

Civil Aviation Authority (CAA) approved trial of Unmanned Air Vehicles (UAVs) over the Devonport Naval Base site has been successfully completed.

The trial further demonstrated the effectiveness of using alternative methods for conducting at height visual surveys of warships, submarines and facilities.

Over a vigorous two-day programme, the Engineering Services' (ES) Innovation Team with Andy Wiggins as the Trial Manager supported by Building Information Modelling (BIM) Manager Jason Kenyon and SSMG Waterfront Team Leader Nigel Thornber effectively showed how this technology could increase capability throughout Babcock in the delivery of in-service support.

The UAVs were put through their paces by Skeye BV (an independent and CAA certified contractor) using an Asctec Falcon 8 UAV. This UAV has eight rotors to provide a remarkably stable and manoeuvrable platform which is fitted with a powerful camera to capture the required imagery.

The UAV conducted a number of flights over the two days, capturing High Definition (HD) photographs and thermal imagery of HMS Ocean, ex HMS Courageous, ex HMS Turbulent and the Frigate Refit Complex roof.

The HD images obtained were extremely detailed with the potential to inform decisions on the necessity of maintenance intervention and in turn saving on the cost of scaffolding and mobile platform hire.

In addition to the capture of early material condition awareness, UAVs could also be used to conduct routine Lloyds visual surveys. For example, rather than erecting scaffolding around a mast to get a surveyor within arm's reach, a UAV could capture the required survey information guided by the Lloyds surveyor working alongside the UAV pilot.

Amphibious-Class Lead Engineer Mark Hocking said, "To be able to use this technology to capture data from the difficult to access areas of the upper deck and superstructure, without the use of more traditional and cumbersome methods, is a real step forward. This innovation will save time and resources in pressurised maintenance periods while facilitating a better understanding of the material state of the less accessible areas of the ships."

The team is now processing the data obtained by the UAVs to generate 3D models and working with the ES Business Improvement and Transformation Team to evaluate the opportunities to roll out the capability across the business.

