

14<sup>th</sup> August 2013

## Painstaking conservation of Dornier 17 is underway

Just eight short weeks have passed since the world's last surviving Dornier Do 17 was salvaged from the bottom of the Dover Straits and delivered to the Royal Air Force Museum at Cosford, Shropshire, for conservation. Since its arrival, significant progress has been made in treating some of the aircraft's smaller components, several of which are now on display at the Museum. As the long process of conserving the airframe begins, we take a look at the work carried out to date.

The Dornier fuselage and wings will remain in their purpose built hydration tunnels for the foreseeable future and continue to be systematically sprayed with a low concentration citric acid based solution, preventing any further corrosion. Early indications show that the process is working as the solution is helping to soften up and remove marine accretions, allowing direct access to the airframe structure and the subsequent neutralisation of corrosion impurities. Regular manual spraying has aided this process and enabled the Museum's team of skilled Apprentices to gently remove debris with the use of plastic scrapers.

A number of smaller components have already been painstakingly worked on by Apprentices and volunteers and some great results achieved. Previously covered in marine accretions, items including an engine valve, empty bullet cases plus a tube from the flying controls have proved to be in remarkable condition following treatment. A sprocket and roller chain have also been conserved and are working freely once again.

Final treatment includes coating the items in a layer of renaissance wax or a two part clear paint product in order to protect the items. By trialling various conservation methods employed regularly in museums, the Conservation team can identify those processes most applicable to metals which have been subject to long periods underwater.

### Sprocket and Chain:



Before



After



**Darren Friday, Deputy Conservation Centre Manager at RAF Museum Cosford says:**

*"Any metal removed from a salt water environment is subjected to an accelerated corrosion process if it's not treated quickly. As the Dornier lay at the bottom of the sea, the currents and*

*tides have effectively been like rubbing sand paper over the aircraft for 73 years but she's survived remarkably well."*

#### **Engine Valve:**



**Before**



**After**

#### **Darren Priday continues:**

*"This is a truly unique project with lots of unknowns and we are still learning day by day. All the signs from the work we have carried out so far are very positive, but there is still a long way to go. The Museum has recently acquired several thousand original Dornier 17 production drawings which will aid the rebuild process. These invaluable drawings, supplied by European Aeronautical Defence and Space company (EADS), will also assist us to identify parts and can be utilised for partial reconstruction to reinforce any fragile areas."*

This ground breaking project has sparked interest from across the globe and in visitors of all ages who are fascinated and intrigued to know how the project will progress. Since its arrival on 15<sup>th</sup> June 2013 thousands of visitors have viewed the Dornier and additional viewing panels have been installed to allow visitors to see more of the aircraft.

For visitors wishing to gain even closer access to the aircraft, volunteers from the Museum's Aerospace Museum Society will be working on Dornier components every Tuesday and Thursday between 10:30am and 3:00pm in the Museum's Test Flight Hangar. It is a great opportunity for aviation fans to get close to this historic aircraft and to ask the volunteers questions about the vital work they are carrying out.

Thanks to the support of WarGaming.Net the Dornier Exhibition will soon be on display to members of the public at Cosford. Admission to the Museum and viewing the Dornier is FREE of charge. Anyone wishing to donate towards the conservation of the aircraft can do so online via the Museum website [www.ramuseum.org](http://www.ramuseum.org). For more information please call the Museum on 01902 376200.

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#### **Notes to Editors:**

- For the full aircraft history, archive images and pictures from the project, please access the Online Press Pack: [www.rafmuseum.org/dorniermedia](http://www.rafmuseum.org/dorniermedia)
- More than 1,500 examples of the Dornier 17 medium bomber were built. The twin engine, twin fin configuration together with the narrow fuselage and shoulder mounted engines gave the aircraft a distinctive silhouette and earned it the nickname 'The Flying Pencil'. Over 400 were employed by the Luftwaffe during the Battle of Britain.
- Royal Air Force Museum Cosford, Shifnal, Shropshire, TF11 8UP
- Open daily from 10am
- Admission to the Royal Air Force Museum is free of charge.
- RAF Museum Cosford images & logo available at: <http://www.rafmuseum.org.uk/research/media-vault.aspx>
- All images used should be credited: '©Trustees of the Royal Air Force Museum'

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