HOW TO MAKE DIY DECALS

(Adapted from the brilliant Vietnamese War website http://vnafmamn.com/index.html and translated from American to English by Brian Griffin)

These instructions utilise both Clear and White blank commercial decal sheets that you can buy on-line or at your model shop. Try https://www.craftycomputerpaper.co.uk/ or many others easily found on e-Bay.

To make it less likely that any decal surround will be visible, firstly spray or paint onto the model a thin coat of Johnson's "KLEAR Floor Finish" solution or a high-gloss varnish: you can buy "KLEAR" at most DIY shops. I print my decals on an HP Envy 5534 inkjet printer: but I imagine that most inkjet printers would be able to handle this task. Please note that you do NOT need to use a laser printer to make decals!

Most people recommend that you also use MICRO LIQUID DECAL FILM; MICRO SOL; and MICRO SET, however I've always had perfectly satisfactory results without LIQUID DECAL FILM: sometimes I use SOL and SET - and sometimes I don't! But then I'm no perfectionist!

CAUTION: Do not be put off by the amount of notes below - they look considerable but they are not! I've just mentioned everything I can think of!

Here are the basic steps:

1. Use the Internet to obtain an image that you want to turn into a decal. I find that Google Images are a great source of national markings – I'll search for, say "Sri Lanka roundels" and up they pop! Click on the one you want, and then Save it in My Pictures.
2. Next open it in Word (or an image-handling program – I sometimes use Microsoft Publisher) and using the "handles", adjust the size of the image to roughly suit the model. I simply do this by eye – I make a variety of different sized images on a plain sheet of ordinary paper, print it out and cut out each one for a trial fit on the wing/fuselage. When you've decided the sizes and quantity that you need, set it up on the screen so they spread across the top of the page (this will make best use of your precious decal paper – no wastage!) Also, do make multiple copies – if you need say four roundels set it up to print out eight – it'll cost you barely any more and you'll have back-ups in case you have a problem
3. Put a sheet of Clear decal paper into the printer, shiny face down. But if white features in the roundel/marking, you'll need to use White decal paper instead of Clear – because your printer can't print white! Set the printer to Fine or Best Quality and press Go.
4. After the decal sheet has printed out, give it about 15 minutes for the ink to dry. Then cut the decals out in one piece by cutting all the way across the top of the paper neatly. Put the unused decal paper away safely – this can be used on other occasions. Now spray your new decals with a coat of either "MICRO LIQUID DECAL FILM" or a high-gloss varnish. (I use a "rattle can" – Humbrol or Tamiya., 'cause I've got fed up with my bloody airbrush!!!) Let it dry for 15 minutes, then spray again. I then

do it once more – making a total of three varnish applications. (I don't know if multiple applications are necessary when using MICRO LIQUID DECAL FILM.)

5. Now, cut the designs out of the decal sheet. If you're using Clear decal sheet it's not essential (but desirable) that you trim right to the edge, but in the case of White decal sheet, it is critical! If you use scissors, they should be small, pointed and sharp so that you can get a clean cut. You can prepare the spot by painting a thin coat of MICRO SET on the model where you intend placing the decal. MICRO SET prepares the surface with a special wetting agent that cuts the oils in new paint and converts the adhesive on the back of the decal to a stronger and longer-lasting bond.
6. Dip the decal into warm water for about 30 second. Take it out and lay it on a piece of paper towel, to absorb the water residue. Use a damp cotton-wool tip (or paintbrush) to slightly push the decal, testing to see if it's coming loose from the backing paper. If not, dip it in the water again, but only for a few seconds. This is a critical step: if you leave your decal in water for too long, it will thin out the adhesive coat on the back, and won't stick properly onto the model's surface ("home-made decals" are not as good as commercial decals in this respect).
7. When the decal starts to loosen, move the image slightly to expose a corner of backing paper. Then grasp the exposed corner with your tweezers and lay it as close to the desired position as possible. Gently lay the cotton-wool tip or paintbrush onto the surface of the image and then use your tweezers to slowly pull the backing paper away. As these decals are very fragile, they won't take rough handling so try to position them right at the spot you want, straightaway - you won't get a lot of opportunity to adjust them because the decal is just wet enough to stay there, not to be moved around too much. If you need to apply water on it so that you can do some position adjustment, be sparing as the decal may lose some adhesion and it mightn't stick at some spots later on. At this point I use a cotton-wool tip or dry paintbrush to gently "blot" the decal - be careful not to move it out of position or lift it off by accident. But, if disaster does strike, with very careful handling it might be moved back into position. But, even if it's irredeemably stuffed – don't worry! Remember, at Step 2 you took the precaution of printing off extra copies – didn't you? So you're OK to have another go!
8. Wait for the decals to nearly dry before applying a thin coat of "MICRO SOL" setting solution (it works by helping decals conform to the surface of the model and makes them look as if they've been painted on). Often (but not always) you'll find this wrinkles the decal surface, but don't worry, this is supposed to happen – do not attempt to smooth it. Go off and have a cup of tea – in several hours the wrinkles will have disappeared. Let it dry overnight. If you use a strong setting solution (and some brands are apparently stronger than others), the decals may shrink and become useless. If so, go back to Square 1.
9. The next day spray the model with your preferred varnish to seal everything in and to give the finish you require.
10. The remains of the decal sheet (that you cut off and stored away) can be re-used in the printer as many times as you like, so it makes sense to lay out your images prudently. As you progressively use the paper for other projects, it will of course get smaller and smaller until your printer will no longer accept it. BUT, you can still use it by adjusting the paper tray to take a smaller size paper. (N.B. you can use white decal scraps to make underlays – see below.)

When making home-made decals you'll find that the colour density is not always great, particularly if the image features lighter colours such as yellow. This can be counteracted

to some extent by printing out a second decal and laying it on top of the first, thereby strengthening the colour to some degree. As previously mentioned, your printer won't print the colour white but, in the case of roundels, you can get over this by "underlaying" with commercially available white disc decals – try www.ebay.co.uk/sch/mehusla (they've just started selling a sheet of varying-sized white discs, at my request. As they're hot off the press, you might have to e-mail to order them.) Or try www.bestfong.com/decals or http://www.spotmodel.com. However, I've found it to be quite cost effective to simply cut out a piece of white decal to match the shape and size of the home-made decal and place it on the model first, like an underlay. But before you rush off and do this, remember to spray the white decal with three coats of clear varnish to strengthen it – just like before. Cut it out, soak and apply. When it's dry, then place the coloured decal on top: this works well and brings out the colours very nicely. This, of course is fine when you have a regular shape. For roundels, I simply use a punch and die (my cheap and nasty "foreign" set has a selection of diameters and cost about a fiver), to bash out a white disc "underlay".

With lettering and numbers, there is a wide selection of white decals available commercially. If you can't buy the font you need or if you want something complex like nose artwork that needs some white, you can always print out on white decal paper and trim very carefully (not too easy) or print several out on Clear decal paper and double them up. Another not very satisfactory, but just about "do-able" option is to cut out bits of white decal, roughly corresponding with the missing white shape – fiddly and very tricky to do – and adhering them to the model before placing your intended design on top. Bit of a pain, but nothing is perfect!

I have found that I haven't really got better at making my own decals – rather, I've got less bad! BUT, it has opened up a kaleidoscope of opportunities – I can now make any decals I like and for a fraction of the cost of buying commercial sheets. Go for it, you'll make some awful efforts first of all – I still do – but you will get the hang of it. Nothing ventured, nothing gained!

Finally, a tip for those who haven't used Johnson's " KLEAR Floor Finish." It's cheap, abundant and available at most DIY shops. It works at least as well as most other gloss varnishes, making your model look like it's just been rolled out from an aircraft manufacturer. Also if you dip clear canopy parts into a small cup of "KLEAR" and let them dry overnight on a paper towel, the next day they'll look crystal clear. "KLEAR" can also protect clear plastic transparencies from scratching or fogging caused by super glue.