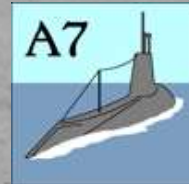




Shipwrecks and History
In Plymouth Sound



The A7 Project

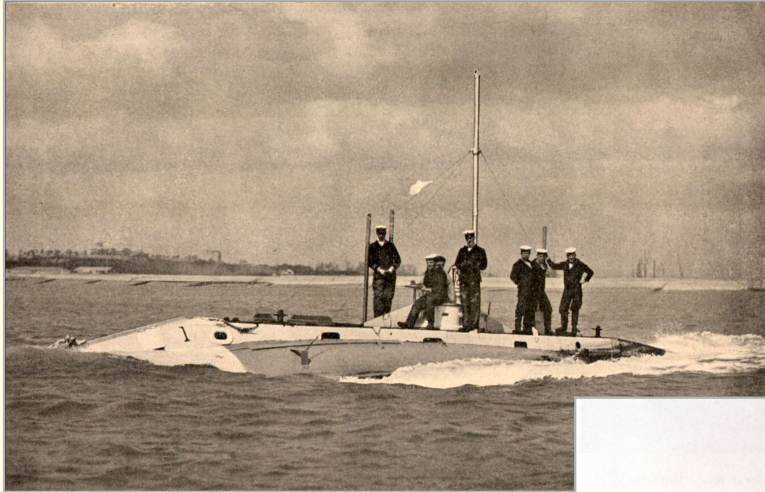
An investigation of HM Submarine A7

Peter Holt

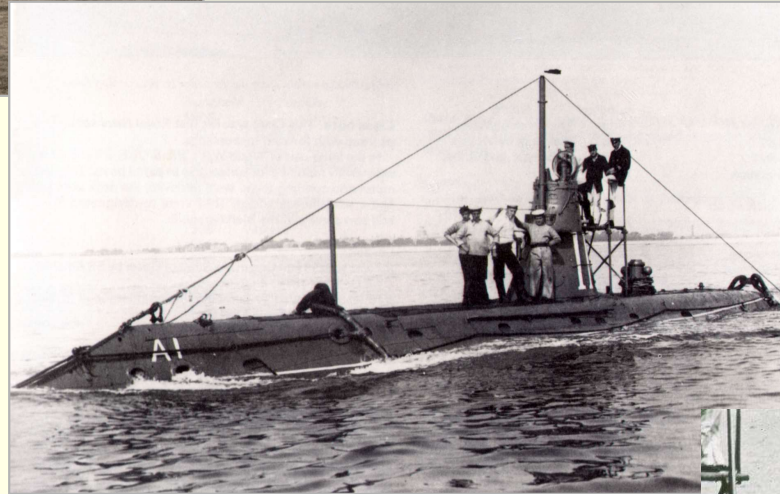
Director, the SHIPS Project
Director, 3H Consulting Ltd.
Visiting Research Fellow, Plymouth University



Early Royal Navy Submarines



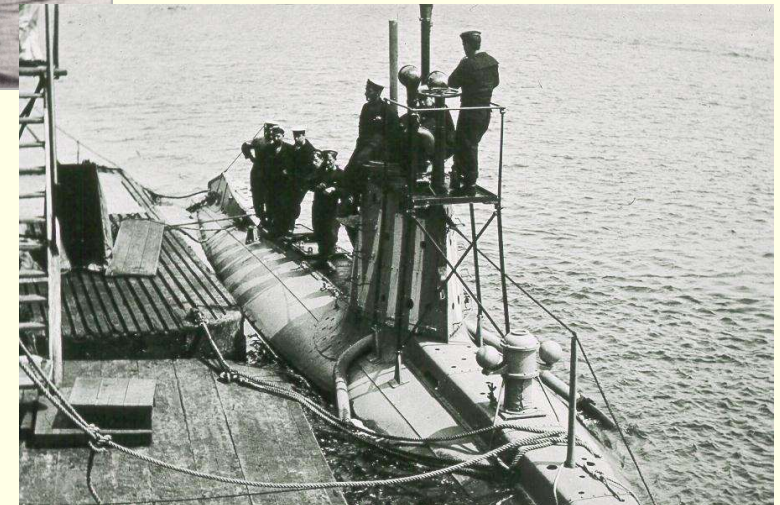
Holland 1, launched 1901
Built in the UK to a US design
Too small and too under-powered for sea going use



A1, launched 1902
UK design
Experimental 100ft prototype

First functional RN submarines, *A2-A13*

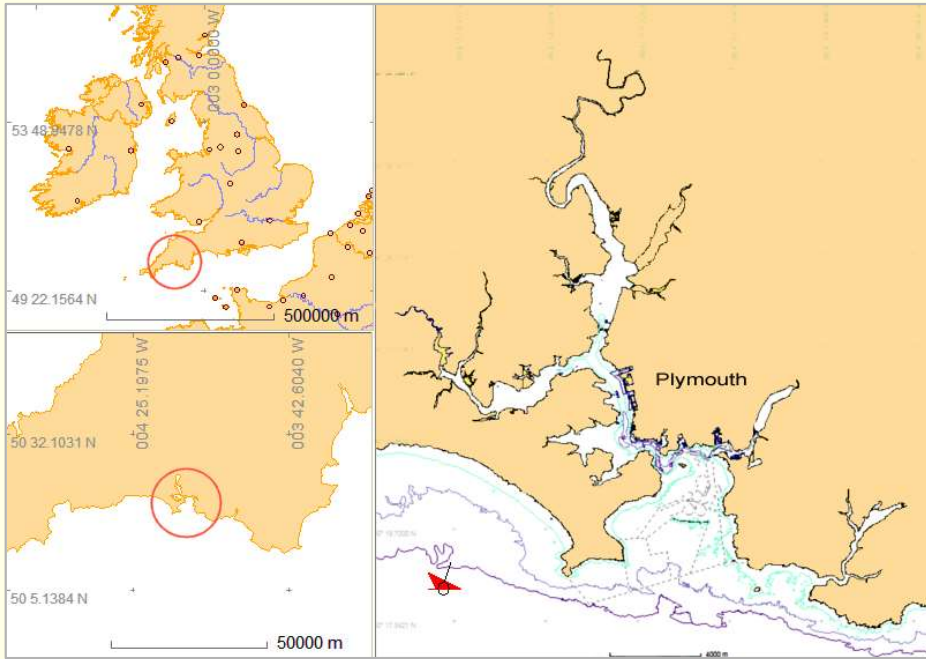
HMS/M A7, launched 1905, length 105ft,
displacement 180/207 tons, crew 11





Shipwrecks and History In Plymouth Sound

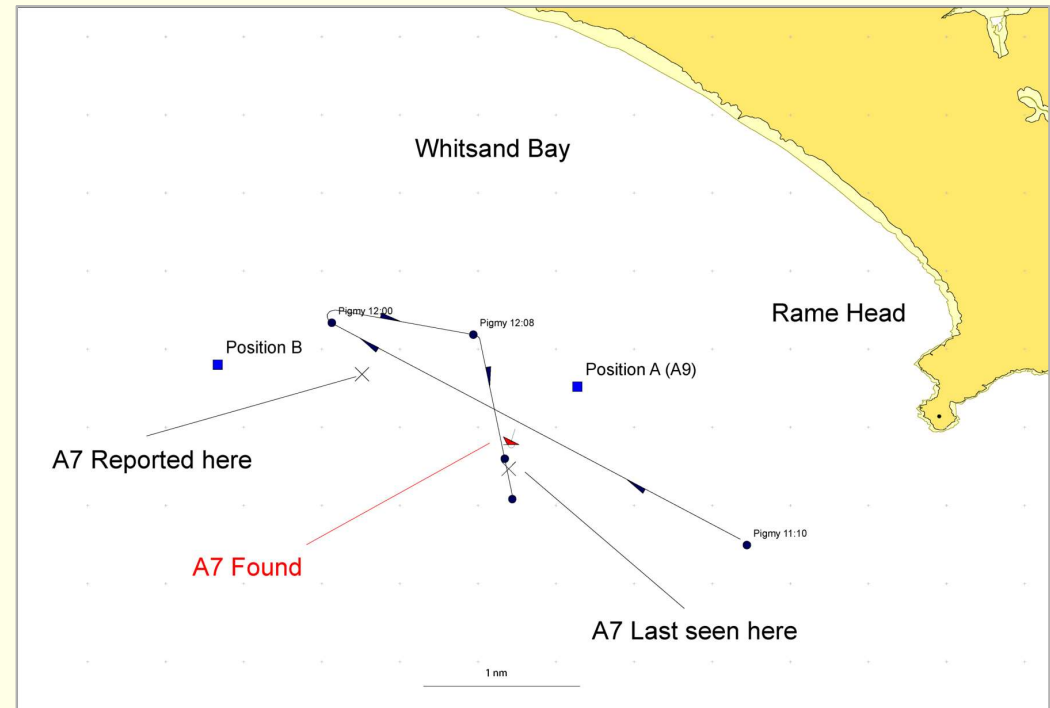
Friday 16th January 1914



Pigmy

The A class boats became training vessels

A7 was lost with all hands during a torpedo exercise off Plymouth





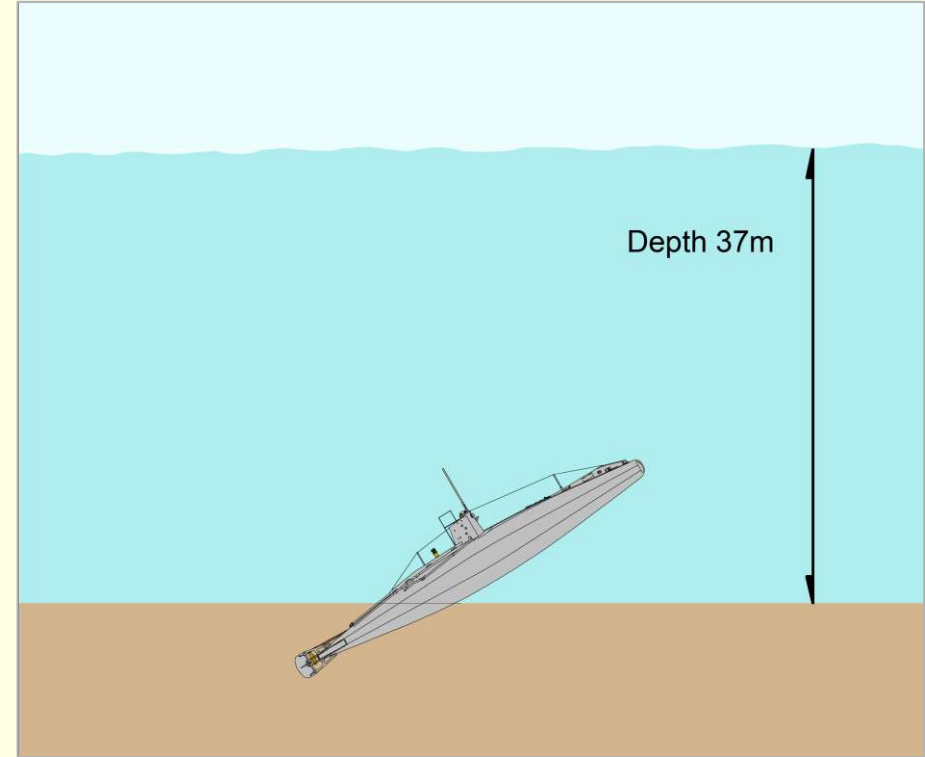
Shipwrecks and History In Plymouth Sound

1914 - A7 Found



British Navy Series. Divers about to descend.

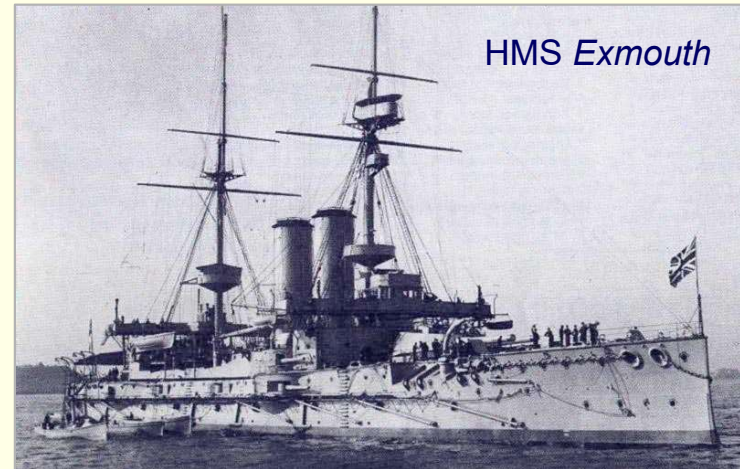
jws 30



Yard Craft No. 94



HMS Exmouth





Shipwrecks and History In Plymouth Sound

1981 - A7 Relocated



Dive No. 75 Date 13-8-81
Location: "A7" submarine, Plymouth Time 1328
Duration 18 mins
Bottom time 11 mins
Organised by private Max. Depth 37 1/2 mts (123 ft)

Weather conditions: Hot & calm
Air temp: Cloud 4/10 Wind:

Water conditions:
Water temp: Surface 9° Bottom:
Visibility 15-20 ft Current < 1/4 kt Tide:

Physical condition:
Before dive: hot After dive: OK

Equipment (if different from page on Personal Equipment):

Twin SDs

Dive leader:

Companions:

Purpose of dive: investigate wreck rumour

Additional details: (Nearest recompression chamber, doctor, hospital etc.)

5 min decomp at 3 mts

The A7 was found by sports divers on 13th August 1981

In 2001 the A7 was designated under the UK Protection of Military Remains Act 1986 and all diving was banned



The binnacle



The aims of the A7 Project are:

Aim 1 - Document the story of the loss of the submarine

Aim 2 - Undertake a detailed site assessment

Aim 3 - Undertake a condition assessment of the wreck

Aim 4 - Raise public awareness about the submarine and its loss

Aim 5 - Investigate the cause of the loss of the submarine

Aim 6 - Create an archive of information about the submarine

The first license to visit a Controlled site was given to the SHIPS Project to study the A7 submarine.





Shipwrecks and History In Plymouth Sound

A7 Project Team & Partners





Shipwrecks and History In Plymouth Sound

Documenting her Life and Loss



H.M.S. "Forth" at Devonport.

19th. January 1914.

Sir,

I have the honour to make the following report on the loss of Submarine A7.

On 16th. January Submarines A9 and A7 were taken out by me in Pigmy for Torpedo Practice in Whitsand Bay.

A9 was stationed at position A (2½ miles West North West from Rame Head) A7 was stationed at position B (5 miles

Dive No. 75	Date 13-8-81
Location: A7 submarine, Plymouth	Time 13.38
Organised by private	Duration 18 mins
	Bottom time 11 mins
	Max. Depth 37 fms (123 ft)
Weather conditions: Hot & calm	
Air temp: Cloud 4/10	Wind
Water conditions:	
Water temp: Surface 7°	Bottom
Visibility 15-20 ft	Current 4/10
Tide	
Physical condition:	
Before dive: hot	After dive: OK
Equipment (if different from page on Personal Equipment):	
Twin SDs	
Dive leader:	
Companions: R Dale, S Swmee	
Purpose of dive: investigate wreck rumour	
Additional details: (Nearest recompression chamber, doctor, hospital etc.)	

Notes: There was a fishermen's rumour that this spot marked the A7. A small trace showed on the chart recorder yesterday, apparently with a shoal of fish just above it; the same was found today. Roger Walker dived first, down a shot line. The sea bed was a thick blue clay which was easily stirred up, destroying the vis. We went down next as I had a camera (no use as dark and no flash). The wreck is small (79 ft) and over half submerged in the clay. The fisher's trace turned out to be the periscope (snout?) which is bent slightly aft. The wreck is upright and has a residual conger just aft of the conning tower, on the port side. A large lump of metal lying near the conning tower on the starboard side was unseen or ignored by everyone, until later discussions concluded that it was the binocular compass. This may have been ripped from the deck during rescue operations, drowning the crew. Everyone was so disgusted with themselves at ignoring the compass that the "A7 Wreckers Club" was promptly formed.

The following day found us back on site; Roger W went down and fixed a large (4 foot?) lifting bag to the compass. The bag shot to the surface and half emptied before a line could be secured, dropping the compass down side of the wreck. After several unsuccessful searches, Rogers assistant swam across tide with a line from the wreck, drifting down stream until the line snagged the lifting bag. More lines were attached and the compass winched on board. It was covered in white plumose anemones and also collected a slit limpet. The compass still worked although the spirit was fogging as it decompressed, and even the two light bulbs were intact.

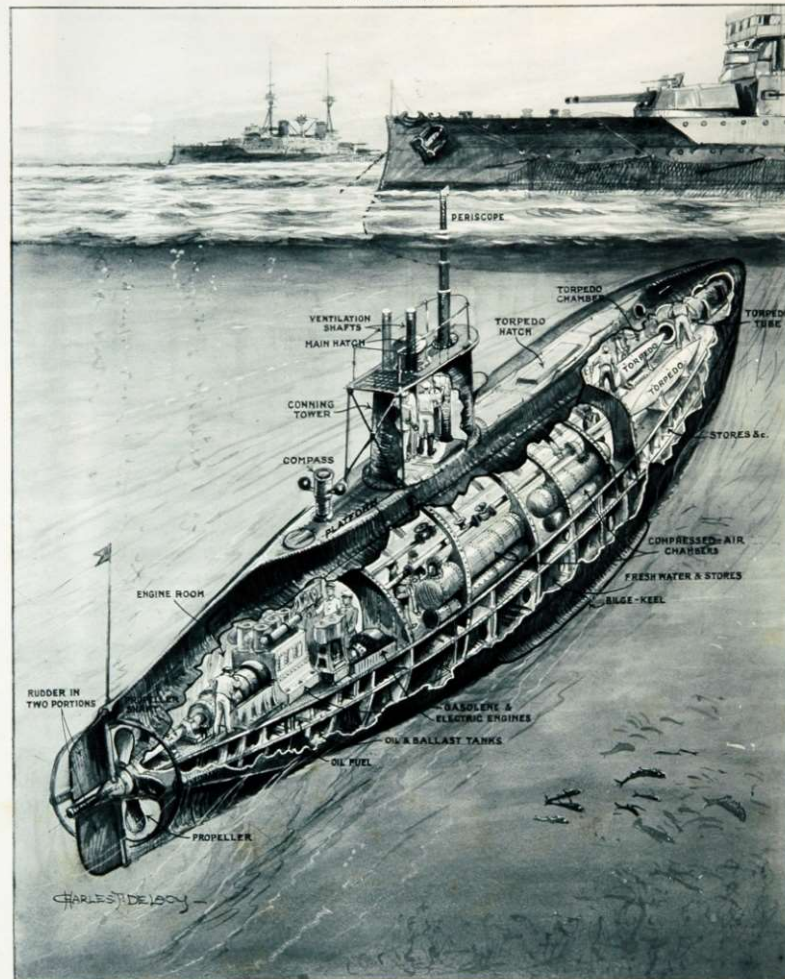
The wreck is rumoured to have a gunnery conning tower and necessary ballast.

5 min decompr at 3 ato

THE ILLUSTRATED LONDON NEWS, Jan. 24, 1914. 129

THE BRITISH SUBMARINE WHICH FAILED TO COME TO THE SURFACE.

DRAWN BY CHARLES L. DE LACY.



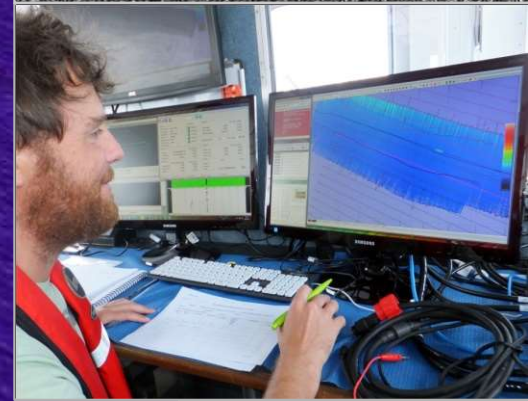
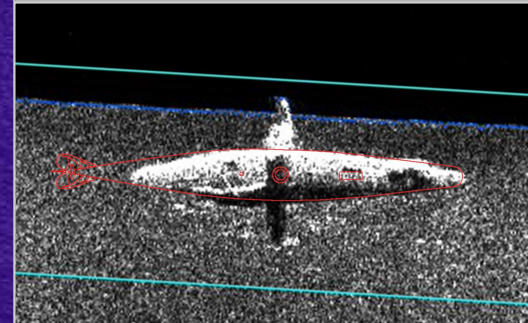
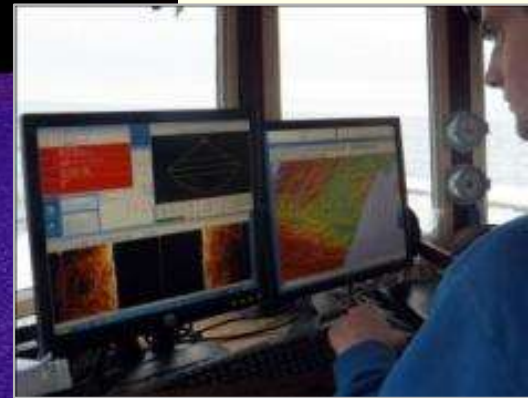
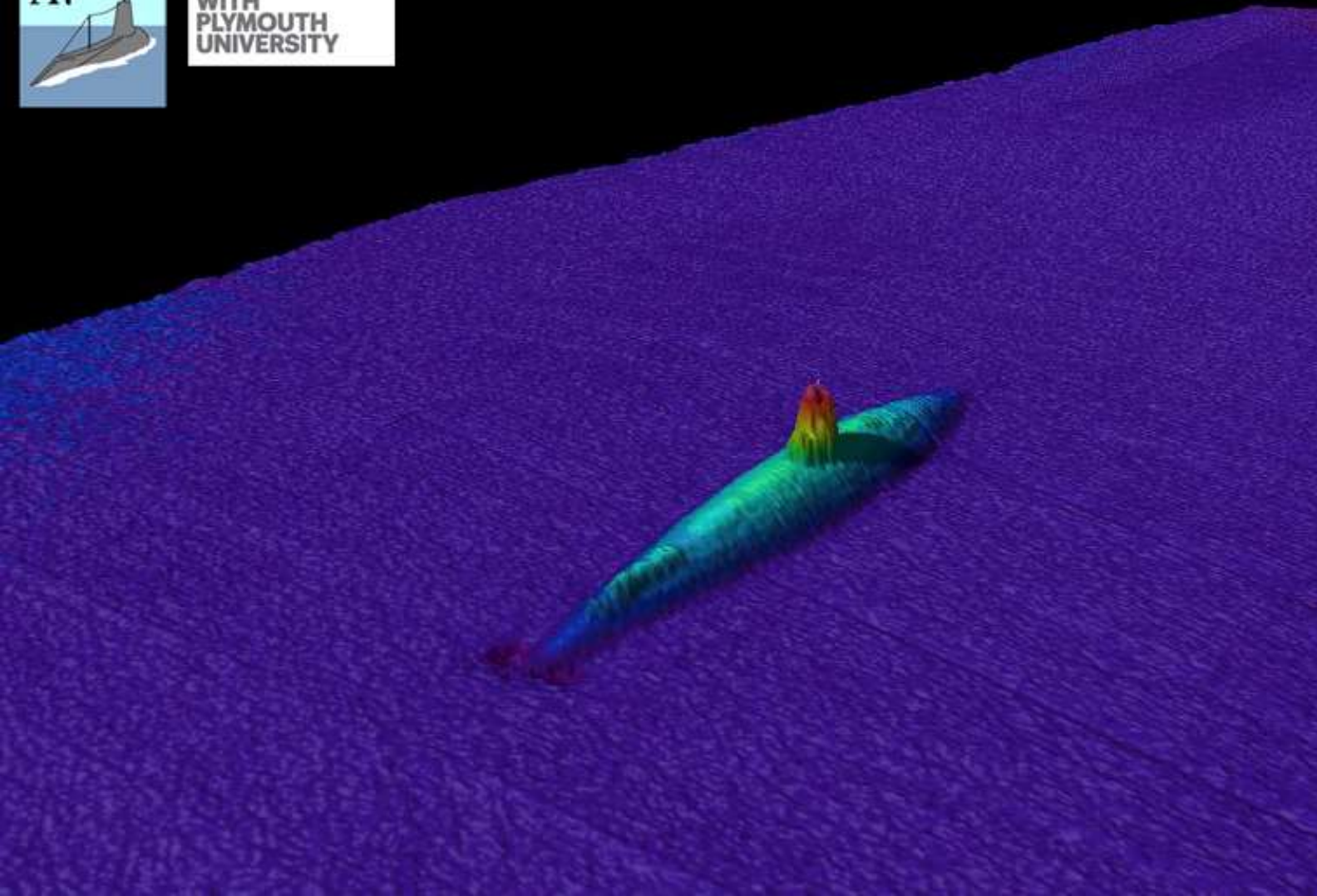
ONE OF A CLASS OF WHICH THERE WERE THIRTEEN: THE LOST "A7"—A SECTION.

The British submarine "A7" (eleven aboard) which failed to come to the surface while exercising in Whitsand Bay, was one of the oldest submarines left in our Navy, and was only used for instructional purposes and for coast defence. She was launched in 1904, on the same day as the "A.R." with which she was actually exercising outside Plymouth Breakwater when that vessel was lost in June 1905, with a loss of fourteen men. The superstitious may note that there were originally thirteen boats in the "A" class: mishaps have occurred to five of these—the "A.1," which was in collision with a loss of eleven lives; the "A.R." which foundered with a loss of fourteen lives; the

"A.3," which was in collision, with a loss of fourteen lives; the "A.5," on which an explosion occurred, with a loss of six lives; and, now, the "A.7." The other British losses were the "C.11" (thirteen lives), the "B.2" (fifteen lives); the "E.5" (three lives); and the "C.14" (without loss of life). The "A.7" had a displacement of 294 tons, and a length of 129 feet. Gasoline engines of 450 h.p., giving a speed of about twelve knots, were used for surface propulsion; when submerged the craft was propelled by electric motors generating 110 h.p., giving a speed of seven knots. There are now over 3000 officers and men in the British submarine service.



R2Sonic 2024 Multibeam at 700kHz





Shipwrecks and History In Plymouth Sound

Detailed Recording

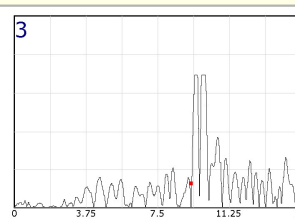
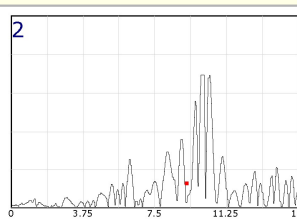
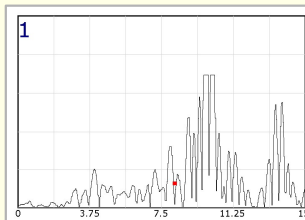
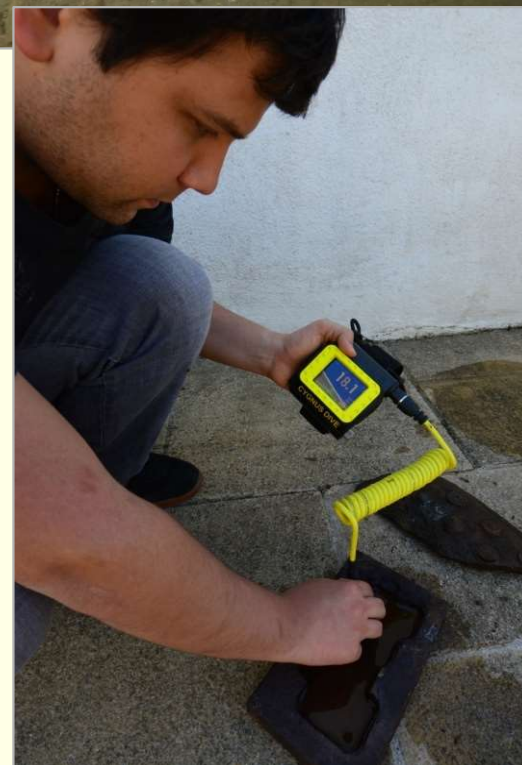
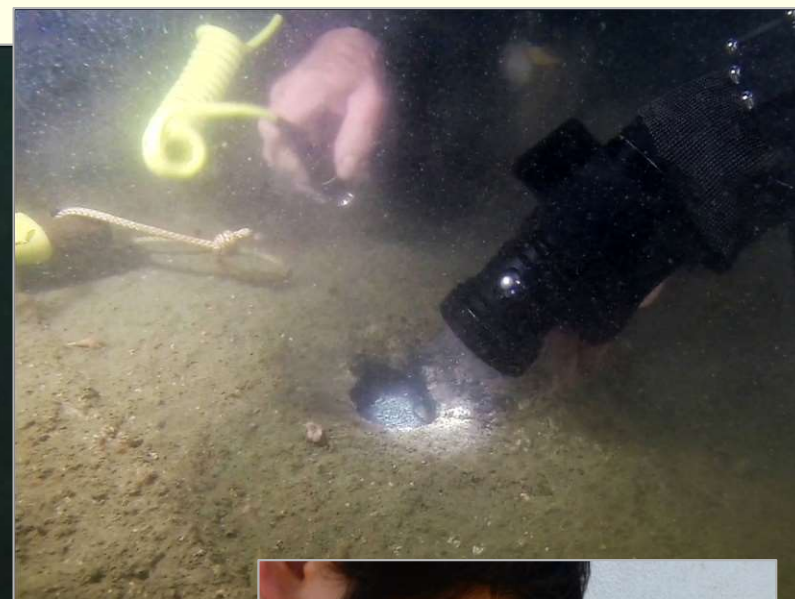




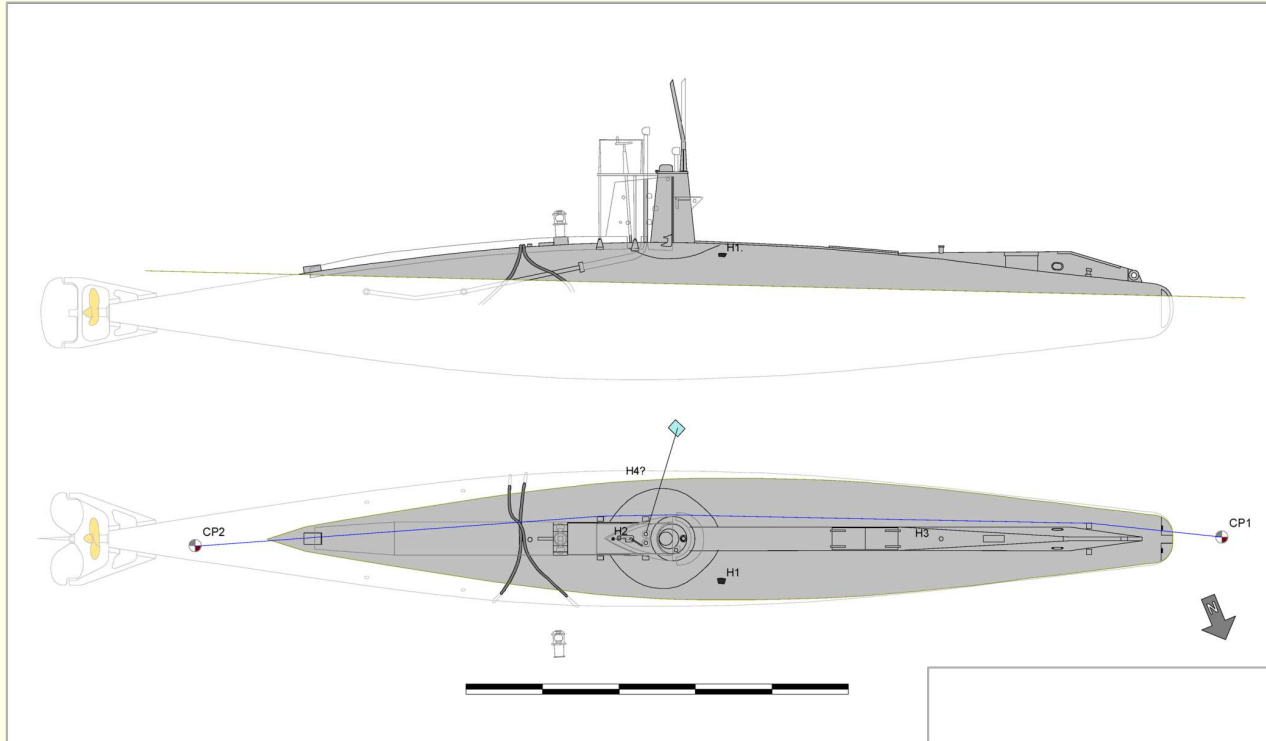
Hull Thickness Research



Cygnus Dive II UTG

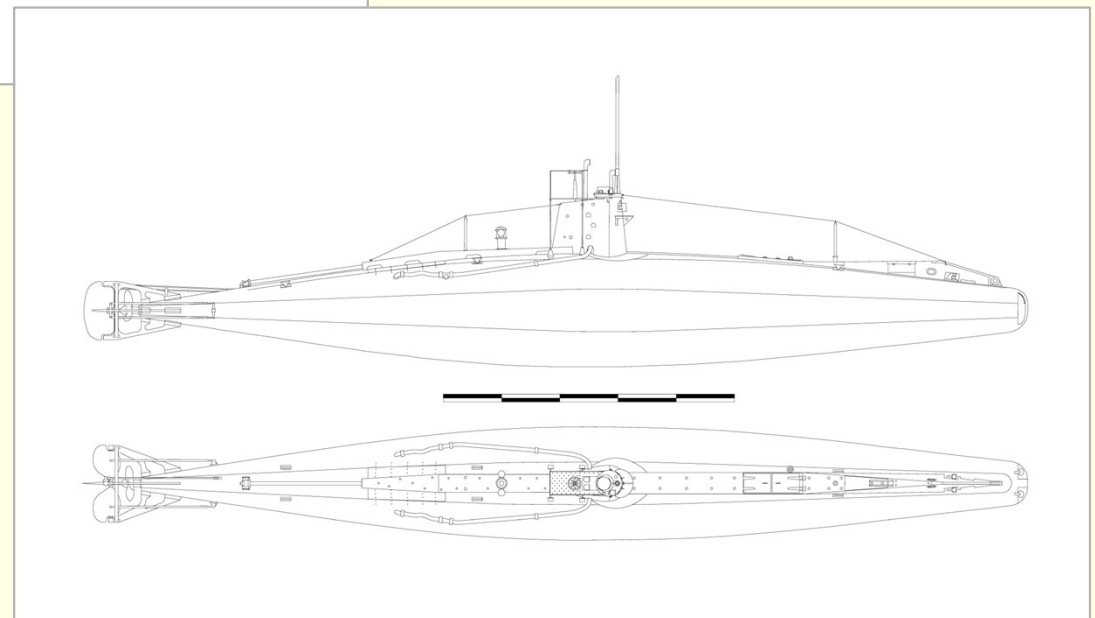


A7, point UT8, starboard stern



Site plan
in Site Recorder 4

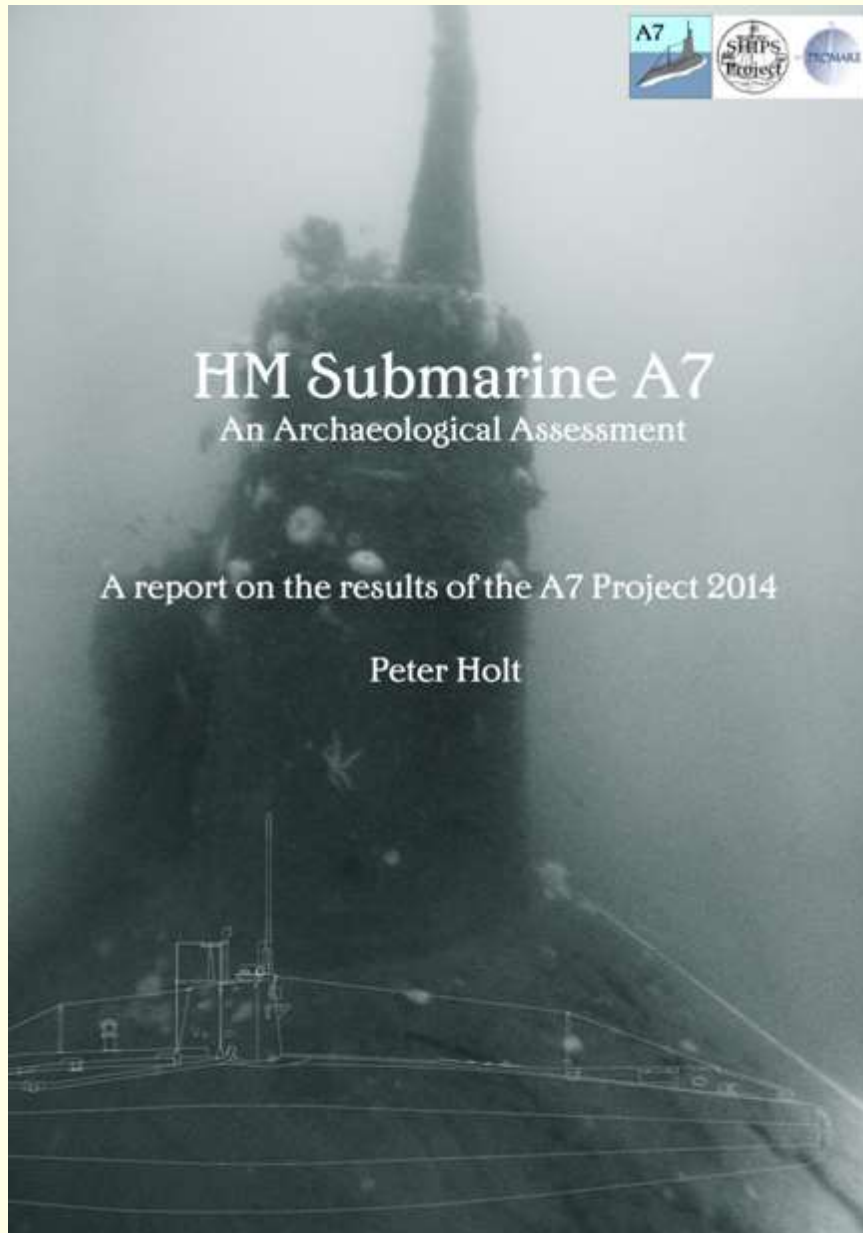
New engineering drawings created
as no contemporary plans exist





Virtual Reality 3D Model



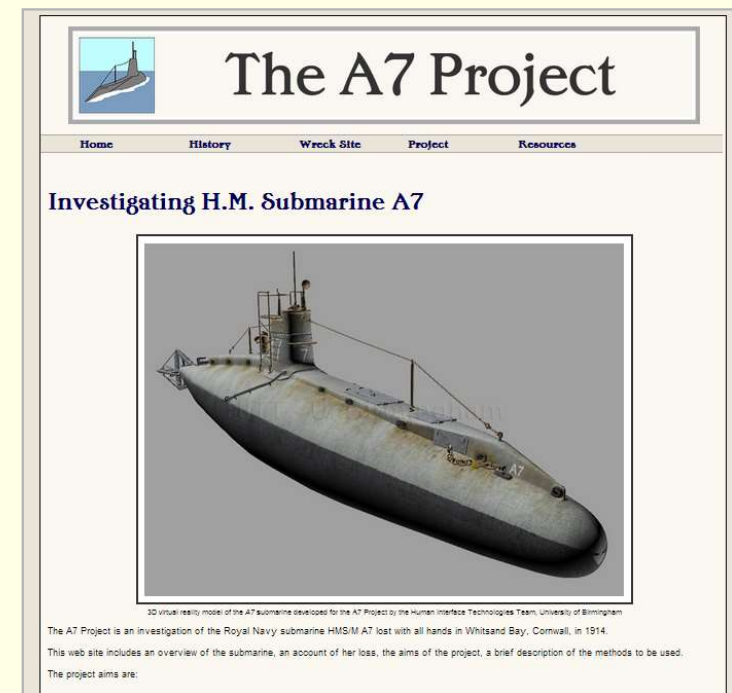


Project report to be published in 2015

Proposed further work:

- Site monitoring
- More hull thickness measurements
- Net and rope removal
- More detail recording

www.promare.co.uk/a7project





Shipwrecks and History
In Plymouth Sound

Thank you

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