abreast the bridge). They also carried two machine guns and two searchlights. The ships each had a complement of 98 men (ADM 186/383).

Once again this contrasts with German sources, which put the tonnage at 1188 (gross) and 924 (displacement), the length at 81.55 m (267.5 foot) overall (including a slipway for launching a minesweeping device) and 80.75 m at the water line, and the ship's breadth at 8.32 m. With a capacity for 335 tons of fuel oil V82 had an endurance of 2050 miles at 17 knots or 1810 at 20 knots (Groner, Jung, Maass, 1999: 63). Once again, it seems more likely that the German language sources are more accurate on these details.

V82 is listed as being in the Flanders Flotilla, based in Bruges, in 1917 and 1918 (Groner, Jung, Maass, 1999: 63). She was also present during Operation Albion as the lead vessel of the 13th Half Flotilla, under the command of Kapitänleutnant Zander (Firle & Gagern, 1921: 212). She was damaged in an air raid in June 1918 and was presumably evacuated to a German port in October of that year when British forces overran Bruges (Karau, 2014: 210, 222).

The Naval Aftermath of the First World War

Following the signing of the armistice on 11th November 1918 arrangements were made for the German High Seas Fleet to surrender to the Royal Navy. This took place in the Firth of Forth on the 21st November 1918 and was followed by the internment of the High Seas Fleet at Scapa Flow in the Orkneys while negotiations continued over its fate. Twenty destroyers sailed there from the Firth of Forth on the 23rd November and twenty more on the 24th, followed by the remaining ten on the 25th (George, 1999: 22). The fleet, which eventually comprised sixteen capital ships, eight cruisers and fifty destroyers (including V44 and V82), remained afloat at Scapa Flow manned only by skeleton crews, until June the following year. The destroyers were moored in Gutter Sound, west of Fara Island, and were lashed in pairs or threes with a caretaker crew of between twelve and twenty men to each 'bundle' (George 1999: 28).

On the morning of the 21st June 1919 German Admiral von Reuter signalled to all ships to begin the process of scuttling (deliberate sinking) to prevent the fleet being handed over as a result of the impending Treaty of Versailles. This action resulted in the sinking of the majority of the ships, with only one capital ship, three cruisers and eighteen destroyers left afloat, or beached. The destroyers were beached by officers of the local Admiralty Port and the crew of the depot ship HMS *Sandhurst*, who cut their moorings allowing them to drift or be steered ashore (George, 1999: 29). V44 was beached on the south bank of Fara Island, whilst V82 was beached with several others on the west side of the island (Figure 6 & 7).

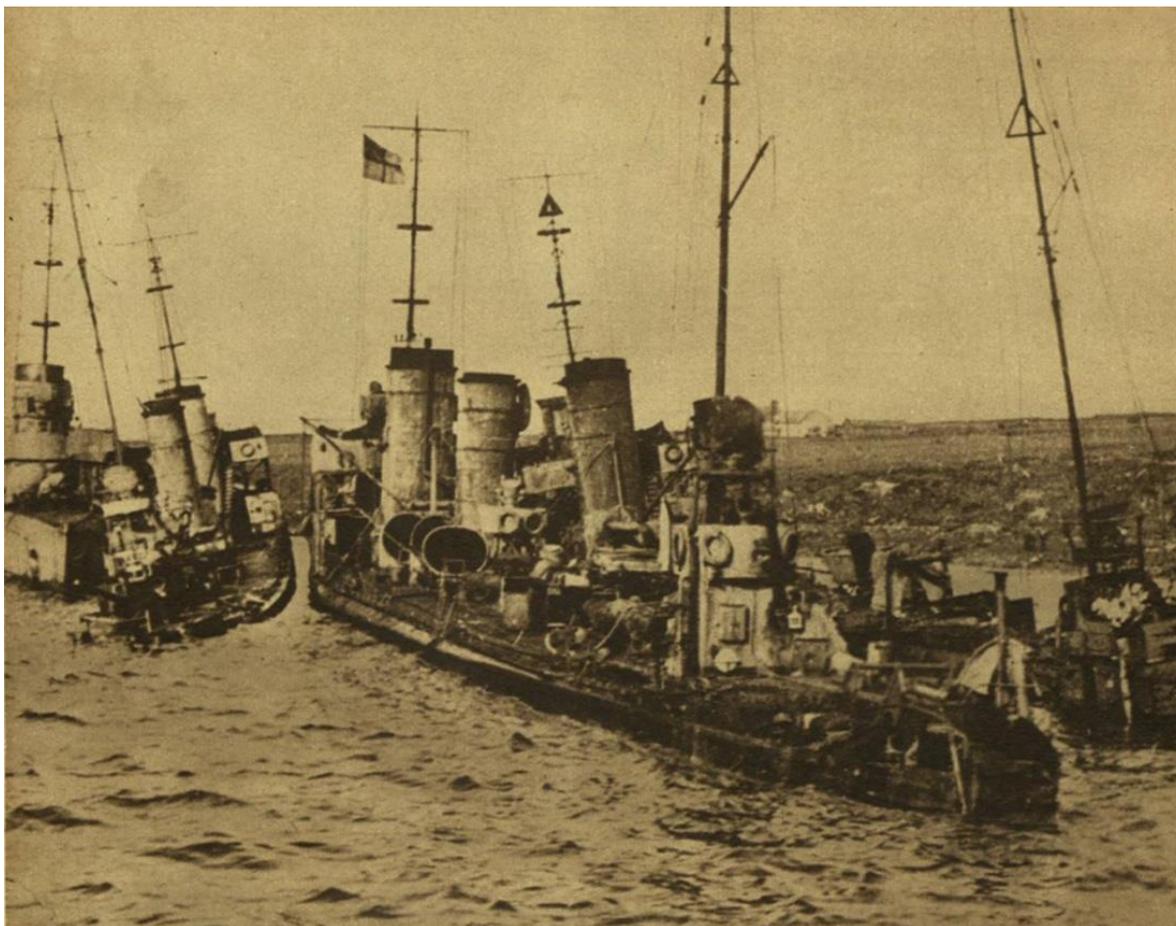


Figure 6. Image of destroyers beached at Scapa Flow following the Grand Scuttle of 19th June 1919 (Source unknown). Figure 7 below shows that this group most likely comprises, from left to right, V80 (bow facing camera), S60, V82 (centre vessel), S54 and V73.

Many of the sunken ships were salvaged in the following years, leaving seven wrecks on the seabed at Scapa Flow that are now protected under heritage legislation. The majority of the vessels not sunk were destroyers that were beached around Scapa Flow, subsequently salvaged and distributed amongst the allied navies of Britain, America, France, and Japan. The broken hull of one of these vessels, *B98*⁴, still lies *in situ* in the Orkneys. The salvaged vessels were subject to a variety of fates, including being used as targets, but all had either been broken-up or sunk by the end of the 1920s. Ten destroyers, including *V44* and *V82*, were allocated to Britain (listed here in Table 1, along with their eventual destination and fate as recorded in German sources). Whilst in Scapa it is possible that various fixtures and fittings were removed and sent to the Navy War Trophy Store in Chatham, but no record of exactly what, if anything, was removed has been found (ADM 137/2486). *V44* and *V82*, were moved to Portsmouth in 1919 or 1920, along with the German cruiser *Nurnberg*.

⁴ Record held in the Canmore database for B98 at <http://canmore.org.uk/site/102230>.

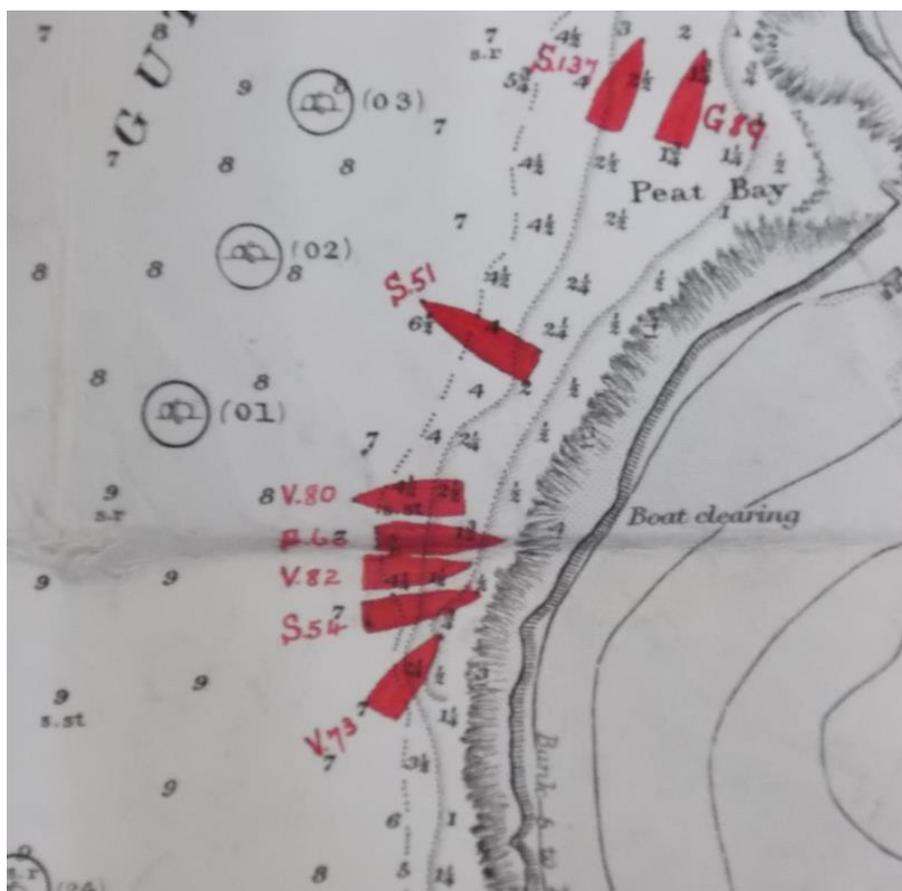


Figure 7. Detail of Admiralty map illustrating the beaching locations of various German destroyers within Scapa Flow, after the Grand Scuttling of June 1919 (ADM 116/1989).

Vessel	Awarded to	Destination	Fate
V44	Britain (1920)	Portsmouth	Scrapped (1922)
S51	Britain (1920)	Rosyth	Scrapped (1922)
V73	Britain	Grangemouth	Scrapped (1922)
V81	Britain	Rosyth	Sunk under tow (Scotland)
V82	Britain	Portsmouth	Scrapped (1922)
G92	Britain	Sunderland	Scrapped (1921)
G95	Britain	Sunderland	Scrapped (1921)
V125	Britain	Newport	Scrapped (1922)
V128	Britain	Grangemouth	Scrapped (1922)
S137	Britain	Unknown UK	Scrapped (1922)

Table 1. German destroyers awarded to Britain following the scuttling of the High Seas Fleet at Scapa Flow in June 1919, followed by their destination port and eventual fate (Data from Gröner, 2010).

All three vessels were used for gunnery trials. V82 was used as a target for the 4.7 inch secondary armament of the monitor HMS *Terror* on the 13th and 15th October 1920 and subsequently damaged and beached. V44 was fired on by *Terror*'s 6 inch, 4.7 inch, 4 inch and 2 pounder guns used on the 8th December and similarly damaged. Although it is not recorded, it is presumed that she was also beached afterwards (Buxton, 2012: 158). These two vessels are therefore highly likely to correspond with the two ex-German destroyers listed in UKHO sources from the 1920s. It seems most likely that this is when they were beached in the north east corner of the Fountain Lake anchorage on the south

side of Whale Island. *Nurnberg* was later used as a target by the Royal Navy battlecruiser HMS *Repulse* and sank in the English Channel on 7 July 1922 (Wendes, 2006: 204).

Both torpedo boats were subsequently sold to ship breakers Thomas W Ward Ltd. on 30th March 1921 (Buxton: pers. comm.). It seems unlikely that much scrapping took place, however, as there is no mention of them in the company's scrap outturn (Buxton: pers. comm.). Following its sale V44 was the subject of a number of short reports in the Portsmouth Evening News as a result of the theft of ship's fittings. On the 23rd August 1922 Harry Colwell is reported as being remanded on bail for stealing engine fittings that were 'the property of Messrs. Ward and Co., Sheffield, from an old ex-German destroyer lying off Whale Island'. Further information is reported on the 14th September when the German destroyer at Whale Island is identified as P44. Given the absence of ships prefixed with 'P' in the German Navy, this seems likely to represent V44. It was later reported on 4th January 1923 that Colwell was convicted, along with Francis Jordan, of the theft of condenser tubes, brass plate and copper coils and sentenced to one month's imprisonment. Another man, Joseph Jordan was sentenced to 14 days imprisonment for receiving stolen goods. Meanwhile, the presence of V82 in Portsmouth Harbour is confirmed by a painting of the vessel in Fountain Lake by marine artist William Wylie, dated between 1920 and 1922 and showing the vessel prior to scrapping (Figure 8).

The ships were then sold again in 1927, this time to local scrap merchants H G Pounds (Buxton: pers. comm.). As the hulks were not removed to Pound's facilities at Tipnor, it appears that they merely salvaged what they could on site and left any remains that were not economically viable to recover where they lay.

The combined evidence from a variety of contrasting historical sources therefore confirms that the two ex-German destroyers hulked in Fountain Lake are V44 and V82. The combined information on the two ships also allows the compilation of a set of basic characteristics (Table 2) that can be of use in future archaeological analysis.

	V44	V82	Source
Date Launched	February 1915	July/August 1916	Gogin, 2014
Place Built	Vulcan, Stettin	Vulcan, Stettin	ADM 186/383
Length	82.3m (extreme) 79.6m (overall) 78.8m (waterline)	82.3m(extreme) 82m (overall) 81m (waterline)	ADM 186/383 Gogin, 2014 Gogin, 2014
Breadth	8.32m	8.32m	Gogin, 2014
Draught	3.96m	3.9m	Gogin, 2014
Boilers	3x Shulz (2 double-ended)	3 Shulz (2 double-ended)	ADM 186/383; Gogin, 2014
Engine	3x AEG Vulcan turbines	3x AEG Vulcan turbines	ADM 186/383; Gogin, 2014
Propellers	Two	Two	ADM 186/383; Gogin, 2014
Armament	3x 4.1" guns 4-6x 19.7' torpedo tubes 24x mines	3x 4.1" guns 4-6x 19.7' torpedo tubes 24x mine	ADM 186/383 Gogin, 2014
Notes/Features		Prominent ventilation trunking forward of bridge.	

Table 2. Basic characteristics of V44 and V82 as derived from British and German sources.



Figure 8. Painting by William Wylie titled 'V82 German Destroyer in Fountain Lake' dated to 1920-22 (copyright: National Maritime Museum PAF2085).

3.4 Research Questions

Historical research establishes that V44 and V82 were brought to Portsmouth Harbour from Scapa Flow for scrapping in the early 1920s. The exact identification of the western and eastern vessels therefore needs to be established, if at all possible, in order to complete the account of the two ships. A key research element for continuing investigation of the two ships is therefore framed around the following question;

- Which set of vessel remains is V44 and which is V82?

In order to begin to address this question an account of the archaeological remains of the two ships that can be set against the information gained in historical research (summarised in Section 3.3) is presented in the next section. This allows a considered account of the vessel identification to be set out on the basis of all of the evidence currently available: historical, archaeological, etc. in Section 5.

4 Archaeological Remains

The initial site visit, in conjunction with desk-based assessment (DBA) and focussed historical research, provides the overall disposition of structural remains at the site, as well as providing some indication of the likely changes to those remains over time. To this end, each of the vessels is described in turn below.

4.1 Western Vessel

The remains of the western vessel (Figure 9) are aligned 45° (bow)/225° (stern) and at present, the remains are visible over a length of 56m (183ft). The surviving structure is truncated at the level of the mudflat with only a small number of unidentifiable elements protruding through the mud surface. A combination of UKHO and historic aerial photos indicate that the main period of salvage of the vessel seems to have taken place in the late 1920s, and certainly before 1939. The width of the remains can be ascertained from modern aerial photos at a point where sections of outer hull survive on either side of the vessel in the same part of the hull, 23m forward of the stern. The breadth of the original vessel can therefore be estimated as 8.1m, which correlates with historically recorded breadth dimensions of the class as 8.3m in the same area. Very few other diagnostic features are visible, other than a square structure that is clear of the mud and located c. 8m from the stern of the vessel and which measures 800mm on each side. The original function of this can probably only be determined through reference to original internal construction plans. Further forward, an ovoid shaped structure on the centreline of the vessel protrudes from the mud c.40m from the stern, measuring 3.6m fore-and-aft and 2.5m athwartships. The shape, size and location of this feature correspond with the generally expected location of the aft funnel, according to the class plans.



Figure 9. The eastern vessel, looking NNE, the hull has been truncated at the level of the surrounding mud-flat. The stern is located immediately to the right of the vertical upright structure to the left of the image, which is a former mooring post and not part of the ship.

4.2 Eastern Vessel

The remains of the eastern vessel (Figure 10) are aligned 340° (bow)/160° and are currently visible over a length of 30m (98ft). The nature of the surviving southern end of the ship, in conjunction with the current surviving length and historic records all indicate that the vessel was cut in half in the late 1970s, but was relatively complete in terms of its overall length before that (Section 3.2). Although truncated amidships, the surviving remains protrude significantly above the mudflats to a height of c.1.5m, and despite a covering of seaweed it is possible to identify the vessel's bow and forecastle to the north, with at least two boilers to the south. The surviving forecastle structure extends for 18.4m from the northern end of the remains and their narrowness at the bow suggests they are relatively complete. Historical plans also illustrate the forecastle along the vessel centreline extending for 18.4m. On the basis of modern aerial photos the breadth of the vessel remains between the two surviving boilers, c. 24m aft of the bow, can be estimated as 6.6m, which roughly correlates with historically recorded breadth dimensions of the class as 7.4m maximum breadth at the same location, but higher up the hull.

The surviving boilers are both offset on the port-side of the vessel, rather than being on the centreline. The forward boiler is 3.2m in length (fore-and-aft) and 2.3m athwartships, the aft boiler is 4.3m in length (fore-and-aft) and also 2.3m athwartships. Historical records indicate that pairs of boilers and engines would have originally been set side-by-side within the hull, and accordingly, there is a rectangular void for the engines to starboard of each boiler, of the same length and c.2m athwartships. The boilers themselves appear to have survived relatively intact as indicated by visible surviving water tubes on the port side of both boilers, although this in turn indicates that some of the outer wall of the boilers have degraded.



Figure 10. The eastern vessel, looking east, the hull has been severed at the right hand (southern) end. The bow and lower elements of the forecastle are located to the left, the two upstanding rectangular structures to the right are the vessel's surviving boilers.

5 Discussion

5.1 Extent of remains

Although the on-site investigation of the two ships has been relatively limited thus far, observations of the extant remains, in conjunction with the wider site context can serve to suggest the possible extent of hull remains surviving at the site for each vessel. This analysis primarily rests upon the correlation between the visible width of the remains, and the recorded breadth of the original ships, giving an indication of how much of either vessel may remain buried at the site.

Like most 20th century destroyers, the hulls of V44 and V82 can be expected to be much narrower at the keel, than at deck level. This provides some explanation for the difference in the breadth of the eastern vessel remains, when compared to historical plans illustrating the extreme breadth of the ship, 6.6m and 7.4m respectively. By extension, it also serves notice that the vessel remains, at least at their surviving forward end around the boilers and forecastle, have not sunk a great deal into the mudflat that the ship was beached on, and that there is unlikely to be significant additional buried material over and above that currently visible.

By contrast, there is much closer correlation between the breath of the western remains and the extreme breadth given for the class, suggesting that the mud-level truncation of the remains has taken place relatively high up the hull of the ship. This may be a function of the apparent beaching of the vessel in the entrance to a small channel, as suggested by the historical mapping outlined in Section 2.1., allowing the vessel to become quite deeply sunk within the foreshore mud. As a result of this, although little of the western vessel is currently visible, there is reasonable potential for much of the hull to survive within the mud.

5.2 Vessel Identification

The primary research question outlined in Section 3.4 revolved around the identification of the vessel remains, or rather, clarification of which vessel is V44 and which is V82? The following section therefore provides an account of the rationale for the currently held identification of the two vessels on the basis of their historically recorded characteristics cross-referenced with surviving archaeological features just described.

As might be expected of two ships of the same class built in the same shipyard at roughly the same time, the characteristics of the two vessels are very similar (Table 1). There is a suggestion in some sources (Gogin, 2014) that V44 is slightly shorter than V82, although others (ADM 186/383) list them as the same length. The class was lengthened from V46 onwards (see Gogin, 2014) which would mean a small difference in overall length between the earlier build of V44 with the later V82. In practice, this is of little help because of the incomplete nature of both ships following various episodes of salvage and breakage. It is therefore impossible to ascertain the total original length of either set of vessel remains (as opposed to the original ships) and to differentiate between them on that basis.

The most notable outward difference in the original ships is the presence of prominent ventilation trunking on the slightly later V82, located between the forecastle and bridge and described as 'curving upwards and aft into the bridge structure' (ADM 186/383, p21). This ventilation trunking is also visible on the hull recognition profiles for V67-84 and absent on similar diagrams for V43-46 (Figure 11). The

same prominent trunking is also visible on the contemporary painting titled 'German destroyer in Fountain Lake', attributed as V82 by William Wylie (Figure 8). The correlation between that technical detail and the painting also serves to confirm the identity of the vessel in the painting as V82, rather than V44.

The disposition of V82 in Wylie's painting also offers an initial possible means to distinguish between two otherwise very similar vessels. Wylie shows V82 as being beached bow first, with the bow resting on the mud at low water and the vessel generally aligned perpendicular to the foreshore. This bears a clear correlation with the alignment of the eastern vessel as plotted against the mudflat alignment between 1909 and 1933 (Figure 4 & 5), especially when compared to the alignment of the western vessel *along* the foreshore. It also correlates with the current understanding of the forward section of the eastern vessel being relatively extant (Section 5.1) when compared to the western vessel. An initial assessment of the broader evidence would therefore suggest that on the basis of contemporary records, in conjunction with the alignment of the archaeological remains, the eastern vessel is V82, and by extension the western vessel is V44.

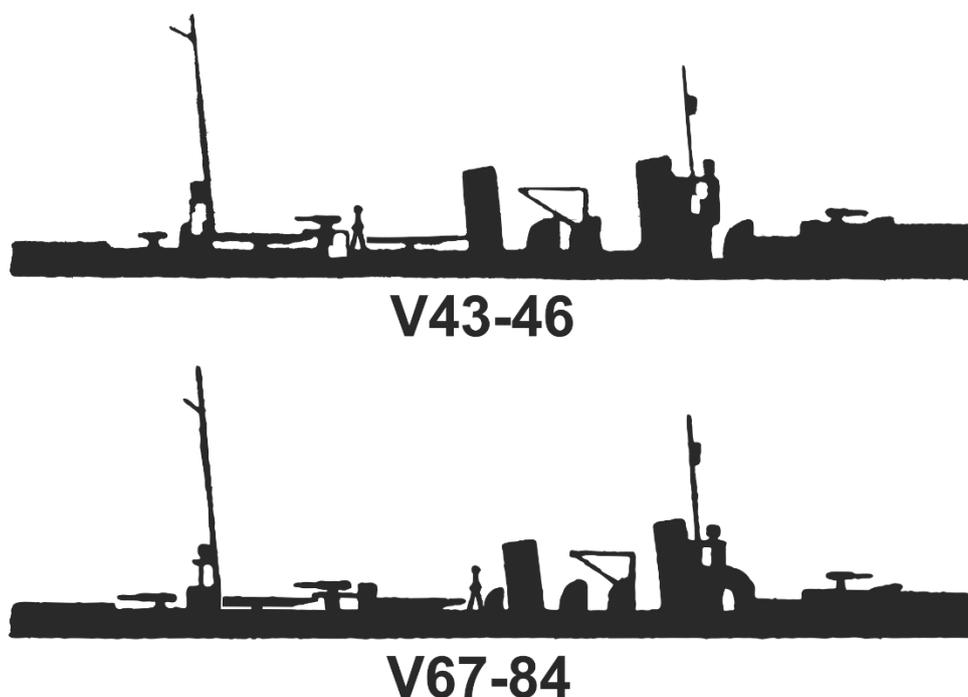


Figure 11. Comparative profiles for the two classes of vessel represented by the remains at Whale Island, V44 top, V82 bottom. The prominent aft-facing curved ventilation trunking can be noted forward of the bridge structure on the V67-84 group of ships. (source ADM 116/1992).

5.3 Future Investigation

The archaeological account of the two vessels provided above, in conjunction with the historical background summarised in Section 3 allows a number of areas of future research to be identified. These encompass archaeological investigation in conjunction with historical research and should allow a more complete account of the two ships, their history and their archaeological remains to be constructed. In doing this, the ships themselves will be better understood and their potential as a

means to convey the story of small German warships in the First World War, as well as the fate of those vessels in the years after the war will be realised.

A number of complementary avenues of research can therefore be identified, which represent ongoing areas of focus for the Forgotten Wrecks project in relation to V44 and V82. These are summarised as follows:

- Provision of a detailed investigative/photographic survey, especially of the upstanding elements on the eastern wreck, either by person, or by remote methods such as a drone survey. This will increase our understanding of the extent and nature of the surviving structure, as well as potentially highlight diagnostic features to further aid vessel identification.
- Continuing efforts to collate historical aerial photographs of the area that are able to show the two vessels in detail. This will allow further refinement of the current rationale for differentiating between the two ships (Section 5.2), as well as further informing the chronology of site formation processes following deposition.
- Further research into archives relating to the shipbreaking company, Ward Ltd, and the Naval Dockyard and/or Portsmouth Harbour. This will provide additional background context to the history of the two vessels and may provide information on the salvage process and a better understanding of human-induced site formation processes.



Figure 12. Artistic impression of V44 and V82, shortly after beaching at Whale Island, and before significant salvage activity occurred (Reproduced with the permission of Mike Greaves, ASGFA, www.greaves2connections.com).

6. Conclusion

The physical remains of V44 and V82 represent an unexpected aspect of the Forgotten Wrecks project and an excellent example of two ships from the First World War that have become genuinely forgotten, in a corner of Portsmouth Harbour. The status of these ships as part of the German High Seas Fleet and the involvement of V44 in one of the key phases of the Battle of Jutland in 1916 further adds to their significance.

The initial work conducted thus far has been deliberately limited to a desk-based research, augmented by a brief site visit. This combined work has established the outline history and general identification of the hulked vessels within Portsmouth Harbour, as well as providing a detailed service history for both ships. Collation and review of all material accessed during this work has provided an initial refined identification that V44 is the western vessel, and V82 the eastern set of remains.

The potential significance of the two ships within the wider context of the Forgotten Wrecks project, combined with the 2016 centenary of the Battle of Jutland provides a rationale for further research to take place into V44 and V82. At present, this is intended to take two main directions. Firstly, continued historical research into sources such as aerial photos and shipbreaking records to try to provide further context for the two ships. Secondly, to begin more direct archaeological investigation of the site as a means to enhance the existing record of the extant remains, and to refine our understanding of the identification of either ship. As this work proceeds, a revised version of this report will be produced and disseminated as part of the Forgotten Wrecks project.

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8. Appendices

8.1 V44 and V82 archive generated by the HLF Forgotten Wrecks project

Fieldwork at Whale Island on the remains of V44 and V82 has resulted in the creation of a new archive of material relating to the ongoing archaeological investigation of the site. This contents of this archive, as at January 2016 is summarised below:

Record Type	Sub type	Number	Notes
Paper	Field Survey Record Sheet	1	
Digital	Images – fieldwork (.jpg)	68	
	Images – report (.jpg)	11	
	GIS Shapefiles (.shp)	5	
	ArcMap Document (.mxd)	3	Site, map progression and wider location.
	PDF	2	Copy of field survey record sheet and final report
	docx	1	Report- basic draft

Maritime Archaeology Trust

The Maritime Archaeology Trust will promote interest, research and knowledge of maritime archaeology and heritage.

The Maritime Archaeology Trust Policy Statement:

- Carry out maritime archaeological surveys, investigations and research in accordance with professional and museum codes of conduct and practice, the Institute for Archaeologists and the UNESCO Convention on the Protection of Underwater Cultural Heritage.
- Promote archaeological awareness and competence.
- Promote public awareness, enjoyment, education and participation in the maritime archaeological heritage.
- Support the publication of the results of maritime archaeological investigations, surveys and research.
- Liaise with other regional, national and international organisations involved in maritime archaeology and related disciplines.
- Provide maritime archaeological services to heritage agencies, local authorities and a wide range of marine operators.
- Support regional, national and international initiatives for improvements to the legislation regarding the preservation and management of the maritime archaeological heritage.
- Ensure that maritime archaeology plays an important role in coastal planning, management and policies.

The Maritime Archaeology Trust

Company Limited by Guarantee

Registered in England - Number 2394244

National Oceanography Centre, Room 014/11,

Empress Dock, Southampton, SO14 3ZH.

Telephone: 02380 593290

email: info@maritimearchaeologytrust.org

Charity Registration Number 900025

Bankers: Lloyds TSB Bank PLC, 49 High Street, Winchester

Auditors: Hopper, Williams & Bell Ltd., Highland House, Mayflower Cl., Chandlers Ford, Eastleigh

Images (top to bottom): Diving on the Gallia as part of the Forgotten Wrecks project, disseminating maritime archaeology to the next generation, the extensive intertidal zone of the western Solent, the Discovery Bus visiting the SeaCity Museum in Southampton.

