

HMS m/A1 Submarine Designated Wreck Diver Trail

English Heritage NATIONAL HERITAGE PROTECTION COMMISSIONS PROGRAMME

Project Number 6750

Final Report



December 2013

NAS Project Number: NAS_EH6750

Project Manager: Mark Beattie-Edwards, MA, MIfA



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- Martin Davies, In Depth Photography
- Alison Bessel
- Martin Woodward, the owner of the HMS m/A1 submarine
- Mark James, MSDS Marine
- Sara Hasan, Pip Cherry, Mark Hobbs, Mark Card, Alison Mayor and all the other divers who helped to develop and test the underwater diver guides

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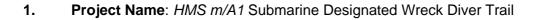
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2. Summary

The aim of the project was to develop a visitor diver trail on the designated wreck of the *HMS/m A1* submarine (designated under the Protection of Wrecks Act (1973) in 1998 (Statutory Instrument number 1998/2708), with an amendment in 2004 (Statutory Instrument number 2004/2395). The dive trail would be organised and managed by the *Nautical Archaeology Society* (NAS) in partnership with the Southsea branch of the *British Sub-Aqua Club* (SSAC).

An underwater information guide for divers visiting the site has been designed that will aid navigation and assist visitors in recognising features on the wreck. This guide also explains the background to the remains and the issues of protecting and managing the wreck. An online interactive visualisation has been created and supporting webpages are being hosted by the NAS where descriptions and photographs from visiting divers can be posted. The trail has been promoted by press release, circulated to several major diving magazines, and promotional leaflets for local and major diving shops.

3. Research Aims and Objectives

The aim of this project was to design, administer and deliver a diver trail on the protected wreck of *HMS/m A1* submarine that will facilitate safe public access to the wreck by visiting recreational scuba divers and thereby highlight the historical importance of the site and as a consequence reduce man-made threats to the site by educating those people that use the Solent waterway.

The objectives of the project were:

- To create an easy and appropriate method for visiting the protected wreck of *HMS/m A1* submarine which does not have any detrimental impact on the site;
- Promotion of the dive trail by press releases to diver magazines, web-pages and promotional materials in dive shops;
- To create file/image sharing webpages on *Flickr* to allow visitors to *HMS/m A1* submarine to upload their photographs that can then be used to assist the licensee and English Heritage maritime team;
- To create an interactive online visualisation of the wreck which can be used for both pre-dive and post-dive briefings as well as for non-divers to undertake a virtual online visit to the site;
- To facilitate the recording and reporting of information related to the marine life on the wreck to the *Marine Conservation Society* (MCS) via the *SeaSearch* Project;
- To write a project report that summarises the project, analyses uptake and feedback from two test events, evaluates the success of the two test events, as well as making recommendations for other possible diver trails on historic sites.
- Highlight the important historic value of the site to the general public, to the SCUBA diving community and the fishing community to reduce criminal impact on the site such as trawling, fishing and illegal diving. The NAS is a member of the *Alliance to Reduce Crime against Heritage* (ARCH) and believes that educational and awareness initiatives like this project can help reduce crime against monuments including wrecks.

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4. Project Scope

It is not within the scope of this project to complete a comprehensive survey of the *HMS/m A1* submarine, only of particular parts that will be used in the diver trail. This study will not make comparisons to the condition of the site in 2013 compared to that evidenced in previous surveys and visits to the wreck.

The six elements to the project were to:

- 1) Research and develop the appropriate method for the trail;
- 2) Determine the diver trail observation locations around the wreck of *HMS/m A1* submarine;
- 3) Produce water resistant underwater guides, including marine life reporting;
- 4) Create an online visualisation of the wreck as already done for the Holland 5 submarine by the NAS and *3deep Media Ltd* in 2012;
- 5) Promote the historical importance of the site and the dive trail by press releases to diver magazines, web-pages and leaflets;
- 6) Submit images from the site to the English Heritage Maritime Group *Flickr* pages (http://www.flickr.com/groups/ehmaritime);
- 7) Produce project report analysing the development of the trail.

5. Team Structure and Health & Safety

The work has been undertaken by an NAS Project Officer who has been managed the NAS Programme Director, Mark Beattie-Edwards, MA, MIfA. The online visualisation was undertaken by *3deep Media Ltd*. Underwater photography and video was undertaken by award winning professional photographer and current licensee of the wreck, Martin Davies, from *In depth Photography* and *Southsea Sub-Aqua Club*. Diving investigations and trails tests were undertaken in June, July, August and September 2013, by the NAS, which is a registered diving contractor with the Health and Safety Executive (HSE). The visits to the wreck were managed under a task specific diving approved code of practice (ACOP) and were undertaken by an HSE qualified dive team which included two divers, a safety stand-by diver and a diving supervisor.

All work for the project was conducted in accordance with the NAS "Health and Safety Policy". A copy of this policy can be found online on the NAS website at: www.nauticalarchaeologysociety.org/about/pdfs/HealthandSafetyPolicy_June2006.pdf.

6. The Diver Trail

The creation of the diver trail on the *HMS/m A1* submarine worked on the premise that as a complete (single context) submarine wreck, every visiting diver would be able to navigate and orientate themselves easily, even in poor underwater visibility. Compared to other protected wreck diver trails, such as on the *Coronation* and the Norman's Bay Wreck, the features are not dispersed over a large area of seabed.

The most appropriate method for the creation of the diver trail on the *HMS/m A1* submarine was felt to be through the use of multibeam sonar survey and through an accurate artists visualisation which would be available online (Section 7). As a result no deposits of navigation aids/signage on the seabed have been needed. Visiting divers would only need a waterproof underwater guide which can be used as a reminder; as an aid to navigation; as a way for divers to record observations, and as a photographic and measuring scale (Figure 1). These underwater guides can be either downloaded (and then printed) from the project webpage (Section 9) or can be loaned from the NAS for a £5.00 refundable deposit.



6.1. Underwater Guides

The design of the *HMS m/A1* submarine underwater guides has drawn heavily on the design of guides used on other protected wrecks. The project team had access to dive trail guides from the wreck of the *Hazardous*, the *Coronation*, from the HMS *Colossus* diver trail as well as the guides used by the NAS on the wreck of the *Holland No.5* submarine.

The project team also borrowed ideas from the waterproof diver's map produced in Finland for the wreck of the *Kronprins Gustav Adolf*, off Helsinki (www.nba.fi/en/cultural_environment/archaeological_heritage/underwater_cultural_heritage/underwater_park).

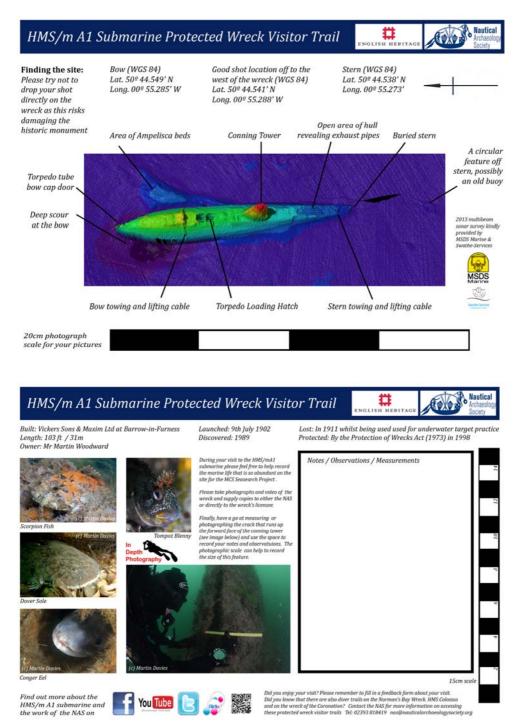


Figure 1: The underwater guides for the HMS m/A1 submarine diver trail

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The underwater guides serve many purposes and are divided up to cover different aspects of the site and assist any visit to the wreck. The areas covered include:

- Finding the site including GPS co-ordinates for the bow, the stern and the best location for deploying a diver access shot weight on the site. It asks visitors "please do not deploy your shot directly on the wreck as this risks damaging the historic monument"
- A north arrow to aid navigation and orientation
- A labelled multibeam sonar image of the wreck to facilitate observation and aid visitor understanding and navigation. Labels include:
 - Torpedo tube bow cap door
 - Deep scour at bow
 - Bow towing and lifting cable
 - Torpedo loading hatch
 - Stern towing and lifting cable
 - A circular feature off the stern, possibly an old buoy
 - Buried stern
 - Open area of hull revealing exhaust pipes
 - Conning tower
 - Area of Ampelisca beds
- A 20cm photographic scale (divided by 5cm colour bars) to be used by underwater photographers when photographing particular features.
- General information about the builder, launching and loss dates, length of vessel, the owner and the date the wreck was protected by the Protection of Wrecks Act (1973).
- Space for any notes and observations.
- A 15cm scale (divided by 1cm colour bars and numbers) for taking small measurements of particular features such as holes or cracks in the hull of the wreck.
- Four images of marine life found on the wreck.
- Find out more about the HMS m/A1 submarine and the NAS including a Quick Reader (QR) code.
- Text which suggests that visitors could record marine life for the Seasearch Project.
- Text which suggests that visitors take photographs and videos of the wreck and supply these to the NAS or directly to the wreck's licensee.
- Text (and a supporting image) which suggests visitors measure and photograph the width of the crack that runs up the leading edge of the conning tower.
- Text requesting that visitors complete a feedback form and contact the NAS if they are interested in visiting other protected wreck diver trails such as the *Coronation* or the Norman's Bay Wreck.

The information on the underwater guides was developed following two visits by diving groups in the summer of 2013. These visits involved divers from the *Nautical Archaeology Sub-Aqua Club* and *Southsea Sub-Aqua Club*, with a mixture of divers who had visited before and some who had not visited the wreck before. The biggest issue from these test visits was the divers ability to find the wreck and deploy their "shot line" in a safe location so as to avoid damaging the wreck but also close enough to actually find the wreck.



7. Visualisation

One of the elements of the project was to create an online visualisation of the wreck – as already done for the *Holland No.5* submarine by the NAS and *3deep Media Ltd* in 2012 <u>http://www.3deepmedia.co.uk/holland5/</u>. The *HMS m/A1* submarine visualisation was created by providing *3deep Media Ltd* with the engineer's general arrangement drawings, with multibeam sonar imagery, as well as up-to-date photographs and videos of the condition of the wreck. These were supplied by the NAS and by Martin Davies. The project was fortunate to be offered the use of new multibeam sonar survey undertaken by *MSDS* and *Swathe-Services* during the summer of 2013 (Figure 2). This survey data allowed the graphic artist at *3deep Media Ltd* to build the seabed environment surrounding the wreck.

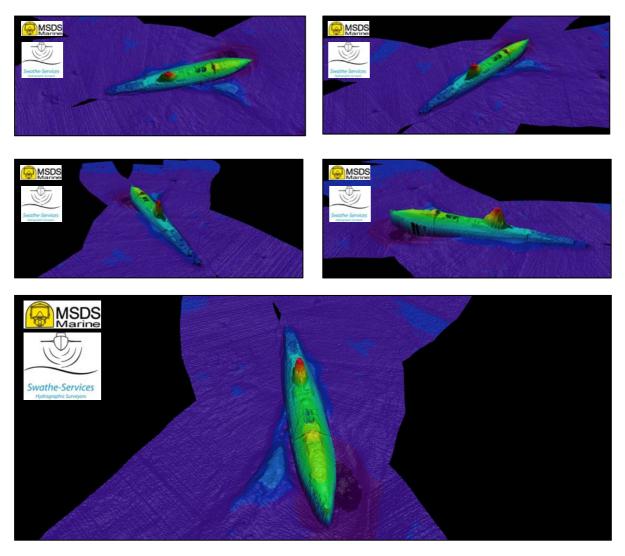
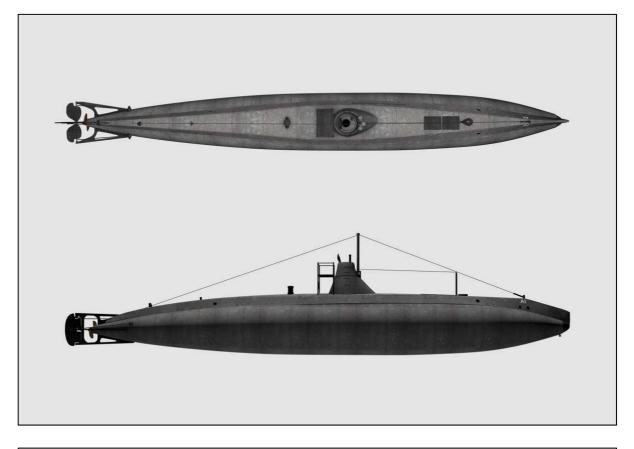
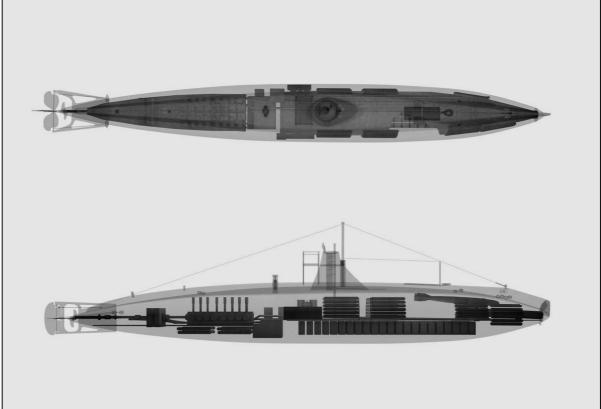


Figure 2: Multibeam Sonar Survey of *HMS m/A1* submarine undertaken in 2013 © *MSDS* and *Swathe-Services*.

The final "wreck" visualisation of the *HMS* m/A1 submarine, produced and hosted on the NAS website, also included an "as built" version of the submarine (Figure 3 & 7 & 8) as well as an "internal" version (Figures 4 & 5 & 6) which shows some internal features of the submarine when it was in active service. The webpage makes it clear that this is not necessarily what is expected to be inside the wreck of the *HMS* m/A1 submarine.







Figures 3 and 4: The HMS m/A1 submarine "as built" and "internal" visualisations © 3deep Media Ltd



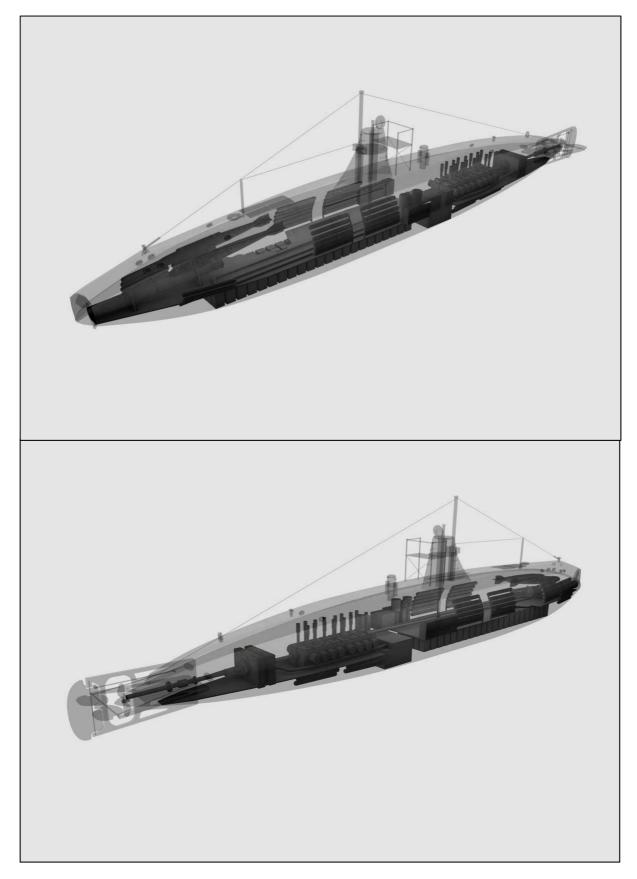


Figure 5: The HMS m/A1 submarine "internal" visualisations © 3deep Media Ltd



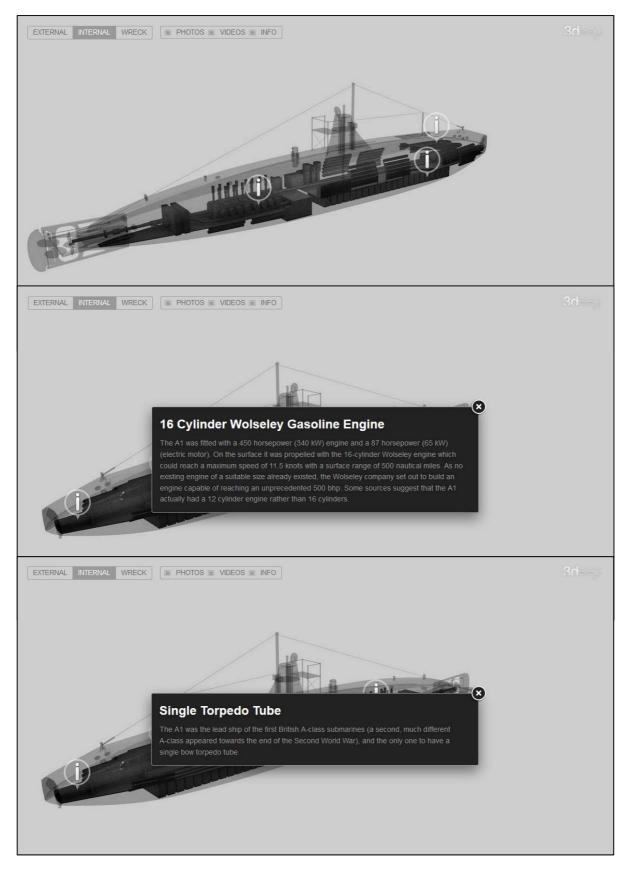


Figure 6: Screen grabs of the online HMS m/A1 submarine "internal" visualisations © 3deepMedia Ltd



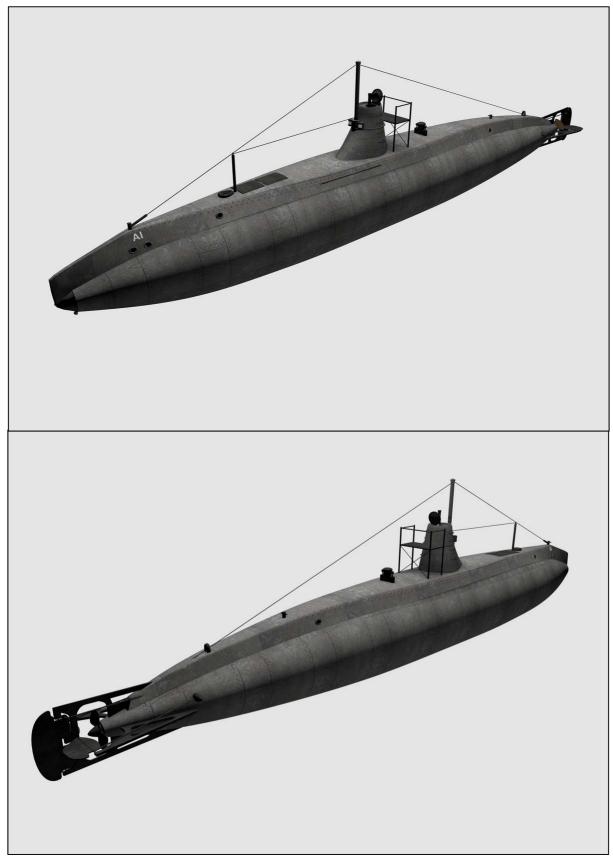


Figure 7: The HMS m/A1 submarine "as built" visualisations © 3deepMedia Ltd



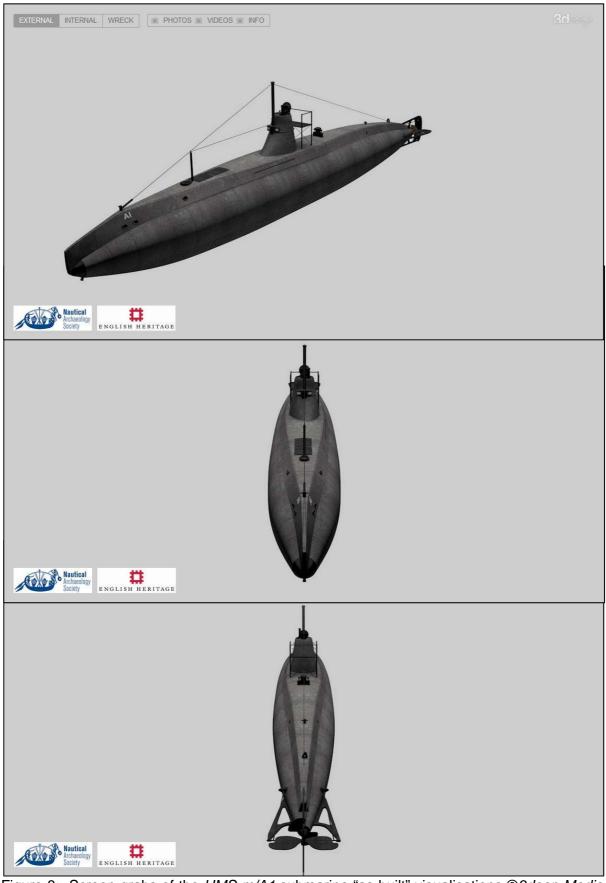


Figure 8: Screen grabs of the HMS m/A1 submarine "as built" visualisations ©3deep Media Ltd





Figure 9: The HMS m/A1 submarine "wreck" visualisations © 3deep Media Ltd



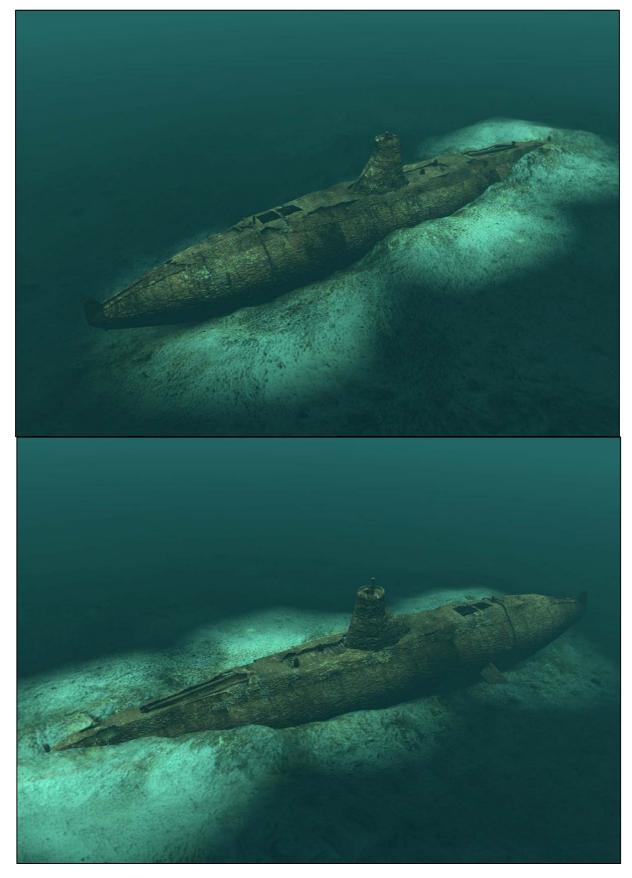


Figure 10: The HMS m/A1 submarine "wreck" visualisations © 3deep Media Ltd

The interactive visualisation is currently hosted on the NAS website under the heading of "Current UK Projects" and can be found at <u>www.nauticalarchaeologysociety.org/content/a1-</u> <u>submarine</u> (Figure 11). The visualisation will also be hosted on the website of Southsea Sub-Aqua Club, courtesy of the wreck's licensee, Martin Davies.

The "wreck" visualisation allows the online viewer to spin the image around a horizontal axis by 360 degrees to view from every angle. Embedded in the "wreck" visualisation are four short video clips (the bow, torpedo loading hatch, conning tower and exposed exhaust pipes). There are also five embedded photographs that show details of the wreck along with descriptive text (Figures 11 & 12).

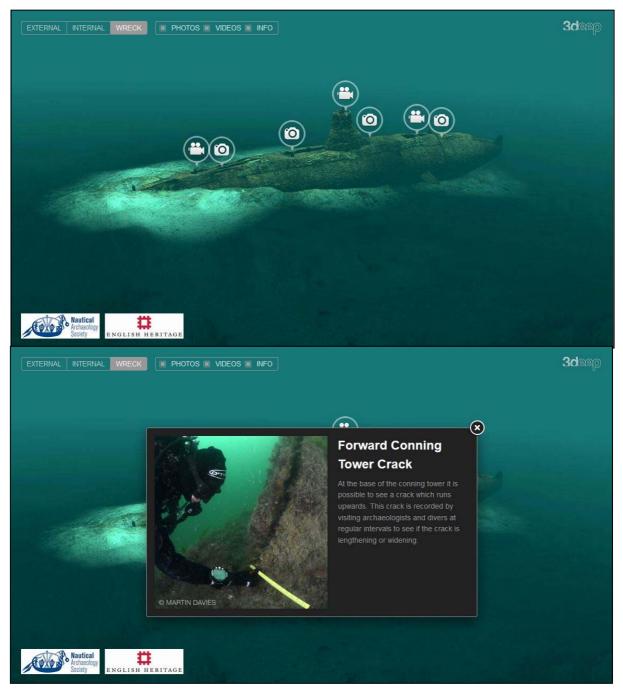


Figure 11: Screen grabs of the online *HMS m/A1* submarine "wreck" visualisation © *3deep Media Ltd*

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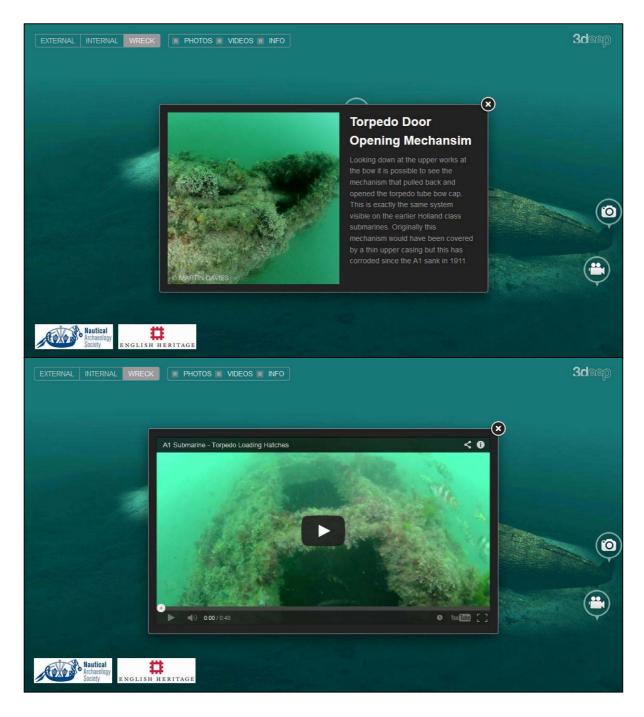


Figure 12: Screen grabs of the online *HMS m/A1* submarine "wreck" visualisation © *3deep Media Ltd*



8. Marine Life Recording

During visits to the wreck of *HMS m/A1* submarine in 2013 the NAS dive team were joined by a professional marine biologist, Alison Bessel. The marine life surveys were undertaken to provide a baseline of marine life species abundance. Data has been supplied to the *Marine Conservation Society* (MCS) via the *SeaSearch Project*. It is expected that these marine life surveys can be repeated by trained *SeaSearch* divers who will be able to visit the wreck diver trail. The opportunity for visitors to contribute to our understanding of the marine life on the wreck is emphasised on the waterproof diver guides (Section 6.1).



Figure 13: Marine life present on the wreck of *HMS m/A1* submarine in 2013. All images © Martin Davies



9. Promotion and File Sharing

The *HMS m/A1* Submarine Protected Wreck Diver Trail was launched at the UK Dive Show held at the National Exhibition Centre (NEC) in Birmingham on the 26th and 27th October 2013. The show was visited by 16,457 people. The NAS produced 10,000 copies of a DL size double sided leaflet which was given out to visiting members of the public. This leaflet challenged divers to *"add another submarine to their logbook"* and provided details of how to dive the protected wreck (Figure 14).



Figure 14: The two sides of the DL promotional leaflet given out at the launch of the visitor diver trail

The same images were also used as part of the backdrop to the NAS stand at the Dive Show to attract people to visit the stand (Figure 15). An interactive touchscreen was also used to show a demonstration version of the visualisation produced by *3Deep Media Ltd* (Figure 16). This served as a way to test the draft version and make any changes before



uploading the visualisation to the internet. The NAS is indebted to Mike Postons of *3deep Media Ltd* for the loan of the touchscreen.

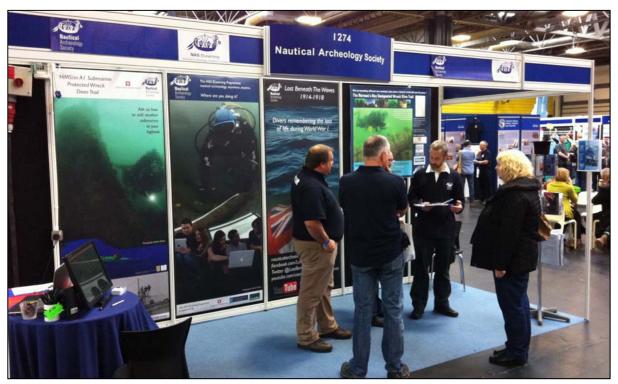


Figure 15: The NAS exhibition stand at the UK Dive Show in October 2013, incorporating the backing panel about the *HMS m/A1* Submarine Protected Wreck Diver Trail.



Figure 16: The draft version of the visualisation was presented via an interactive touch screen at the UK dive show launch event.

The webpage dedicated to the HMS m/A1 submarine diver trail was developed during the project and was launched in December 2013. The webpage is hosted on the website of the NAS and is at: http://www.nauticalarchaeologysociety.org/content/a1-submarine

The webpage is divided into several sections including background to the trail; diving the HMS m/A1 submarine; the Google Calendar; the visualisation; and finally a section titled Frequently Asked Questions. Screen grabs of the entire webpage are presented below in Figure 17.

A1 Submarine

Monday, January 6, 2014

During 2013 the Nautical Archaeology Society undertook a new project, funded by English Heritage to establish a diver visitor trail on the wreck of the A1 submarine which will open to visiting divers ready for the 2014 diving season

The aim of the project was to develop a visitor diver trail on the designated wreck of the HMS/m A1 submarine (designated under the Protection of Wrecks Act (1973) in 1998 (Statutory Instrument number 1998/2708), with an amendment in 2004 (Statutory Instrument number 2004/2395). The dive trail is organised and managed by the NAS in partnership with the Southsea branch of the British Sub-Aqua Club (SSAC). An underwater information quide for divers visiting the site has been designed that will aid navigation and assist visitors in recognising features on the wreck. This guide will also explain the background to the remains and the issues of protecting and managing the wreck. An online interactive visualisation will be created and supporting webpages will be hosted by the NAS and SSAC where descriptions and photographs from visiting divers can be posted. The trail will be promoted by press release, circulated to several major diving magazines, and promotional materials for local and major diving shops.

Diver visitor trails have to date proved a useful way of managing public access to wrecks protected under the Protection of Wrecks Act (1973). The goal of any diver visitor trail will be to improve public access to the underwater cultural heritage whilst not putting that heritage at risk of damage as a result of increased access. This project is aiming to emulate successful trails established on the other protected wrecks of HMS Hazardous in Brackelsham Bay, West Sussex, on HMS Colossus off the Isles of Scilly, on the Coronation wreck off Plymouth, Devon and on the Norman's Bay Wreck off Eastbourne in Sussex

The wreck of HMS/m A1 submarine has been identified as a suitable candidate for a visitor diver trail as it is well documented, historically interesting to divers, substantial and upstanding which will make it easier to locate by visiting groups, because it is robust enough to withstand improved visitor access and finally because it is lies in a geographical position where visiting the wreck is relatively simple and safe.

Designing the trail will involve collation of all the background information needed to design the underwater guides and the promotional materials. At this stage we will also be looking to obtain images and video footage for the online visualisation which will be created by 3deep Media Ltd. This stage of the project will take place between February and May 2013. The next stage will involve the organisation and management of the six visits to the wreck by and NAS dive team and by recreational diving groups between June 2013 and September 2013. This will be done by the NAS in conjunction with the licensee Martin Davies from Southsea Sub-Agua Club. The final stage of the project will be the promotion and reporting. This will include the promotion of the trail to the general public and possible future visitors. This stage will also involve the writing of a final report on the project for English Heritage. The report will review the project and also make recommendations based on lessons learnt regarding the design of the trail and the online visualisation. This stage of the project will take place between October 2013 and the end of December 2013.

November 2013 Update:

During 2013 the Nautical Archaeology Society undertook a new project, funded by English Heritage to establish a diver visitor trail on the protected wreck of the HMS m/A1 submarine which is now open to visiting divers

The aim of the project was to develop a visitor diver trail on the wreck of the HMS/m A1 submarine (designated under the Protection of Wrecks Act (1973) in 1998 (Statutory Instrument number 1998/2708), with an amendment in 2004 (Statutory Instrument number 2004/2395). The dive trail has been funded by English Heritage and is being organised and managed by the NAS in partnership with the Southsea branch of the British Sub-Aqua Club (SSAC) and Martin Davies of In Depth Photography, the wrecks current licensee

An underwater information guide for divers visiting the site has been designed that will aid navigation and assist visitors in recognising features on the wreck. This guide also explains the background to the remains. An online interactive visualisation has also been created (see below). Visiting divers are encouraged to post images of their visits onto the NAS Facebook page or send them to the NAS.

Download a pdf of the underwater guide here

Dive the A1 Submarine Protected Wreck site with the NAS

Every year the NAS offers chances to dive the A1 Submarine Protected Wreck site (15m maximum) along with the wreck of HMS Invincible (lost 1758) (14m maximum). Please visit the Calendar page for a list of dates. Additional dates can be made available for group bookings of eight divers on demand. Contact the NAS

Diving the A1 Submarine Protected Wreck with the NAS will normally be on a RIB, out of Portsmouth. Cost £50 for two dives

The price does not include equipment hire or air or nitrox fills. The NAS has a limited supply of 15 litre cylinders for hire at £5.00 per dive. No NAS qualification required. Minimum diving qualification is BSAC Sports Diver/PADI Advanced Open Water or equivalent. Proof of recent UK (cold) water divers will be required.

Dive the A1 Submarine Protected Wreck Diver Trail without the NAS

If you are interested in diving the A1 Submarine Protected Wreck Diver Trail without the NAS, please look on the calendar below to see which dates are currently free. To avoid too many divers on the site at the same time we are trying to give each diving group their own day or their own slack tide on the wreck. To see the dates already booked please look at the Calendar

There is a slack(ish) period around 2 hours before HW Portsmouth and 5 hours after HW Portsmouth (best on neaps), however there is never much slack water whenever you dive the wreck so be prepared to drift off the site after your dive

Figure 17: A series of screen grabs showing the entire webpage dedicated to the HMS m/A1 Submarine diver trail at http://www.nauticalarchaeologysociety.org/content/a1-submarine



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Google Calendar

A1 Submarine Protected Wreck Diver Trail Las 2042

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8	9	10	11	12	13	1
15	16	17	18	19	20	2
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	30	31	Jan 1	2	3	

The calendar can also be found by following this link: https://www.google.com/calendar/embed?src=ldlgshhp0m9g09qn5sqnvajf70%40g...

Visualisation:

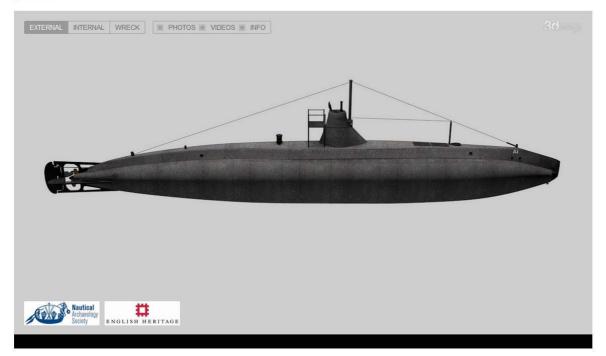
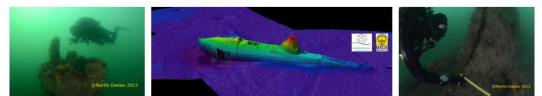


Figure 17: A series of screen grabs showing the entire webpage dedicated to the HMS m/A1 submarine diver trail at http://www.nauticalarchaeologysociety.org/content/a1-submarine



Diver visitor trails have to date proved a useful way of managing public access to wrecks protected under the Protection of Wrecks Act (1973). The goal of any diver visitor trail is to improve public access to the underwater cultural heritage whilst not putting that heritage at risk of damage as a result of increased access. This project is aiming to emulate successful trails established on the other protected wrecks of HMS Hazardous in Brackelsham Bay, West Sussex, on HMS Colossus off the Isles of Scilly, on the Coronation wreck off Plymouth, Devon and on the Norman's Bay Wreck off Eastbourne in Sussex.

The wreck of HMS/m A1 submarine was identified as a suitable candidate for a visitor diver trail as it is well documented, historically interesting to divers, substantial and upstanding which will make it easier to locate by visiting groups, because it is robust enough to withstand improved visitor access and finally because it is lies in a geographical position where visiting the wreck is relatively simple and safe.



Images - Left: The top of the conning tower C Martin Davies. Middle: A multibeam sonar survey images courtesy of MSDS Marine and Swathe Services. Right: Diver measuring the crack in the leading edge of the conning tower C Martin Davies.

Designing the trail has involved collation of all the background information needed to design the underwater guides and the wreck visualisation which has been created by 3deep Media Ltd, as well as undertaking new dives in 2013 to collect up to date photographs and videos of the condition of the protected wreck. In the same year the project was also lucky enough to be given new multibeam sonar survey images courtesy of MSDS Marine and Swathe Services, which has really helped to understand the wider landscape surrounding the wreck.

A1 Submarine Wreck Diver Trail FAQ's

Q. Can I dive the site whenever I want to?

A. No. The wreck is protected under the Protection of Wrecks Act 1973 so you must be issued with a visitors licence to visit the site or have your name added to an existing licence held by another party. No survey, recovery or excavation work may be undertaken without additional licences.

Q. What is the easiest way for me or my group to dive the wreck?

A. The NAS has a licence to dive the site and you can have the names of your divers added to their licence. Contact the NAS Office.

Q. Can I apply for my own licence to visit the wreck?

A. Yes. See the English Heritage website for guidance on applying for your own licence to visit the wreck. If you are granted your own licence to visit the wreck, English Heritage will automatically contact the NAS and Martin Davies as the licensee to ensure that two groups are not diving the site at the same time.

Q. When is a good time to dive the wreck?

A. Tidal information: There is a slack (ish) period around 2 hours before HW Portsmouth and 5 hours after HW Portsmouth (best on neaps) There is never much slack water whenever you dive the wreck so be prepared to drift off the site after your dive.

Q. How do I book a date to dive the trail?

A. Please look at the Google Calendar to see dates already booked by other groups and contact the NAS Office with suggestions of a date or dates suitable to your group.

Q. What diving gualification do I need?

A. The wreck is 10m-15m of water so it is suitable for all qualified divers.

Q. Do I need an NAS qualification to dive the site?

A. No. In order to visit the wreck you do not need any archaeological qualification. If you would like to help record the site with the NAS then we would recommend the minimum of an NAS Part 1 Certificate in Foreshore and Underwater Archaeology

Q. Where would we be diving from?

A. The wreck can be easily reached from Portsmouth, Chichester, Selsey or even Bembridge on the IOW. There are lots of places to launch your own RIB from these harbours. Charter dive boats also run out of Portsmouth.

Q. How can we find the wreck?

A. Use the GPS co-ordinates for a good shot location off to the west of the wreck - Lat. 50° 44.541' N, Long. 00° 55.288' W (WGS84). These co-ordinates above are for a position about 20 meters off to the west of the conning tower. There will probably not be a buoy on the site, although there may be several nearby which are owned by local fishermen. PLEASE BE CAREFUL TO AVOID THE WRECK IF DEPLOYING YOUR OWN SHOT ON TO THE SITE.

Q. How do we obtain underwater trail guides?

A. Once you have a date booked to dive the site you will be contacted to arrange delivery and return of the waterproof guides for your diving group. These guides are available for a £5.00 deposit per guide which will be refunded when the guides are returned to the NAS. Alternatively you could print the guides and laminate them yourselves. Follow the link for a pdf of the two page underwater guide.

Q. Can I add my photographs to the project archive?

A. Yes. Please either send photographs to the NAS office and add your photos with a description and a date the photograph was taken or share with the NAS on our Facebook page.

Q. Can I take video of the wreck?

A Yes. Please feel free to take video of the wreck. To help us build a better understanding of the site please supply a copy of the video to the NAS. There are a number of short videos hosted on the NAS YouTube Channel.

Q. Can I record the marine life for Seasearch?

A. Yes. The site is a wonderful reef for marine life. Please feel free to complete a Seasearch Recorder or Surveyor Form and send to Seasearch. The NAS would appreciate a copy of the form so we can see how many people are recording the marine life and what they are finding on the wreck.

Figure 17: A series of screen grabs showing the entire webpage dedicated to the *HMS m/A1* submarine diver trail at http://www.nauticalarchaeologysociety.org/content/a1-submarine



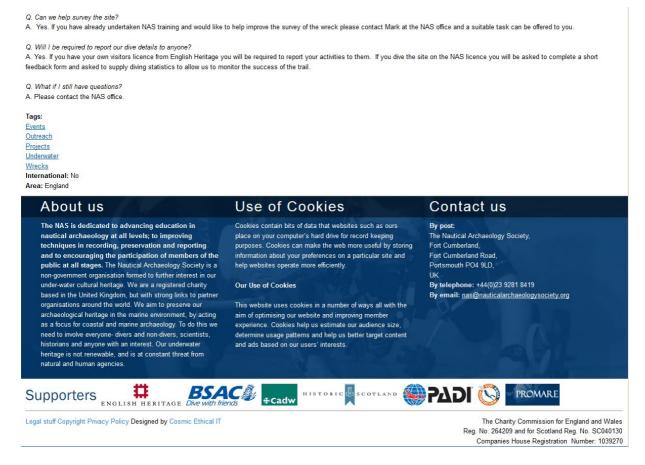


Figure 17: A series of screen grabs showing the entire webpage dedicated to the *HMS m/A1* submarine diver trail at <u>http://www.nauticalarchaeologysociety.org/content/a1-submarine</u>

One of the stated objectives of the project was to submit images from the wreck to the English Heritage Maritime Group *Flickr* pages (<u>http://www.flickr.com/groups/ehmaritime</u>). These images were supplied to English Heritage in December 2013. The project also established a *Flickr* Group for the *HMS m/A1* submarine designed for visiting divers to upload their images to. This is at <u>http://www.flickr.com/groups/a1_submarine/</u> and is being managed and maintained by the Nautical Archaeology Society (Figure 18).

A press release about the project was issued on the 4th December 2013 to announce the opening of the protected wreck diver trail for visiting divers in 2014 and to draw attention to the webpage. The press release was distributed to the main UK diving magazines including *Scottish Diver* Magazine and it is expected that a photo-journalist from at least one of the magazines will dive the site with the NAS in 2014 to produce an in depth article.



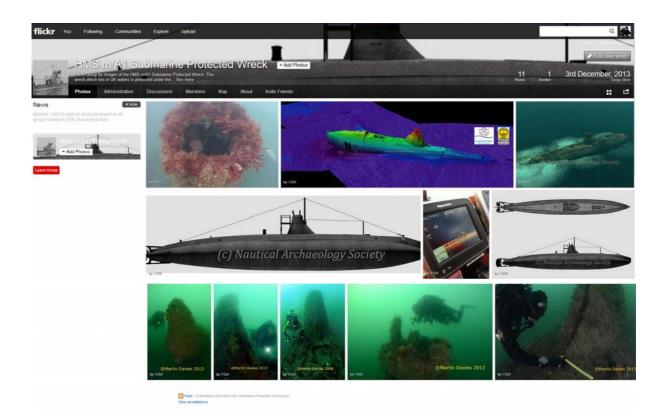


Figure 18: A screen grab showing the Flickr Group for the HMS m/A1 submarine at http://www.flickr.com/groups/a1 submarine/

10. Lessons Learnt & Recommendations

Naturally many lessons are learnt whilst undertaking a project of this kind and some are positive (what does work) and some are negative (what does not work). It is worth stressing that some of these lessons are specific for this particular site, in this particular location and with the resources available to this project and as such they must not be taken as a rule.

10.1. In the project development stage the main lesson learnt has been in the design of the trail. It is vital to have a comprehensive understanding of your site and an accurate site plan. This could be via multibeam sonar, as in this project, or by comprehensive two dimensional site plans, as in the Norman's Bay Wreck, HMS Colossus and the Coronation.

10.2. It is recommended that a protected wreck diver trail site has a marker buoy to allow visiting divers to find and access the trail from a single preferred starting point. This buoy also serves to protect the site from damage caused by the deployment of diver shot-line weights which can weigh as much as 50kgs. Finding wrecks at sea, even upstanding ones like the HMS m/A 1 submarine is not easy and the most illuminating experience from the two test visits undertaken by divers in 2013 was the difficulty they had in finding and "shotting" the wreck. Both visits took at least three attempts to place their "shot line" in a good location.

10.3. It is essential to work with other groups, especially the protected wreck licensee who will also be visiting or recording the wreck.

10.4. It is recommended that any group wishing to undertake a similar project should allow a minimum of one year for the design, creation and development of a diver visitor trail on a single context upstanding wreck like a submarine.

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10.5. It is recommended that any group wishing to undertake a similar project build in a contingency for days lost due to bad weather or poor underwater visibility.

10.6. It is recommended that online visualisations of protected wrecks should be created for every site that has a diver trail. These visualisations not only allow visiting divers to better understand the wreck they are visiting, but also allows non-divers to witness and appreciate what the site looks like.

Online visualisations like the one on the *HMS m/A1* submarine, along with their additional information, photographs and videos highlight the important historic value of the site to the general public, to the SCUBA diving community and the fishing community to reduce criminal impact on the site such as trawling, fishing and illegal diving. The NAS is a member of the *Alliance to Reduce Crime against Heritage* (ARCH) and believes that educational and awareness initiatives like this project can help reduce crime against monuments including wrecks.

10.7. It is recommended that any group wishing to undertake a similar project should have a skilled (or professional) photographer and videographer on the project team. High quality images and videos are required in all stages of the project and for all project products, especially for promotional materials.

10.8. From experience it is author's view that all diver trails on protected wrecks like the *HMS m/A1* submarine require ongoing maintenance and therefore costs. These costs should not be burdened on the volunteer licensees who are in most cases managing the diver trails.

The real success of the *HMS m/A1* Submarine Designated Wreck Diver Trail project can only be evaluated in the long term. The NAS intends to continue to develop and administer the trail and to look for new mechanisms to promote the experience of diving on this underwater cultural heritage asset. The NAS believes that visiting, seeing and touching a site like the *HMS m/A1* submarine, the *Norman's Bay Wreck* and the *Coronation*, can be wholly positive experience that can change people's perception of the value of *in situ* preservation and the management regime for wrecks protected by the Protection of Wrecks Act (1973).

11. Bibliography

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