

The Battle of Jutland's Heritage under Threat: The extent of commercial salvage on the shipwrecks as observed 2000-2016.

Dr Innes McCartney,

Visiting Fellow, Bournemouth University, Department of Archaeology, Anthropology & Forensic Science, Fern Barrow, Talbot Campus, Poole, Dorset BH12 5BB, UK

©2016 The Author

33 Barwis Terrace

Penzance

Cornwall TR18 2AW

imccartney@bournemouth.ac.uk

01736 330769

Key Words

Maritime Heritage, Battle of Jutland, World War One, Royal Navy, nautical archaeology, battlefield archaeology, conflict archaeology.

Abstract

This paper presents the most recent findings up to August 2016 of the extent to which the shipwrecks from the Battle of Jutland have been exposed to salvage for metals. Commercial salvage of the wrecks is not new and archival research has traced salvage activity as far back as 1960. However over the last 15 years the rate at which metals have been extracted from them has increased significantly, so that now at least 65% of the wrecks in the battlefield bear the scars of commercial salvage activity, where propellers and condensers in particular can be seen to have been removed. The majority of this activity is believed to be unauthorised by the governments of Britain and Germany who still own them.

Biographical Note

Dr Innes McCartney (PhD Bournemouth University 2014) is a nautical archaeologist of the modern era, specialising in the relationship between historical texts and the archaeological remains of shipwrecks. He has extensively surveyed the Jutland battlefield over the last two decades.

Introduction

Since 2000, the author has been active in ongoing surveys of the waters of the Jutland battlefield off the west coast of Denmark. The study of the wrecks has been primarily aimed at a better understanding of the battle, but it became evident early on that the legal and illegal salvaging of metals has become a part of their historical narrative. Whereas salvage of sunken vessels after both WW1 and WW2 was widespread, times have changed. Their status as graves and the passing of the 100 year cut off of the 2001 UNESCO Convention means that this activity is increasingly seen as thoughtless because the wrecks are now perceived as part of the world's cultural heritage.

With the discovery of intact wreck of HMS *Warrior* in August 2016 all of the Jutland shipwrecks have been located and recorded visually and with geophysics. This has allowed for an inventory of the extent of commercial salvage across the entire battlefield to be conducted for the first time. While HMS *Warrior* was untouched, the discovery earlier in 2016 of the wreck of SMS *V4* and the stern portion of HMS *Indefatigable* revealed that both show evidence of prior salvage. This is consistent with a pattern of extensive unofficial, unreported metal recovery from the wrecks (see Figure 1). The salvage world is secretive, but despite little archival data to work with, the remains of the wrecks have yielded much evidence of how salvage works continue to be undertaken.

The opportunity to revisit some of the wrecks over several years has shown that salvage is not just a problem of the past, but that it has continued into the present. Whereas the salvage operations carried out after both world wars were probably officially sanctioned and seem, in the best known example, (SMS *Lützow*) to have thorough and systematic in nature; salvage in recent years has been more opportunistic, largely targeting high value items which are easily recoverable by trawlers converted to salvage work.

Salvage on the Larger Wrecks: the Dreadnoughts and Cruisers

The chronology through which the Jutland wrecks have been located begins in 1919 when the minesweeper HMS *Oakley* was ordered to locate the wreck of HMS *Invincible* to assist in compiling the *Harper Record* (1927). Subsequently it was the other larger wrecks sunk in the battle which were the first to be located.

By 2000 when the author began to dive at Jutland, the locations of all of the larger wrecks appear to have been known to Danish fishermen and some wreck researchers and divers. In the years that followed marine technologies such as GPS and sonar have improved and as a result nearly all of the wrecks have now been found and many already have been exploited for metals.

The larger wrecks that lie in shallower water, closer to shore i.e. SMS *Lützow* and SMS *Pommern* have both been extensively salvaged. In the case of Admiral Hipper's flag SMS *Lützow* it is known when at least one salvage operation took place. This is recorded in the notes of the UK Hydrographic Office Record for the wreck site (UK Hydrographics Record No. 32344). It shows that from 1 to 13 September 1960 the wreck was being worked on and this was posted in the "Notices to Mariners", Hamburg.

It seems very unlikely that an official notice of salvage taking place would have been posted if the salvage was in any way illegal at the time. It is known from a number of different sources

that salvage works on large sunken warships, often containing the remains of many dead, were routinely carried out right through until at least the 1970s. For example metals were extensively recovered from the major naval grave of HMS *Vanguard* (sunk in Scapa Flow in 1917) during 1958-9 while Scapa was still a Navy base (ScapaMAP 2003: Appendix III).

This type of salvage activity can leave very obvious scars on the wrecks. This is the case with the wreck of SMS *Lützow*. A salvage company with a licence to work, given time and resources can target the valuable metal-rich areas of a ship very accurately. This is what appears to have taken place on this wreck. Figure 2 shows the wreck of SMS *Lützow* as scanned by swath bathymetry (multibeam) in April 2015. The wreck is upside down which is ideal for salvage work on warships, as there are no armoured decks to cut through. It shows six distinct zones of damage, labelled A-F. Comparing these to the ship's plans reveals:

- Zone A shows damage at frames 20-25. This was caused by the removal of the inner pair of propellers;
- Zone B shows similar damage at frames 40-45, where *Lützow's* outer pair of propellers would have been situated. The damage seen in both zones, is likely to have been the result of the use of explosives to cut them off the shafts and a grab to recover them to the salvage vessel;
- Zone C is around frames 55-60. This contained the ship's steering engines which, like the propellers were usually made of bronze. The area has been neatly cut open to remove them;
- Zone D is extensive from around frames 75-100. This contained the ship's condensers, fresh water plant and low pressure turbines; all bronze. It is evidenced on so many of the Jutland wrecks that condensers in particular seem to have a particular allure to salvors;
- Zone E is around frames 115-130. This housed the high pressure turbines, most probably also of high bronze content;
- Zone F is large and covers frames 195-250. The ship was torpedoed in this region, to aid its scuttling, but the area of damage appears very large. The after region of this zone encroaches into the boiler rooms of the ship and may have also seen some salvage activity.

Although no archival evidence has so far emerged, it is strongly suspected that the wreck of SMS *Pommern* was salvaged at the same time, probably also with some form of official sanction. At Jutland, these are the rare cases. It seems most of the salvage carried out has been opportunistic and "under the radar". On the largest wrecks the most evident and by far the most destructive salvage has been the removal of a range of items from the wreck of HMS *Queen Mary*, probably in 2009 (see below).

The site was first visited by the author in 2000 and extensively surveyed with geophysics and a remotely operated vehicle (ROV) in 2003 (McCartney 2016: 55-64). At that time it was observed that around half of the ship lay upside down and although collapsing was still largely intact. The fore part of the ship exploded into pieces as the ship sunk. However by 2014 when the site was resurveyed using ROV the stern section was seen to have extensively altered.

Where it had previously been observed in 2003 that a split in the upturned hull of the ship offered a view into the magazine situated under “X” turret; that whole area of the wreck had been extensively flattened, showing the entire stockpile of shells lying scattered in the wreckage. The difference can be seen in Figure 3, where the magazine seen in 2003 is shown in image (A) and the entirely collapsed magazine seen in 2014 is shown in image (B). The explanation for this rapid change in the condition of the wreck was down to salvage operations.

Independently of the author the conflict archaeologist Andy Brockman had discovered that a Dutch Company, “Friendship Offshore” had extensively looted the wreck of HMS *Queen Mary* in 2009. An album of photographs sent to Mr Brockman shows that items illegally salvaged included cordite containers, at least one condenser (see Figure 6, image (B)) and a gun tampion, revealing the identity of the wreck. Mr Brockman has also revealed that the Ministry of Defence have been aware of this salvage activity since a conference on heritage crime held at Eltham Palace in 2011 (thepipeline.info 2016/05/22).

In the author’s view, the removal of a condenser from the largely intact hull of *Queen Mary* is responsible for the extensive damage to the wreck observed in 2014. The ship’s condensers were situated just forward of “X” magazine and their recovery would have been impossible without disturbing this area of the wreck. As Mr Brockman has pointed out the value of the recovered condenser was at least £65,000, so the motive for this type of heritage crime is obvious (thepipeline.info 2016/05/22).

Surveys of the other larger shipwrecks sunk at Jutland have revealed that verifiable evidence for salvage can be seen on at least HMS *Black Prince*, SMS *Wiesbaden* and HMS *Indefatigable* and seemingly also HMS *Invincible*’s propellers (see Table 1 and Figure 1). The full extent of what has disappeared is probably higher than what has been observed, primarily because the surveys have been aimed at recording what is present, not what may have been removed from the sites. But it is obvious when items, such as propellers are no longer present.

Salvage on the Smaller Wrecks: the Destroyers and Torpedo Boats

As far as the author is aware the first of the smaller wrecks to be surveyed was HMS *Nomad*, which was located by chance during a diving trip in 2001, although it is possible that the inshore wreck of SMS *V4* may have already been salvaged by then, due to its proximity to land and shallow depth. However none of the other smaller warships was subsequently surveyed by the author until 2015-2016 when in conjunction with JD-Contractor and its owner Gert Normann Andersen, all of the then known Jutland wrecks formed part of a wider multibeam survey.

It was during this time that all of the small warships lost at Jutland were recorded with geophysics for the first time. The small warships all manifest a heavy degree of environmental damage caused by a combination of their relatively light construction, the passage of time and the hostile marine conditions in the North Sea. In most cases little more than the heavy machinery within the hulls of the ships now remains.

So in order to identify each wreck a means of differentiating each site needed to be developed. The author constructed a small typology based on the plans of the hullforms of the ships, showing the layout of the heaviest machinery, the boilers, condensers and turbines. This can be seen in Figure 4. The typology proved extremely useful in identifying the small warships down to

class level, but it also had the additional, originally unforeseen benefit of highlighting when the condensers were no longer present on the wrecks.

Figure 5 shows four examples where the condensers have been observed to have been removed from the wrecks. In images (A), (B) and (D), the wrecks of SMS *V29*, HMS *Nomad* and SMS *V4* respectively, once the hullform shapes have been overlaid on them, show the condensers have been selectively picked out of the wrecks and are clearly not present on the multibeam scans. ROV surveys reveal that in each case the condensers have been removed from the wreck sites. In the case of image (C), the wreck of the flotilla leader HMS *Tipperary* it can be observed that a crater in the seabed is now all that remains of the engine room. It seems that in this case the entire area was picked up, possibly using a grab.

These wrecks have been easy targets for opportunistic salvage because to pick up a condenser from an already badly smashed up small wreck is relatively easy, compared to having to cut into an intact one, which makes one wonder why the *Queen Mary* was so attacked? Perhaps it is the sheer value of these items which gives a clue to why this is happening. Mr Brockman has shown how valuable condensers are. A pair of condensers from any of these wrecks is seemingly worth around £140,000. As of 2016 it has been observed that in total, eight of the smaller warships have seen their condensers ripped out of them (see table 1) to a value of over £1,120,000 at today's prices.

The question is when did this occur? As previously mentioned, the relatively inshore wreck of SMS *V4* could be an old case, but it is much more certain that in the offshore cases, the condensers have been removed in recent years. Figure 6 image (A) shows a condenser on the wreck of HMS *Nomad* filmed in 2002 by Kevin Pickering, the year after the wreck was found. So in this case the condenser must have disappeared after 2002 and before 2015 when the wreck was surveyed by the author. It is likely the other cases all happened within a similar timescale. This coincides with a period where there has been a sharp rise in the value of copper-based metals which has seen a metal theft crime wave on land as well as under the sea.

Conclusions

All of the Jutland wrecks have now been found, identified and surveyed visually and with geophysics. The results of what has been observed to have been salvaged are shown in Table 1. This is likely to be simply the tip of the iceberg as it is known that when larger items are recovered the salvors will also pick up any number of other portable items lying around. Nevertheless the table shows that at least 16 of the 25 (65%) wrecks in the battlefield have been subject to salvage. Aside from the moral, ethical and distasteful element of this activity, it is damaging the archaeological potential of these sites for the future.

The wrecks are "sovereign immune" under international law and they cannot be salvaged without the permission of either Britain or Germany. Whereas in the past salvage has been permitted on the wrecks, as far as is known this has not been the case for around half a century. As this paper has demonstrated, nearly all of the salvage activity observed appears to have happened during the period when consent is unlikely to have been given.

Currently there are practically no legislative options open to stop salvage occurring. The Protection of Military Remains Act 1986 only affects British ships and citizens. As this paper has

shown it seems that at least some of the salvors of the Jutland wrecks in recent years are not based in the UK. In order to prevent it, international cooperation is essential. Ultimately all of the countries bordering the North Sea would need to ratify the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage to offer the wrecks protection by international agreement.

Acknowledgements

The author thanks the following for their various contributions to the production of this paper: Gert Normann Andersen, Mogens Dam, JD-Contractor, Sea War Museum Jutland, National Maritime Museum, Terschelling Wreck Museum, EIVA Marine Survey Solutions, Andy Brockman.

References

Harper, J., E., T., 1927. *Reproduction of the Record of the Battle of Jutland*. London: HMSO.

Hydrographics Department of the Admiralty, 2000. Record of Wreck No. 32344 SMS *Lützow*. Taunton: Hydrographics Office.

McCartney, I., 2016. *Jutland 1916: The Archaeology of a Naval Battlefield*. London: Bloomsbury.

<http://thepipeline.info/blog/2016/05/22/exclusive-named-the-salvage-company-which-looted-jutland-war-graves-as-mod-fails-to-act/> Retrieved 13 August 2016.

ScapaMAP 2000-2002: Report Compiled for Historic Scotland on the Mapping and Management of the Submerged Archaeological Resource in Scapa Flow, Orkney (2003). Orkney: Scapa Flow Marine Archaeology Project: Appendix III.

Tables

The Extent of salvage observed on the Battle of Jutland Shipwrecks up to 2016

HMS <i>Black Prince</i>	Extensive
HMS <i>Queen Mary</i>	Extensive
SMS <i>Pommern</i>	Extensive
SMS <i>Lützow</i>	Extensive
SMS <i>V4</i>	Condensers
HMS <i>Fortune</i>	Condensers
HMS <i>Nestor</i>	Condensers
HMS <i>Nomad</i>	Condensers
HMS <i>Tipperary</i>	Condensers
SMS <i>V27</i>	Condensers
SMS <i>V29</i>	Condensers
HMS <i>Sparrowhawk</i>	Condensers
SMS <i>Wiesbaden</i>	Propellers
HMS <i>Indefatigable</i>	Propellers
SMS <i>Rostock</i>	Suspected
HMS <i>Invincible</i>	Propellers
HMS <i>Shark</i>	No evidence seen
SMS <i>S35</i>	No evidence seen
SMS <i>V48</i>	No evidence seen
HMS <i>Ardent</i>	No evidence seen
HMS <i>Defence</i>	No evidence seen
HMS <i>Turbulent</i>	No evidence seen
SMS <i>Elbing</i>	No evidence seen
SMS <i>Frauenlob</i>	No evidence seen
HMS <i>Warrior</i>	Unsalvaged

Figures

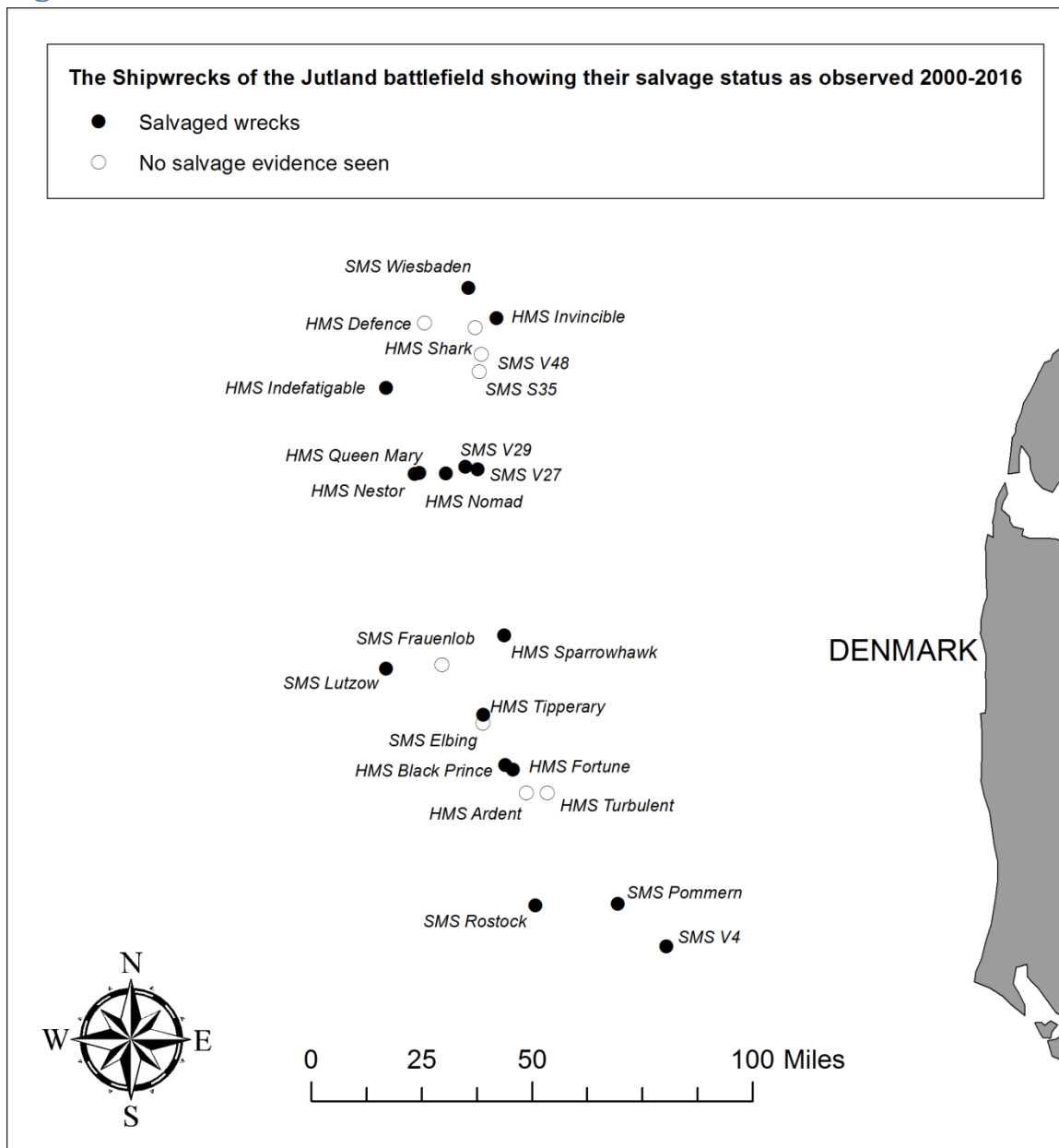


Figure 1. The Battle of Jutland shipwrecks showing their current salvage status as witnessed by surveys 2000-2016. HMS *Warrior* lies to the west between Norway and Scotland and is in unsalvaged condition (Innes McCartney).

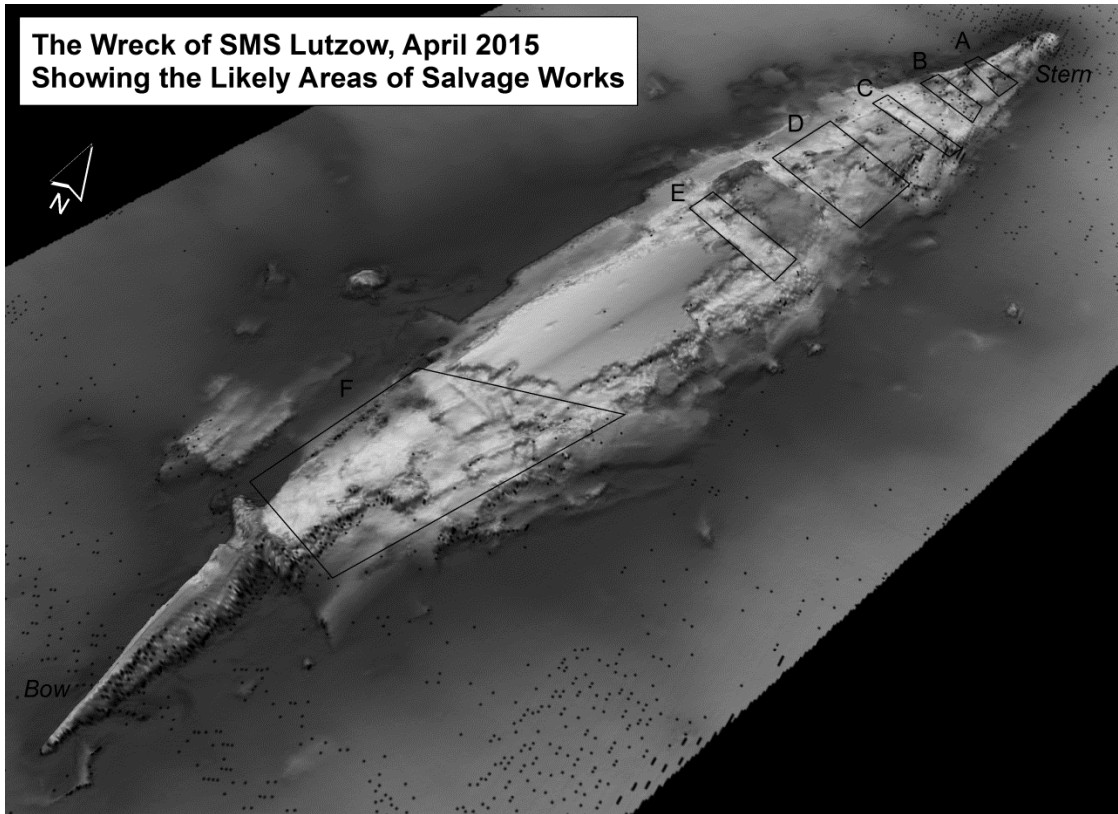


Figure 2. Multibeam image of SMS *Lützow* as of April 2015 showing zones opened in the upturned hull by salvage activity (Innes McCartney/JD-Contractor).

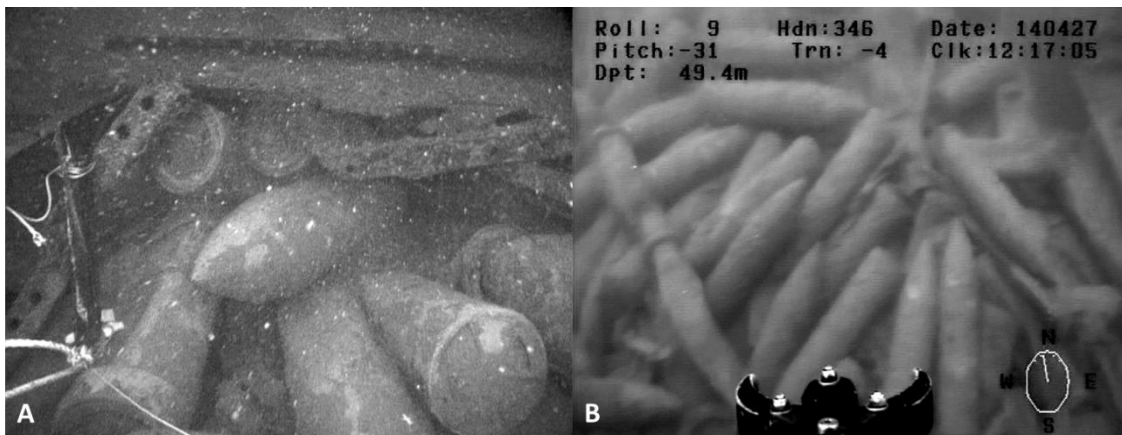


Figure 3. "X" magazine as seen on HMS *Queen Mary* prior to salvage (A) and afterwards (B) (Innes McCartney/JD-Contractor).

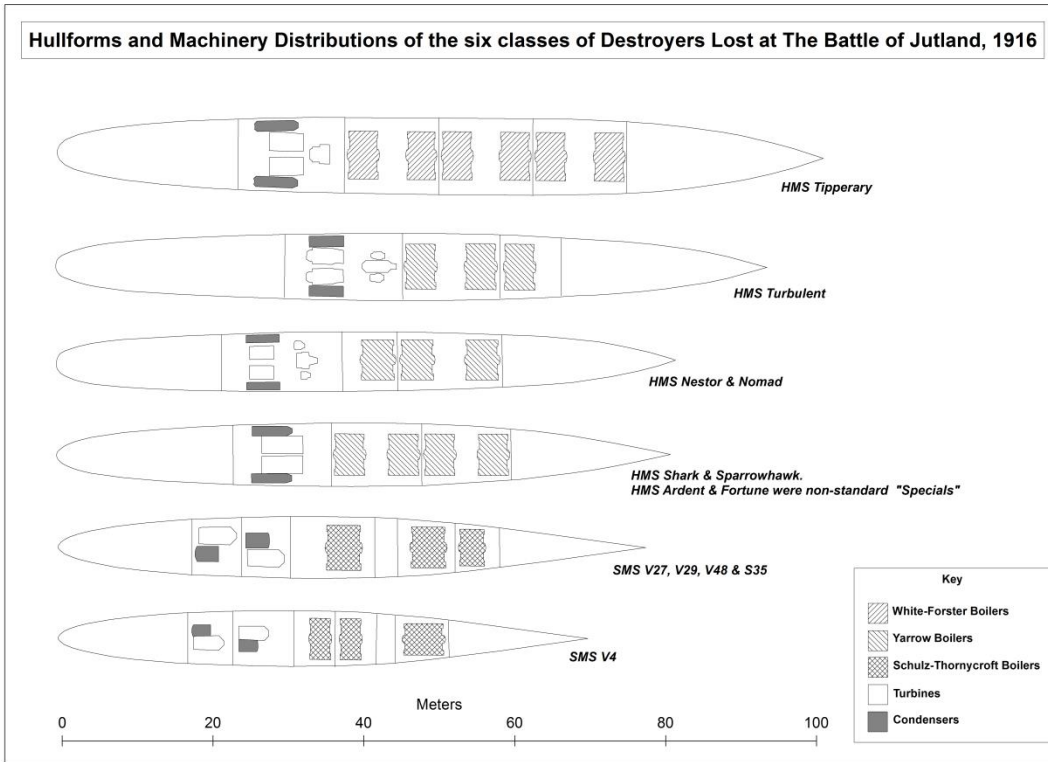


Figure 4. Hullform typology showing the location of condensers noted now missing from the smaller Jutland wrecks (Innes McCartney).

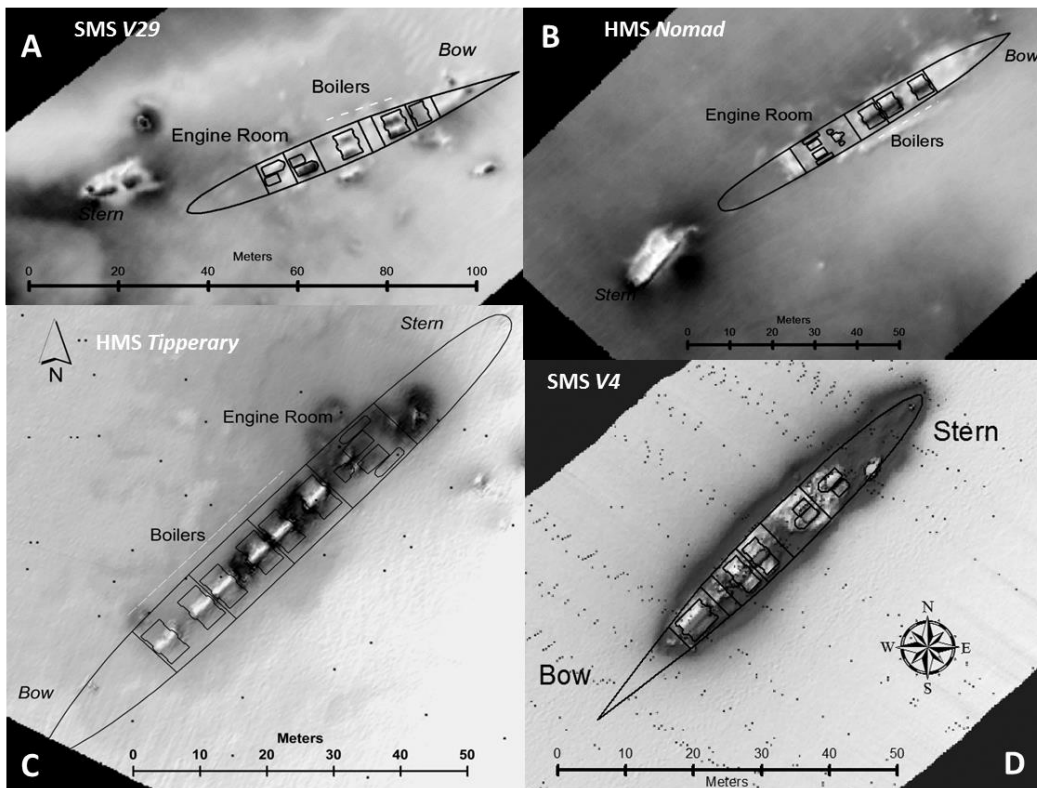


Figure 5. Multibeam scans of four of the smaller Jutland wrecks, showing the condensers removed (Innes McCartney/JD-Contractor).

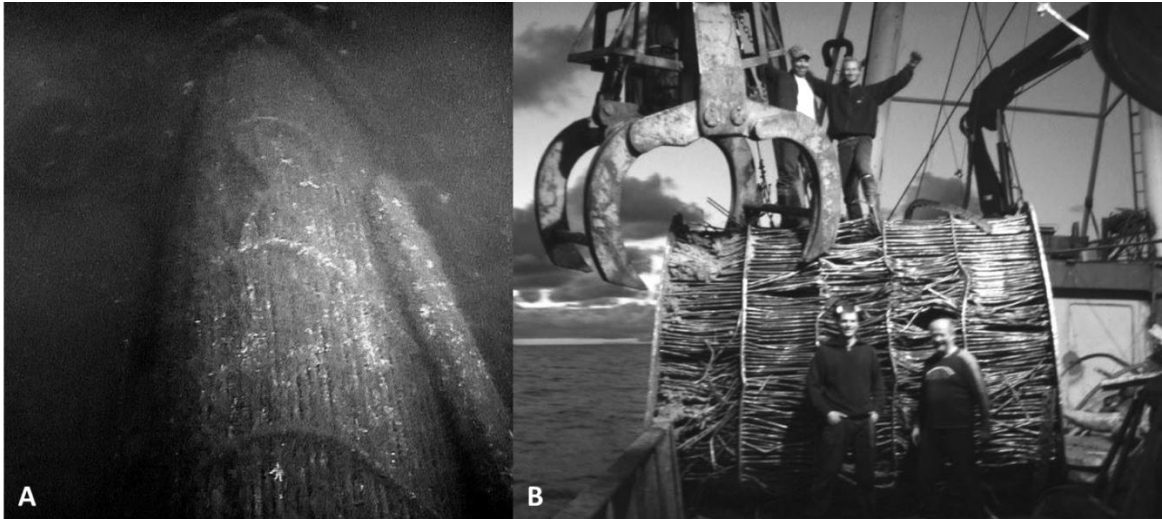


Figure 6. Condensers from the Jutland wrecks. Image (A) a condenser filmed on the wreck of HMS *Nomad* in 2002. Image (B) a condenser of similar design being salvaged from the wreck of HMS *Queen Mary* by “Friendship Offshore” in 2009. ((A) Kevin Pickering (B) thepipeline.info).