

**HM Submarine A1  
Annual Licensee Report  
By Martin Davies**

## **Introduction**

This is my second report for English Heritage on Submarine A1 since becoming Licensee. During this year a total of 5 dives have been completed on the wreck. Once again the poor British weather has dominated the amount of diving that has been accomplished on the site and prevented planned exercises from taking place. Two of the dives completed were in conjunction with the Nautical Archaeological Society (NAS) and were promoted as "Heritage dive" days, giving members access to the site under a Visitor license. At the beginning of the season and on the first dive it was discovered that illegal fishing activities had been taking place and this turned out to be a major hindrance to diving activities at the beginning and throughout the mid season.

## **Diving Activities**

Poor weather in April, May and June limited access to the site. The preferred window for diving is on a neap tide and on the flood. The unusual currents in the area mean that we have to look for a High Water neap and plan dives for 2.5 hours before HW(Portsmouth) These unique requirements limit the opportunities that are available to dive the site especially at weekends. In Bracklesham Bay, where the wreck lays, the sea bed is mainly silt/clay and this has gradually built up inside the wreck since the hatches have been removed. Diving on the ebb tide has the added difficulty that weed and debris from Chichester harbour is in suspension around the wreck or passing by in the current making visibility even worse.

There were 2 NAS days comprising a brief at NAS (Fort Cumberland), a dive on A1 followed afterwards by a visit to Submarine Museum at Gosport. These Heritage dive days were very successful. There was a lot of interest and positive feedback from the event. Initially 1 Charter Boat booking with Wight Diver but an additional day added to meet demand.

The other dives were completed using Southsea Sub-Aqua Club's (SSAC) RIB and a SSAC charter booking with Wight Diver.

Dives completed are as follows;

1st dive – 17/6/2007 - 3 divers

This dive was the first dive of the year on the wreck. We initially had difficulty in locating the wreck due to failure of the RIB main GPS, eventually locating it with a hand held unit and then diving the position to confirm the site. The visibility was only 1m and we found ourselves feeling our way around the wreck. Because of the problems locating the wreck the slack window had

been missed and a current was running. To add to this the site had been potted with a series of Lobster pots. The ropes from the pots (there appeared to be 2 separate lines) had wrapped themselves around the conning tower and criss-crossed themselves over the hull. In poor visibility the site was dangerous to dive and eventually the dive was abandoned. The movement of ropes around the conning tower had removed weed and protective growth from the structure and exposed areas of rusting steel.

A small red buoy was attached to the pots and attempts were made to trace the owner of the buoy and pots by Mark Dunkley from English Heritage, but with no success. No such vessel was registered with the markings found on the buoy.

Due to the nature of the hazard and the low visibility of the site a planned dive by SSAC was cancelled until the site had been cleared and the danger of entanglement removed.

2<sup>nd</sup> dive – 18 July 2007 NAS Heritage day

The day consisted of a dive brief, a dive on the submarine and then a visit to Gosport Submarine Museum including a look at Holland I. A1 has many similar design features to the Holland class submarine. The visit to the Submarine museum was very valuable and complemented the dive well for those studying for NAS qualifications.

In total 10 members from NAS plus a NAS representative and myself as Licensee dived the wreck on a visitor basis. More work was carried out to remove some of the ropes from the conning tower area; these ropes were causing damage to the wreck and were cut and removed from the site.

3<sup>rd</sup> Dive 25<sup>th</sup> July 2007 SSAC Club dive – Wight Diver charter - 10 divers

10 members of SSAC dived the wreck on a visitor basis and observed its condition. Pots and lines were removed again and moved away from the wreck site. It was observed that some of the man made pots has been secured to the submarine with a line and tied off indicating that these fishermen were in fact divers as well, and were illegally diving the site. However the pots seemed to have been abandoned for some time.

4<sup>th</sup> dive 1<sup>st</sup> August 2007 – NAS Heritage day

This day followed the same format as the previous A1 Heritage day, with a dive brief and dives on the wreck followed by a visit the submarine museum. Permission was sort from English Heritage to film on the dive and video footage of the submarine was taken by Innes McCartney and Ted Westhead showing her condition today and how she is lying.

5<sup>th</sup> dive 26<sup>th</sup> August 2007 - 5 divers SSAC RIB

This dive was used to make some basic measurements of the hull and structure in order to ascertain where the end of the wreck is at the stern. As a result it was calculated that 10m of the submarine is buried in the silt and mud of the Solent and is no longer visible. A large rotting buoy (see figure 5) lies on the sea bed - by coincidence where the stern approximately should be. It is hard to imagine the extent of the burial and what may lie beneath.

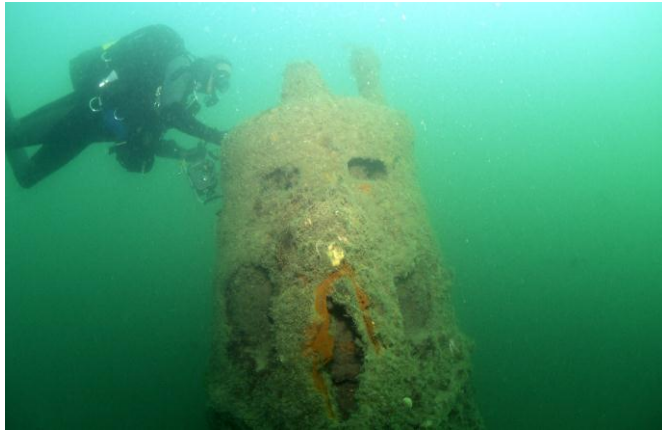


Figure 1 - Conning tower after ropes have been removed showing exposed metal, note lack of weed growth also.



Figure 2 Commercial & homemade lobster pots

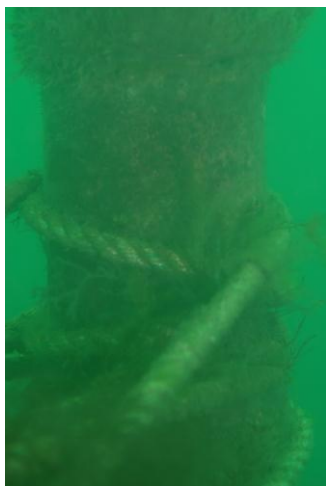


Figure 3 – Some of the rope around the conning tower area

There is a 300m exclusion zone around the wreck site and whilst this is a mandatory limit, it does not take into account movement of pots underwater when strong spring tides are present. Over time, despite being anchored down, these pots have entangled themselves around the wreck.



Figure 4 – The bow section of A1 is proud of the seabed.



Figure 5 – Picture of the buoy that is marking the approximate position of the stern.



Figure 6 – Looking down the starboard side of A1 showing the scour that has developed.

## **Other diving**

3 Sept 07 – HM Submarine A3 Portland

There are two remaining examples of the A class submarines left. HM Submarines A3 and A7. A3 lies in 38m of water in the Portland area and a dive was carried out to ascertain the condition of the vessel and also to observe the stern area and get an idea of what is buried in the mud. The dive was successful although the conditions were very dark and only what a torch illuminated could be seen. The condition of A3 is very good in comparison to A1 with a lot more of the conning tower detailed pipes and tubes still in place. Although the propeller is missing, the hydroplanes and rudder are intact. A7, being a later submarine, has some major differences in design and is also a 'Controlled Site' making diving almost impossible as the Ministry of Defence is unlikely to allow permission to dive the wreck.

## **Diving summary –**

This year has seen 2 very popular and educational NAS Heritage days. The wreck of the A1 submarine is in an ideal depth and location for NAS training. Almost 1/3<sup>rd</sup> of the wreck lies buried in the silt approximately (10m). As a result of illegal fishing activities the vegetation and animal turf has been stripped off from the conning tower by rope action. The marine life still seems as prolific as last year, with a high density of Tom pot Blenny's evident - some specimens of which are recognisable as individuals.

When diving the site using my club's rib then we are weather and tide dependent. The RIB is limited to 4 divers which in turn limits the amount of work that can be done on a dive. If we opt to dive using a charter boat then this is usually limited to 1 dive, as the tides are never correct for a second High Water dive. Financial liability for either myself or SSAC for unfilled charter boat spaces can be as much as £40 for each unfilled spaces which is a large financial risk.

## **Next year –**

Looking forward to next year, NAS have already confirmed that they would like to do two similar Heritage days to this year. I am looking into performing a more detailed survey and producing a site plan building on the previous survey done by Wessex Archaeology. As the stern section is not visible there are many questions that remain unanswered and I would like to spend some time investigating in a bit more detail. Questions such as - is the propeller still on the vessel? Has the attitude of the wreck changed? By making accurate measurements of the bow section I can determine the depth of the stern section in relation to the seabed. A3 is still available to dive for comparative results. The debris field still needs proper survey in conjunction with the site plan. More surveying of the marine life and behaviours is still to be completed.