

## THE HMS ALLIANCE MODEL

(Article by Barrie Downer 8<sup>th</sup> April 2021)

'Friends of the Submarine Museum' Member Brian Thomas built a model of an 'A' Class diesel Submarine and, when it was completed in 2019, he very kindly donated it to the 'Friends' to use in whatever way they chose.



### The Completed Model

#### DESCRIPTION

The model is a notional replica of a British 'A' Class submarine, modified version (as HMS ALLIANCE) and is sized at 30" in length with a beam of 3" and the height from the top of the Fin to the Keel is 5". Overall dimensions of the assembled model are Length - 30", Height - 10", Width - 4.5"

The wood used throughout is reclaimed and weathered Red Cedar, including the base. The boat is painted with acrylic spray paint and the base is varnished. Two motors located in the body of the submarine drive brass shafts via gear boxes through stern tubes to brass screws. The 'control panel' features a Propulsion ON/OFF switch, a Fwd or Astern switch and a Group Up/ Group Down switch. Port, Starboard, Bow and Stern Navigation LED lights are also switched from the Control Panel. A USB plug situated out of sight on the Starboard side of the Casing connects the electrics from the base to allow the boat to be disconnected and lifted free.

The hinged base carries the solid brass control panel and engraved plaque. The fixed base holds two sets of re-chargeable AA batteries held in place with Velcro for ease of replacement. In addition to reversing the drive, switching allows grouping of the batteries in series or parallel to demonstrate speed variation

The For'ard and After Planes and the Rudder can be re-positioned manually. The Casing and Fin are not fixed and can be removed for maintenance of the motors and gear boxes. An external snort mast is fitted and can be raised.

Brian describes that creation of this model resulted from the demolition of his old cedar-wood shed. Reluctant to dump the wood he started to hand carve small seaside scenes. Cedar wood is perfect for this as the grain runs true with no knots and, although a hard wood, it is easily carved. He eventually plucked up the courage to attempt a submarine. He chose an Oberon Class to start with because of its clean straight lines, also he had served some time in HMS OTTER.

This ALLIANCE model is not quite scale perfect but rather it represents the look and feel of the Class. Also, the addition of motors and their associated drives and the limitations of the material to hand dictated to some extent the finished size and shape.

The Model is fitted with re-chargeable batteries. A three-way switch isolates the boats electrics during charging or disconnects the charger when in running mode. Mid position of the switch completely isolates the system. A small voltmeter has been wired into the system to indicate the state of charge of the two batteries.

Brian's donation led to some considerable discussion amongst the 'Friends' Committee Members and a number of options were considered. Eventually, it was decided that the best option was to donate the Model to the new Submarine Apprentices Academy at BAE's Shipyard in Barrow in Furness with the intention that it would form a prize to be donated each year to the best Apprentice. Part of the reasoning was that the actual HMS ALLIANCE (now on display at the Submarine Museum in Gosport) was a Barrow built boat 'Laid Down' as Yard Number 909 (Pendant No. P417) on 13<sup>th</sup> March 1945, 'Launched' on 28<sup>th</sup> July 1945 and left Barrow on 14<sup>th</sup> May 1947.

Discussions were opened with the BAE Academy in February 2020 following the 'Naming Ceremony' for the 'Astute' Class Submarine HMS ANSON in the Devonshire Dock Hall where it was agreed that the model would be delivered to Barrow.

Covid then intervened! Brian was in Teignmouth in Devon and the Shipyard was in Cumbria. Many of the Staff at the Shipyard had to work from home and others were furloughed and access to the Shipyard for other than essential Staff was impossible and arrangements for the transfer of the Model were placed on hold.

In early 2021, after further discussions with the Shipyard, and with some restrictions eased things were progressed. Coincidentally, 2021 is the 150<sup>th</sup> Anniversary of the Barrow Shipyard and plans had been developed for some Commemorative Events in the Shipyard and the ALLIANCE Model is to be part of the plans. Brian was invited to box up the Model for transfer to Barrow and to arrange a Courier. The plan was to deliver the model to Beth Kirkby (my contact in the BAE) at her home in Barrow to take into the Shipyard but, she was working from home and would need a Colleague with Yard access to collect and deliver it to the Academy.

An alternative plan was devised to deliver the Model to me as I live close to the Shipyard and it would be collected from me. This plan worked beautifully but transfer into the Shipyard was still a problem. Eventually it was arranged that a former neighbour of mine who is a Lecturer at The Furness Academy, and who tutors BAE Apprentices, would collect the model and deliver it to the BAE Academy.

From the photograph below it will be seen that the Model is now in the Shipyard Academy, has been assembled by the Apprentices, and is awaiting its final home – after it has been used in the 150<sup>th</sup> Anniversary events.



The assembled model with BAE Apprentices Liam Burns, Bradley Page and Louie Cookson