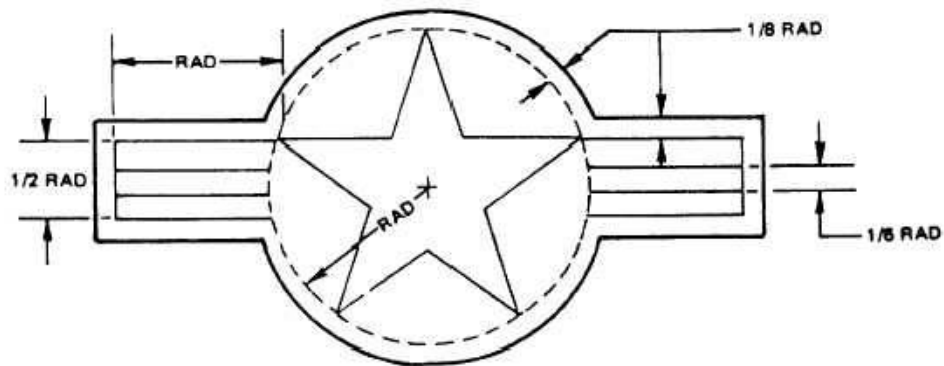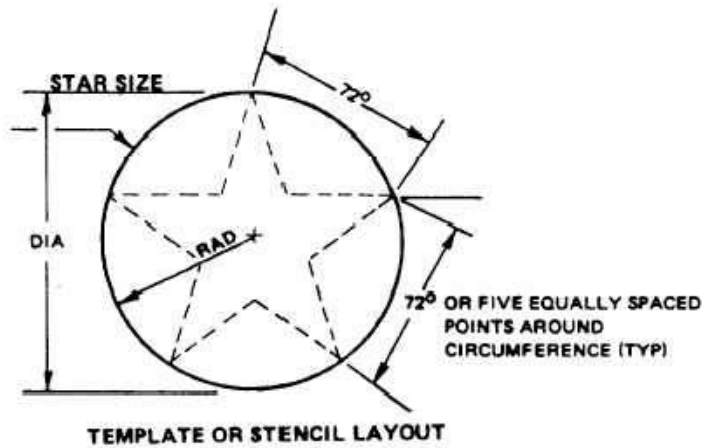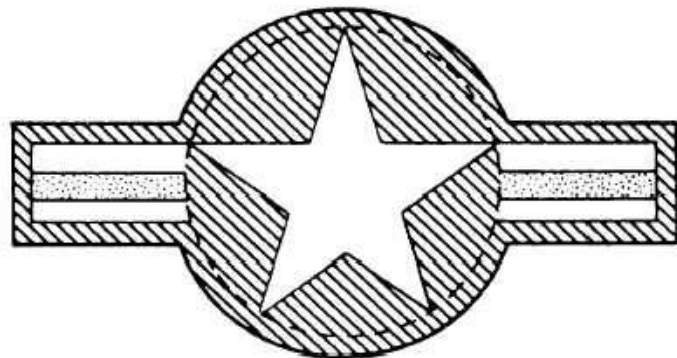# HOME MADE STENCILS

by Dennis Friesel

Introduction/Why:

No scale model is complete without the national insignia, squadron logos, serial numbers and other Identifying markings on the plane. Unfortunately, these are usually not readily available for the particular scale models we choose to build in the sizes and shapes we would like to have. So we must draw them up in our CAD programs or go to the web and look for the appropriate markings. My technique is to find the markings in whatever documentation I can (usually on the web), copy them onto my computer either in MS "Paint", "Power Point" or a CAD program. Often I will have to draw them up in a CAD program from scratch. Some examples of things that can be found on the web or in reference books are……..
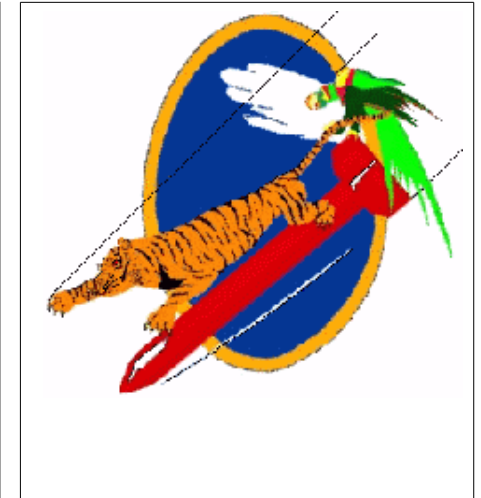
WHEN REFERENCE IS MADE TO SIZE OF INSIGNIA, THE REFERENCE IS TO THE SIZE OF THE BASIC CIRCLE ON WHICH THE WHITE STAR IS CONSTRUCTED AND NOT TO THE OUTER EDGE OF THE BLUE OUTLINE.

STAR SIZE

72°

DIA

RAD

72° OR FIVE EQUALLY SPACED POINTS AROUND CIRCUMFERENCE (TYP)

TEMPLATE OR STENCIL LAYOUT

RAD

1/8 RAD

1/2 RAD

RAD

1/8 RAD

CONSTRUCTION DETAILS

CONVENTIONAL

INSIGNIA RED, COLOR NO. 11136
INSIGNIA WHITE, COLOR NO. 17925
INSIGNIA BLUE, COLOR NO. 15044

TACTICAL PAINT SCHEME

BACKGROUND COLOR
CONTRASTING GRAY

LAND CAMOUFLAGE SCHEME

BACKGROUND COLOR
BLACK, COLOR NO. 37038

COLOR DIAGRAM

2.

The nice thing is that these can all be imported into your MS "Paint" or other drawing program and be cut, pasted and sized to the correct size for your project, then printed out on a standard printer and taped to the model to see how it looks. Some of the logos shown above were redrawn by me in "paint", others were made the correct size and turned into Dry Transfers in my workshop (I'll talk about that later) and still others were sent off to graphics folks like "GET STENCILS" to be made into dry transfers or vinyl stickers. Military font lettering can be found at www.Dafont.com. Using this program, you can print your nomenclature in the place provided and it will reproduce in the military font you choose, US NAVY or USAAF, as shown below. Dafont has hundreds of fonts, so you are not limited to military fonts. Just find the font you want, download it (free) and your good to go. I then copy the printed nomenclature into "Paint", size it, print it out and tape it to the model to see how it looks. You can do this as many times as it takes to get it right.
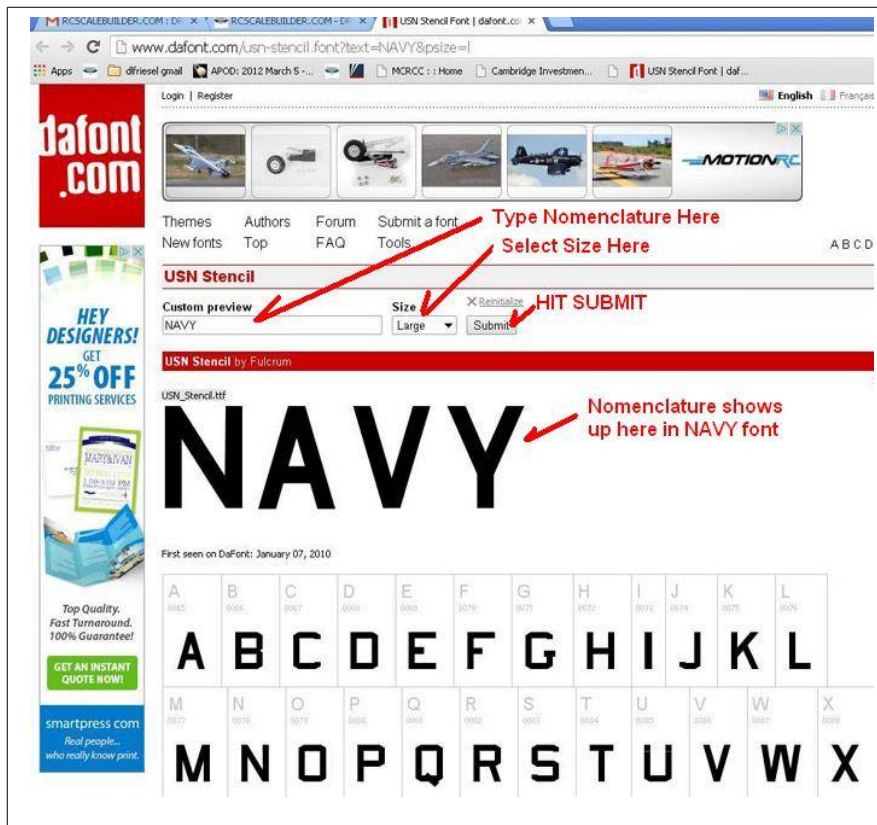
However, for me, dry transfers and paint masks are the way to go for that realistic look on a scale model. The stars and bars and lettering were all drawn up in a CAD program or imported into "paint" to be turned into homemade paint masks. Scaling and measuring is a starting point, but nothing works better than your eye to get it all looking good. This can be done as many times as needed to get the graphics to be as correct as possible. Part of the issue is that the kit you built may not have the exact scale dimensions as the full

Scale subject, making it necessary to slightly modify the graphics as necessary to get it looking like your documentation. Getting this right can even help hide some of the scale outline discrepancies if done well. (OK, OK, I'm a fanatic) Some examples of how this is done are pictured below for my Ziroli Corsair and a Top Flite P47 ARC, which does deviate somewhat from exact scale.
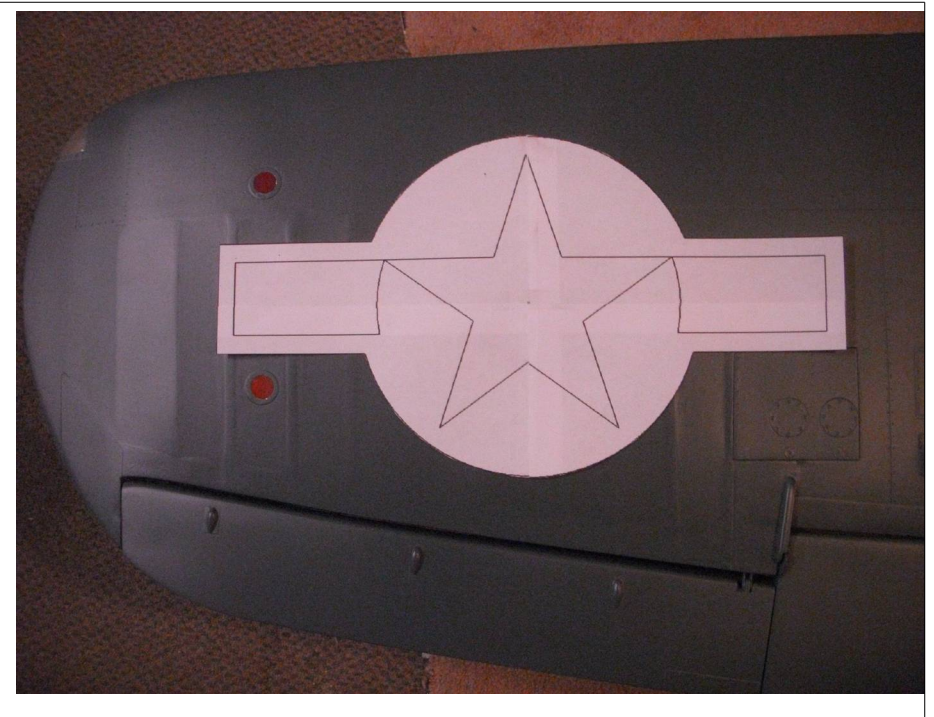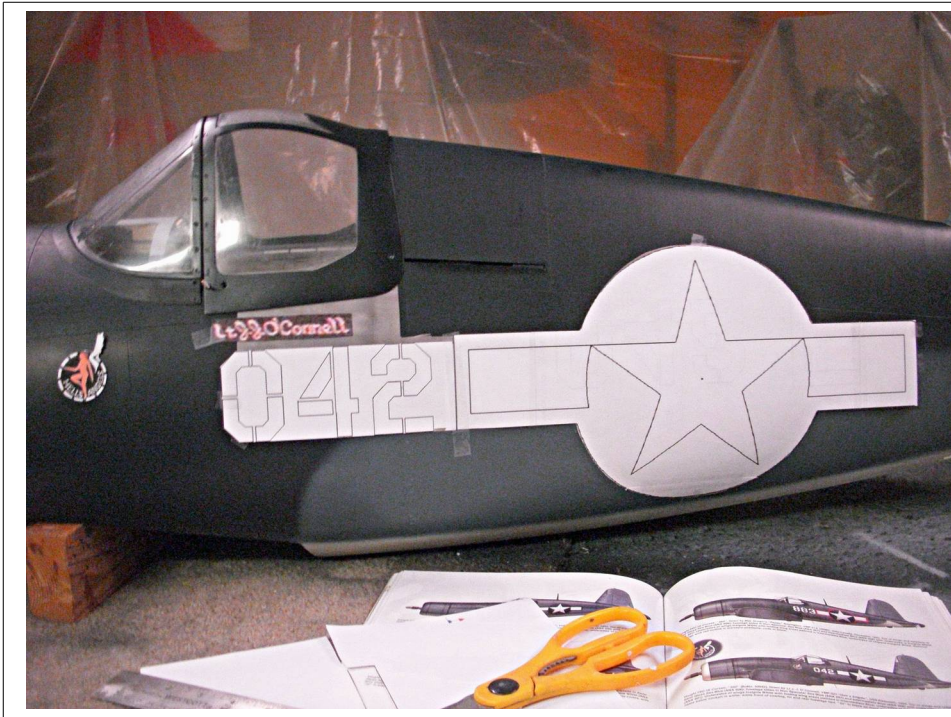
The nomenclature printouts, both above and below, were then used to make my homemade paint masks. In addition, I am impatient and don't like waiting for a commercial vendor to make and mail my paint masks, only to find out that I made a mistake and made some the wrong size. Using this technique, I can fix this very rapidly.

So how does one go about making a paint mask. You will need the following materials (in addition to your printed graphics), pictured below:

1. 1.5" wide Frog Tape:

This is a very thin, delicate surface painters tape and is somewhat bendable, i.e. can be conformed to follow shallow curves, a real advantage when applying a paint mask to a compound surface like a cowl or a fuselage. It keeps paint out and paint lines extremely sharp. It is commonly available at local house paint and hardware stores.

2. Double sided Silicone Release Tape:

This is paper coated on both sides with a silicone coating used by Picture Framing Shops for dry mounting graphics, pictures, etc on poster board. This can be obtained from any picture framing store for about $2 per foot and is typically 50" wide (Long roll in photo above). It is used in dry mounting machines and after multiple uses must be exchanged for a new sheet. They may well have used sheets available for free, and while not suitable for the dry mount machine, the used sheets will work just fine for making paint masks. It can also be purchased in smaller sizes from Walmart, art stores, or on line in packages of ten 8.5 x 11 and two 11 x 17 sheets for about $12. This paper is what you find under your vinyl graphics from a Sign Shop like CALLIE Graphics, but it is not available there. Tape sticks to it, but very lightly, making it easy to remove your cut out stencil.

5.

C And T Silicone Release Paper Pack Of 12 (20134)

Item # 901-2168499ASN | Model # 44993

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3. ApliTape Application Tape:

This is the role standing on end in the above photo. It is available in various quantities from your local Sign Shop and is used to cover a vinyl graphic (or our cut out paint mask) after it has been cut and the excess vinyl removed from the release paper. You can also purchase it on line in large quantities (100 ft rolls), which is again why I use our local sign shop to get the amount I need.

4. At least 3 SHARP Exacto knives……If you're like me, half way through the making of a paint mask, you won't be able to find two of them, or occasionally any one of them

5. Various metal rulers or straight edges (for same reason as above.)

6. Any Scotch tape, regular tape, scissors and a cutting board

7. A smooth Lucite rod for pressing the edges of the mask down on the subject to be painted. (Flite metal rod shown). The top of your fingernail also works well.

Making a Paint Mask:

Start by printing out your graphic on a clean piece of white paper, using multiple sheets taped together if necessary. (i.e., if you have a printer that can only handle letter size paper.) Also cut a piece of Release paper giving a generous boarder around the graphic.

Tape the Release paper to the cutting board. The tape doesn't stick well to the release paper, but does stick to the cutting board trapping the Release paper. Then cover the Release paper with overlapping (~ ¼") strips of the 1.5" wide frog tape. The frog tape does stick somewhat to the release paper but is easily removed. Then tape the graphic onto the Frog tape.
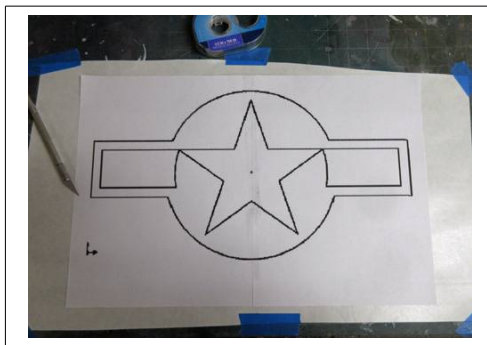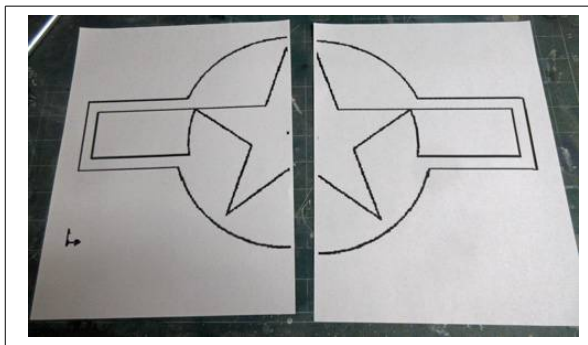
Now you are ready to cut out the Star & Bar paint mask. Be careful when cutting to save all the internal pieces cut out of the graphic as they will all be used during the painting sequence. Also, be sure to use a new or very sharp #11 Exacto blade and press hard enough to cut through the paper graphic, the Frog tape and the Release paper as shown below. All these pieces will be used for the painting process. Cover the top piece shown below with a piece of the ApliTape. It only needs to cover the opening in the cutout to help it keep its shape when removed from the release paper To do this I place the Star & Bar on another piece of Release paper and apply the ApliTape, which sticks to the Frog tape but not the Release paper.
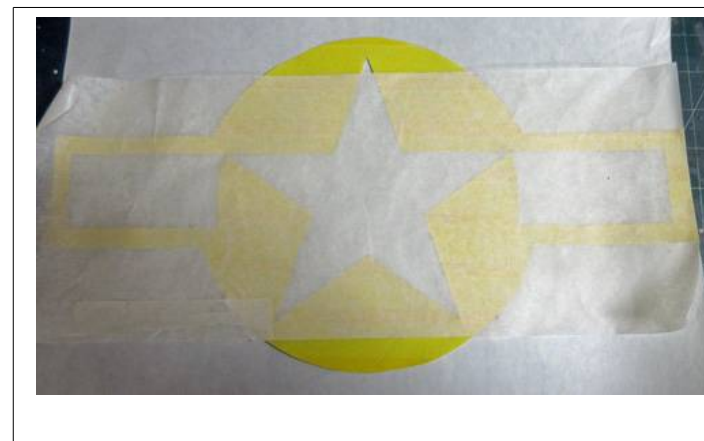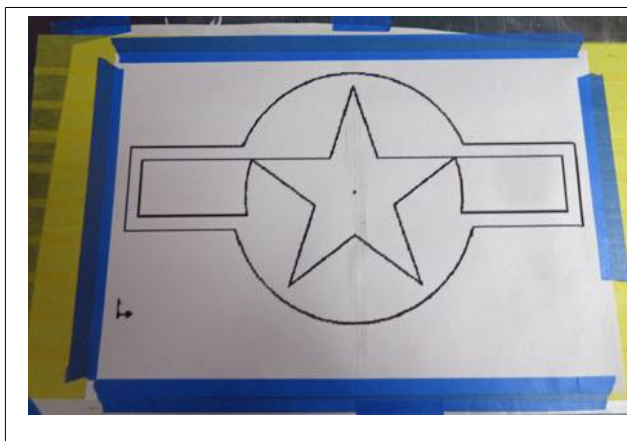

Then apply the star & bar stencil on the wing in the appropriate place, measuring as necessary to get it right. At this point, treat the graphic as you would applying any vinyl graphic to the wing. The frog tape stencil will come off the Release paper with very little prodding. I usually do ½ at a time. The ApliTape together with the Frog tape stencil can be easily lifted off the wing multiple times as needed to get it positioned correctly.
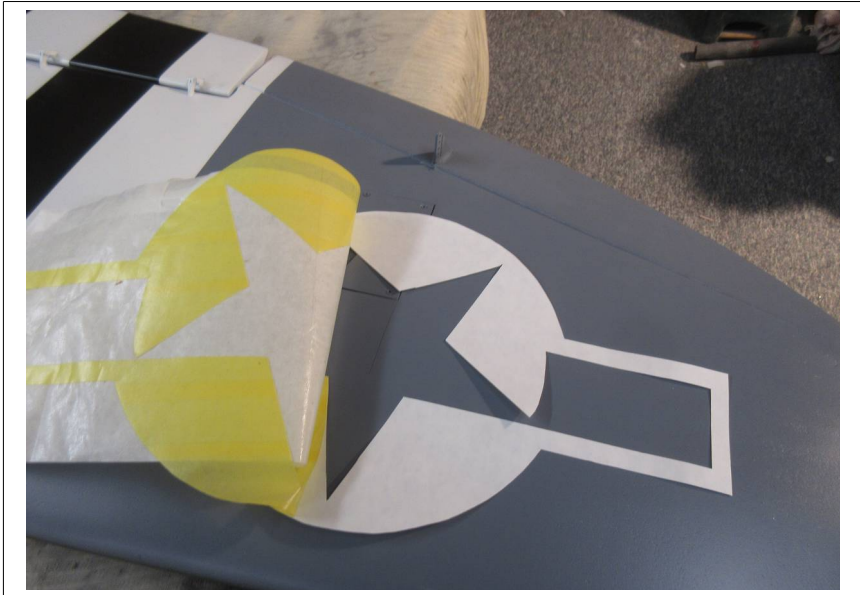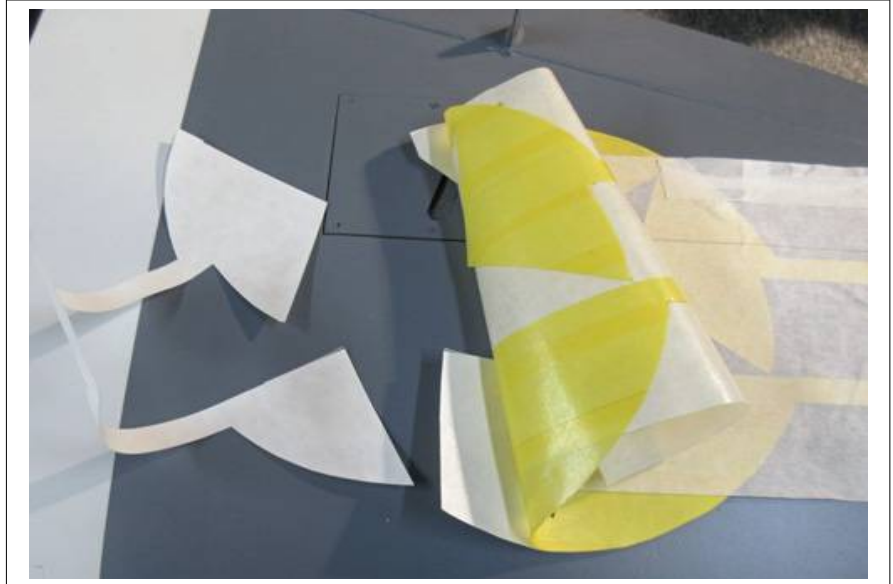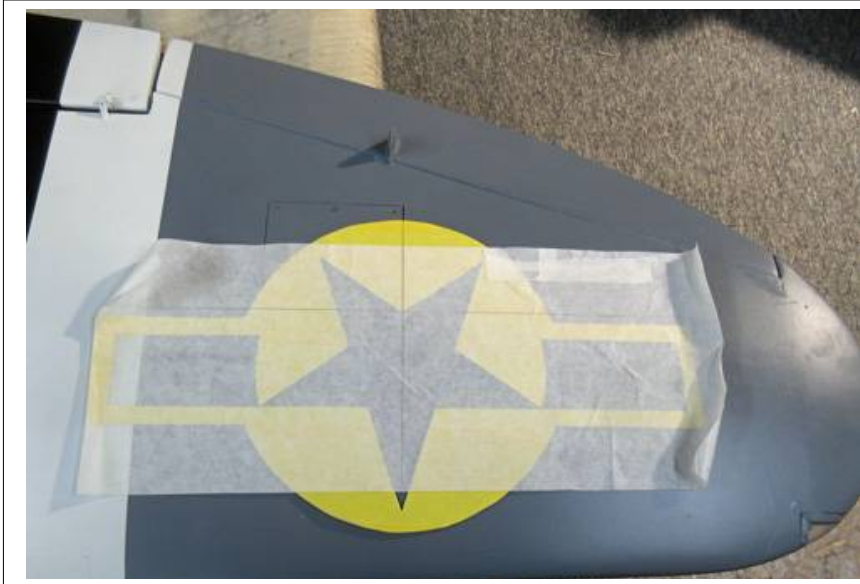
I know most of you know how to do this part, but I show it here just for completeness. Now all you have to do is mask off the areas not to be painted and paint the Star & Bar with white paint of your choice (I really like Klass Kote and Model Masters Acrylic paints myself). You can see below how crisp the paint line turns out to be using Klass Kote.

8.

After the white paint has cured, measure carefully and apply the large stencil surrounding them using the same technique used for the Star & Bar above. Use pencil to make alignment points and tape it in place. Use the ApliTape to hold the large mask in place while removing it from the Release paper, again ½ at a time. Finally, cover the white Star & Bar with the frog tape cutout earlier and you are again ready to paint.
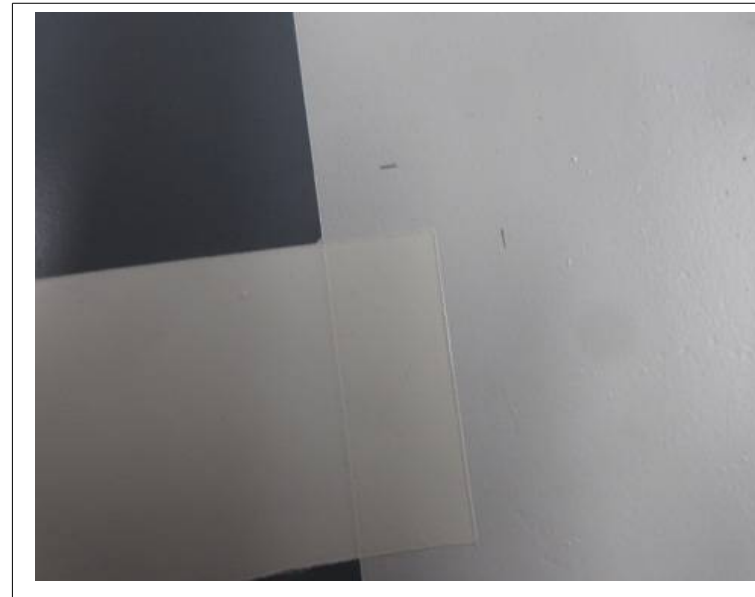
I used this and a second mask to paint the Insignia on both sides of the bottom of the wing of a P 47. The results are shown below. Occasionally you will get paint to bleed under the frog tape where the strips overlap or at panel lines, so be careful to apply pressure to these areas to prevent this from happening. The time spent making sure the Frog tape is securely pressed onto the subject is rewarded with really crisp paint lines. I had earlier painted the Insignia on the Upper left wing using similar homemade paint masks.

One area I have found the Frog tape paint masks to be really useful is on compound shapes like cowls and fuselages. On my Skyraider, I had a commercial mask made at a sign shop but it could not handle the compound curves on the cowl. I ended up using the above technique to make the paint mask and was able to get it to conform to the shape of the cowl and still look straight. See below.

10.

11.

HOME MADE DRY TRANSFERS

Squadron logo or nose art needed to complete a scale project can be problematic. Again, there are commercial vendors who will make these up for you from photos you submit to them. However a product called DECALPROfx (www.decalprofx.com) markets a system whereby you can make any design dry transfers in your workshop. The kit includes all materials for making dry transfers except two moderately priced pieces of equipment.

1. High Resolution Color LaserJet Printer: If you don't have a LaserJet printer, you can get high quality LaserJet prints from a local Fedex or Kinko's copier store for example. The sharper the image, the better the quality of the Dry Transfer.
2. A Laminator Machine: DecalPro recommends a laminator machine which they sell for $139. Shown Below
3. A heat gun. We all probably have one of these already.

The syste... ...and a ...em is ...ot attempt to reproduce that ...des LASER JET prints of a ...he bla... ...Including white, while wit... ...of the

12.

I purchase the starter kit and taught myself how to make dry transfers using the provided LaserJet printed graphics above. It took a couple tries, but once understood, the system works very nicely. I then branched out and printed some of my own drafted or copied graphics. The first thing I tried was to make gold colored Porsche logos just to see how good they could look, then put them on the mirror covers of the sun visor. They are still there.

Next I made a dry transfer of the squadron logo painted on the side of a full scale Skyraider for my Ziroli Skyraider. This is why I bought the system in the first place. I found the Logo on the web, copied it into paint, sized it as needed, made up a print page and had it laser printed at the Fedex copy store for making the dry transfer.
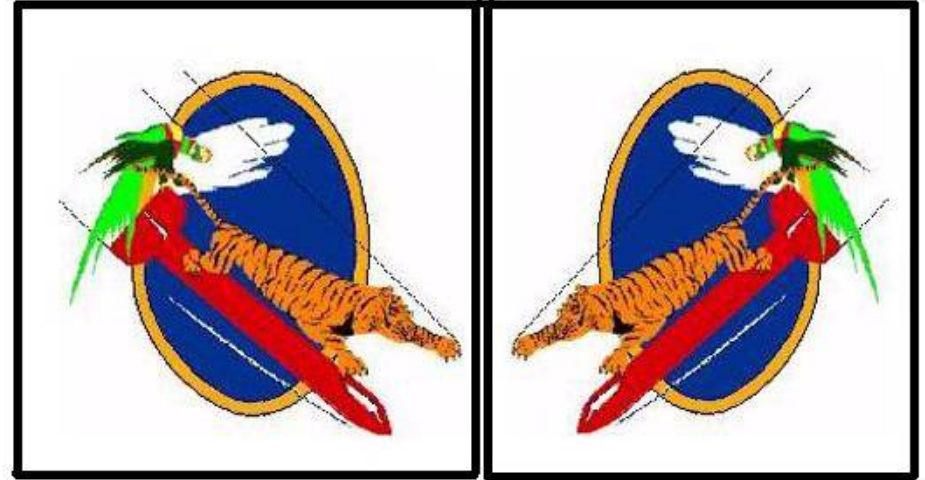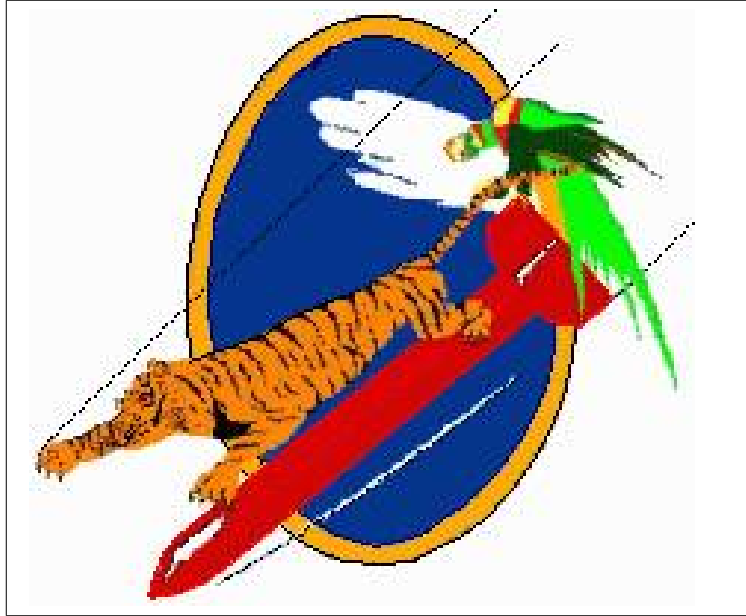
Again, after a couple tries, I got it to come out very nicely. I also did some of the nomenclature on the Skyraider to replace masks that I had made the wrong size, or messed up during the application process. The system is that it does have a learning curve, but in my opinion it is well worth the effort. The more you do it the better and faster you get.

OK, That's it. These techniques may not be to the liking of all modelers, but if you're like me, you want to be in control and make things the way you like, when you like. Hope these ideas work for you as well or inspire you to find other ways to accomplish your painting goals.

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