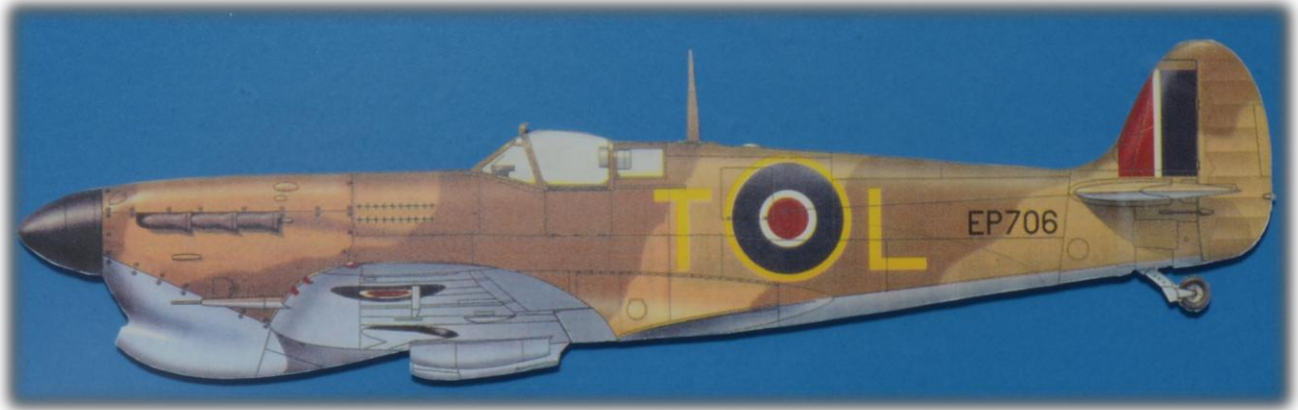


# The building of Spitfire Mk.Vb (tropical) as flown by F/L George Beurling in Malta, , EP706



My own photograph of a lithograph, Montreal Aviation Museum Art Gallery.

Refer to "Debates" towards the end of this document re: yellow or white code letters, spinner colour, Vb or Vc, ...

George Frederick "Scewball" or "Buzz" Beurling DSO, DFC, DFM & Bar (6 December 1921 – 20 May 1948) was the most successful Canadian fighter pilot of the Second World War.

Beurling was recognized as "Canada's most famous hero of Second World War", as "The Falcon of Malta" and the "Knight of Malta", having been credited with shooting down 27 Axis aircraft in just 5 months over the besieged Mediterranean island. Before the war ended, his official total climbed to either 31 or 31<sup>1</sup>/<sub>3</sub>, probably more, as some victories were never confirmed (he was a lone wolf). Beurling's wartime service was terminated prior to war's end. In an attempt to continue combat flying in the postwar era, Beurling lost his life in a crash in Rome while attempting to deliver a Noorduyn Norseman to Israel.

Sabotage was strongly (and still is) suspected, but never proven.

This model will be displayed below the painting of George Beurling hanging in front of the administrative offices of the Beurling Academy in Verdun (Quebec, Canada), a distinguished academy.

## The kit: Airfix A12005A, 1:24 scale

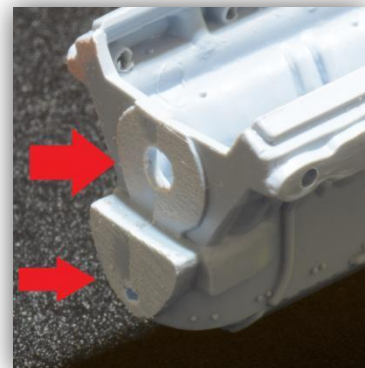


The original molds date back to 1970. It has had many iterations as a Mk.1a; in 2005, Airfix re-issued it as a Vb; it seems the tropical version dates back to 2013, complete with new decals. In any case, it is an old kit: typical thick sprue trees, and some inevitable flashing. This model is mostly OOB; I made the camouflage masks myself and used some custom decals (more on those subjects later). This model will be displayed with the cowlings removed and the Merlin exposed. This build is for version A on the instruction sheet.

**Virtually all parts will need flashing/ejector pin filing/sanding, due to the age of the molds.**

**A note on the confusing part numbers from the "new tooling" sprues:** Airfix never amended the instruction drawings, which leads to confusion, and some guess work on your part.

**Step 1:** Cement parts 1 and 2, then cement to one of the inside walls of the engine block. Assemble engine blocks (parts 3 and 4), then carefully sand down the front surfaces (arrowed) to get an even surface to which you will attach (and clamp) the reduction gear casing (part 5) and the propeller rotating fitting (part 5A; no glue on part 5A); this way, there will be no wobbling of the propeller.



**Step 2:** Trim, cement and clamp cylinder head cover (part 11) in place. Putty seams. Attach part 158 to part 157 (magneto assembly, methinks), then cement in position. Cement coolant distributor (part 9) in place, and putty top joints.

**Step 3:** Cement in place rocker covers (parts 12 and 13), with the "Rolls Royce" details facing out. Cement front part of supercharger drive (part 14), aft part of supercharger (part 15) and bottom (parts 16 and 17) in place. Add the electric generator (part 20) and the two magnetos (parts 18 and 19). Prior to priming, putty all ungainly seams with (my preference) Perfect Plastic Putty.



Merlin engine will be primed and painted later

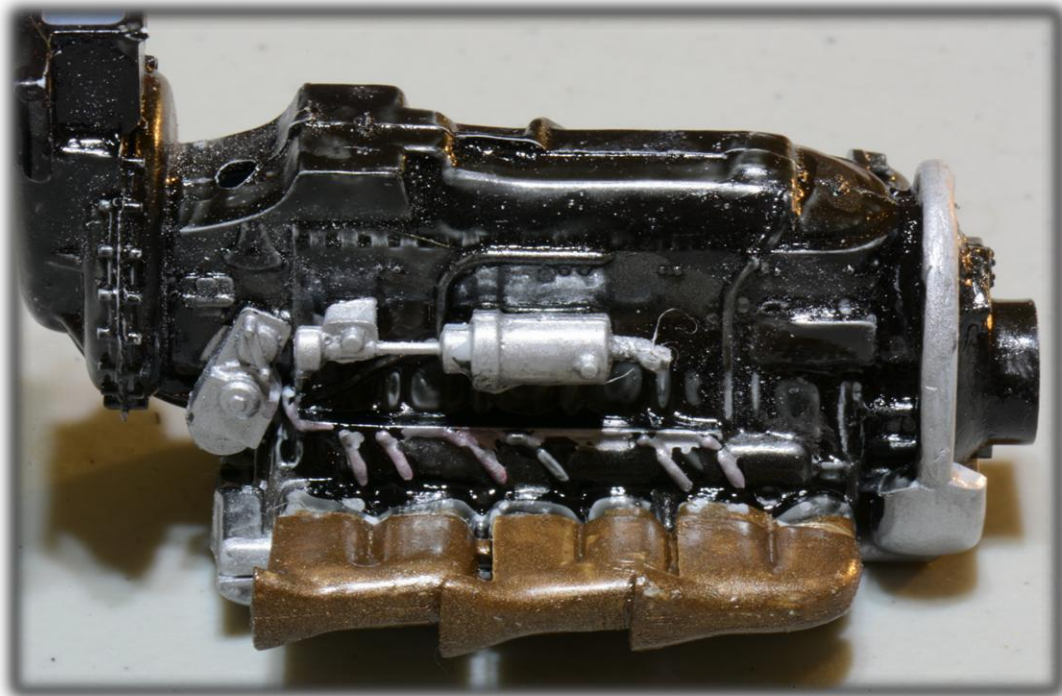
**Step 4:** Before assembling the instrument panel, you need to slightly enlarge nearly all the instrument holes in the instrument panel, or there is no way the clear part 21 will fit snugly. As well, note there is no decal for the instruments themselves; you are on your own here but dig in your panel instrument "stash", you may come up with suitable alternative to the after-market Airscale Decals 1/24 Supermarine Spitfire Mk.1 & Mk.VB Instrument Panel Decals AS24 SPA. I did not bother with dials, as I had yet to receive panel decals yet, and needed to move on. Cement the completed rudder pedal/control column. Attach the gun sight, then paint its base black, and the top copper horizontal portion copper. Attach gyro plate, painted very light grey.

**Steps 23 to 26:** exhaust stacks (parts 135 to 146, and 200, 201 twice): amputate locator pins (these are too long and fat; they just get in the way), then cement exhaust stacks parts together, firmly pressing until solid. Segregate assembled exhausts stacks of step 23 from those of step 24. Sand. Cement prior to painting; there is a specific order for each of these parts; test fit. I painted the exhausts stacks with my own brew of "burnt rust": two parts Tamiya XF-84 Dark Iron, two parts X-34 Metallic Brown and one part X-12 Gold Leaf. By comparison, the Merlin engines recently issued by Airfix (with the 1/24 De Havilland Mosquito FB.VI, for example) are far superior in details and accuracy.



## Painting the Merlin

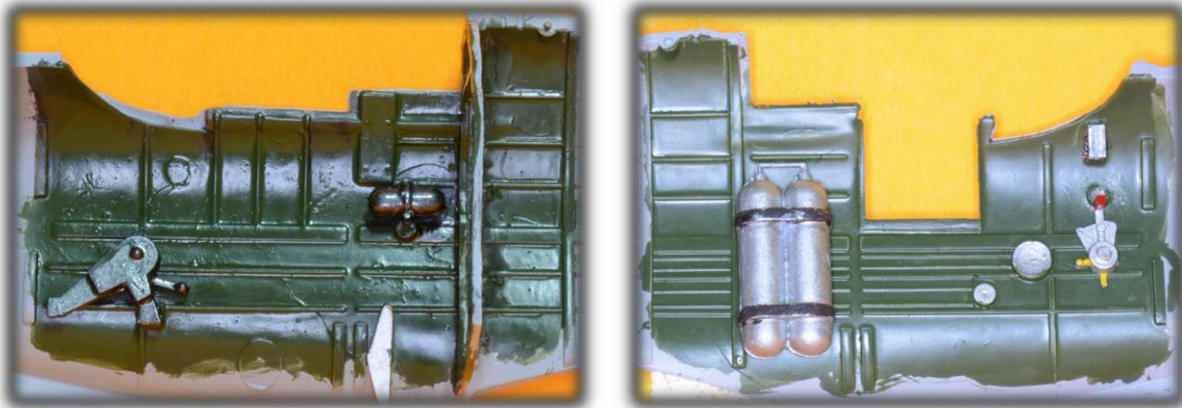
There are many different paint schemes one can use; I decided to "do it my way". Prime the engine. Paint with a soft brush Tamiya diluted X-10 Gun Metal, except for the rocker panels and parts 158, 9, 18, 19 and 20. Paint these Tamiya XF-16 Flat Aluminum. Paint embossed "Rolls Royce" on rocker panels red, let dry thoroughly and rub flat aluminum pigment over the embossed "Rolls Royce" (this will dull the red paint, and showcase the lettering). Paint the ignition (spark plugs) cables silver. Brush flat aluminum pigment wherever else you like.

A close-up photograph of a rectangular metal part, likely a rocker panel, with the words "ROLLS-ROYCE" painted in red. The text is slightly faded and has a metallic sheen, indicating it has been treated with flat aluminum pigment.

**Step 5:** The bucket seat needs to be dressed up somehow. Instructions suggest painting it flat black. I painted mine Tamiya XF-4 Yellow Green (not prototypical, but makes a nice contrast), then added "seat belts". I used dark green 3/32" x 1/32" slide ties, cut in proper lengths, bent at the correct angle (using pliers) and dressed up with spare large PE buckles. In 1:24 scale and when either decals (!) or proper plastic belts (1:24 Airfix Hawker Typhoon provides such plastic belts) are not supplied, many modellers will attempt to use the infuriating cloth aftermarket belts (I tried, and gave up in sheer frustration). Purist will not agree, but I would rather move on than spend hours trying to achieve essentially the same result. Use capillary CA to cement in place, using metallic clamps. Add large red PE buckles and paint two silver "buckles" for effect. Follow instructions, drilling out the holes for parts 32 and 33 (note the molding for the seat height lever is backwards), and paint headrest leather. Use thick-gel CA to attach seat to armor plating, and the resulting sub-assembly to frame (part 34).



**Step 6:** Follow directions. No need to paint the entire fuselage. Cockpit green: we all have our own "best" brew, and we do not even know what is really in it.



**Step 7:** Same as step 6: follow directions. Pay special attention to the twin air bottles: sand seams with a flat rat file, and paint their harnesses Tamiya XF-84 Dark Iron for contrast. Paint radio channel selector (part 44) gunmetal and its rear tips buttons red. Paint throttle (part 45) tips red (top), and yellow (aft):

**Step 8:** Skip entirely, unless you wish to install pilot in seat. I certainly do not install these pilots in any of my models; they look fake, and my builds are static.

**Step 9:** Cement instrument panel (step 4) and seat sub-assembly (step 5).

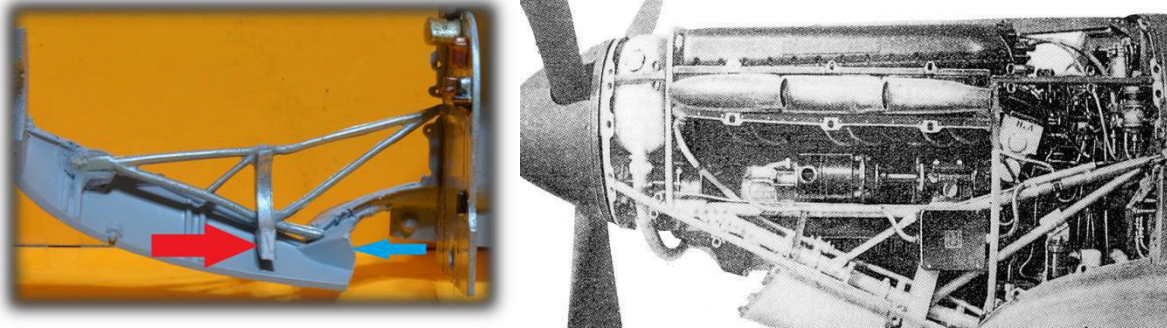




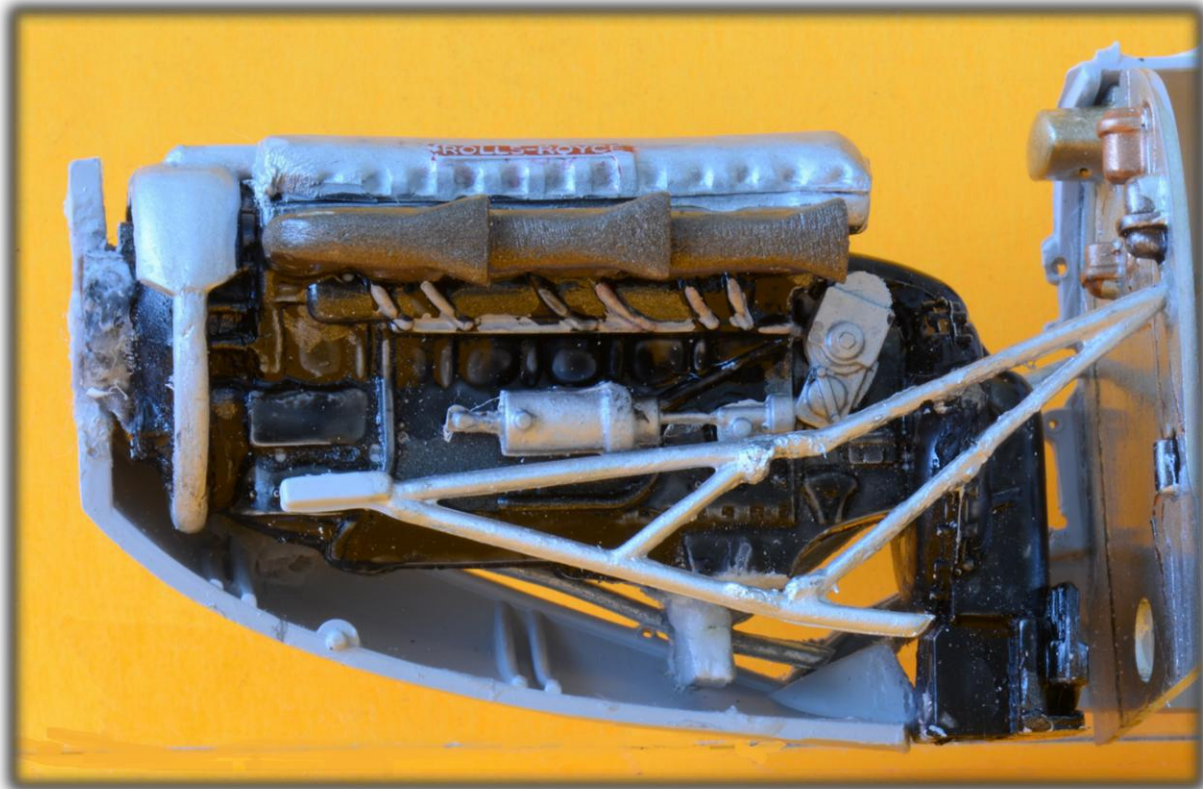
**Step 10:** Paint firewall (part 51) silver. Detail protrusions with Tamiya XF-6 Copper, X-33 Bronze, and X-31 Titan Gold, whatever tickles your fancy. Detail embossed wiring with a toothpick or Micron 005 Archival Ink in various shades (I used bronze). The details on this firewall deserve this kind of careful attention. Drill out both engine mounts (parts 49 and 53) holes and cement in place. Attach part 48 to engine mount with thick-gel CA (a little widening of the four slots of part 48 is necessary). Do not cut front of engine mounts as suggested; you will have more "meat" to work with when you thick-gel CA it inside the engine compartment.

**Steps 11 and 12:** There is no way the Merlin will fit inside the engine compartment without serious amputations: remove all framing as shown below, and use rat files to smoothen; enlarge the propeller shaft hole somewhat and cut in half the lower engine support. The amputated half will NOT be cemented in place at step 12; I tried attaching it, just could not get it straight; Besides, the b&w photograph of the real thing (right) shows there is no such support bracket; clearly the 1970 Airfix solution on how the rather hefty Merlin could hold in place. And the instruction drawings are silent on how to assemble the model without cowlings. Cut off the port half of engine support (part 48). Thick-gel CA the engine in place. Amputate generously the radiator

intake framing on both fuselage halves as well (blue arrow); this will not show, as the lower wing (part 84) will completely cover these amputations:



Thick-gel CA the Merlin in place: at the propeller hub, the red arrowed half support bracket above, and the air intake (blue arrow). Clamp carefully Merlin.



Angle the port engine mount as above





### **Merlin temporarily in place**

Cement tail wheel sub-assembly in place on starboard fuselage half. Snip off its port locator pin (will just get in the way). As usual, start cementing at the vertical fin, working your way forward, cementing the top of the fuselage to the



cockpit opening first. The fit is pretty good, except for the vertical fin (X-acto knife to trim the leading edge, and some sanding along the top; nothing major). Get rid of the locator pin on the top forward fuselage, it does not align properly. That upper part of the fuselage is difficult to get it cemented and hold in place.

Apply lots of Testors Liquid Cement (it dries faster), clamp (even if slightly misaligned), and fill in the gaps with thick-gel CA. Let dry overnight. Fingers crossed; (it worked!). Cement lower fuselage engine "compartment" and propeller end with thick-gel CA, and let this dry overnight as well. For the trop version, do not worry about the fit, as the Vokes filter will cover the entire affair. Cement rudder in place (I did not bother with the hinges, as this model will be displayed in a, well, display case that will never be opened (Beurling Academy in Verdun).





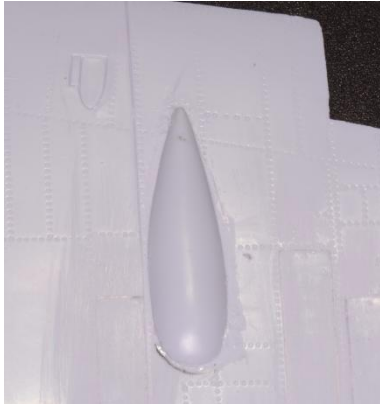
### Merlin temporarily in place

**Steps 13 to 15, and 17 and 18:** Skip altogether. I fail to see their purpose, unless you wish to display the model without the ammo covers on top of the wings.

**Step 16:** Many sub-steps here. Cement the four 303 Browning machine guns (parts 74, 75, 80 and 81) in place. Cement radio receiver (part 83) in place. Attach clear part 82 later. I have no idea what is "27" all about; seems irrelevant to this model. Then there is attaching the main landing gear struts. I understand the need to do this at step 16, although they will be constantly be in the way (and suspect to damage and much cursing) during the painting stage. The landing gear is designed to be retractable; I attached the properly angled struts with capillary CA and a generous dose of thick-gel CA so they are solid. Cement wheel hubs as directed, and insert rubber tires. Do not attach the tires yet. Attach lower light (part 82).

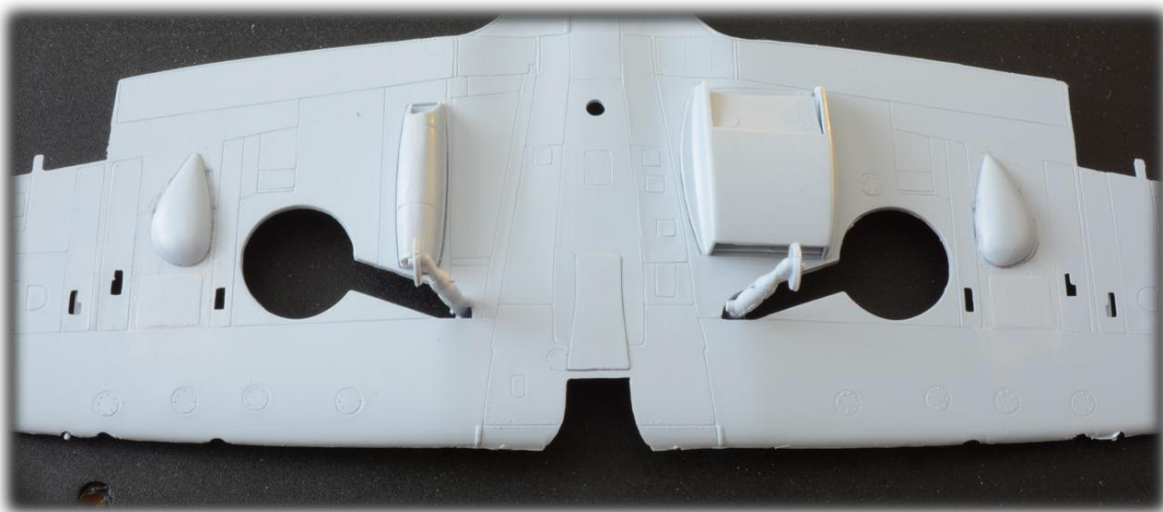


**Step 19:** Do not even attempt to cut the top wings; there is absolutely no need to do this, as sufficient parts are provided to end up with essentially the same result. As I am building option A, I obviously omitted parts 196 to 199. I cemented all ammunition bay covers; some filing down of the wing stoppers necessary, as well as slimming/shortening of some covers; once installed, smooth the panels flat by



sanding from coarse all the way to ultra-fine. Use Testors Liquid Cement on all panels from the inside of both the upper wings and the lower wing; I have already attached (from Step 33) the four panels (parts 105 to 108). Add cannon ammunition feeder covers at the proper locations by amputating the panel sides and sanding the lower ridges of parts 179 and 180. Trace their locations with a lead pencil, apply cement to the inside of the traces, and install, holding down firmly. Clean excess cement with an X-acto knife blade. Putty the seams.

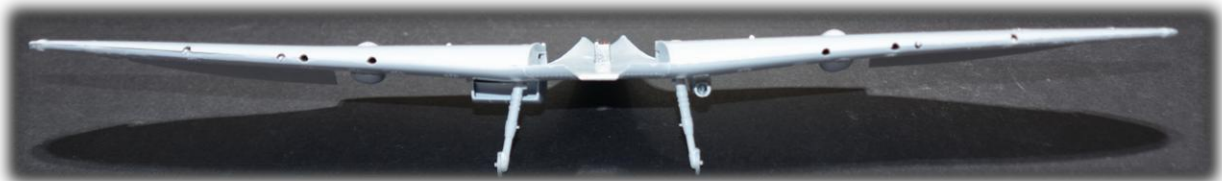
**Go forward to step 33:** Trace, then cement cannon bulges (parts 181 and 182) in proper positions on lower wing. From **step 28**, after sanding seams, attach oil cooler. From **step 29**, attach radiator (no need to paint now). Add cannon feeder lower covers (parts 181 and 182) in their locations. Attach Vokes carburetor air intake filler (part 190). Do not attach Vokes carburetor air filter yet:



Test-fit the upper wings to the lower wing. Do not worry about unused gun openings; that will come at the putty stage. Prior to cementing upper wings to lower wing, back up to the lower wing both unused Browning .303 machine gun spent shell chutes (I forgot, and had to putty without the benefit of backing plates), then putty from the outside. Only the A wing had 8 Browning guns. Cement both upper wing halves to the lower wing. Start at the wing roots, and work your way to the wingtips, making sure the dihedral is, well, not a dihedral (in other words, straight). Clamp very generously. You will have to snip off the upper landing gear pins if gear is lowered in order to fit the upper wings to the lower wing properly. Putty the unused Browning gun holes. Do not attach cannons yet. Cement the ailerons in place (from **step 19**); I chose to cement these in the down position for two reasons: 1) there is far more mating surfaces so these will stay in place; and 2) solves the problem of alignment with the trailing edges; besides, I like this variation. Trim aileron tabs accordingly:



Left: under-wing (aileron primed); right: seen from top of starboard wing (aileron not primed)



Rough finished steps 19 and 33; sanding and puttying to come



Ailerons were previously primed



**Steps 20 and 21:** Skip altogether.

**Step 22:** Complete only after wings are attached to the fuselage.

**Steps 23 and 24:** Already covered in building the Merlin.

**Step 25:** Omit if building tropical version.

**Step 26:** Paint port pilot access door (part 134) inner surface cockpit green, and the outside Tamiya XF-52 Flat Earth. Add a thin round length of plastic from your spare box, as Airfix did not mold the crowbar in. Paint this crowbar the same brew of your own RAF Dull Red as you will the spinner. Forget the decals (21) "MAKE SURE DOOR IS LOCKED BEFORE FLIGHT"; far too dark to see even with a magnifying glass (black on cockpit green; hmm).



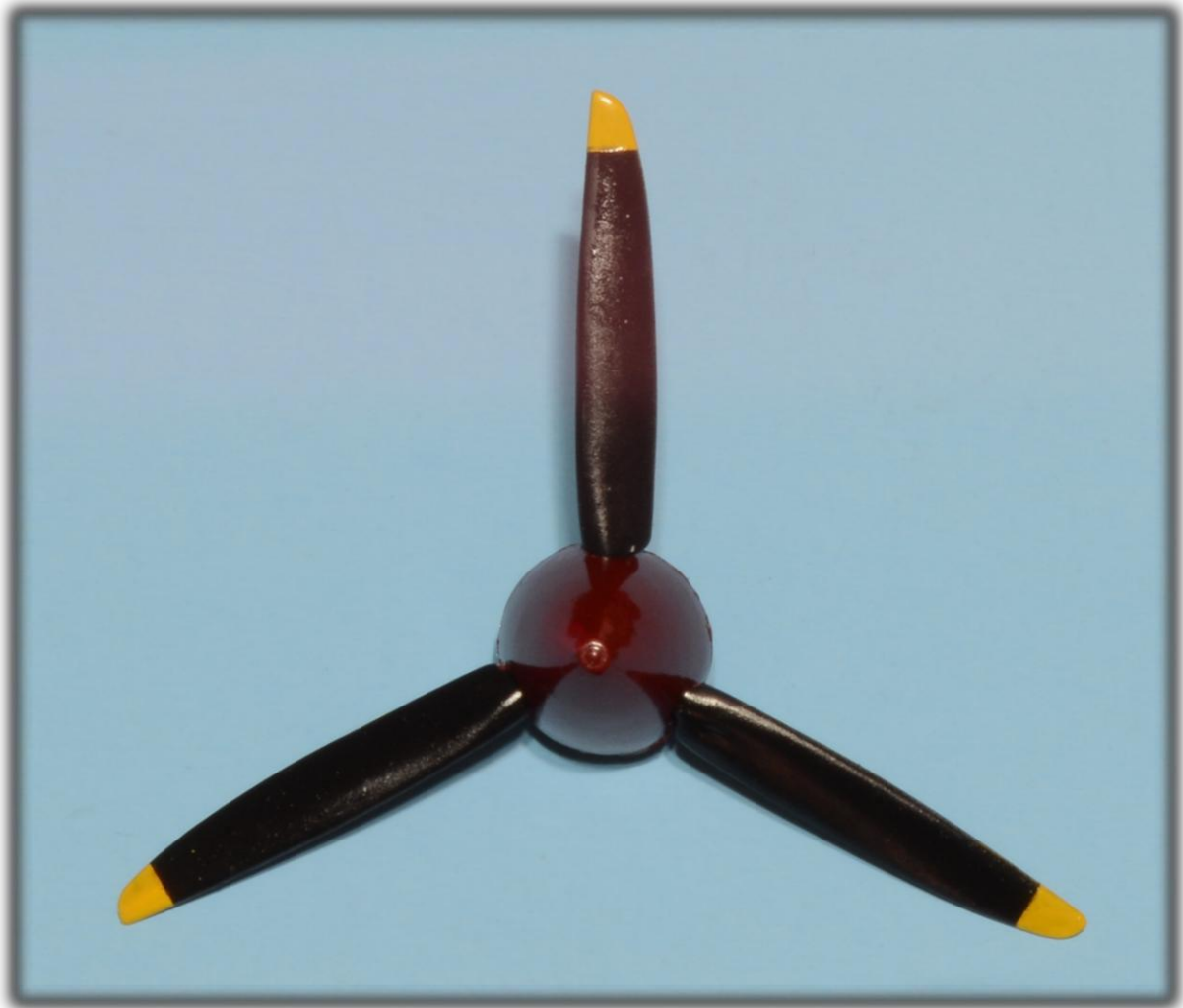
**Step 27:** Omit parts 147, 148, and 149. Wait until model is fully painted before attaching snipped radio mast (part 156) and upward identifying lamp (part 150). From **step 28**, attach stabilizers/elevators as directed. Cement wing sub-assembly to completed fuselage. From **step 33 (A)**, cement Vokes filter in place. The model is now ready for fine-tuning (as in puttying), priming, and painting. Dip all canopies in Future wax, suspend and let dry. Build the stand if you like. Refer to notes on getting the wing and fuselage mated further in this document.

**Step 29:** Skip altogether.

**Step 30 (A):** Assemble, then carefully file and sand to a smooth finish all seams.



**Steps 31 and 32:** Assemble as directed. Paint propeller tips Tamiya X-8 Lemon Yellow. Mask the yellow parts 1/4" from tops, and coat seams with three light coats of Future wax. Aitbrush the entire sub-assembly Tamiya X-1 Black. Coat with Future wax, then dull-coat. if you wish. Some weathering might be in order, as these Vb trop operated in dusty. rocky terrain. Snap, cement spinner, painted dull red, in place.

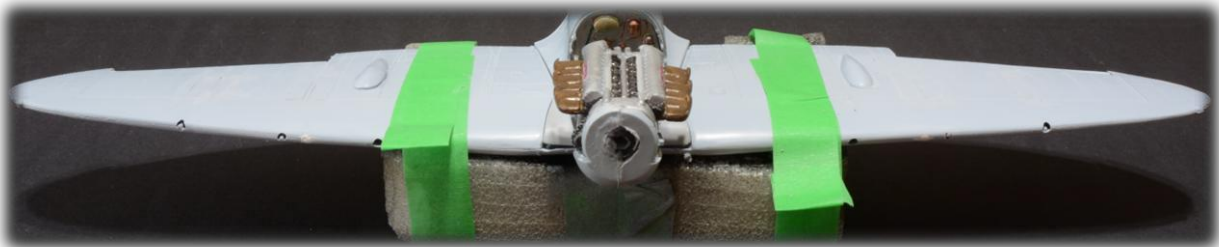


**Poor fit evident; more on the subject below**

**Notes as mentioned earlier, step 27:** You will have to really test fit to identify the many points of resistance, starting with what seems to be the worst offenders: the wing roots. First, secure wing to a jig for one-handed handling:

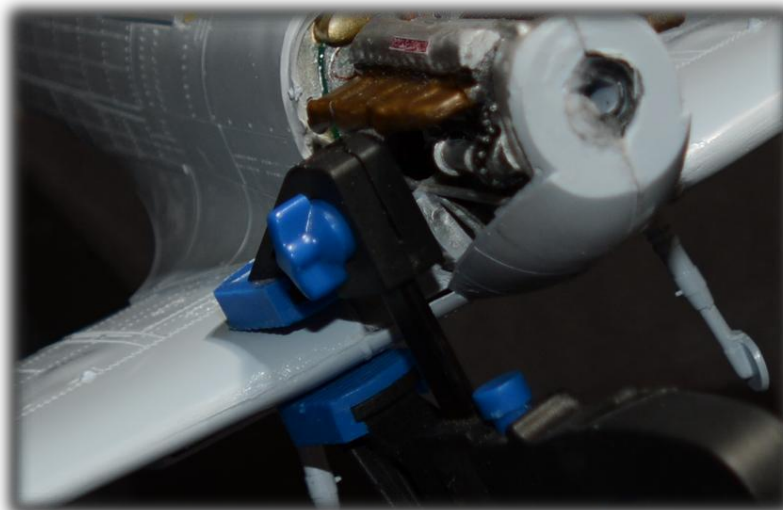


I also identified two other culprits: parts 34 and 39 (from **steps 5 and 6**); the bottoms of each of these parts are way too long at their lower surfaces, and require serious amputation. Use a Dremel with steel brush and gingerly remove some of the plastic from the inside wing roots until you get a fairly good fit:



**Testors tube cement will take care of the proper fitting at the leading and trailing edges**

Start with the trailing edge/aft long fuselage contact points; apply generous amounts of Testors Tube Cement (good for big jobs, such as this one). Let dry for two or three minutes, and hand-hold securely in place. Cement leading edges in place (use thick-gel CA if necessary). Clamp:





Trim the trailing edges on the fuselage with an X-acto knife, then file until even with the wing trailing edges. From **step 22**, cement in place stabilizers, adjusting to neutral dihedral. Snip off the elevator pins. Generously cement elevators in the neutral position and clamp to insure proper neutral positioning. Cement in place the Vokes filter. Tires and propeller added temporarily:



Starting to look like a Spitfire Mk. Vb (trop)

## Puttying and sanding the wing/fuselage seams

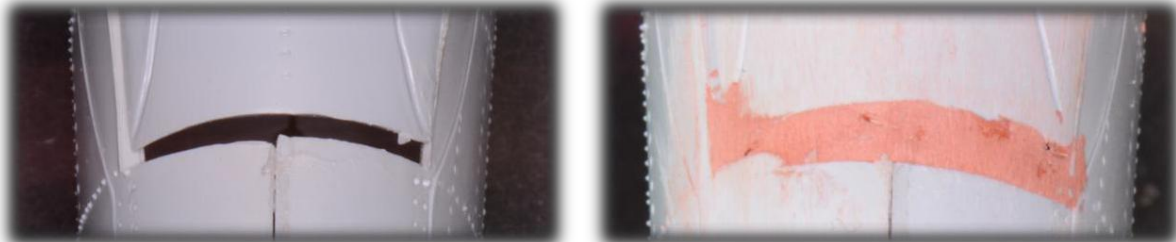
You probably already have created some sort of a jig to enable you to work the lower surfaces of your models. I used discarded foam packaging from a large appliance. Versatile, simple, effective and, best of all, no cost attached. Cut a vertical fin slot, and protect the model with painter's tape where the model will touch the foam. The model can be secured with toothpicks inserted in the foam at strategic locations. I have used this jig (and a smaller version) for models ranging in scale and size from a 1/24 Airfix Mosquito to a 1/144 Revell Boeing 747-100. Note the angled toothpicks securing the wing in place.





**Please note: I had a serious senior brain cramp when I installed the two ailerons in the lowered position; it took some work to remove these and reinstall in the proper neutral position; refer to photographs further in the review. Doh!**

**First: the 3/64" gap between the aft end of lower wing surface and the fuselage.**



**There are many ways to skin this cat. The gap is far too wide to fill with conventional hobby putty (it would likely "sink" inside the model, and rattle around). Solution: 3M Bondo Glazing & Spot Putty. Apply masking tape close**

(both ends) to the gap. Generously apply Bondo putty. Let it dry a few hours. Sands easily. Sand smooth. Once primed, Bondo putty paints very nicely.

Next: the "oval" seams at the rear of the wing/fuselage (arrowed on the photograph below): use Bondo putty to fill the large gap on the port side.



## Installing the Merlin permanently

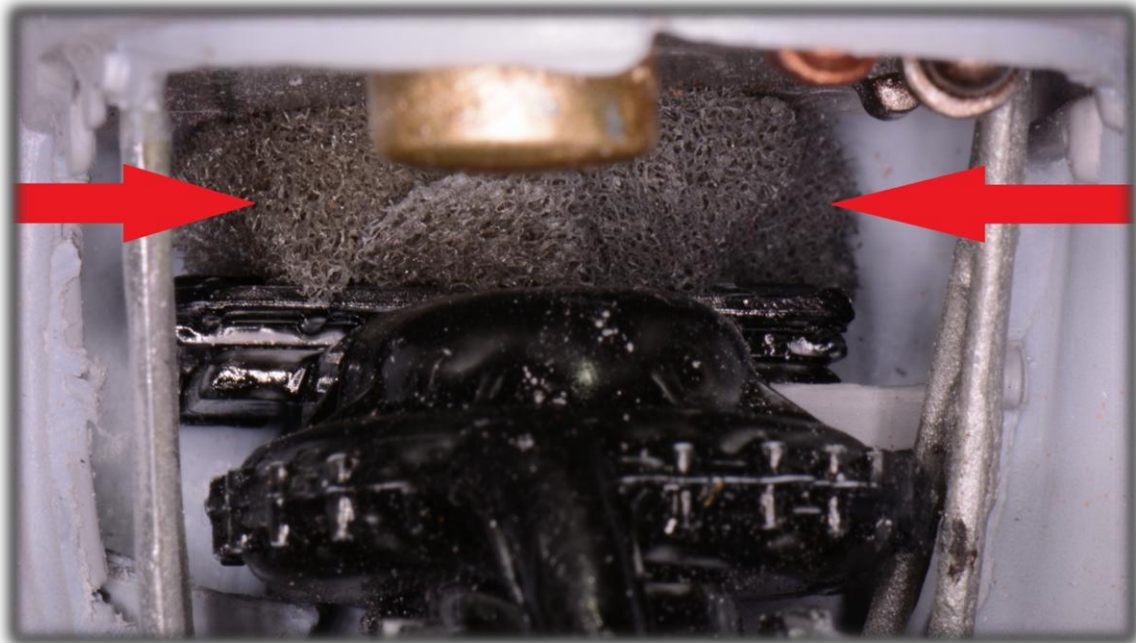
(sort of steps 11 and 12)

One has to be creative to get this right. There is a 1/4" gap between the back of the supercharger casing and the firewall. I solved the problem of getting the engine to stay in place, in addition to thick-gel CA between the front of the engine and the front fuselage casing; I added a piece of foam that, when compressed, was +/- 1/4", inserted right at the bottom and nearly invisible; no fighting and cursing. I will paint the grey foam black to make it "disappear":

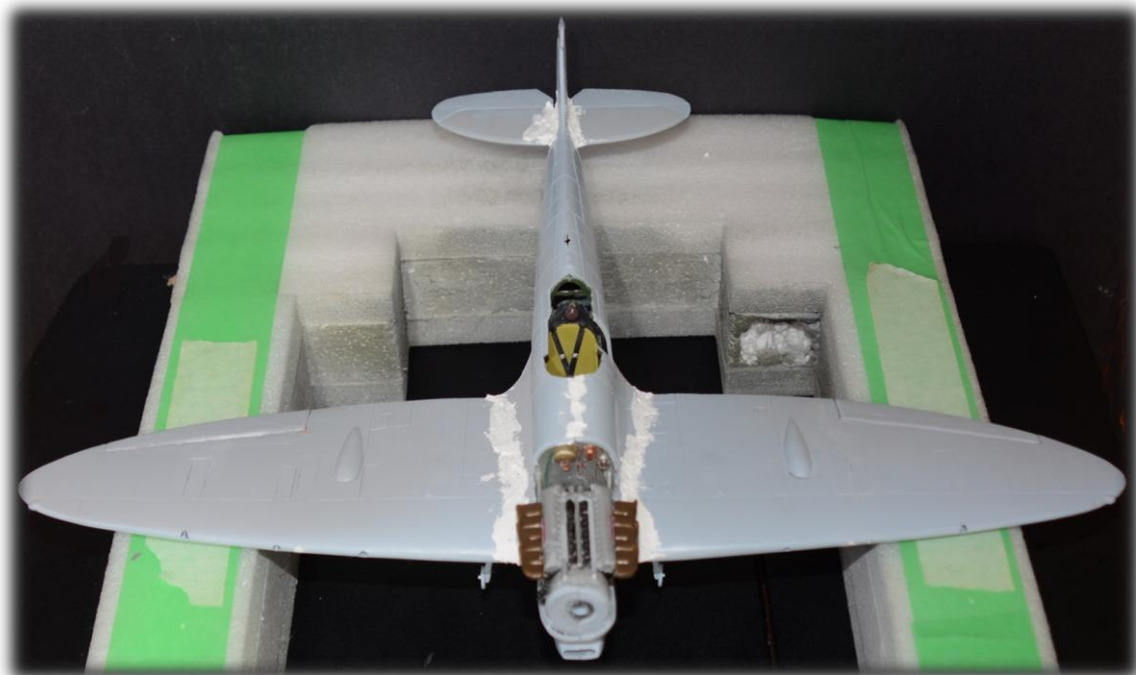


**Foam goes all the way across to port**





I also scratch-built "plumbing" and other parts linking the Merlin to the firewall:



### **Rough application of Perfect Plastic Putty**

The four Browning guns were also not centered properly. So I simply added short (1") pieces of 1/16" NTE Thin Wall Polyolefin Heat Shrink Tubing and secured these using liquid cement. These guns will be painted gunmetal later. Do not attach the cannon fairings yet (easier to paint unattached).



Right: tubing inserted

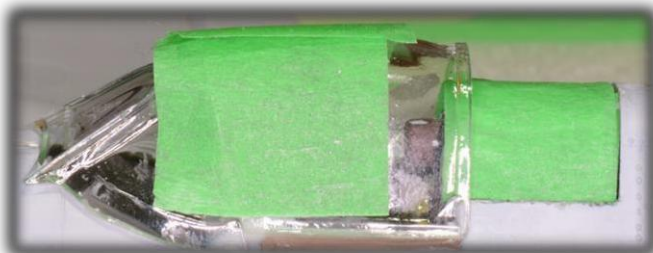
## Painting the model

### Masking:

**Exposed Merlin:** cover the exhaust stacks and rocker panels with Tamiya tape. Tape together (as shown below) the cowling parts (147, 148, 149). You will have to trim all 3 sides of the exhaust openings of parts 147 and 148 so these "fit":



**Cockpit, tail wheel:** the kit comes with two (but different) windscreen/sliding hood (but only one fixed canopy, part 152). Use parts 202 and 203 with the painted model; hence, use the other two similar but not identical parts as sacrificial "masks". Mask part 152 with 5/8" wide tape. Use white glue to secure the door, fixed canopy, windscreen and sliding hood. Add a strip of tape on top of the "joint" of the windscreen and the sliding hood. Mask the tail wheel:



Now ready for primer



**Fully primed. To smooth the primer coat, I use my "coffee filter" onion:**  
<https://www.scalemodellingnow.com/tbconstruction-fine-sanding-alternative-coffee-filter-onion>

### **Paints used:**

Most Humbrol enamel paints are extremely difficult to come by outside of the UK; this has to do with a UK interdiction to ship other than by land, due to hazardous chemical classification of these paints. Go figure. However, in my determined attempt to find the proper Model Master Humbrol equivalents, I solved the problem: <https://www.sunwardhobbies.ca/> , a Canadian supplier. Simply substitute Testors Model Master for Humbrol enamels as follows:

**Humbrol 29 Dark Earth to MM Dark Earth 2054 (ANA 617)**

**Humbrol 225 Mid Stone to MM RAF Middlestone 2052 (ANA 615)**

**Hombrol 157 Azure Blue to MM RAF Azure Blue 2048 (ANA 609)**

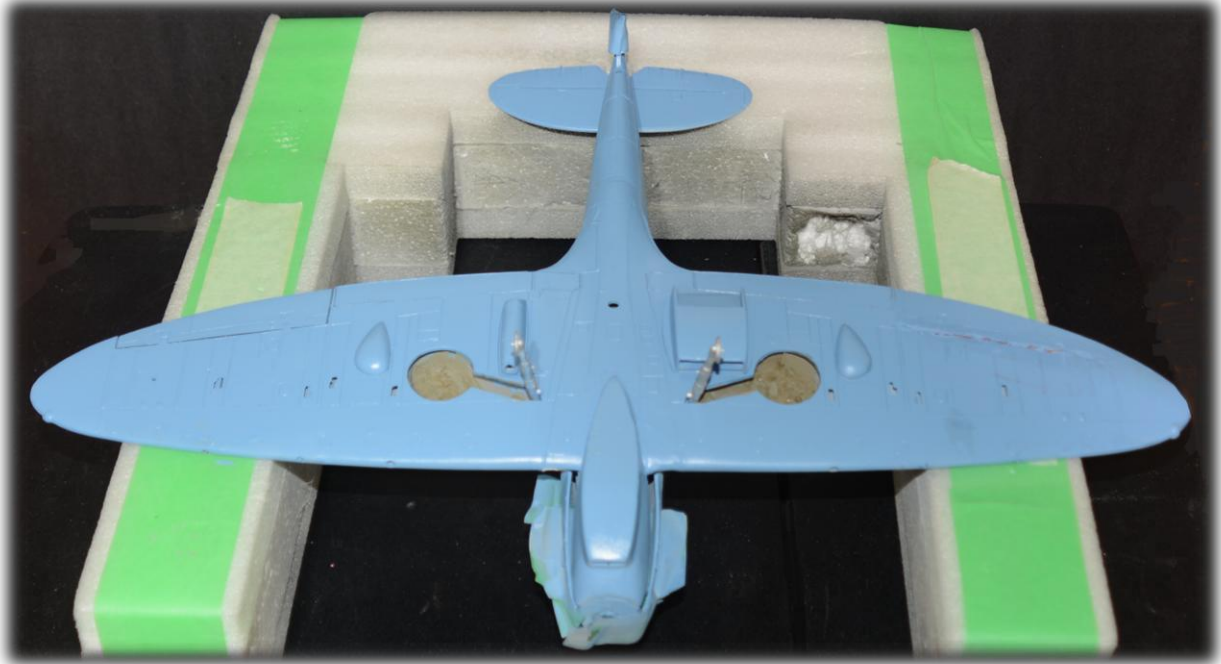
Dilute all paints with mineral spirits; one will have to use a strong paint mixer to get all the MM paint out of the original bottles. Refer to Cool Tool in SMN:

<https://www.scalemodellingnow.com/tbpainting-cool-tool-tamiya-acrylic-10ml23ml-paint-mixer>

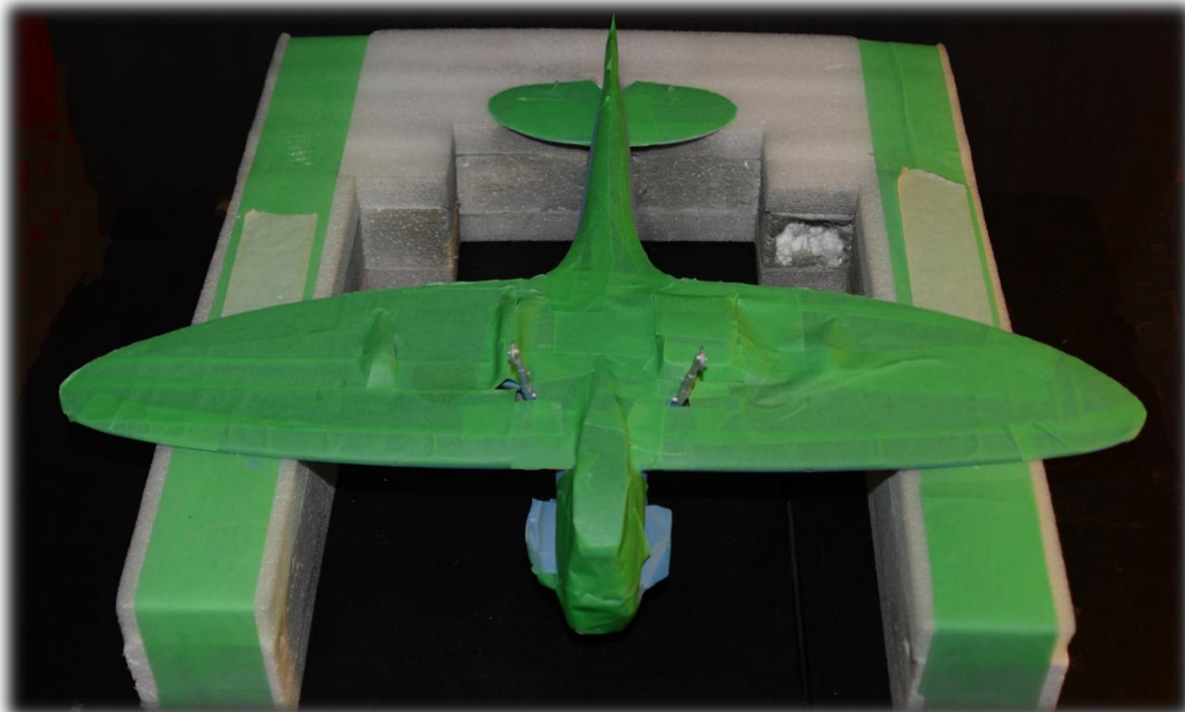


## Lower surfaces:

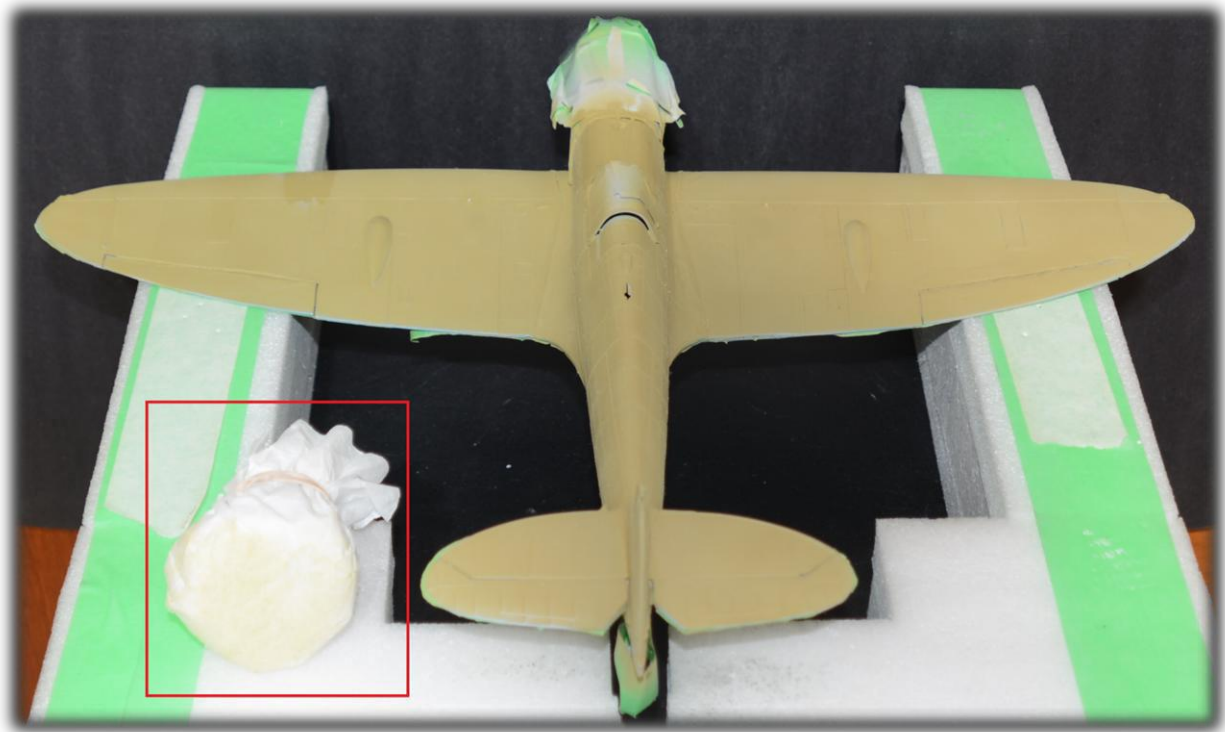
No need to mask the model, except for the landing gear struts. Paint the landing gear doors (parts 110 and 111), the pitot probe (part 109) and the bottom half of the cannon fairing (parts 171 and 172) separately; no need to mask these yet:



Wheel wells and landing gear struts already painted; below: fully masked blue paint



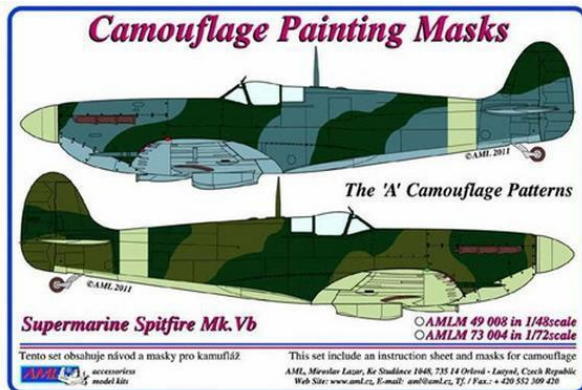
## Upper surfaces



Note the amount of enamel paint removed by the "coffee filter onion"

## Creating masks for a 1:24 Spitfire

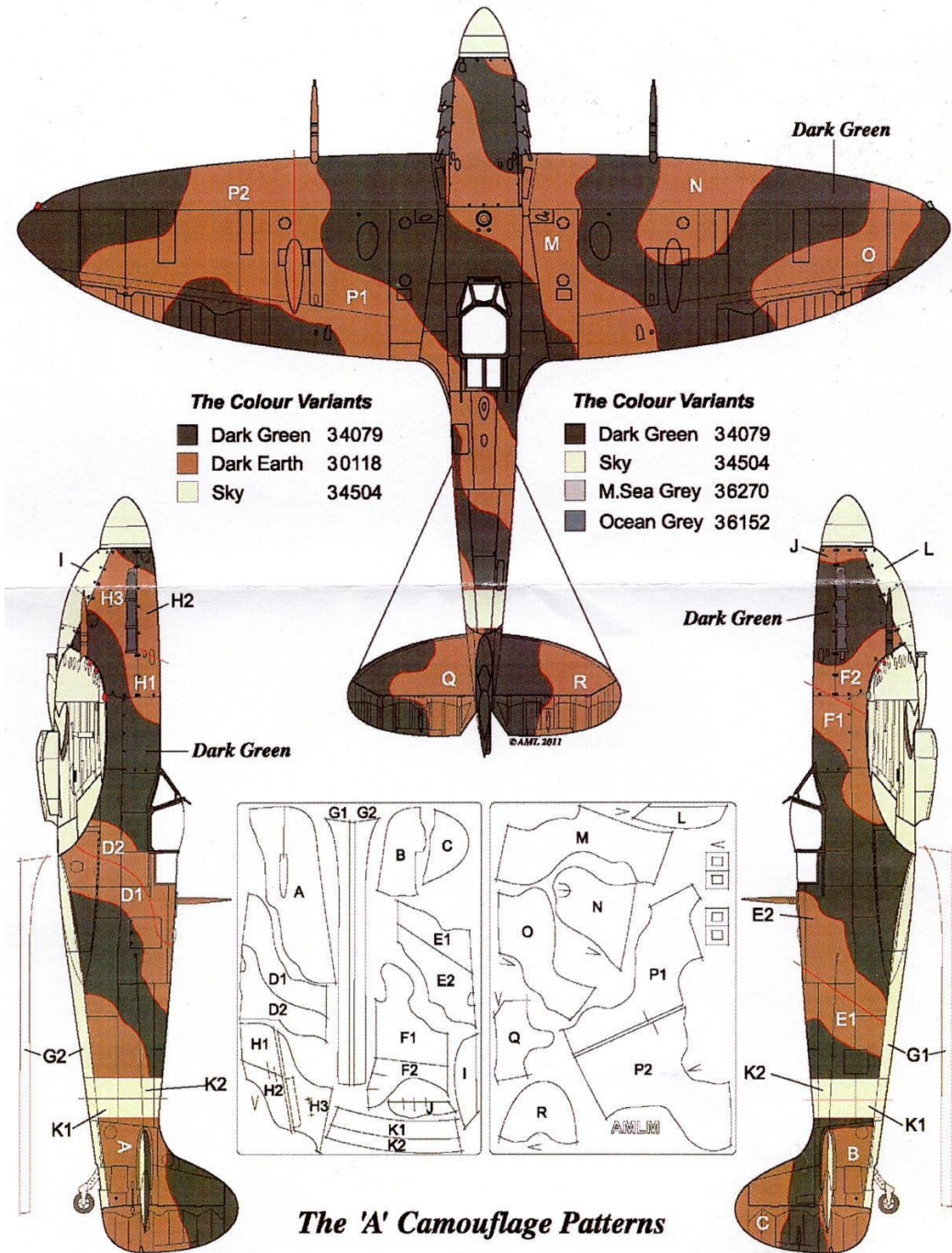
Until some manufacturer provides 1:24 masks for any Spitfire, you will have to make your own. Use the 1:48 AMLM Spitfire Mk.Vb Camouflage Painting Masks (AML49 008) and Avery 06503 removable white full sheet labels. Please note this is the "A" camouflage patterns. AMLM also produces the "B" camouflage patterns; your call. Test photocopier by marking a sheet of paper with a big "X",



and photocopy one mask sheet; you will then know which way to insert the Avery 06503 in the paper tray (either face up or down). Make sure the photocopier will not jam using Avery 06503. Simply photocopy at 200% (300% if original masks are 1:72). Label each blown up "mask", following the AML directions. Trim all masks. A step-

by-step description follows the next two pages of blown-up masks. Keep original masks at hand for consultation/comparison. Ignore paint instructions.



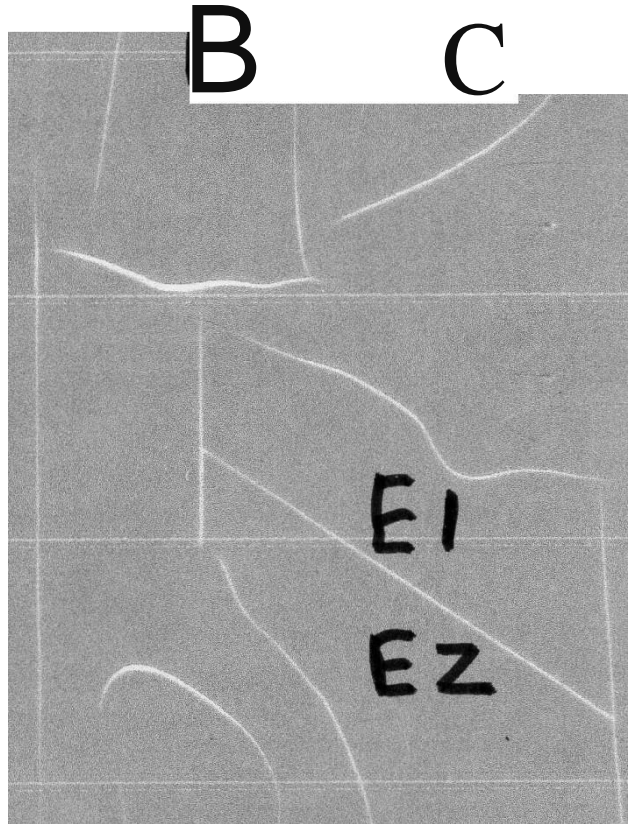
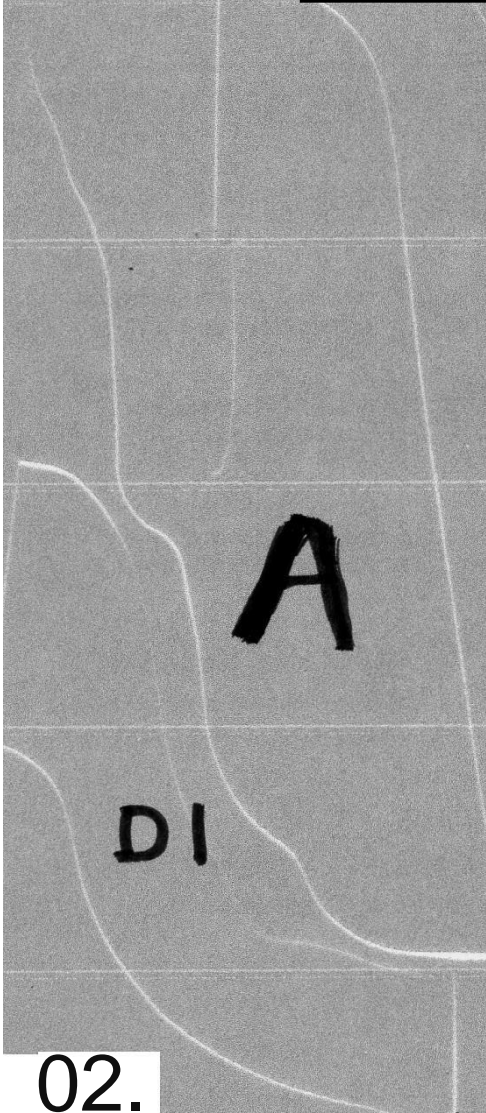


## Placement of masks

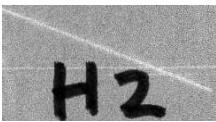
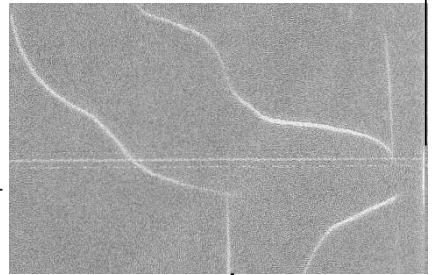
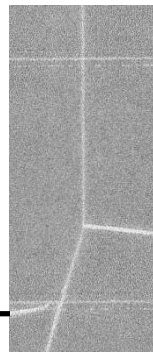
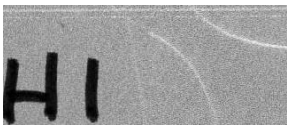
For the tropical version, ignore masks I and L; I also ignored masks G1 and G2 (refer to masking above) and masks K1 and K2 (tropical version does not have a band, plus I fail to see the use of the latter two masks anyway). Ignore masks for the Browning guns for the same reason; just make your own masks.



61 *r,2*



02.



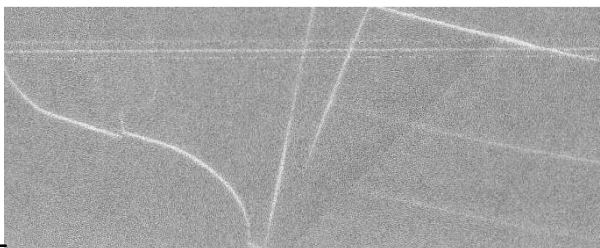
FZ

i

f-13

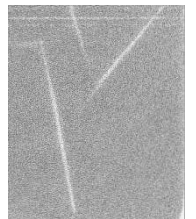
j

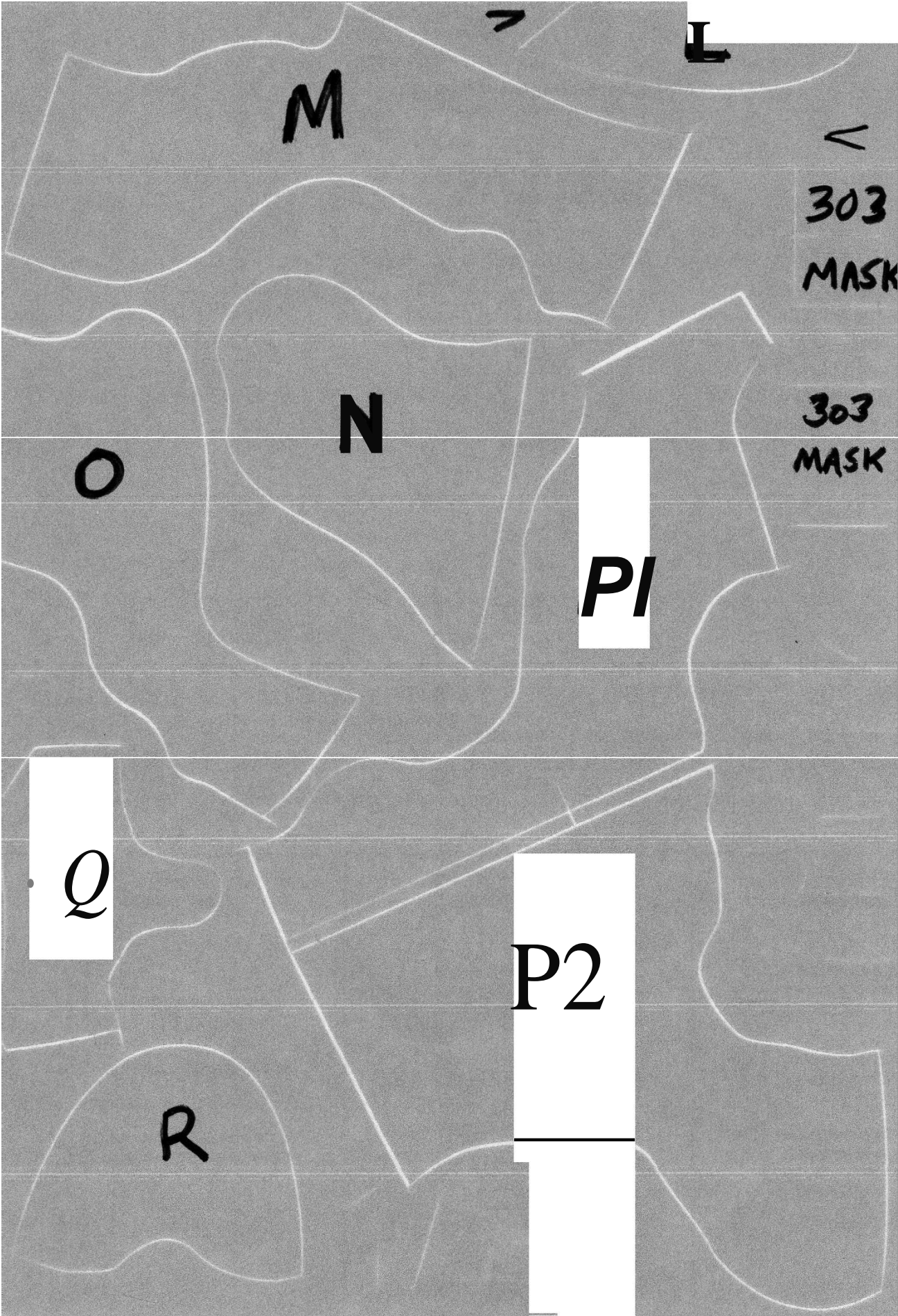
V



KI

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MASK

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MASK

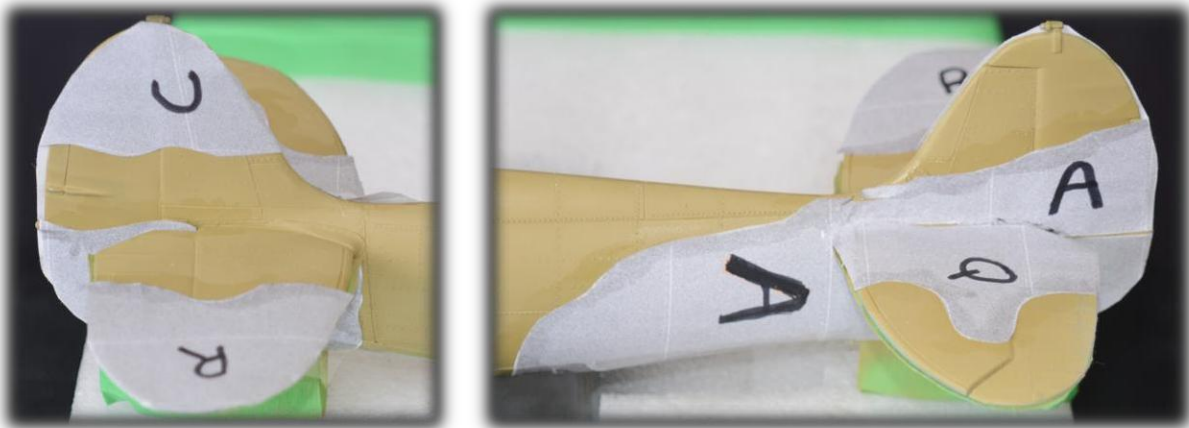
PI

Q

P2

R

These blown-up masks are not as self-adhesive around their edges as the commercially available thin masks in smaller scale. Use a fine round-pointed burnishing tool around the wing and stabilizer edges. Create slits wherever necessary. Seal the masks with at least two generous coats of Future wax to prevent bleeding. Once sealed, be ready to paint darker color immediately. If need may be (quite likely), use transparent tape to hold their surface joints together. Correct imperfections. Trim overly excessive portions of the masks. I even used a small syringe to "inject" Future wax underneath the masks with recalcitrant edges. **Mask A:** cut the slit and hollow out stabilizer root section. Below, both sides of the masked stabilizers/elevators and vertical fin/rudder:



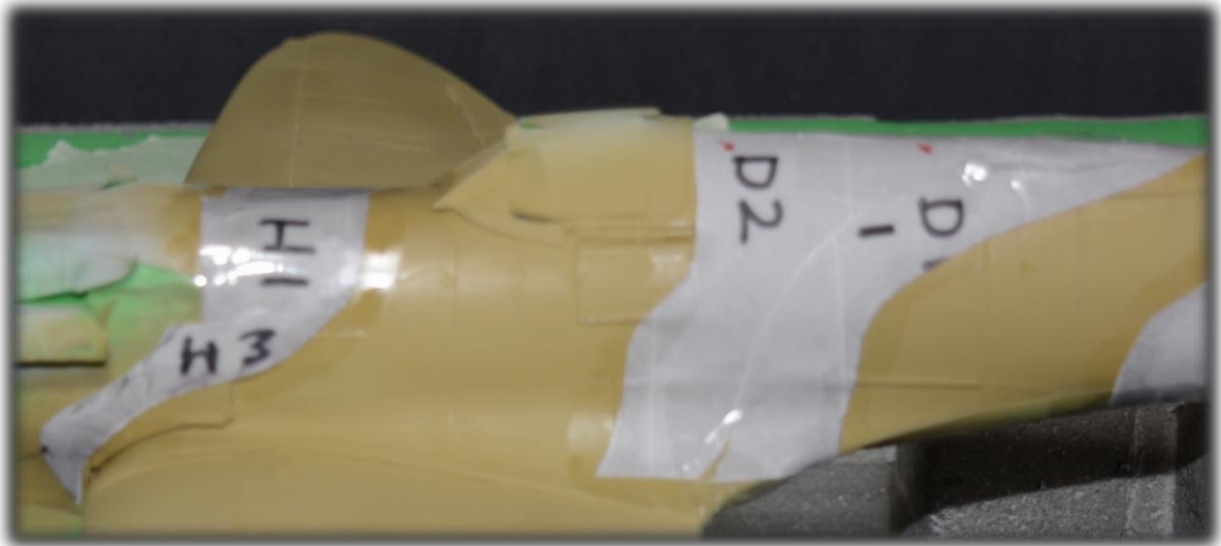
Moving on to the fuselage masks:



**Starboard**

Note that this model is being built with cowlings removed. Hence, cowling masks will be applied later, as these properly painted cowlings will be displayed alongside the aircraft, the sides probably upside-down.

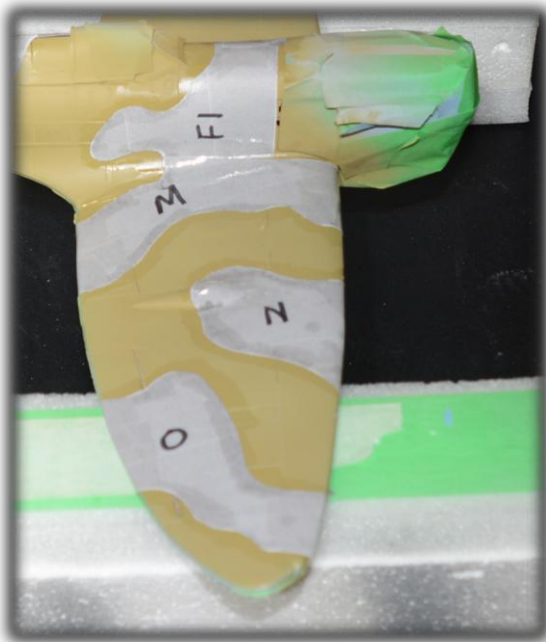




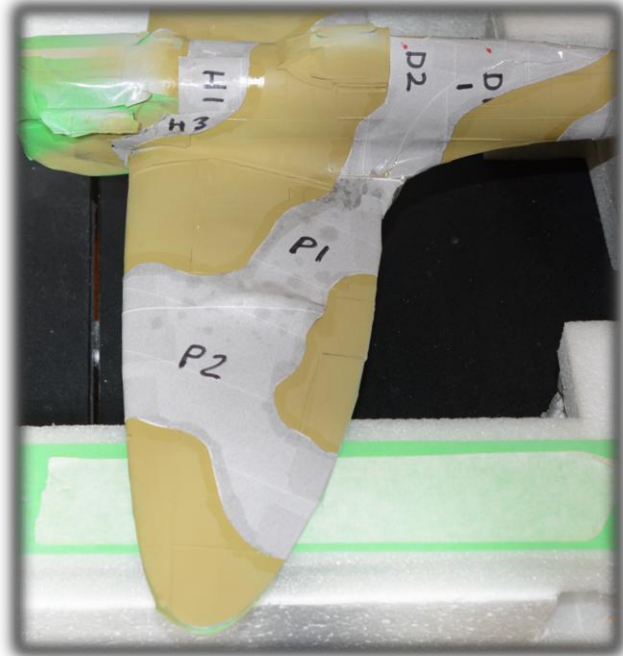
Port

Moving on to the upper wing masks:

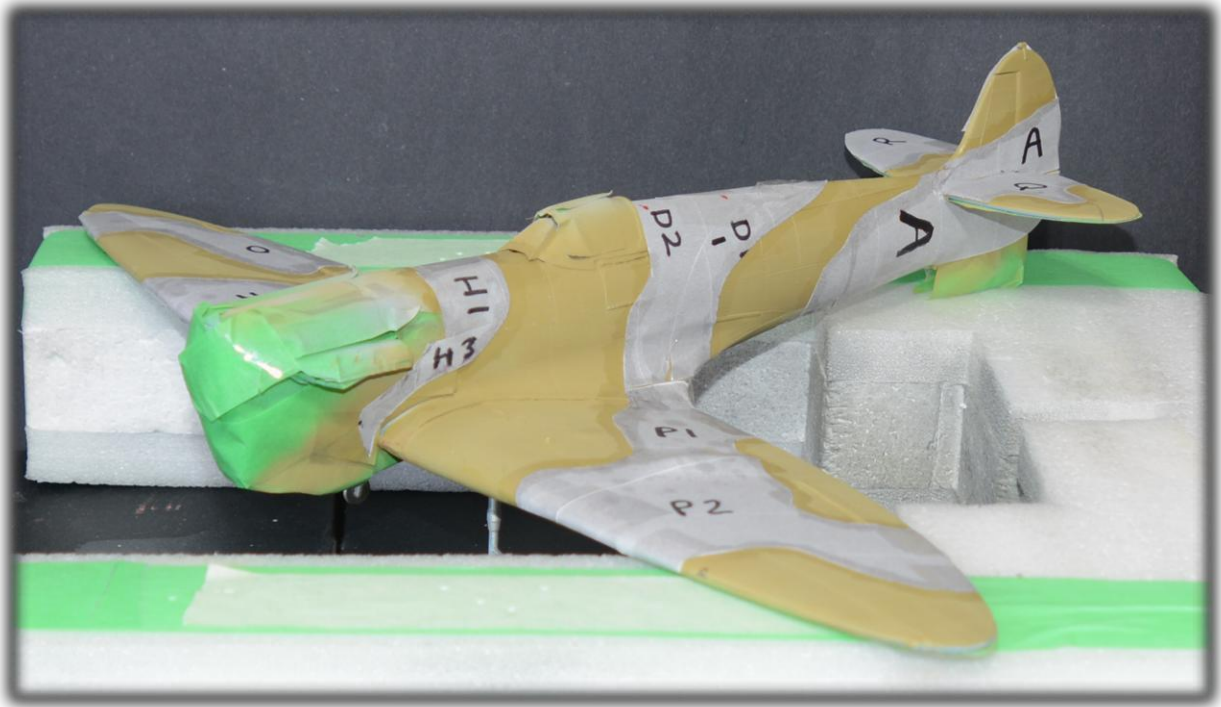
**Mask N:** somewhat tricky: forward portion of starboard canon bulge (part 180) presents a bit of an issue; carefully use translucent tape to prevent aft bleeding.



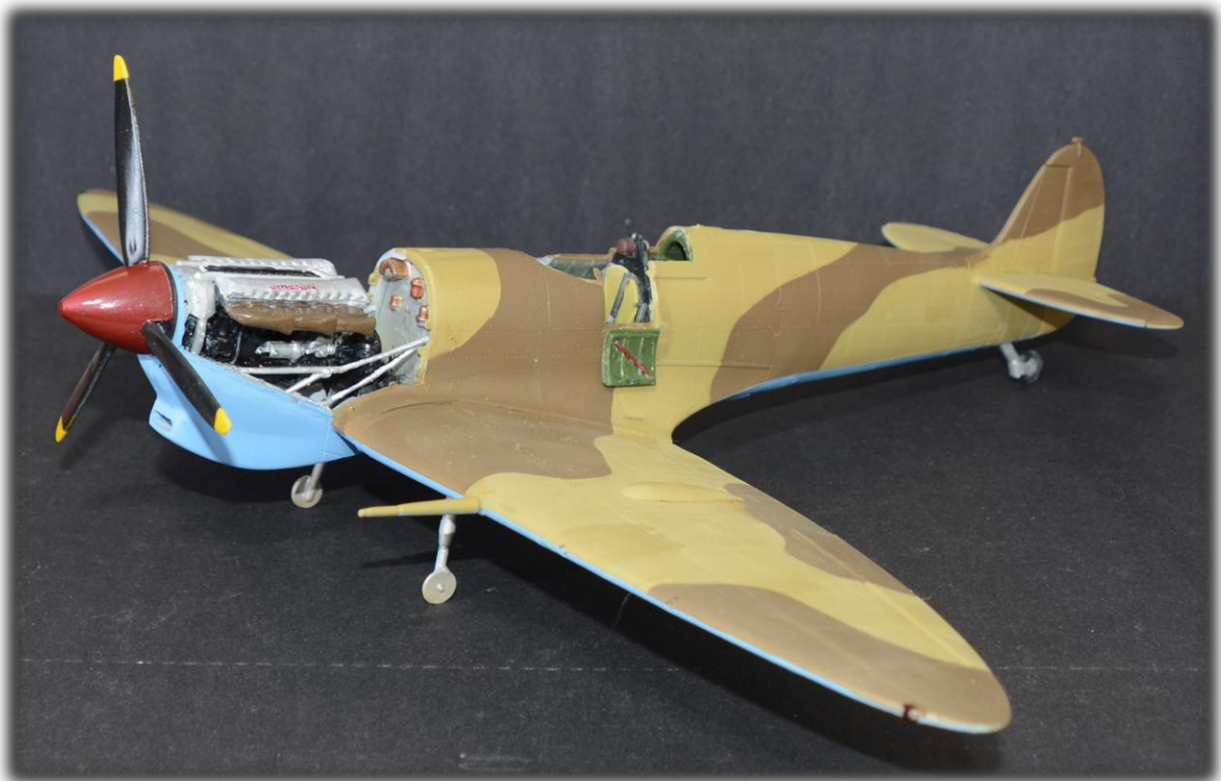
Starboard



Port



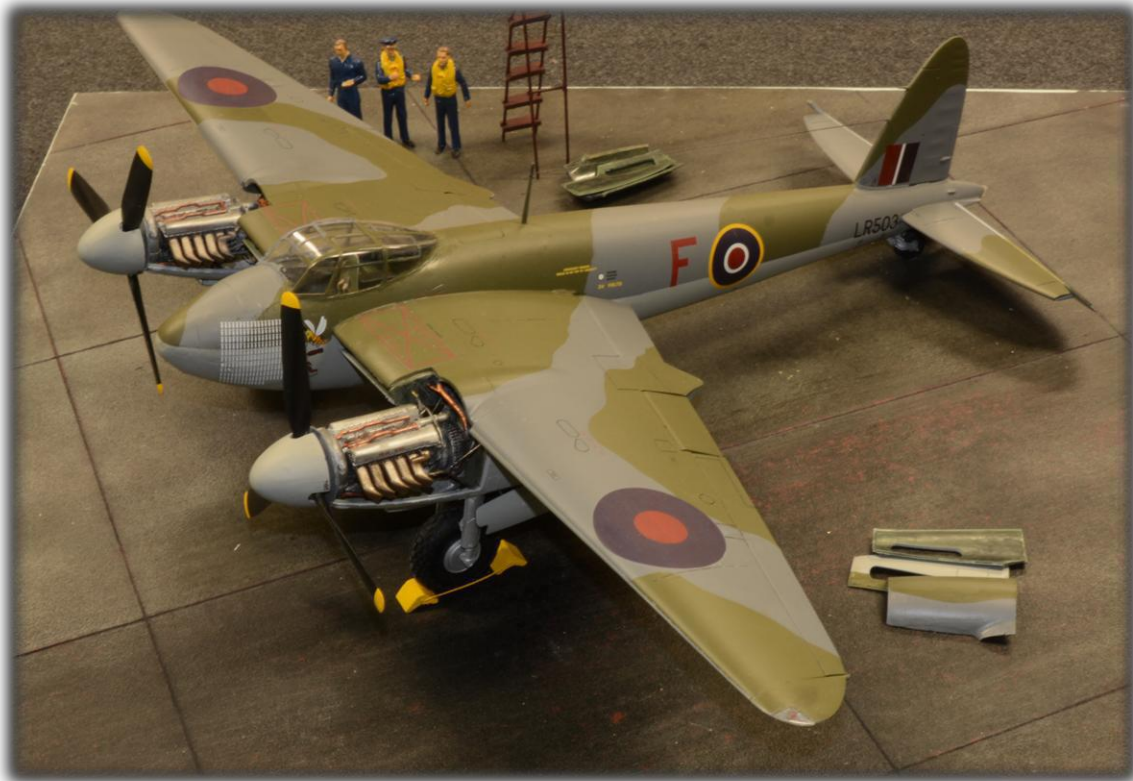
**Fully masked**



**Minor touch-ups on paint yet to be done. Machine guns "squares" to be added**

## Cowlings

Even though the cowlings covers are not to be installed on the model, they nonetheless have to be painted; paint the insides of the cowlings (parts 147, 148, and 149) your own brew of cockpit green. Future wax and "sludge". Then paint the cowlings dark earth/middle stone accordingly, using masks F2, H2 and 3. These cowlings will be placed alongside the model on the stony sand base of the display, two of these upside down; akin to my 1/24 Airfix Mosquito "F for Freddie": <https://www.scalemodellingnow.com/aircraft-airfix-freddie-mosquito-bmk9> , pictured below:

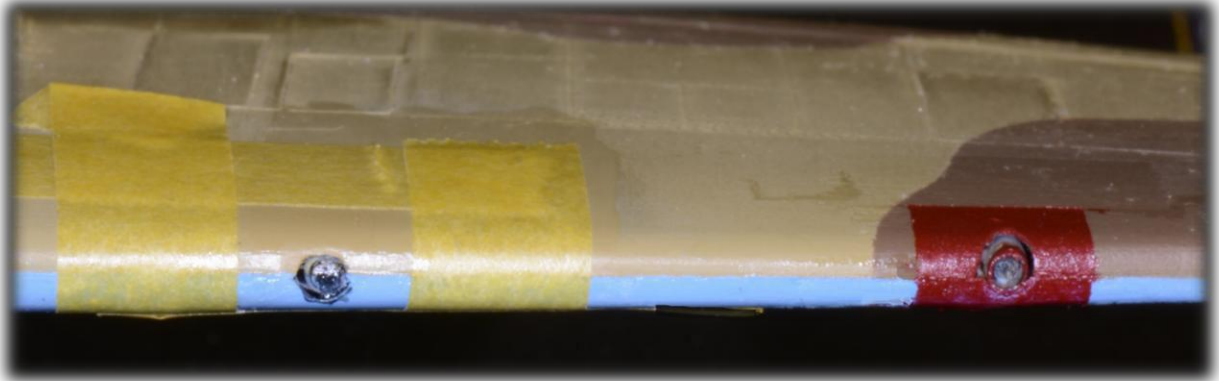


**Left: camouflage paints applied; right: "cockpit green sludged"**



## Machine guns leading edge "red squares"

To me, 1/24 scale (0.8cm) seems understated. I eyeballed it to 1cm. Seal with Future wax. I chose to use RAF Dull Red (we all have our own brews), as I found Tamiya X-7 Red just too, well, red. Paint gun tips Tamiya X-10 Gun Metal. Use Tamiya X-19 Smoke above and below squares to simulate gun powder residue.



Port wing: left: masked, ready to paint; right: painted

## Windscreen/gun sight/sliding hood/rear canopy

Prior to cementing the rear canopy, paint the voltage regulator flat aluminum. CA painted gun sight (part 27) in place. Dip all three clear parts in Future wax; let dry overnight. Using whatever technique you prefer, paint all framings dark earth/middle stone. Using white hobby cement, attach windscreen. Attach rear canopy (part 152). Paint its frame corresponding to the proper camouflage scheme. I chose to cement the sliding hood in the opened position (will not constantly fall off):



## Landing gear

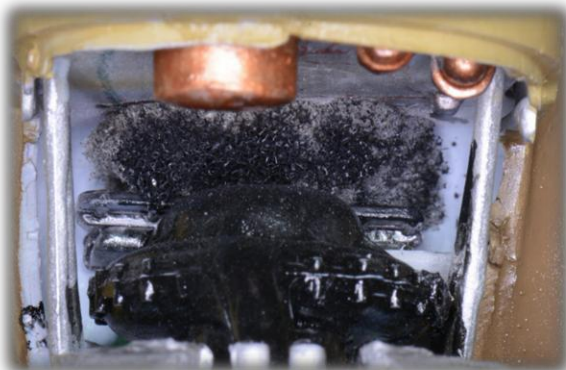
After painting the doors (inside: flat aluminum). snip off the alignment pins from the struts and doors (useless) and especially the large "knobs" at the base of the struts (these two will really get in the way, and serve no purpose whatsoever). Scrape off aluminum paint where you will apply the cement, and fairly generously apply Testors tube cement on the top halves of the doors (nearest the wings); let dry 3 minutes, and attach. By removing all of the above, you will get a even fit. Let dry completely. Thick-gel CA tires in place (nice fit):



## Engine compartment

One glaring omission is the total lack of "anything" linking the back of the Merlin to the firewall, should you wish to display this model with cowlings removed (as I will); there is a gap of 3/4" between the coolant pipes on top of the engine and the firewall. I know my additions are NOT prototypical, but will help high school students realize the Merlin is somehow connected to the pilot controls through the firewall:

### **Before**



TOP VIEW



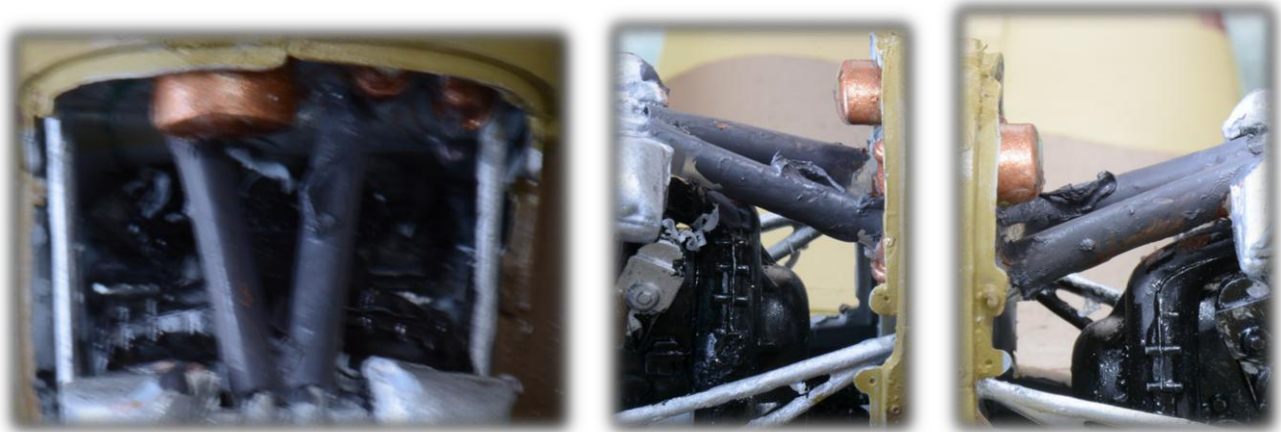
STARBOARD VIEW



PORT VIEW

I added 1/8" external diameter heat shrink insulation tubing from the coolant pipes to the firewall, drilled 5/32" holes in the firewall, slid the tubing through it, use thick-gel CA to attach hoses to engine and, once set, use same CA to secure to the firewall, cleaning seals with a Q-Tip. Once set, I painted the tubes Tamiya XF-24 Dark Grey:

**After**



## Main decals

Self explanatory. The "T" and "L" are custom-made by CanMilAir (London, Ontario, Canada), as it is impossible to find 1/24 scale RAF alpha-numeric decal sheets. I used 1/48 commercial black RAF alpha-numeric decals for the airframe number "EP706":

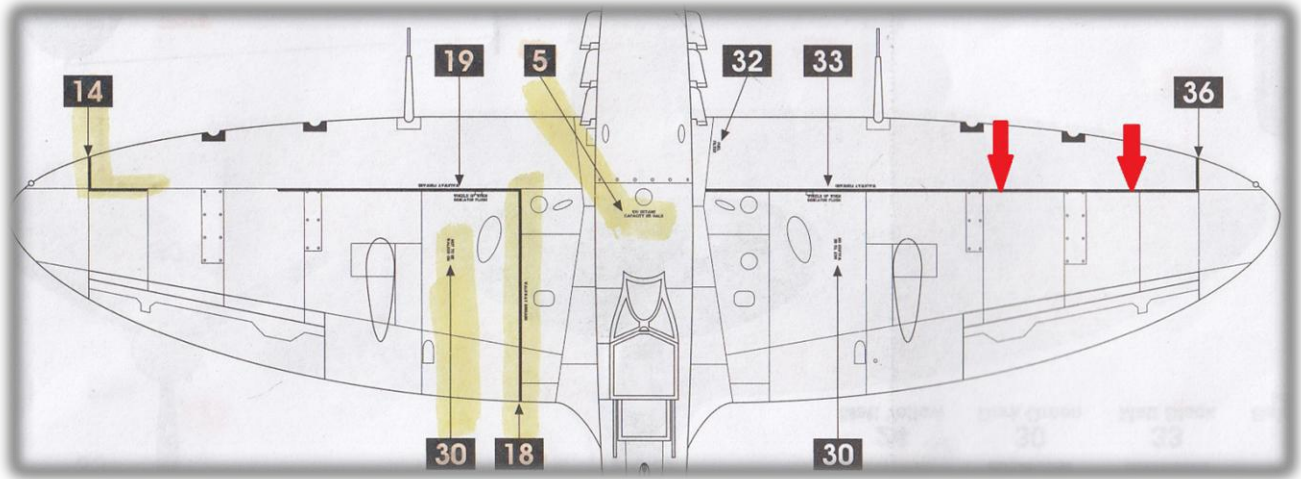


**Above: port ("T" needs touching up at the bottom); below: starboard**

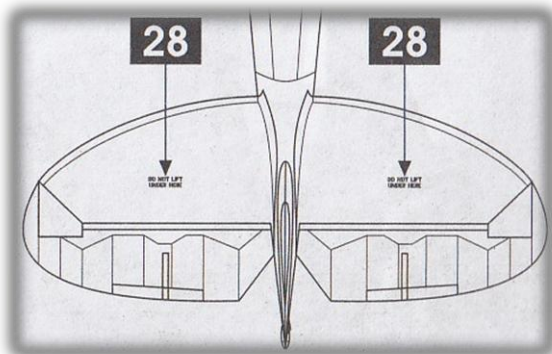


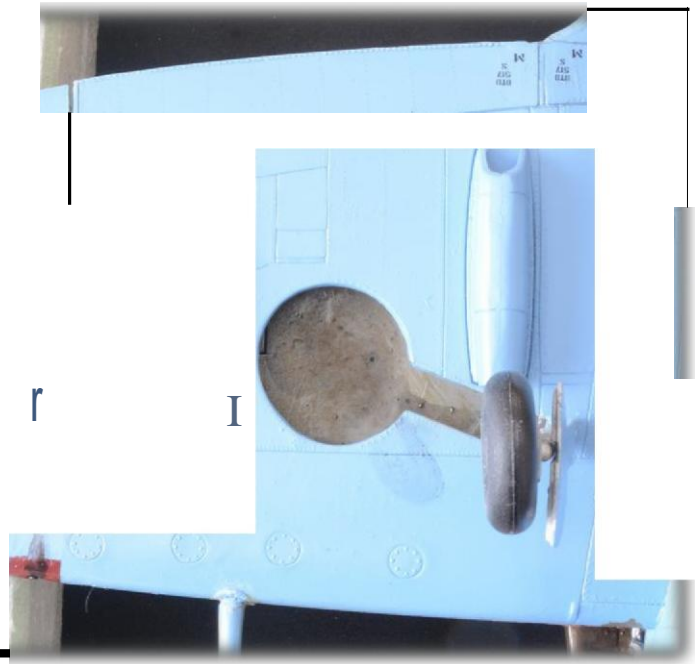
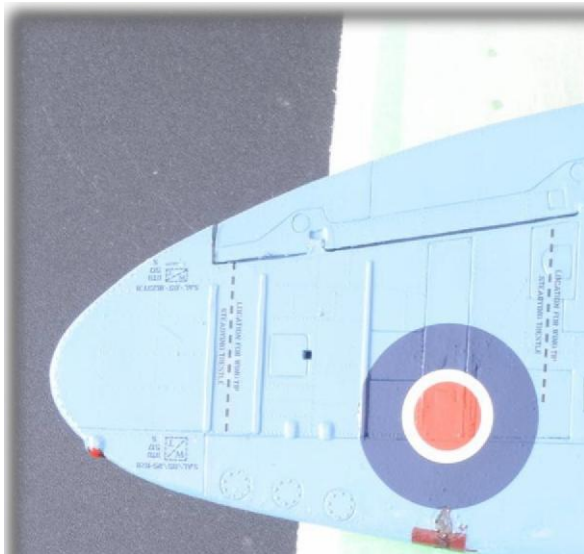
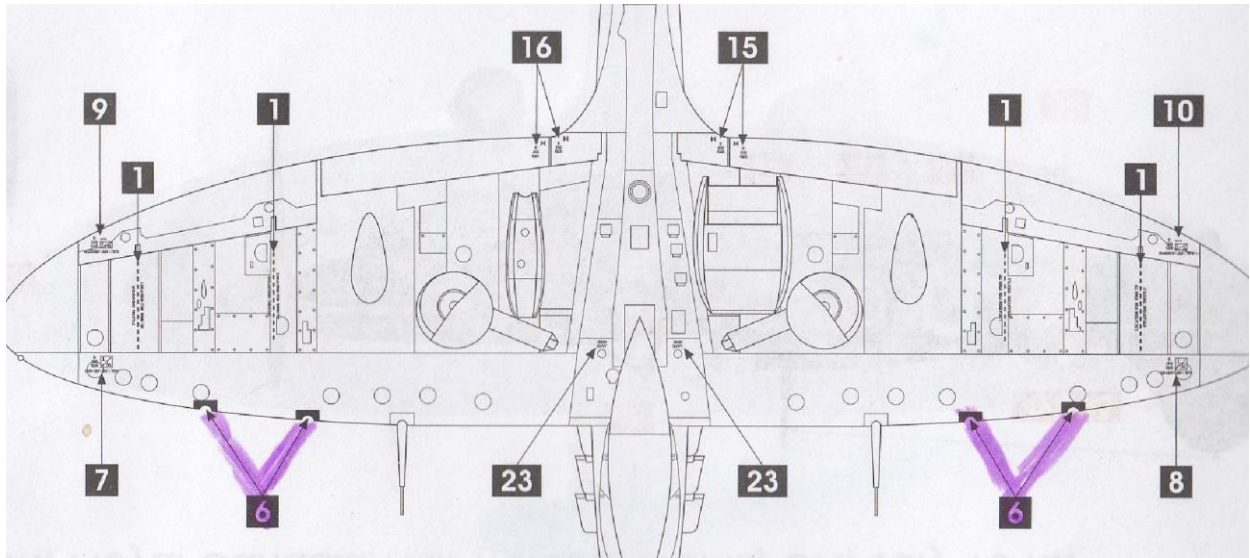
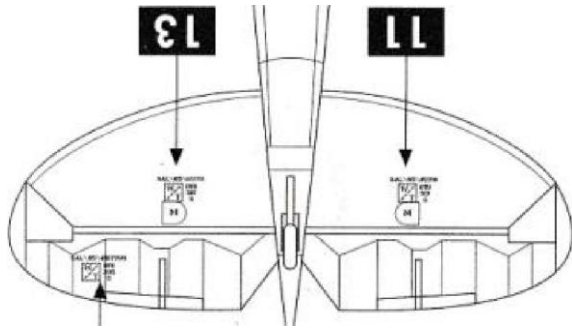


# Stencils placement



**Decal 33 will need to be amputated in order for it not to cover starboard roundel; line up its inboard edge carefully while still on its backing paper and cut accordingly:**





## Radio mast and antenna wire

Trim bottom of the mast (part 156, step 27) to form a 1/16" diameter 1/4" long pin; drill appropriate size hole in its location. Thick-gel CA the hole. Set the mast at the correct angles and let cure for six hours. Then attach a 14" length of stretchy jewelry cord (0.5mm) to the top of the rudder; a simple knot will do, with an iota of capillary CA. Stretch cord at the correct angle and tension way in front of engine compartment, and semi-thick-gel the contact point with the top of the radio mast. Let cure 6 hours, then carefully wrap the released forward loose end around the top of the mast twice, one turn above and the other below the attachment point. Re-tension and let cure. Snip off excess at both end; cover the top of the fuselage with a cloth to prevent any stray black paint to mar the fuselage paint job: paint cord black:



The beauty of stretchy cord is it will not break even if inadvertently touched

## Rear-view mirror

I lost the mirror (part 155, step 27), so I made my own. I used thick-gel CA to secure, and painted outside portion dark earth and the reflective portion silver:





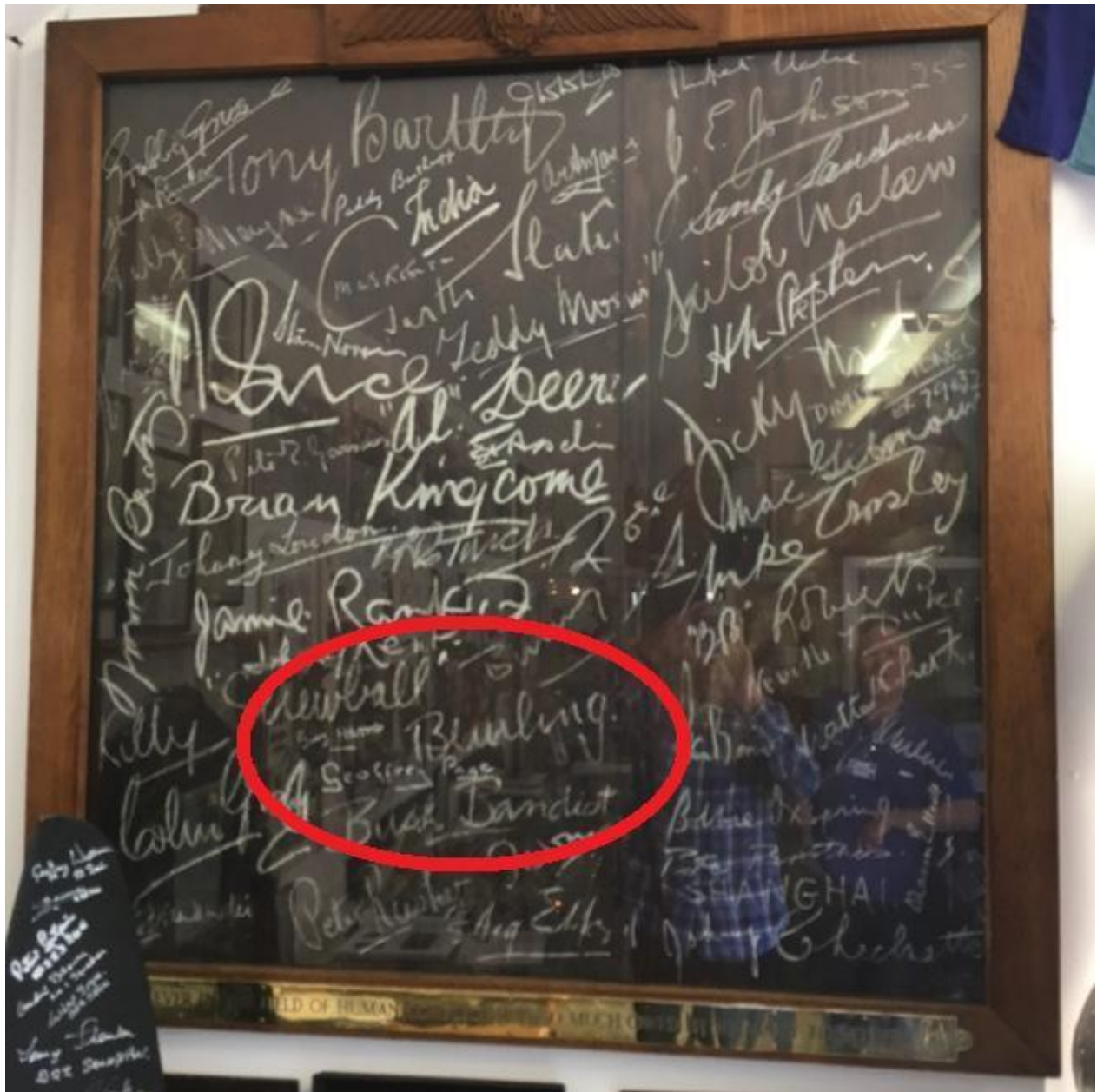
# Finishing touches

(in no particular order)

- ❓ *paint wheel wells. I used Tamiya X-32 Titanium Silver, just because I felt like it; then "sludge" said wells with your own "sludge" recipe*
- ❓ *navigation lights (Future first): Tamiya X-7 Red, X-24 Park Green, with outlines Tamiya X-25 Clear Green and X-27 Clear Red*
- ❓ *Future wax the entire model, including cockpit*
- ❓ *apply all decals, including stencils*
- ❓ *attach upward identification light (part 150, after painting its fuselage "base" silver) with white glue*
- ❓ *attach painted gun sight; be patient, and use thick-gel CA*
- ❓ **cement painted pitot probe last, due to its vulnerability**
- ❓ *with a sharp household graphite pencil, trace the outlines of the elevators and rudder trim tabs, and the flaps,*
- ❓ *touch up engine, engine compartment, firewall, engine mounts, tail wheel, cockpit paint where necessary ("seepage" from airbrushing blue, middle stone, and dark earth)*
- ❓ *"sludge" engine compartment firewall*
- ❓ *paint voltage regulator (aft of the headrest) silver*
- ❓ *cannon fairings: completely paint RAF Azure Blue, then thick-gel CA in proper position (both vertical and horizontal angles). Paint upper halves to match camouflage color scheme*
- ❓ *paint tips of cannon fairings and Browning machine guns X-10 GunMetal*
- ❓ *smoke machine guns "red squares" Tamiya X-19 Smoke*

## Debates

In the course of my research, three conflicting sets of information arose. Was George Beurling's EP 706 a Mk. VB or a Mk. VC? And is the correct designation Mk. VB or Vb? Not that either issue matters for the purpose of this review. As well, were the squadron code letters white or yellow, and was the spinner RAF Dull Red or black?



"A blackout insert for a window which was signed by aircrew who were passing through. Could be for an airfield building, the nearest being Biggin Hill, or one of the numerous pubs in the area. There are some other luminaries who signed, including Johnny Johnson RAF, 39 confirmed, who led Canadian wings for most of the war, and Sailor Malan, a South African with 29 confirmed, I believe. Their monikers are in the upper right quadrant". Quote and photograph courtesy of Mark Whittaker, one of the volunteers at the Montreal Aviation Museum (Canada) and display case maker extra ordinaire, while in the UK on the occasion of the Battle of Britain 2017. Blackout insert on display at the Shoreham Aircraft Museum, UK.



**Our current George Beurling display in the Art Gallery of the Montreal Aviation Museum**

## **Conclusion**

**Two 1/24 Spitfire Vb tropical kits are available: Airfix (A12005A) and Trumpeter (02412). I am commissioned to build two of these 1/24 kits. Building one from each manufacturer will give me the opportunity to review both and compare notes. The Airfix molds date back to 1970, while the Trumpeter kit is far more recent (2005). The Airfix parts have some degree of flashing (some stubborn) on nearly every part. Sanding sticks will not suffice; a good set of rat files is compulsory.**

**My advice: build the far superior 1/24 Trumpeter Spitfire Vb tropical (item number 02412). I will build that kit in July 2018, destined to be on permanent display in our Art Gallery, an integral part of our George Beurling display at the Montreal Aviation Museum. Its extensive review should be ready October 2018.**



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**Nohara, Shigeru. (1995). Vickers-Supermarine Spitfire Mk.I-V. Japan: Aero Details number 8. ISBN 4-499-22617-1.**

**Greer, Don & Stern, Rob. (1980). Spitfire in action. USA: Squadron/Signal Publications, Inc. ISBN 0-89747-092-3.**

**Craigh, Ian (2015). Rolls Royce Merlin, 1935-50 (all engine models). Owners' Workshop Manual. UK: Haynes Publishing, Somerset. ISBN 978 0 85783 738 0.**

**Price, Dr Alfred & Paul Blackah (2007). Supermarine Spitfire, 1936 onwards (all marks). Owners' Workshop Manual. UK: Haynes Publishing, Somerset. ISBN 978 1 84425 462 0.**

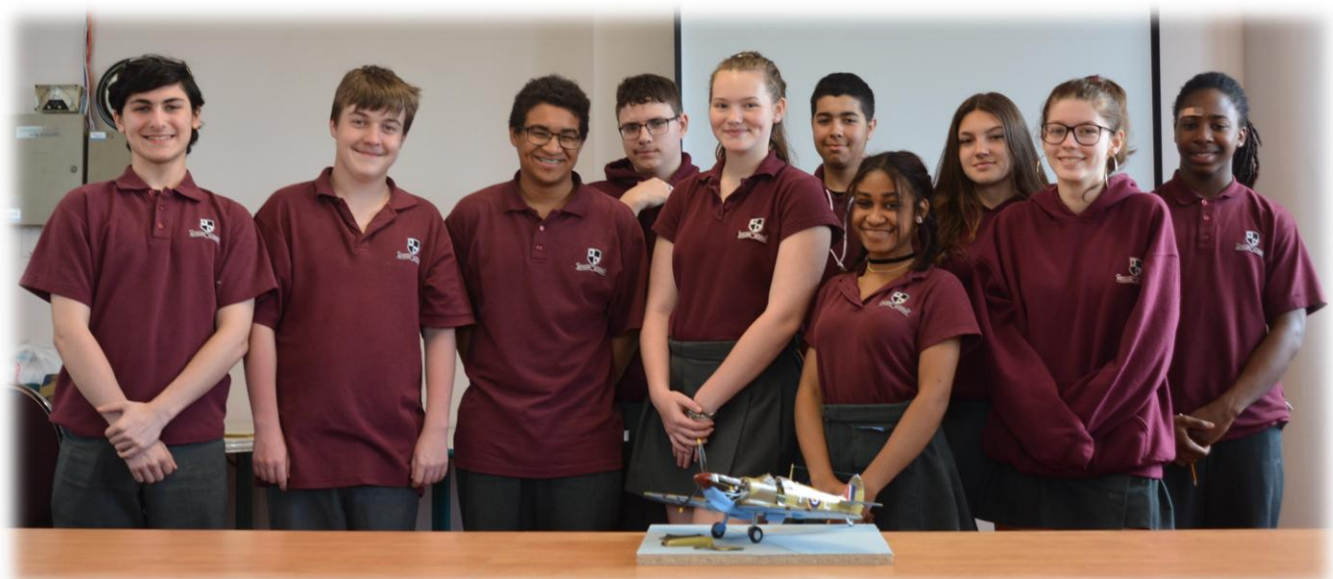
**Beurling, George & Roberts, Leslie (1943). Malta Spifire. The diary of an Ace Fighter Pilot. UK: Grub Street, London. ISBN: 13: 9781906502980.**

**Cull, Brian & Galea, Frederick (2017). 249 At Malta: RAF's Top-Scoring Fighter Squadron. UK: Fonthill Media, Stroud. ISBN: 978-1-78155-554-5.**

## Gallery

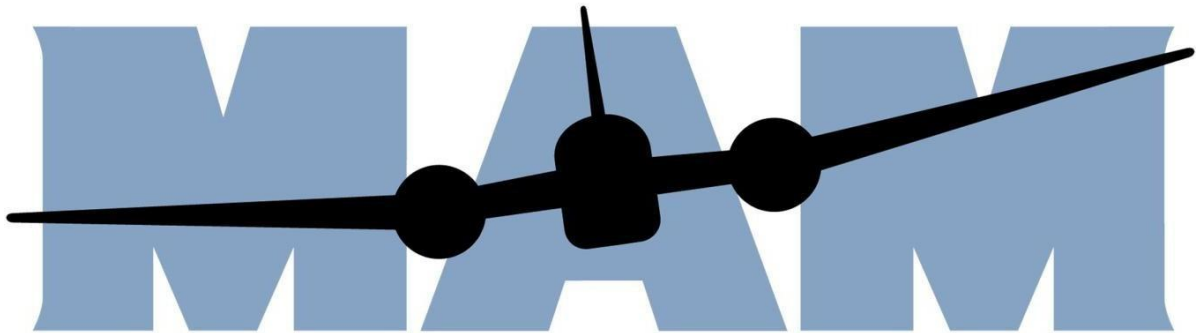


**Below: presentation of the model donated by the Montreal Aviation Museum (MAM) by MAM's Executive Director Jim Killin to the Principal of the Beurling Academy (Verdun, Canada), Alix Adrian. Ten students of the Academy were in attendance. All were extremely curious about George Beurling and his historical exploits**





**MUSÉE DE L'AVIATION DE MONTRÉAL**



**MONTREAL AVIATION MUSEUM**

Model by Gilles Pepin  
[gfpepin@sympatico.ca](mailto:gfpepin@sympatico.ca)