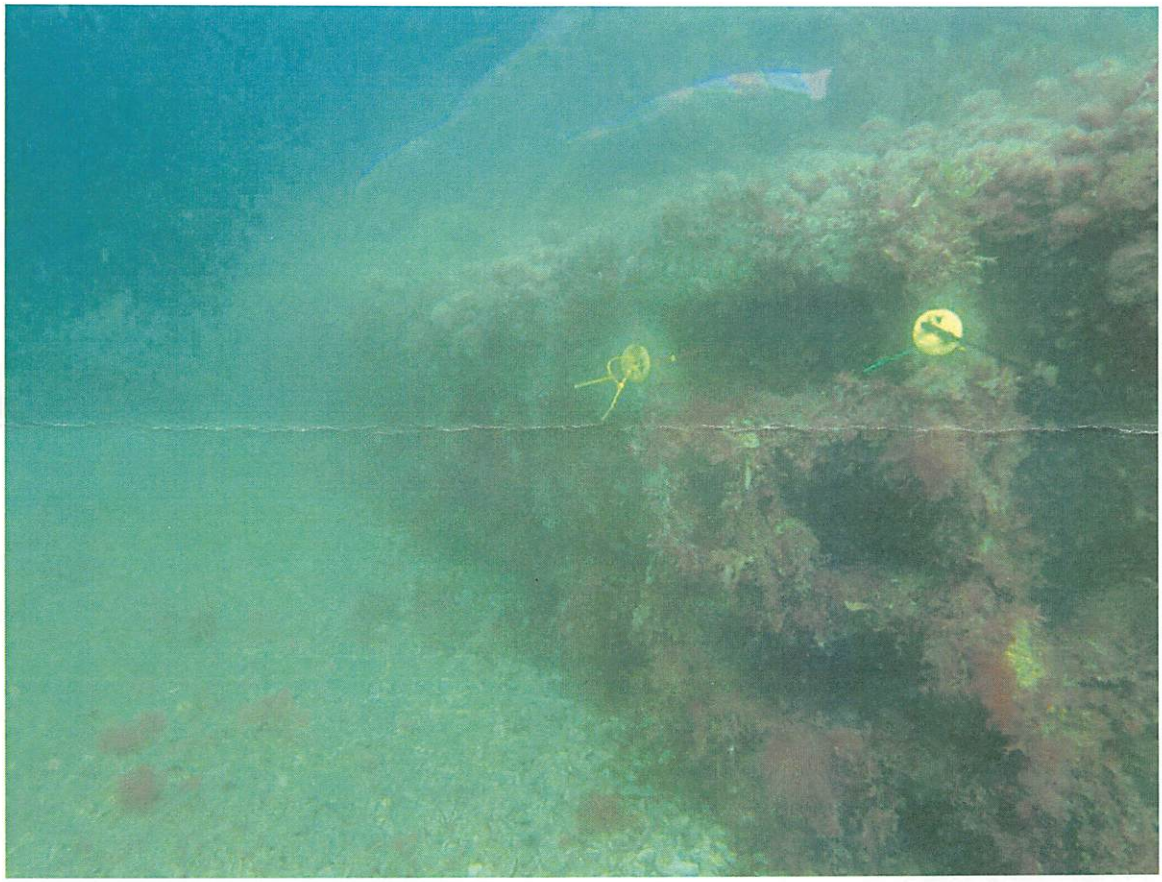
Survey report of the Air Search Rescues craft known as the Cuckoo, lying off Selsey

Submitted as part of the NAS Part II Underwater Archaeology



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Abstract

This project investigates the small, intact wreck found off Selsey known as the Cuckoo. A full 3 dimensional survey of the wreck was carried out to positively identify the wreck. This research was conducted at an average depth of 12m of water, using non-invasive recording techniques to determine the actual dimensions and unique features of the wreck. The surveying was carried out over 1 week in August 2013. Observations showed that this is one of the ASR dumb barges reported missing in the area in 1942, but were unable to positively identify it as the ASR-12
Keywords: Cuckoo, Selsey, Dumb Barge, Intact wreck, ASR

Introduction

I was the project leader, with Kenny Phillips as my assistant. He calculated slack water dive times and took responsibility for all data input. Adam Hunt was the Diving Officer in charge of the dive planning. Darren Anderson was in charge of Health and Safety and made the daily decision if it was safe to dive. Kevin Bye took full control of the club rib, positioning of the wreck and setting up the marker buoy for the weeks diving. Chris O'Reilly ensured Gas and Air was available for diving.

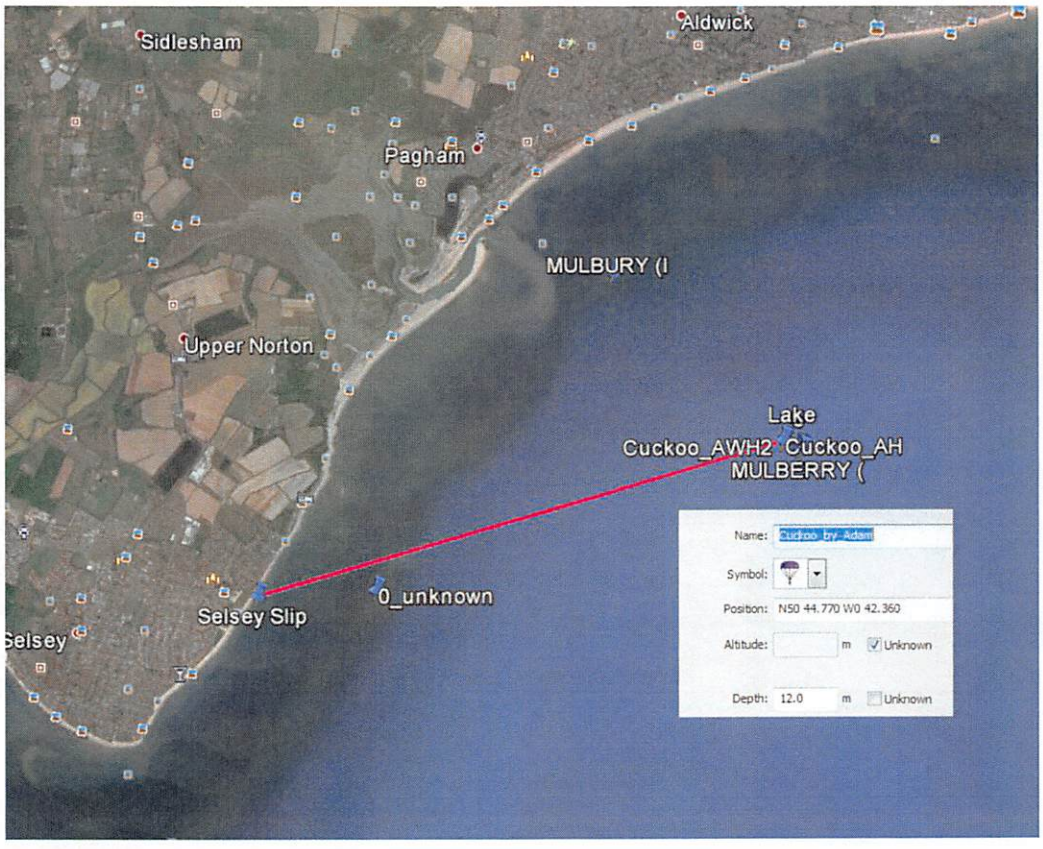
The aim of the project was to confirm the Cuckoo off Selsey was an ASR reported missing in the latter half of 1942. In addition, I wanted to show the deterioration of the wreck over the last 70 years using a comparison of records, survey results and photos.

I wanted to positively identify the wreck off the Selsey coast as the ASR-12 Dumb Barge. I aimed to use 3 dimension surveying techniques and 3H consulting's Site Recorder software to ascertain that the dimensions of the wreck corresponded to the construction dimension of the dumb barges built in 1941. I also wanted to identify two unique features of the wreck, namely the cut-away stern section and the ladders on the bow.

This work was to support the NAS Adopt a Wreck scheme. The purpose of adopting and surveying the Cuckoo was to give the club members the opportunity to learn additional skills and to add an additional dimension to our clubs' diving in UK waters. This wreck was selected for its proximity to our club in Hampshire, its depth and size, making it a very manageable task for our small club.

Site location

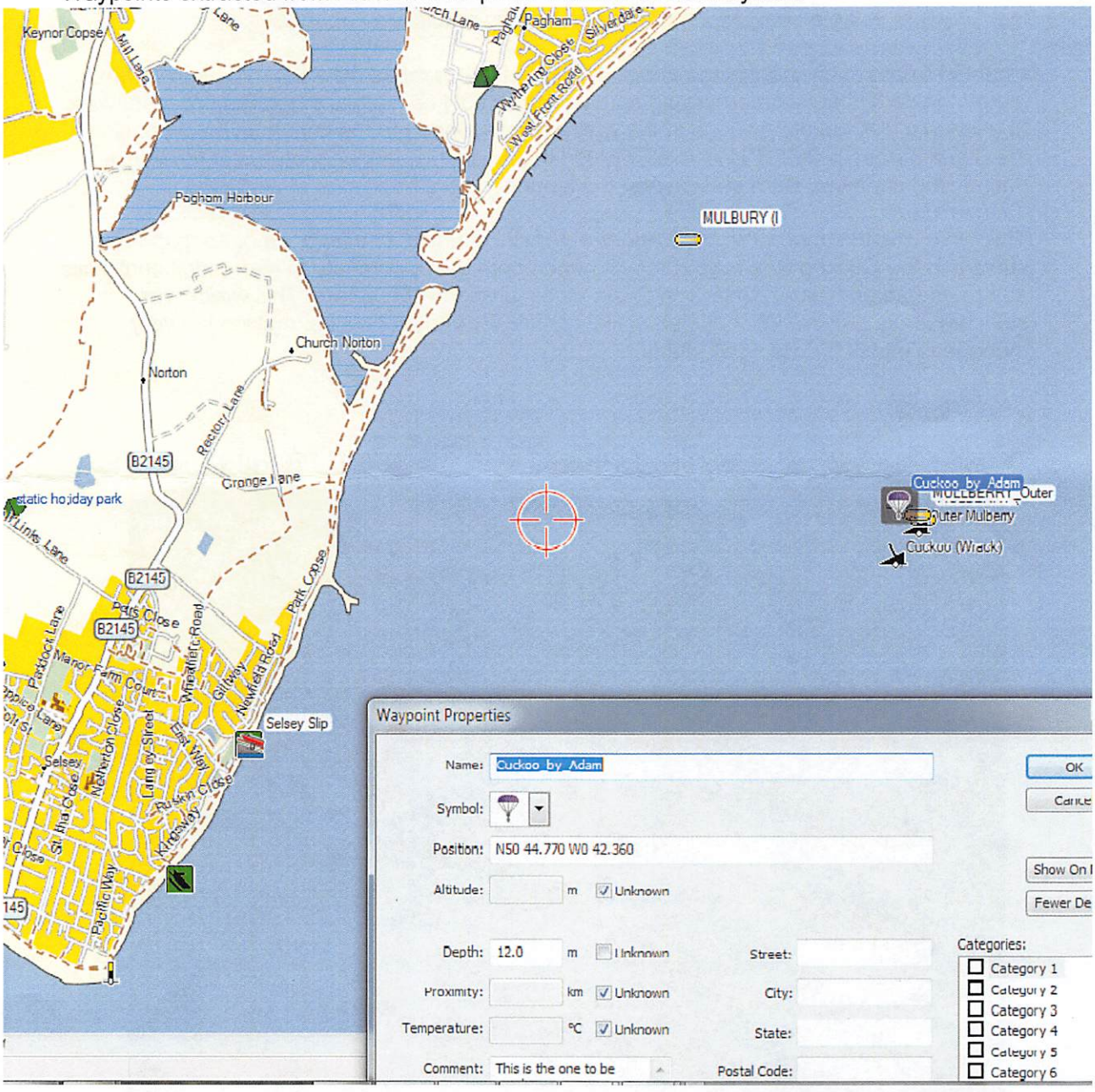
The wreck is located off Selsey at a depth of 12 to 15 m at N50 44.770 W0 42.360



Diving the Cuckoo

There is a rope leading from the Far Mulberry to a WW2 Landing Craft and then onto the Cuckoo. You are likely to see Tompot Blennies, Gobies, Lobsters, and Crabs. Congars, Rays, Dogfish and Cuttlefish have also been seen in the area. These three wrecks are separated by a sandy bottom.
This dive plan will take about 40 - 45 mins to complete the full circuit.
Boats can be launched from Selsey, where there is a large car park, toilet facilities and a shop.

Waypoints extracted from Aldershot Dolphins' Garmin GPS450 system



Background

It was evident that the site had been prepared for surveying before. There were 6 control points located, 3 on the port and starboard sides of the wreck. They consisted of iron bars imbedded in the sandy seabed and cement filled tyres. I was unable to find any report or previous research relating to this wreck.

Survey Methodology

Preparation
12 members of the club completed the NAS Introductory course and learnt how to carry out 2D underwater surveying. A further 5 members completed the NAS part 1 course, which focusses on project management and 3D surveying.

Equipment:
Each pair of divers were supplied with the following equipment:

- A4 Slate with pencil attached
- Tape measure
- Water proof sheet to record measurements
- Rustproof Scissors

Surveying
As this is an underwater site in a minimum of 12m of water surveying would have to be done by qualified scuba divers. It was agreed the minimum qualification would be a Sports Diver, who had at least undertaken the clubs 3D underwater training. This training was conducted by myself and Kenny Phillips and consisted of explaining how underwater surveying was carried out with a practical session in the classroom, followed by a pool session to consolidate knowledge.

Preliminary on-site dives were done to ensure the 6 control points could be used as external control points. Ideal diving times based on the high water slack were confirmed and the correct GPS points of the wreck identified. All identified control points were then labelled up by 2 teams of divers, with barrier tape used to make it easier to find them in poor visibility.

Dives were planned to take place during the first week in August. Each team of divers were given a list of measurements that had to be carried out on the dive. Maximum dive time was 45 minutes per dive as this would ensure no decompression diving took place. The plan was to have 2 sets of divers (port and starboard) on the wreck during high water slack, with 3

waves in total on each dive. It was decided early on that this was impractical because of the size of the wreck. As a result a maximum of 4 divers would be on site at any one time.

Diving pairs were required to create a sketch of the area they were surveying and to record their measurements as accurately as possible. Once on the surface a photograph was taken of the results and the waterproof sheets dried and stored. These measurements were verified by having another set of divers surveying the same set of control points.

Surveying of the 2 forward ladders were carried out with recorded results, but these are not verified.

A sketch of the starboard side of the wreck as she lies on the sandy bottom was made.

I took photographs to record the unique features of the wreck. Namely: the cut away stern section, the port and starboard forward ladders, grab rails and the fitting for the Mast

Survey Results

Overall dimensions
Using the survey measurements recorded by the divers and 3H Consulting's Site Recorder 4 a 3D model of the wreck was created. Using a modified original technical drawing as an overlay it was easy to see the wreck was one of the ASR craft as the overall shape of the wreck matched. There was a slight distortion because the bow of wreck is not lying totally flat on the seabed whilst the stern is sitting flush on the sandy bottom. It is therefore assumed that the craft must have twisted whilst sinking.

Comparison of dimensions:

- Hull dimensions: Length 32' 02". The wreck measured as being 9.7m in length
- Beam 10' 0". With the aid of the 3D model and overlay I am able to confirm the width as 3m
- Moulded Depth 6' 0" . As the boat was buried in the sandy bottom no measurements of the depth or draft of the wreck were recorded

A 3D diagram with overlays used is included as Annexure A

Unique features of an ASR craft

- Starboard ladder

The starboard ladder is slightly damaged and as a result is closer to the hull (in parts) of the boat. The handrails leading onto the deck of the boat have been corroded away and there are only 4 remaining rails of the ladder visible.
See Annexure B

- Port Ladder

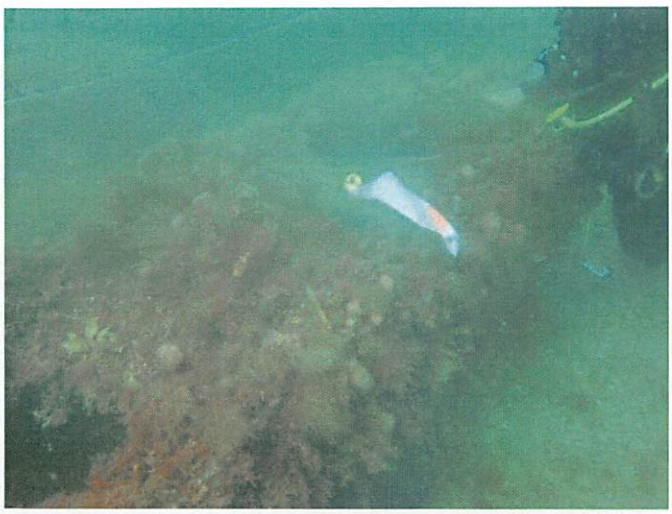
This is less damaged and sits 0.32m away from the hull. There are only 3 rungs visible. See Annexure C

- Grab rails

No measurements were made of this feature of the wreck. These images do show that the hull is buried to this depth in the sandy bottom. See Annexure D

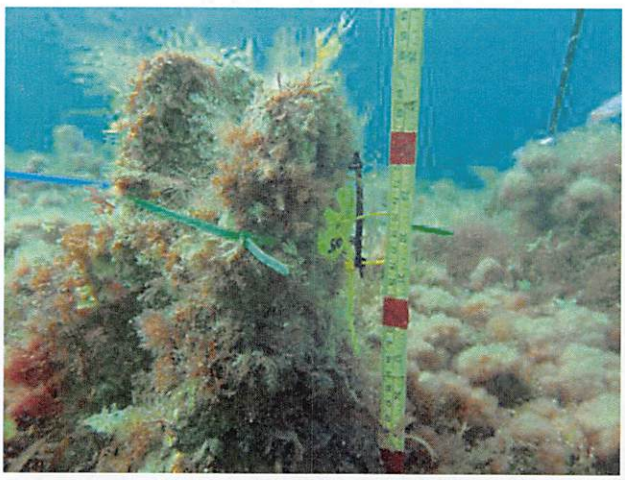
- Cut away stern section

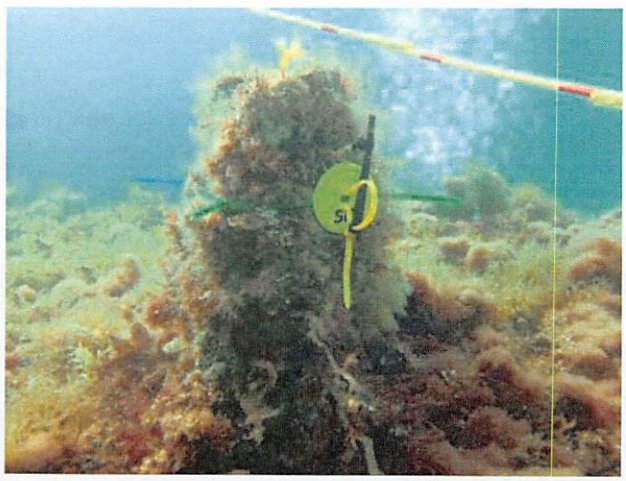
There is only photographic evidence of this unique section of the wreck. There are no remains of the ladder that hung off the ramp section into the water and there is a lot of debris on this ramp leading to what remains of the entrance turret. It is evident from these photographs that the stern of the boat is sitting flat on the sandy bottom.



- Mast Remains

A prime feature of this craft was the mast had to be seen by downed airmen whilst in the water. A report produced on February 1942 suggested the boats were difficult to see so a circular top mark was erected as high as was practicably possible. Photographic evidence of the fittings for the mast are shown below





Unfortunately due to poor weather and the Club's RIB engine problems I was limited in the number of survey results that I could get recorded and verified. The overall dimensions were recorded twice, but there are still problems with 6 of the measurements. There was only 1 set of recordings taken of the bow ladders and none were recorded of the cut-away section.

Overall

It is possible to identify the wreck as one of the ASR Dumb Barges moored in the area in the summer of 1941 and reported lost in July 1942.

Survey measurements taken of the length of the craft confirm the craft is an ASR and using an overlay on the 3D model created it is possible to see the beam of the boat complies with the original dimensions.

Features which make the craft unique from any other craft are the ladders on the bow of the boat and the cut-away section on the stern. In addition both the robust mast remains and grab rails confirm the unique purpose of this vessel.

In addition
The history of the Cuckoo was presented to the club members at the very start of the 2013 season to make sure members knew what is was they would be surveying and to create enthusiasm for the project. Three of the club members assisted me in the historical research of the Cuckoo and when I presented this research the club house was packed.

The take-up of attending the NAS courses was also very encouraging; as we were able to arrange a bespoke session in February 2013 for the Introductory course, with 5 members then attending the Part 1 course held at Stoney Cove in April 2013. The pool surveying training given by myself and Kenny taught the majority of the active diving members, who all showed a keen interest in the project, even if they were unable to attend the actual surveying week. It was encouraging to see how each surveying team took such pride in their set of data, ensuring it was as accurate as possible whether in the pool or on the wreck itself.

The interest the club members showed in the wreck developed over the season, over half of the members were involved in the underwater surveying at the site, with the majority of members getting involved in some aspect of the project. This additional dimension to our clubs diving has resulted in a lot of excitement and interest in marine archaeological research, which has led to the club making plans to investigate a deeper and more challenging wreck in the future.

Historical Research

During the Battle of Britain of 1940 the majority of air fighting was over the sea for both the RAF and Luftwaffe and resulted in a good many fliers of both air forces ending up in the water. Inevitably it tested arrangements for the rescue of downed airmen by both sides. In terms of reliance upon marine craft for the rescue of downed RAF fliers, this was very much a hit and miss affair.

In January 1941, the Air Ministry agreed to build 16 Air Safety Recovery floats. These highly visible boats held emergency equipment such as: food, water, blankets, dries clothing. They had six bunks. They also contained a first aid box and a flag to indicate it was occupied.

Built by Carrier Engineering in Wembley they were made of welded mild steel plates (1/4"), using only flat stock plates. They had a steel superstructure and mast. Dimensions: Length 32' 02", Beam 10" 0' with a 3'3" draft. They were fitted with bars extending below the surface to give foot and hand holds, with the stern of the float cut away. On the bow were 2 ladders and a stern ladder hanging straight down, all of which could be easily climbed whilst in the water.

The anchorage points were solidly constructed for chain shackles. The ASR was towed to position by a coastal forces craft and connected to a mooring chain. ASR craft 1, 2, 5, 6, 7

and 8 were all moored in their permanent positions by 1st July 1941. No 4 and 9 were to being moored a few days later. Craft 10, 11 and 12 were to be delivered a few days later. By 5th August 1941, all were permanently moored. Craft ASR 9, 10, 11 and 12 were moored in the Dover area.

On the 22nd October 1941 the ASR-2 was reported missing and 30th November 11 was missing. By 1st July 1942 no 2, 6 and 11 were confirmed lost, with 12 reported missing.

These craft were not found to be particularly useful as they were so close to land that aircraft in trouble could be spotted anyway. However a few airmen were rescued, including a German survivor who had been shot down in the Channel.

Post war the crafts were very quickly removed as they posed a danger to shipping. Some were sunk at their locations. At least 2 were removed and converted to target craft. The ASR-10 was converted into a yacht in the 1950's, and can be viewed at the Scottish Maritime Heritage Association. A wreck, assumed to be an ASR, was discovered in 1970 off Selsey in 12m of water.

Future Work

The plans are to revisit the site and confirm all the questionable 3D survey measurements. Verified dimensions will help me complete accurate drawings of the ladders, which will enable me to create an accurate drawing of the bow of the wreck. In addition a full survey of the cut-away stern section will be undertaken.

Aldershot Dolphins have adopted this wreck and will continue to monitor the site to see both the degradation of the wreck, as well as the impact the wreck is having on the surrounding seabed and sea life.

I am very keen to continue to develop the marine archaeological and project management skills I have learnt whilst leading this project.

Publications

1. Aldershot Dolphins Website – Diving the Cuckoo Wreck, History of the Cuckoo Wreck and Results of the Archaeological survey. http://www.scubadolphins.org.uk/index.php?option=com_content&view=article&id=166&Itemid=473
2. Chichester Observer (two articles)
3. Live interview on Spirit FM radio in Sussex
4. Live interview on BBC Surrey Drivetime.

References

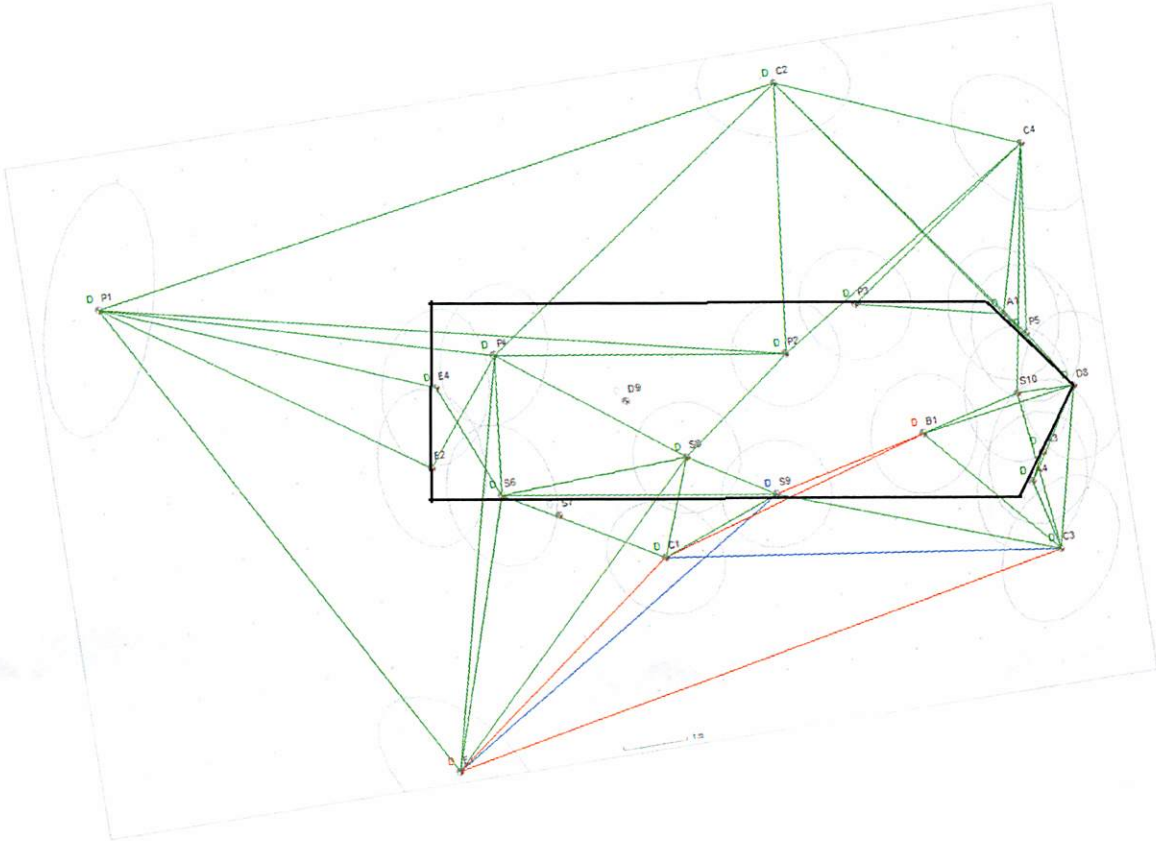
1. http://www.asrmcs-club.com/boatswebsite/terryh.html
2. http://www.lonesentry.com/
3. http://www.lonesentry.com/articles/ttt07/rescue-buoy.html
4. http://forum.keypublishing.com/member.php?10383-Tangmere1940

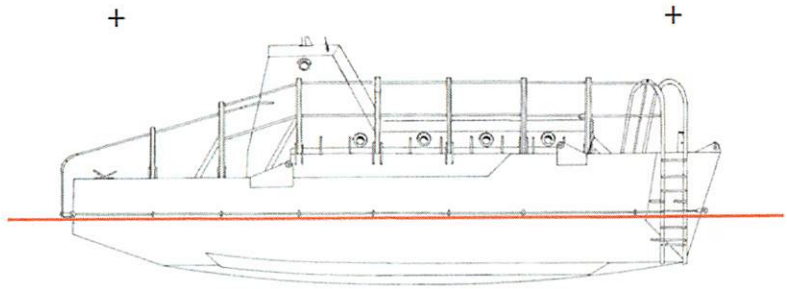
Acknowledgements

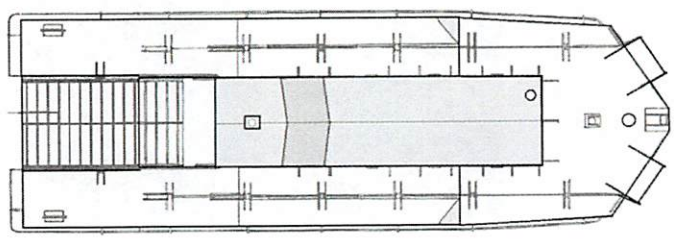
1. BSAC Jubilee Trust for providing the funds to enable me to carry out the research
2. Kenny Phillips for his assistance in the 3D training and helping run the project during the 'Cuckoo Week'. In addition for his patience in creating the 3D models.
3. Aldershot Dolphins club members who, not only assisted in the research and surveying, but got totally involved in the project and remained enthusiastic despite the difficulties.

Annexures

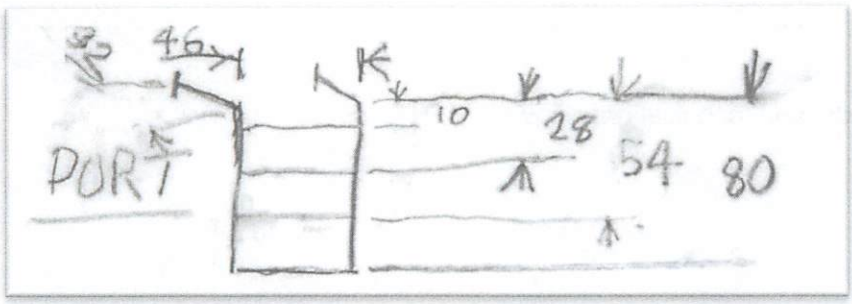
A = 3D model and technical drawings

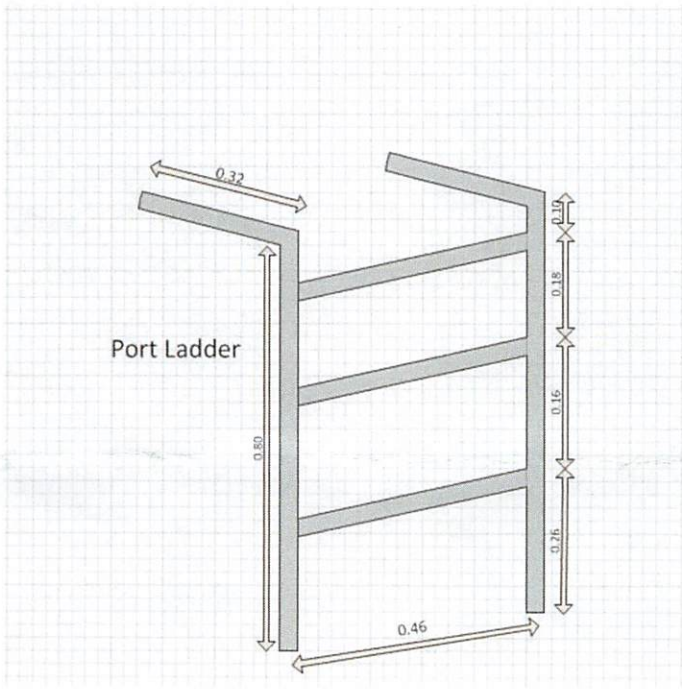




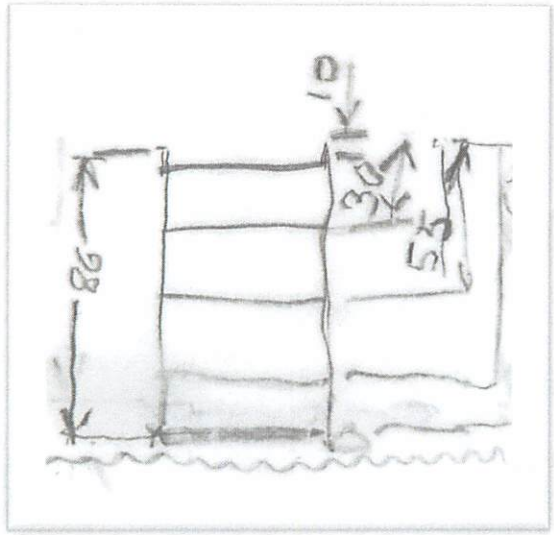


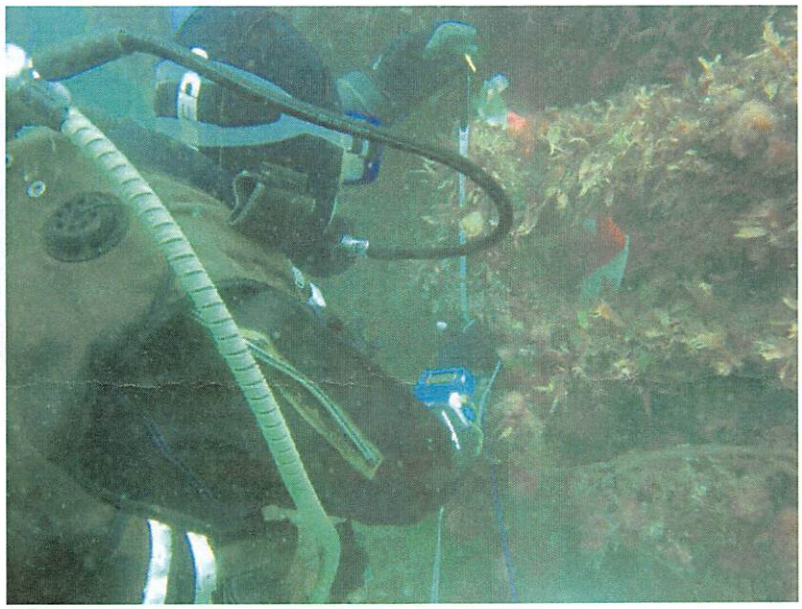
B = Port Ladder. Scale1:10

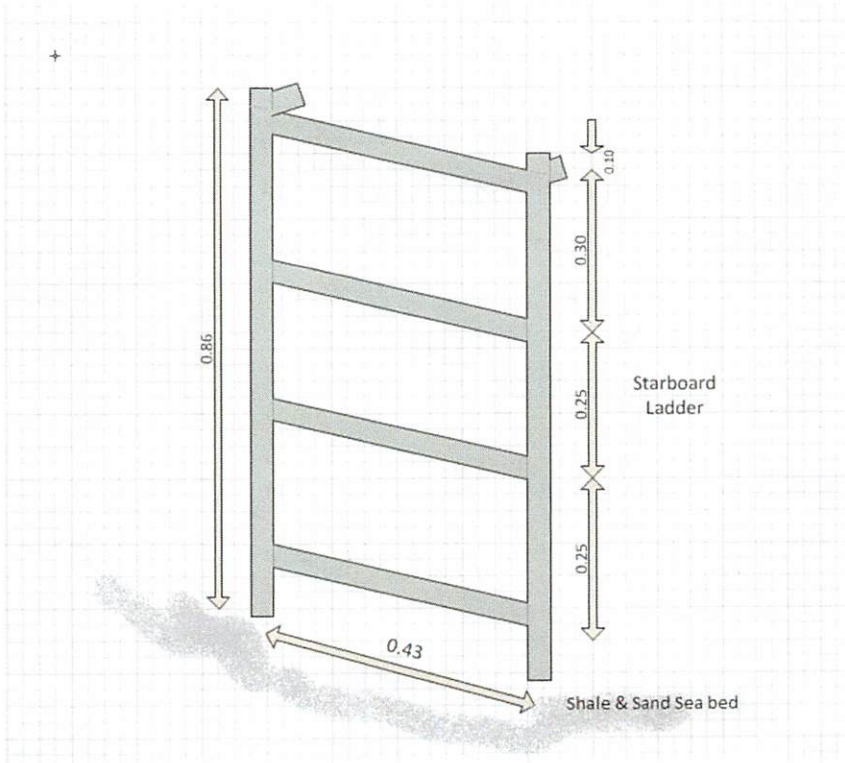




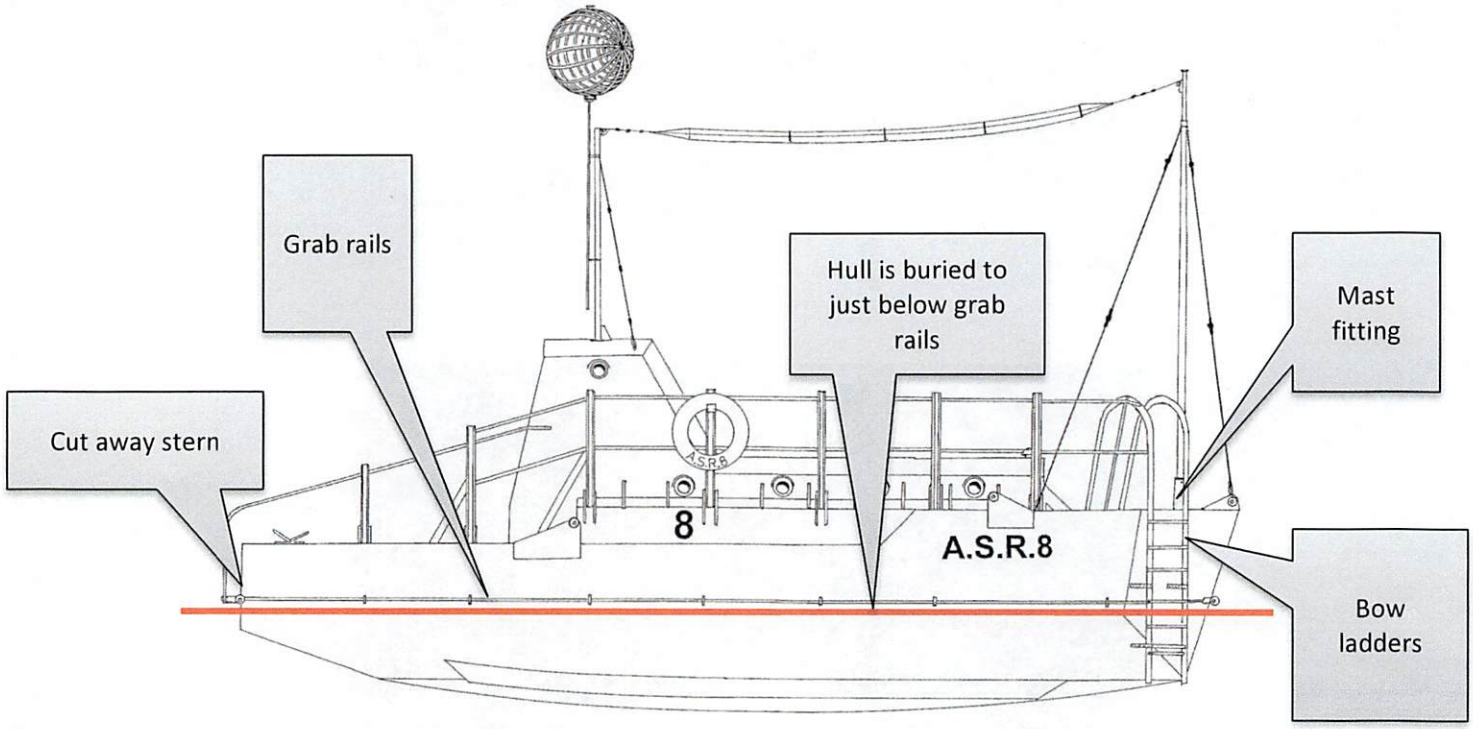
C = Starboard ladder
Scale1:10





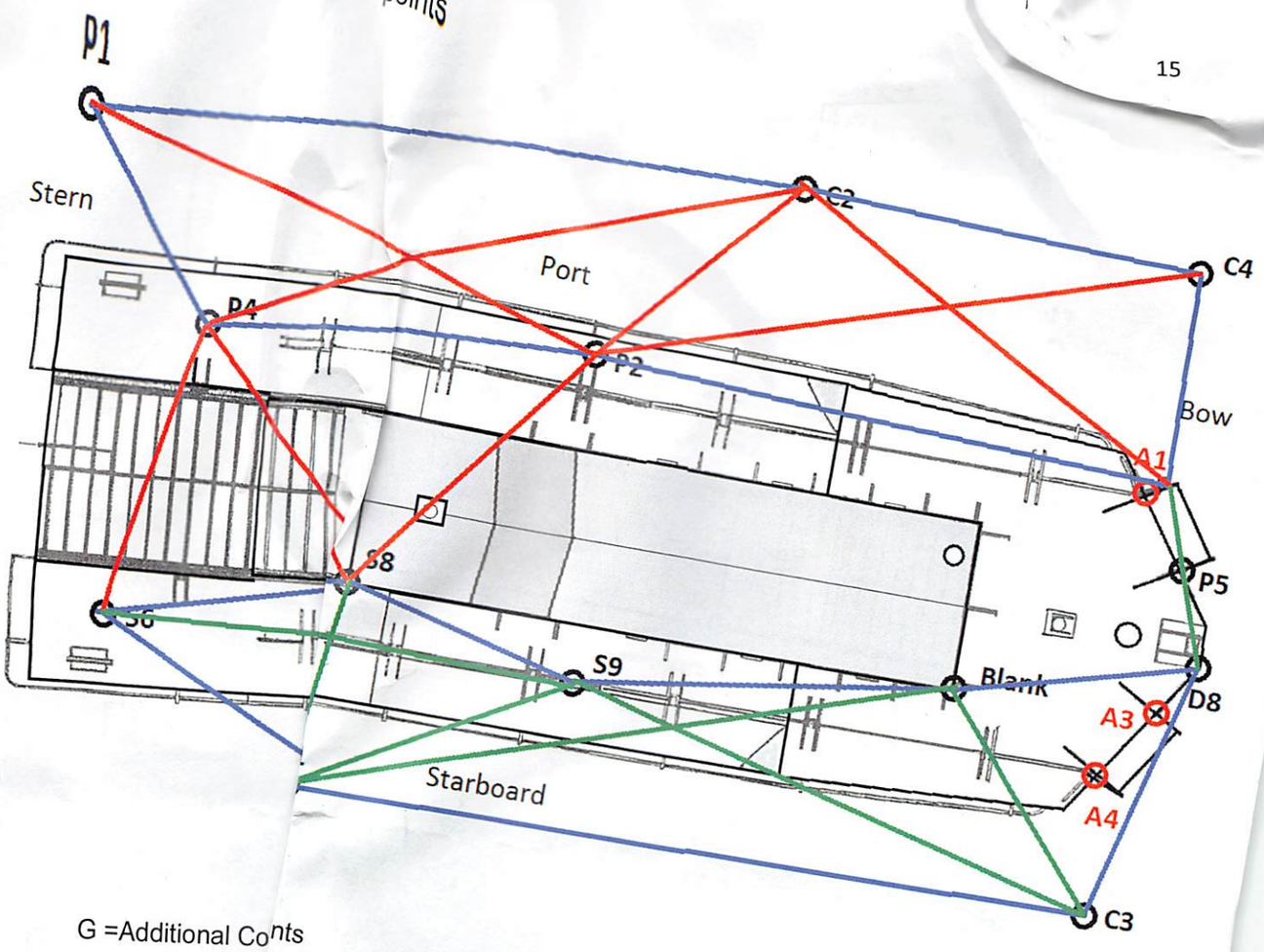


D = 32ft Rescue Float drawing

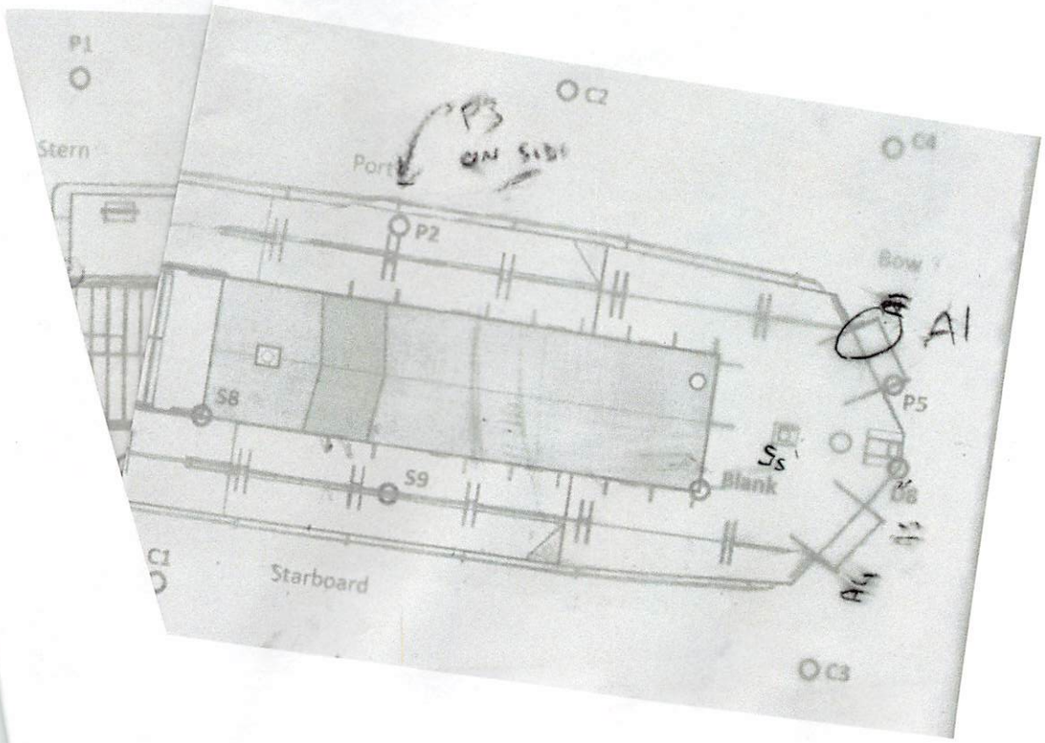


E = sketch of wreck from the starboard side by Martin Steggall

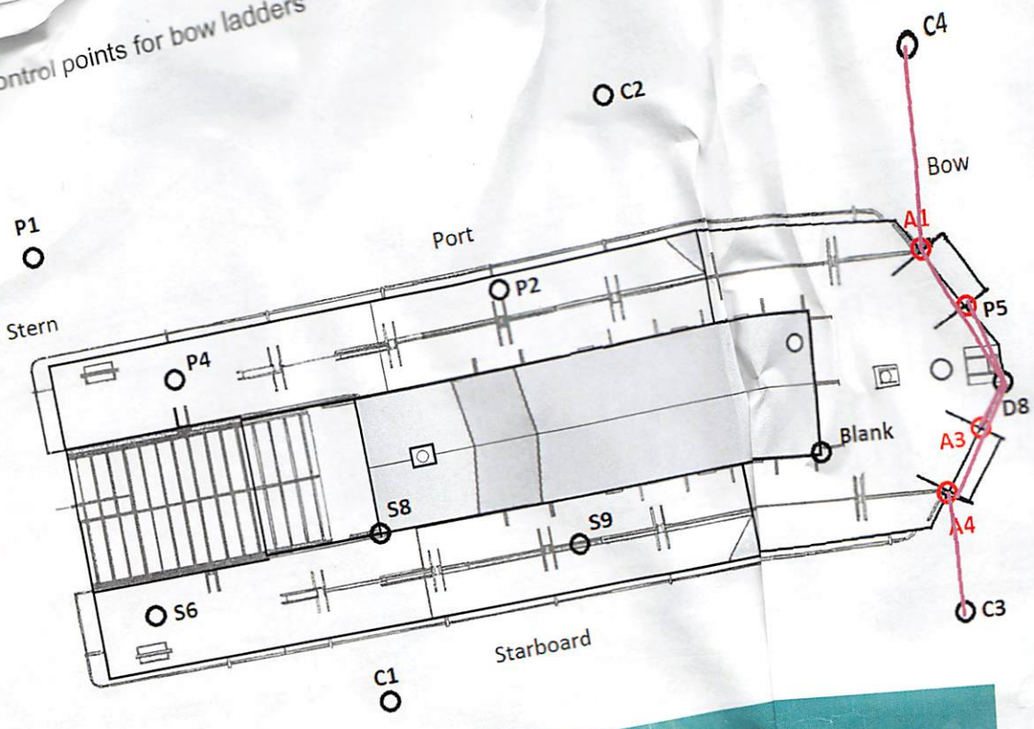
F = Original Control points

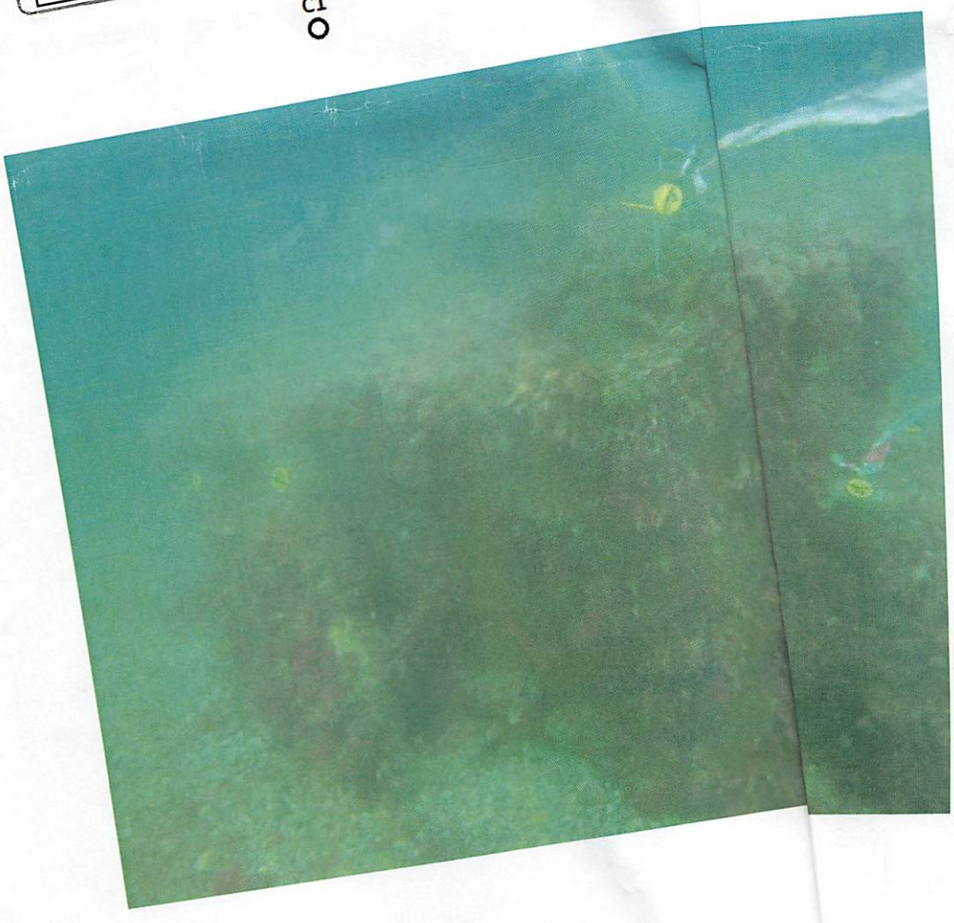


G =Additional Co nts



H = Control points for bow ladders





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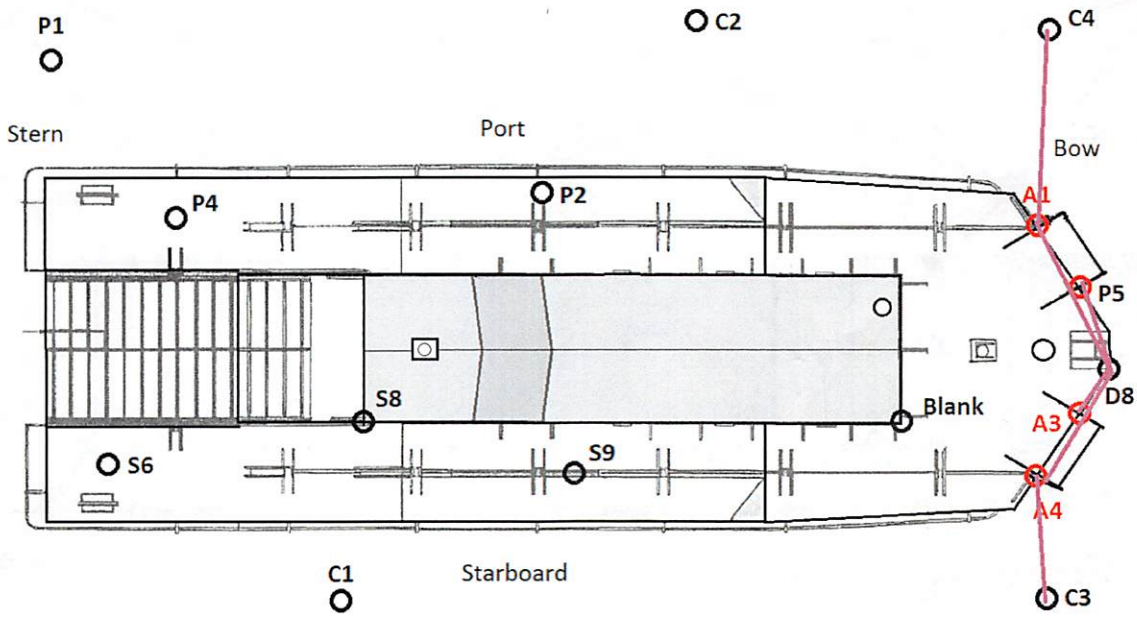
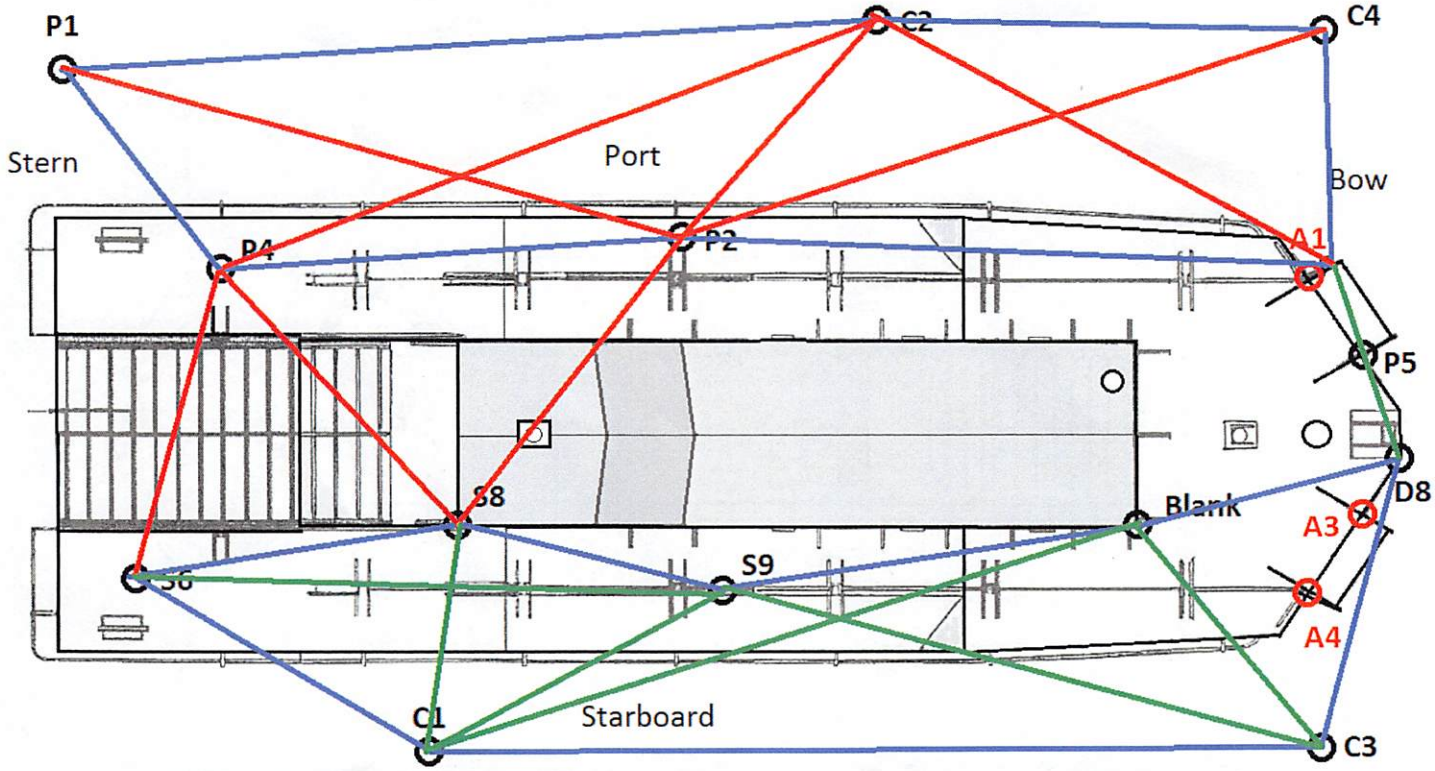


F = Original Control points



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