

## **Project Overview**

The following marks the beginning of an ambitious project to build a full-sized replica Supermarine Spitfire Mk1. The project forms the current focus of an extracurricular club called 'Flight Club' that attracts students from all age ranges, (any Senior School student can attend). It is run by Mr Berry (Head of Art and Design Technology) and Mr Cluley (Head of ICT and a DT teacher). When complete it will become The Ratcliffe Spitfire. At 1:1 scale, it will be exactly accurate from the outside and will have a faithfully produced cockpit that can be climbed into and interacted with; it will sit on its own undercarriage enabling it to be wheeled to wherever it is needed and will form a pretty impressive sight on special occasions.



## Why?

One of the reasons for undertaking the project is to honour the hundreds of aircrew who flew from Ratcliffe Aerodrome during WWII, (known then as No.6 Ferry Pool); the often un-sung pilots of the Air Transport Auxiliary. The most important reason however is to interest students, in engineering, woodworking and problem solving skills as well as in history by creating a living piece of history. They will of course also learn a great deal about flying and aircraft.



**Building Process and Staff** 

Working from over 3000 Supermarine blueprints we are making sure we create an accurate reproduction. Our Spitfire will *look* exactly like the real thing, but it is being made predominantly from plywood frames like the ones you see in these pictures, with skin-ply to give it the 'aluminium skin'. Some aluminium parts will be constructed to give an authenticity to the cockpit area and we will make our own instruments and other small components. The tail section from frame 12 (just behind the cockpit) to the rudder will be made from polystyrene and the entire airframe finished in a coat of fibreglass tissue before being painted. We have ambitions to include sound and lighting within the engine area too. Mr Berry has a background in the film industry as a scenic sculptor, special effects technician and modelmaker, so making things look exactly right will not be a problem! Mr Cluley is

ex-military and an electronics engineer and has also been successful building robots for the TV series Robot Wars. Mr Chiavetta is a fine artist with excellent building skills.



## Funding and Industry Links

Our project has received the backing of The Spitfire Society through the Leonard Stillwell Bursary, a grant system bequeathed to the Society by Leonard Stillwell, a former Spitfire Pilot. We have contacts within the Spitfire restoration world and these currently include two companies who restore Spitfires. We have been invited to Duxford to discuss our plans and take measurements from a real Mk1 Spitfire. Everyone we speak to has offered tremendous help with this project, (copies of blueprints, the loan of original parts to make copies from and the offer to have some parts made for us). Links through pupils have also provided us with materials (John A Stephens Ltd have generously supplied us with timber) and we hope this generosity will continue as without it the project could not exist.

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