World War One Aircraft Models

I have always held a fascination with early military aircraft. After serving for 27 years in the Royal Air Force, I became a Military Aerospace Technical Author. Although, as most modelers, I got involved in the world of construction kits at an early age, I stopped for most of my service career and for some years afterwards.

I started modeling again a few years ago and now enjoy the challenge of building aircraft of World War One. Since posting photographs of my completed models online, several people have asked if I would create a 'build log' for future builds.

I don't consider myself a 'master' of this craft, but hope to be able to pass on what I have learned. As such, here is my Twentieth build log, which covers the 1:32 scale model of the Roland D.VIa by 'Wingnut Wings'.

Mike 'Sandbagger' Norris

sandbaggeruk@sky.com

Completed: March 2021

INTRODUCTION

This guide is intended to help with the application of the ‘Proper Plane’ wood effect decals to the fuselage and the finish to the propeller.

This is extracted from my fully detailed build log for this model. The full build log, in Adobe PDF format, can be read or downloaded from my web site. Select the aircraft from the galleries then just double click the PDF icon for that aircraft to access the build log.

Web search for - ‘**Mikes World War One Aircraft Models’**

or use the following URL in your web search bar

http:igavh2.xara.hosting

PROPELLER

PROPELLER

For this build I chose to replace the kit supplied propeller with wood laminated, hand made 'Heine' propeller from 'Proper Plane' (32-003), which is supplied with resin propeller bosses. The propeller comes pre-varnished and has a smooth surface. The 'Heine' propeller has the same shape and profile as the 'Wotan' propeller supplied in the kit and the type fitted to this particular aircraft.

NOTE: *As the hub of the propeller will be inside the spinner, there is no need to use the supplied resin propeller bosses, as the won't be seen.*

If necessary, drill out the mounting hole in the propeller to fit the propeller shaft on the engine.

Apply the kit supplied 'Wotan' decals (59).

Seal the propeller using 'Alclad' Light Sheen lacquer (ALC-311) or similar semi-matte coat.

If desired, lightly sponge brush weathering to the leading edges and tips of the propeller using 'Tamiya' Weathering Master Set B (Soot).

Test fitting:

Remove the kit supplied propeller spinner (A38) and backing plate (A14) from the kit sprue and remove any residual sprue tags.

Carefully cut away the mounting boss on the kit supplied backing plate, as this is not required for the 'ProperPlane' supplied propeller.

Drill out the centre of the backing plate to fit onto the propeller shaft on the engine.

Test fit the propeller into the spinner and then add the backing plate to the rear of the spinner. Make sure the propeller is fully seated into the spinner and the backing plate fully fits into the rear of the spinner.

FUSELAGE WOOD DECALS

Wood effect decals:

NOTE: *The wood effect decals to be applied are from the 'ProperPlane' wood effect decal set (PDW-501230). These decals are translucent so a base colour needs to be applied to the model surface before the decals are applied. It is important that the surface of the applied paint is smooth, free of surface imperfections and has a gloss surface.*

Carefully sand along the fuselage seam joints to remove any extruded cement and to blend the joint with the surrounding fuselage surfaces.

Make sure the surface of the fuselage is free of surface imperfections. If necessary, lightly sand away any imperfections, taking care not to sand over raised details, such as access panel etc.

Mask or cover the engine bay area and cockpit. Block off any other openings, such as the lower wing location slot, gun slots in the forward decking panel and all openings in the fuselage, using 'UHU white tack, kitchen food wrap and the ends of wooden tooth picks.

Airbrush the entire external surface of the fuselage with a white primer, such as 'AK Interactive' White (AK-759) or similar. This colour helps lighten the subsequent base coat.

Airbrush the entire external surface of the fuselage with 'Tamiya' Desert Yellow (XL59) or similar. I thinned the 'Tamiya' acrylic paint with 'Mr. Colour' self-levelling thinners 400, which improves the surface finish and dries quickly.

Make sure the surface of the fuselage is free of surface imperfections. If necessary, lightly sand away any imperfections, taking care not to sand over raised details, such as access panel etc.

Airbrush the entire external surface of the fuselage with a gloss clear coat, such as ‘Alclad’ Aqua Gloss 600, ‘Tamiya’ Clear Gloss (X22) or similar. If necessary, apply a second light coat to achieve a good gloss finish.

Remove all masking from the fuselage.

NOTE: *The wood effect decals supplied by ‘ProperPlane’ are not ‘cookie’ cut and therefore need to cut out from their backing sheets.*

Carefully cut out the four decals for the upper and lower sides of the fuselage from their backing sheet.

NOTE: *On a relatively flat fuselage these decals would not be a problem. However, this models fuselage has a lot of raised surface detail, such as access hatches, metal fittings and protruding pulleys near the tail unit. The decals, not being ’cookie’ cut, have no transparent areas for the raised details, so they can’t be cut out before applying the decal. Also the decals really need to be laid as single pieces, as to cut them into more manageable sections would mean aligning them correctly on the model. If not aligned correctly any overlap of decal will show darker. Therefore, when applying the decals, any raised detail will cause the decal to remain clear of the model surface, causing the water and air to be trapped underneath. Both need to be removed to conform the decal to the surface, otherwise any creases left in the applied decal will show as darker lines.*

Lower right decal:

Soak the decal in warm water for approximately 15 seconds then remove and place on a non-porous surface, such as acetate sheet or similar. I started with the right fuselage, lower decal.

Wet the surface of the model where the first fuselage decal is to be applied.

Slide the decal onto the rear of the fuselage then hold in place and remove the backing sheet, guiding the decal along the fuselage. The following illustration from 'ProperPlane' shows where to apply the decal. **Make sure the decal is applied exactly according to the illustration**.

NOTE: *Some of the decal applied decal may overlap its intended finishing edge, due to minor differences in the model build and decal stretch during application.*

Align the top edge of the decal accurately along the top of the wood plank as shown above.

NOTE: *In the following step, cutting across the decal is alright as the decal over raised detail on the unpainted wood fuselage will be removed and the detail painted later in this build*

Carefully cut across the decal where it is being held clear by raised detail on the fuselage.

Using a broad, soft brush and cotton buds, carefully brush and roll out the water from under the decal, making sure it remains in position.

Roll and press a cotton bud over and onto raised detail to force the decal down onto the model surface and to remove trapped air and water.

To fully conform the decal onto the model, I wear lint free cotton gloves and use finger pressure to finally remove any residual air and water and to smooth out the decal.

Before the decal sets and if necessary, use a sharp, curved blade to gently cut along areas where the decal is not required, such as at the top of the tail skid, lower wing root fairing and along the bottom fuselage seam joint (as shown above). These areas will be covered separately.

Once the decal is applied, use a decal solvent, such as 'MicroSet' MicroSol, across the applied decal and leave it to dry and conform the decal to the model. If you find areas of the decal that are difficult to conform, you can use 'Tamiya' X20A acrylic thinners, which although having a much stronger reaction, should conform the decal.

Once dry and set, check the decal for any small air bubbles trapped under the decal. If found, prick the bubble with a needle or similar then apply more solvent to remove the bubble and adhere the decal to the model surface. Also carefully cut away any overhang of decal, as may be found around the cockpit, tailplane slot and front of the fuselage. Always cut away from the applied decal, not towards it, otherwise you may lift and damage the decal.

Upper right decal:

Follow the same procedure to apply the fuselage upper right decal, making sure the joining edges of the two decals do not overlap at the side of the fuselage and the top edge of the decal aligns with the top fuselage join seam.

Before the decal sets and if necessary, use a sharp, curved blade to gently cut along areas where the decal is not required, such as at the base of the fin and along the top fuselage seam joint (as shown below). These areas will be covered separately.

NOTE: If you find that after the decal has set there is still overlapping decal, such as along the fuselage seam join, this can be remedied as follows:

> De-tack a strip of masking tape on the back of your hand then apply it onto the required decal along the edge of the fuselage join seam.
>
> Airbrush along the exposed decal with the base colour, in this case 'Tamiya' Desert Yellow (XL59) or similar. I thinned the 'Tamiya' acrylic paint with 'Mr. Colour' self-levelling thinners 400.
>
> Carefully remove the masking tape.
>
> Airbrush the re-painted area with previously used gloss clear coat, such as 'Alclad' Aqua Gloss 600, 'Tamiya' Clear Gloss (X22) or similar.

Upper left decal:

Follow the same procedure as before to apply the upper left fuselage decal, making sure the top edge of the decal is against, but not overlapping, the opposite decal. Also that the bottom edge of the decal is aligned correctly to the fuselage planking (shown as the grey area on page 56).

Lower left decal:

Follow the same procedure as before to apply the lower left fuselage decal, making sure the top edge of the decal is against, but not overlapping, the opposite decal on the side of the fuselage. Also that the bottom edge of the decal is aligned correctly to the opposite decal along the fuselage join seam (as show for the left side above).

Fin, tail skid/lower wing fairing and cockpit front decking panel:

NOTE:
The decals required to cover the fin, tail skid/lower wing fairings and the cockpit front decking panel need to be cut to the correct shape from the separate decal sheet supplied. The best option is to cut paper templates.

Cut out paper templates to fit these areas, making sure that they wrap half way around any leading and trailing edges.

Trace the outline of each template onto the back of the supplied decal sheet, making sure you have the template correctly orientated, otherwise you will cut a reversed decal.

NOTE: *The front of the lower wing fairing has a pre-moulded curved access panel, which does not need decal covering as it will be painted later in this build.*

Accurately cut out each decal. The lower wing fairing is best cut as separate sides.

Apply the decals to their respective areas, making sure there is no decal overlap at the joins, otherwise the overlap will shown much darker due to double thickness decal. Any overlap of decal can be cut along with a sharp curved scalpel blade and then removed before the decal sets.

Fuselage decals applied to model

Fuselage 'scarf' joints:

NOTE:

The separate wood strips covering the fuselage were nailed to the fuselage internal frames and were joined at their ends with 'scarf' joints. These are represented on the separate decal sheet and are of different wood tones for variation.

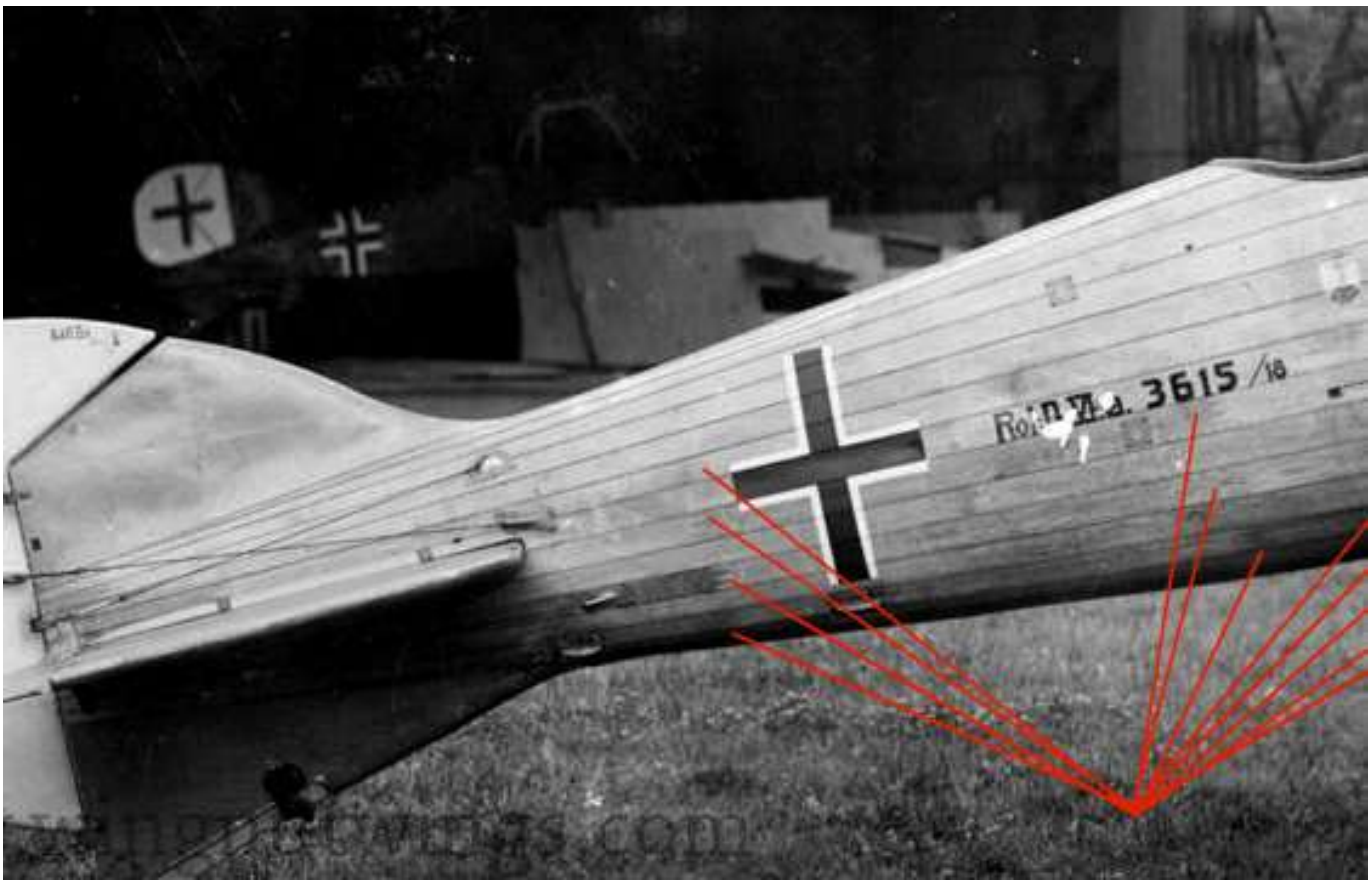
The only surviving Roland fighter of this type is a D.VIb, which is similar in construction to the D.VIa. It's is difficult to ascertain where the 'scarf' joints are located along the separate wood strips, but the following photographs taken at the time seem to show that the 'scarf' joints were located at three locations along each run and in alternate runs and with other random joints.

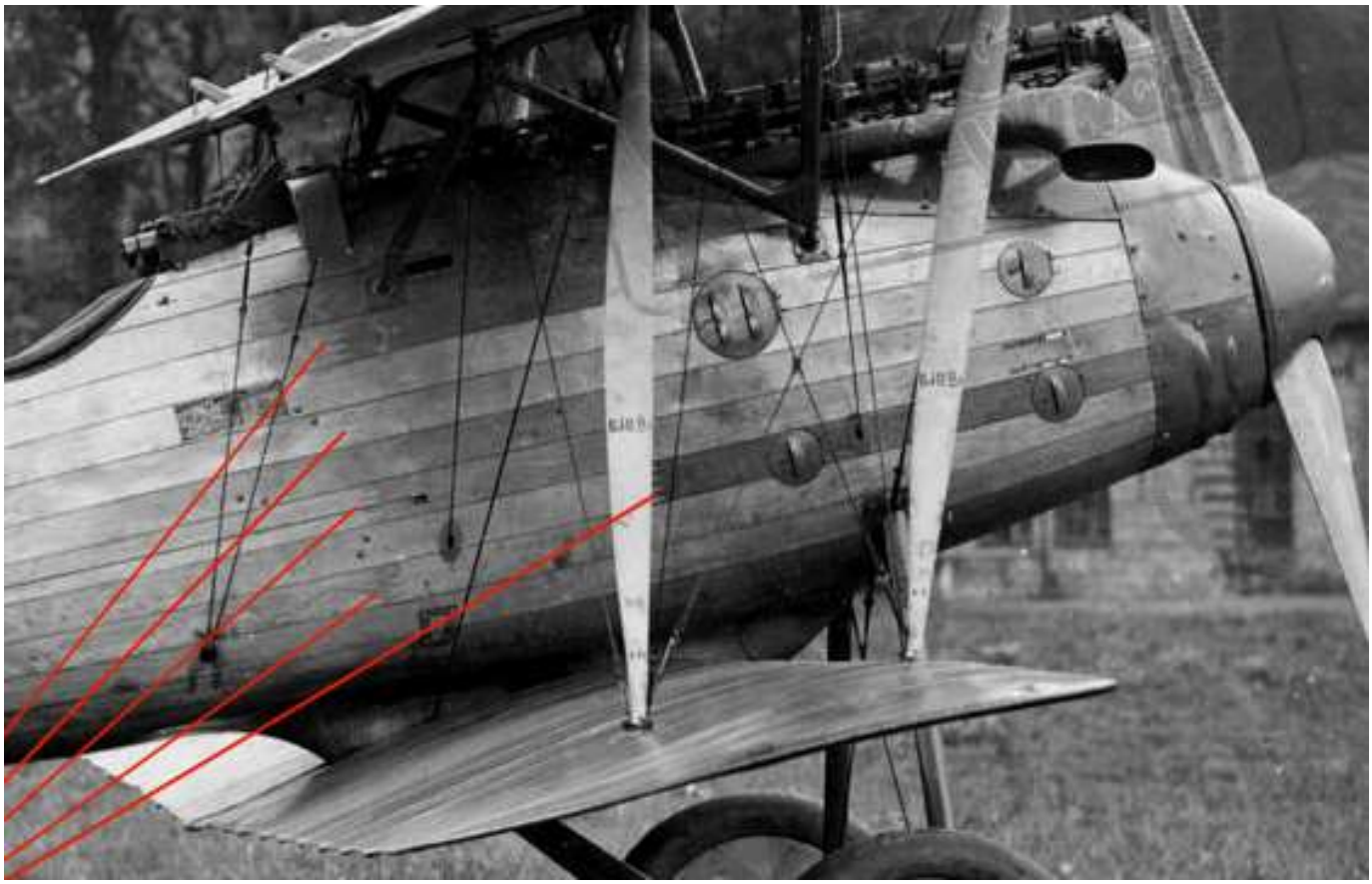
Select the type (colour tone) of the strips you will apply. You may want to test several types before you decide which type to use.

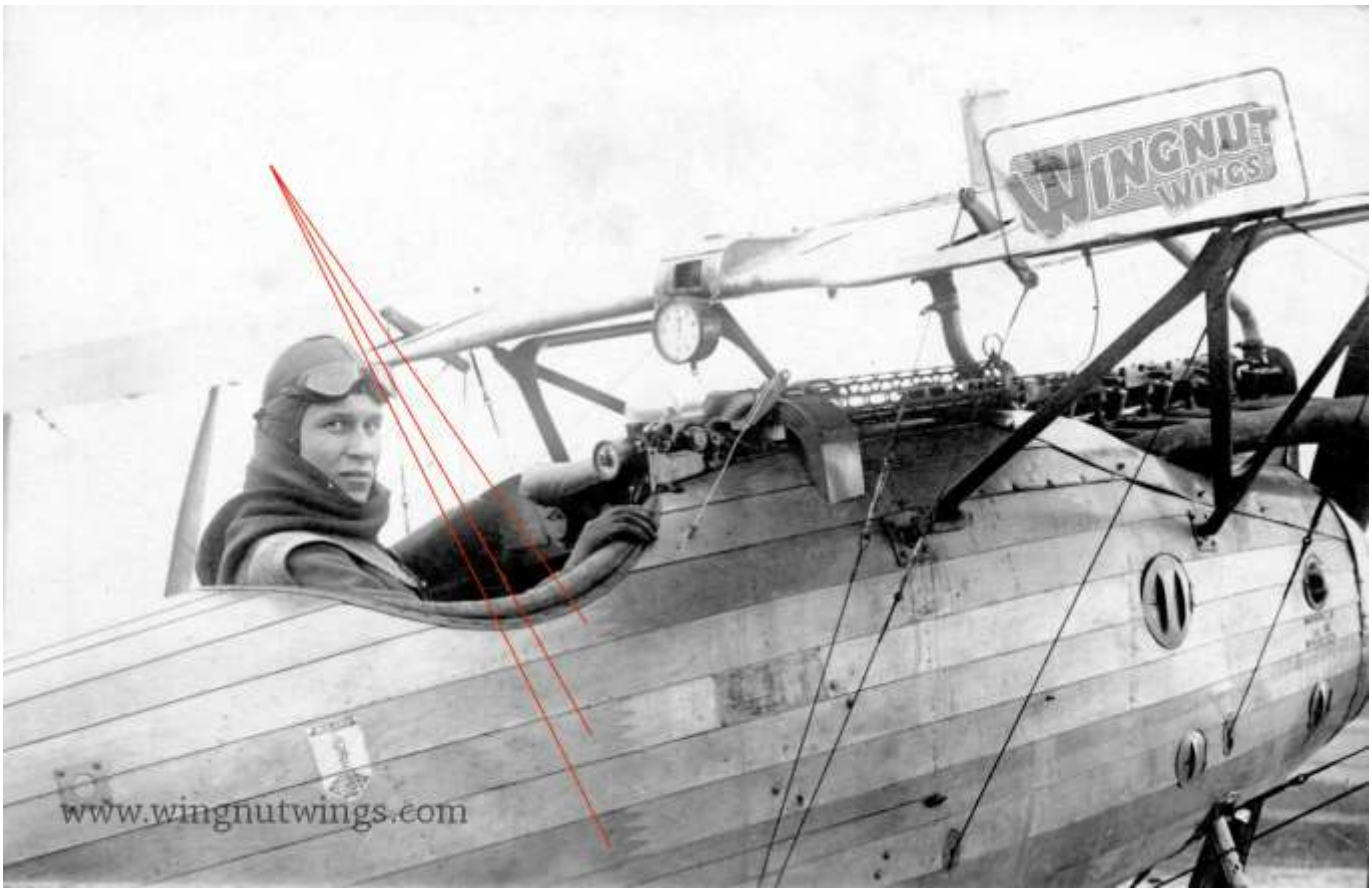
NOTE: *The plywood strips along the fuselage are wider towards the front of the fuselage and taper thinner towards the rear of the fuselage. Therefore each strip must be cut tapered to the correct width to match its location on the fuselage.*

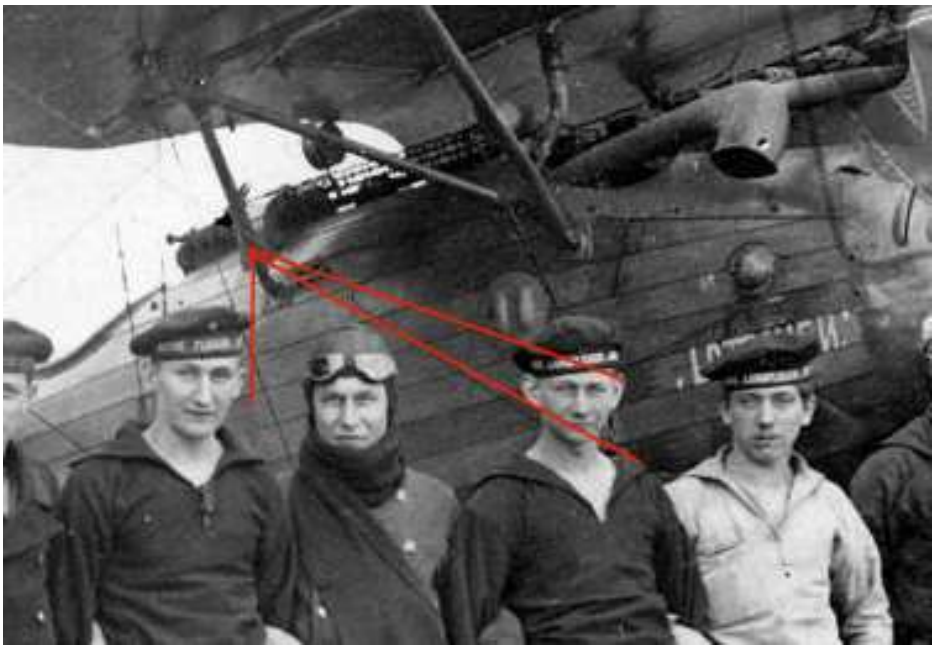
Cut the strips to the same width as the fuselage strips you are applying them to.

Select the position for each decal and apply them around the decal covered fuselage. I chose to locate them in three position along the fuselage and on alternate fuselage wood strips. Also I added random joints.






WINGNUT WINGS
www.wingnutwings.com



Fuselage decals applied to model

Remaining fuselage decals:

NOTE: *At this stage it's best to apply the remaining decals to the fuselage as they can then be sealed to protect them.*

The decals are:
Fin (65), Lifting point (49), Datum line (64), Data plate (54), the fuselage cross (17) Serial No (16), Roland logo (62), Data marking (52), Access panels (53) and fin (65).

Apply the decals following the illustration for 'Common Stencil Details' on page 23 of the 'Wingnut Wings' instruction manual and the remainder on page 21.

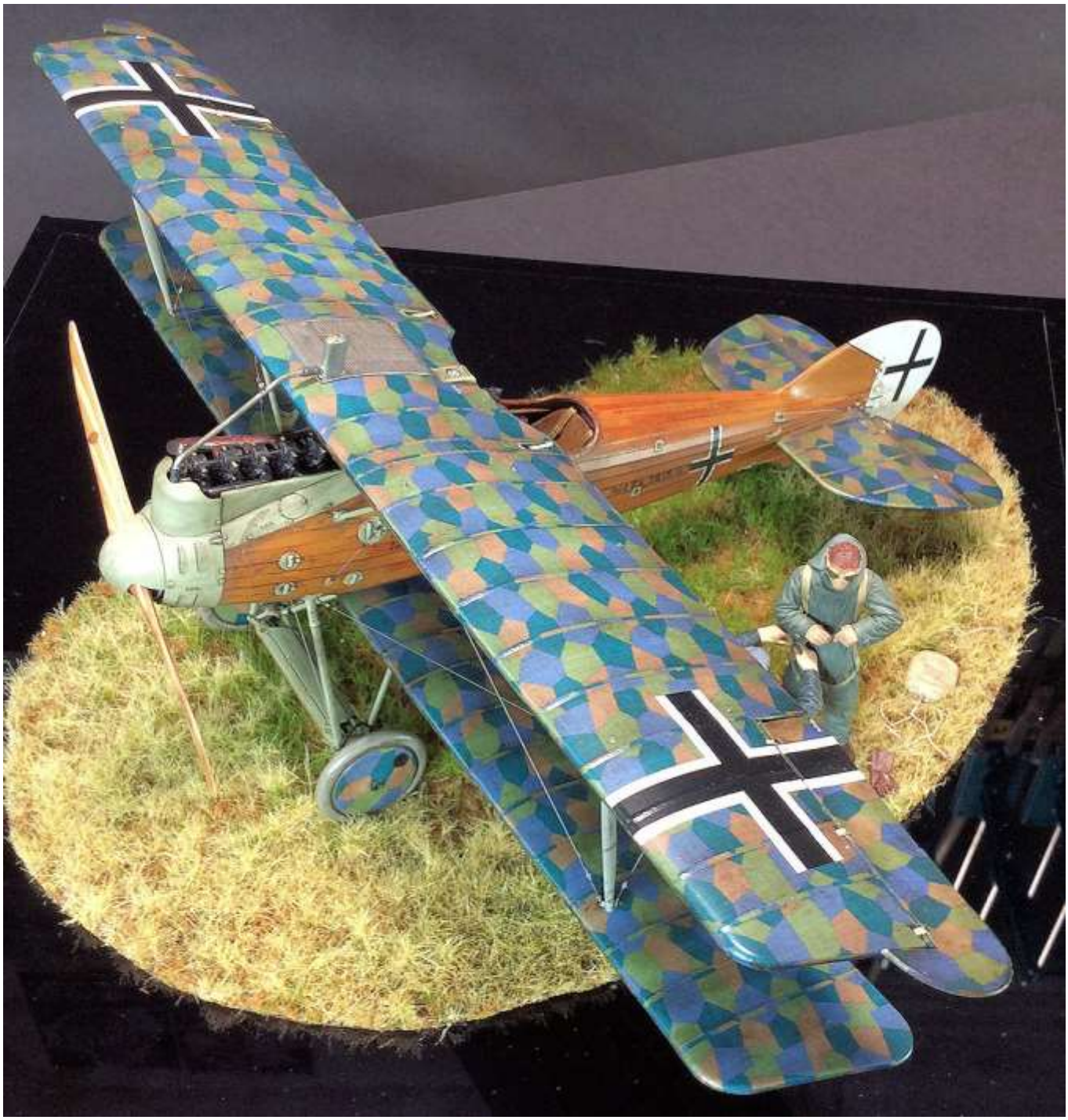
Weathering:

NOTE:
Refer to Part 3 (Weathering) of this build log for information on weathering.

For this model I applied 'Flory Models' Dark Dirt clay wash to weather the fuselage, which was allowed to dry then removed with a very slightly moist kitchen paper towel and brush.

Once the desired effect is achieved, airbrush a light sealing coat of 'Alclad' Light Sheen (ALC-311) or 'Tamiya' Semi-Matt (XF35) over the fuselage to seal the applied weathering.

COMPLETED MODEL PHOTOGRAPHS



END