AIRSPEED HORSA GLIDER - CRASH CONVERSION

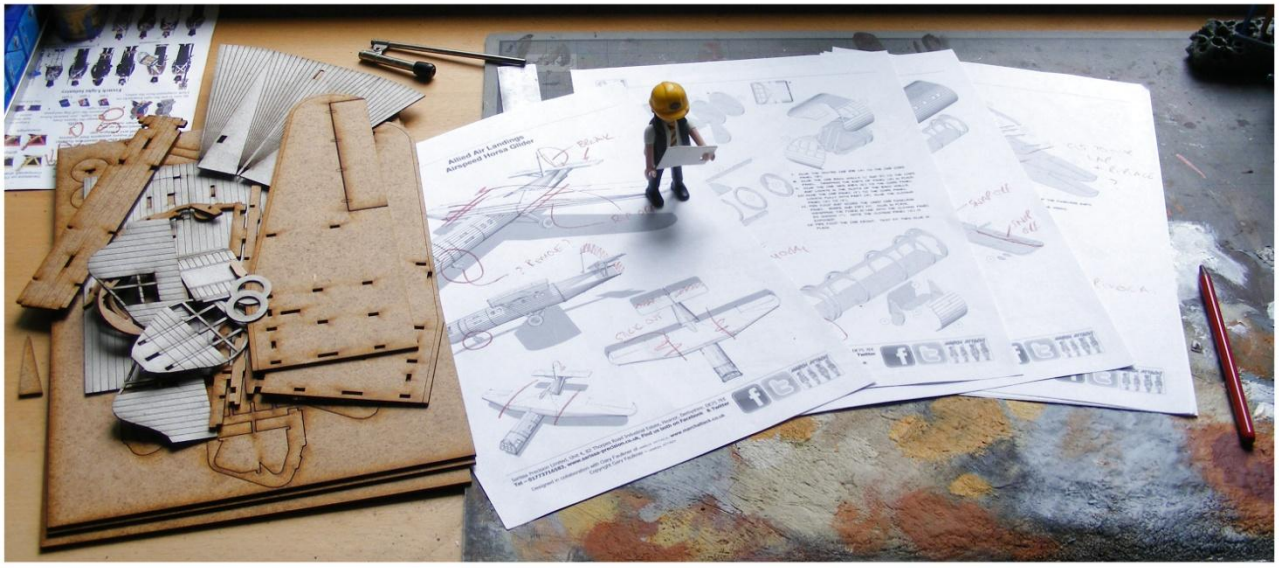
The Airspeed Horsa Glider is an icon of the Second World War. Designed and 1st flown in 1941 the glider was used in many crucial actions from 1943 to 1945. It proved to be a very durable solution for deploying troops and equipment.

The most iconic use of the Horsa was for the Pegasus Bridge attack on D'Day. It's this action that gives us the image of the glider in 'crashed' form, with pictures like these.

However most of what looks like wreckage is in fact the way the glider is designed to 'dismantle' to allow the deployment of vehicles and equipment. The cab and tail section of some variants were engineered to be removed. But that would be no fun if all landings are perfect landings. So we decided to crash a glider.

FIRST CHECK THE ASSEMBLY INSTRUCTIONS

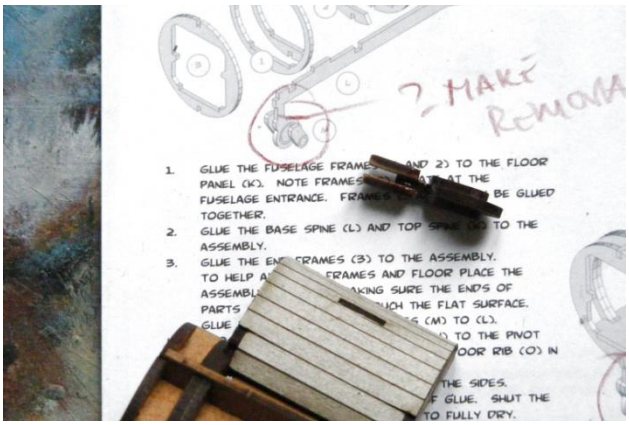
And make a plan.



Even I need to go through the assembly when working with these kits. Go through the plans and decide what you want to 'damage' on the basis of what you want. I decided to go for the ripped off wings and lost controls look, all flaps drooping. I marked up the instructions stage by stage, and checked if there were any effects across the assembly process.

Crash Stage 1

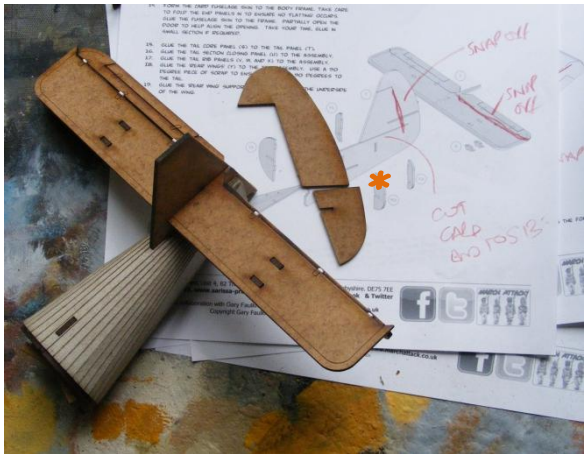
I wanted to have the option of the glider in full perfect landing form and in a number of stages of 'crash'. The 1st stage is the loss of the front guide wheel. This can be simply created by cutting the wheel support from the frame. I then used some scrap to create a fork to fit over the frame. This had a knock on effect on the fuselage card at this point. It just needs a slot adding to allow the fork to pass into place. The fork fits between the front ring fuselage frames.

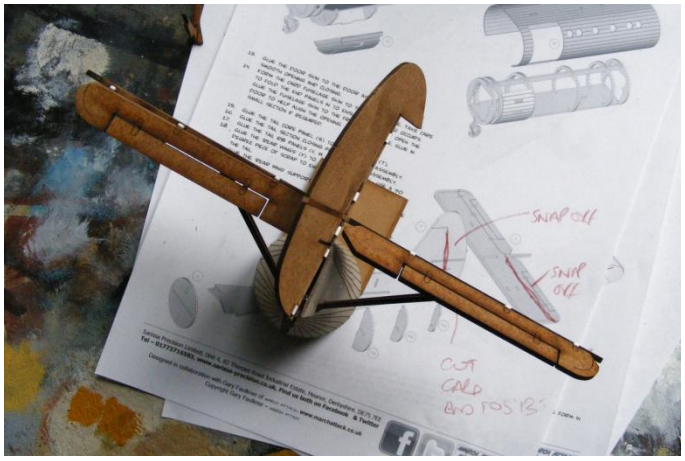


Crash Stage 2

The kit is designed so the flaps and stabilizers can be cut free and removed or repositioned. The tail rudder needs to be cut a little more, but is easy enough to do. Cutting the rudder fully means the tail is freed from the central tail panel and will need to be glued on once the card skin is in place.

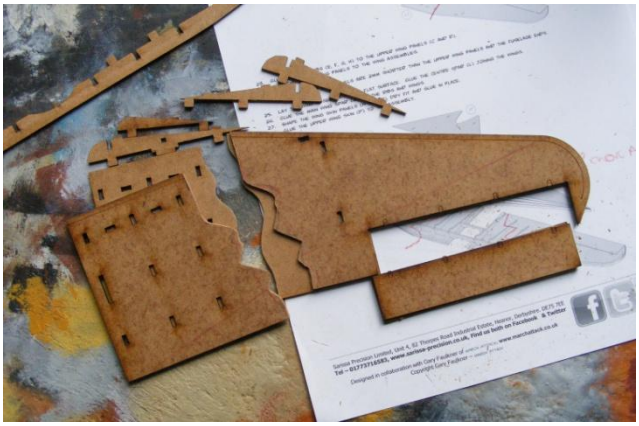
The flaps are edge glued to the wing. I use super glue gel as it is fast setting. To strengthen the joints I use 1.2mm plastic rod. I put small lengths at the hinge points on the wing top and a longer length to the underside. The wings are glued to the tail fin. I use a 90 degree piece of the sheet frames to help get the fin perpendicular to the wings. Once the skin is on the tail was glued on. I have cut away some of the skin to allow the rudder to angle. The rudder parts need to be glued together. I used a 2mm piece of scrap to add the missing bit - marked *. The rudder is glued like the flaps, using 1.2mm rod for support.

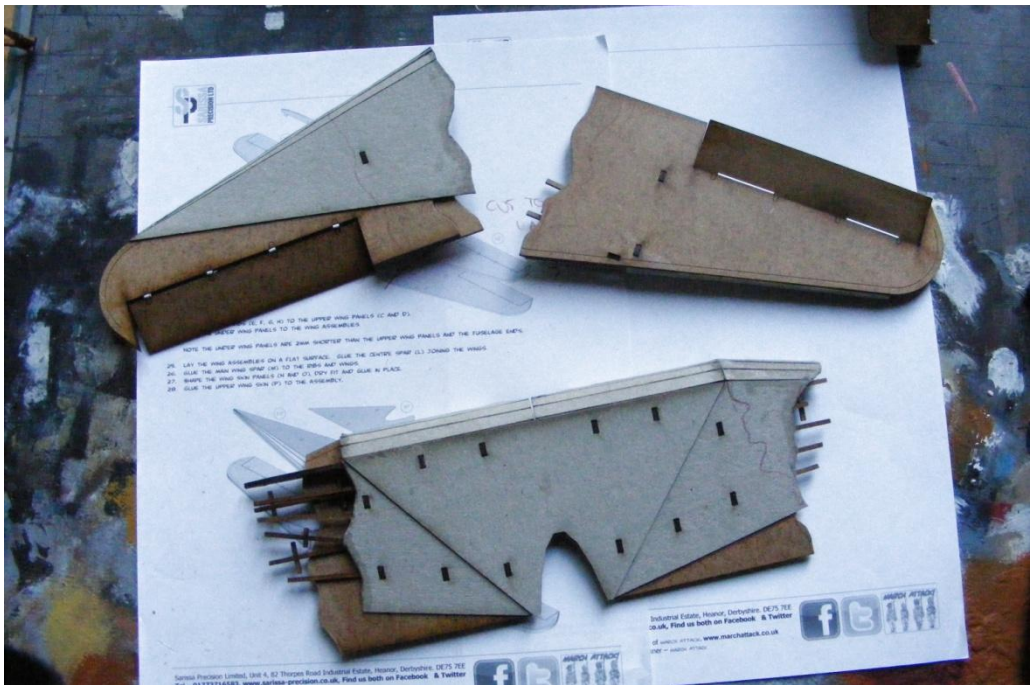


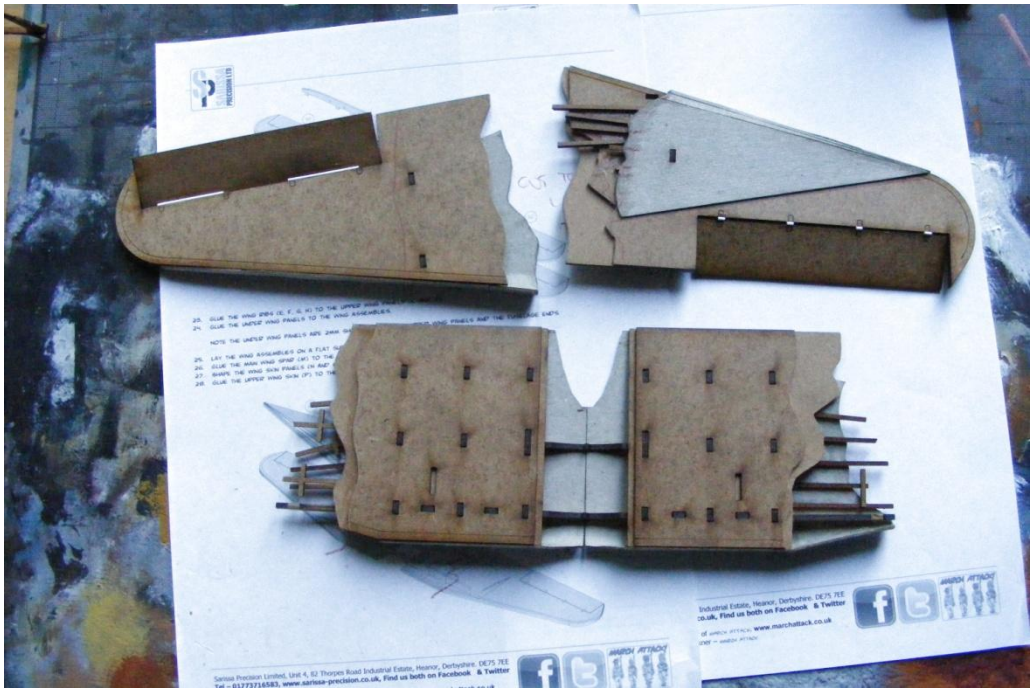
Crash Stage 3

The most classic part of the crashed glider is the ripped off wing. I decided to rip both wings off but, I wanted to be able to put the wings back together. The full wing assembly is made with inner ribs and a main spar that crosses over the fuselage. The wings themselves are made from 2 sheets of MDF and shaped card. I marked the panels up and cut the MDF panels so the overlapped. This allowed the main spar and the overlapping to form a joint. Cut the bottom wing panel larger than the upper.

The upper wing is made of shaped card and can be cut in a number of places. Just check that you can shape and glue it to the MDF wing parts. There is an outlying rib near the flaps that helps line the card up and glue in place. Mark up where the card panel edges are on the MDF. As with the tail I cut the flaps off and glued them back with rod. I used only 1 of the flap panels (you'll know what I mean when you have the kit in your hands).





By cutting the MDF wing panels to overlap, the spar and this panel grip the upper MDF panel. I glued the card skin in place. I used 2mm MDF scrap, from the kit frames, to create the wing spar ends. If you do want the wings to join back together, check the spar positions as you glue them in, cut to length and avoid clashing. I glued them to the inside face of the card. This added strength to allow the wings to socket back together.

As long as your cuts are not too jagged they will smoothly join back together.

I have left the rest of the glider, the cab and fuselage as standard. I chose not to add the washer counter balance pack to the cab and made a pallet load out of it, and fit it to the cab end of the fuselage at the door point (re finished pictures with figures below).

I now had a jumble of parts to paint. The ability to rejoin the wings allowed me to line up the invasion stripes.

The Crash as it Happened.

THE FRONT GUIDE WHEEL FAILS.

THE MAN UNDER CARRIAGE RIPS CLEAR AND THE FUSELAGE SLIDES ALONG THE GROUND.

THE LEFT WING DITCHES AND STARTS TO TEAR OFF.

WITH THE LEFT WING GONE, THE RIGHT WING HEELS THE FUSELAGE OVER AND DIGS IN.

THE RIGHT WING RIPS OFF AND THE STUB DIGS IN HALTING THE SLIDE.

NOW THE GLIDERS DOWN THE PASSENGERS CAN GET TO IT. THE TAIL AND CAB ARE DISCARDED AND THE LOAD REMOVED.

THE COUNTER BALANCE IS MADE INTO A LOAD.