

Spray light coat of clear (such as Blair 500 Digi-Finish) to sheet before using

# Estes Trajector™ “NASA Skin” Kit Application Instructions

## General Preparation

This kit is intended to be applied to an unbuilt Estes Trajector™ kit. However, a moderately advanced modeler can, with care, cut the skin into smaller sections that can be applied to a previously completed Trajector™ kit.

Remove and examine each of the sheets of the kit so that you are familiar with what each sheet contains. Also, each sheet is marked with an instruction to spray the sheet with a very light coat of clear spray before using. This is primarily a protective measure against soiling of the skin while you are cutting it out and applying it and is up to the modeler whether or not to do so at the start of construction. However, the clear spray also greatly toughens the coating on the skin material (which is itself polyvinyl).

Start by skinning a fin first to familiarize yourself with the handling and properties of the material. Then skin the body tube. Skin the nosecone last.

Make sure the surfaces to which the skin is applied are clean and free of any projections as the smallest imperfection will show through the skin. Also be sure your workspace is absolutely clean of dust and other foreign matter to prevent such material from becoming “invisible stuck” to the adhesive of the skin while you are working with it. Also make sure your hands are absolutely clean and dry when working with the skin kit (the skins are largely waterproof but moisture on your hands will also pick up any dirt they touch which will transfer to the skin printed surface or the adhesive during application).

Just about any quality Gloss Clear Enamel spray can be used for the initial light coating of the skins before they applied to the model. However, after trying many different clear sprays I recommend ACE Premium Enamel Gloss Clear. It applies very evenly and doesn't yellow and, if you decided to do so, it can be applied in relatively heavy final coats without the risk of distorting the skin material. Other sprays may cause the joints and overlapping areas of the skin to “pucker” ever so slightly...though it is so slight that most won't notice.

Finally, use a brand new #11 type blade and a metal straight edge when cutting and trimming the skin sections. It is also best to cut on a “cut friendly” surface (something that won't dull the tip of your knife such as a smooth wood surface, a sheet of heavy card stock, or [best] a “self healing” cutting matt).

## Covering the Body Tube

Note that one edge of each skin section on each sheet has “Apply this edge first” along and just outside one edge of the printed skin area. Make a mental note of what edge of the skin this is.

For the aft body tube skin covering, follow the instructions titled **Aft Skin Section Application** below.

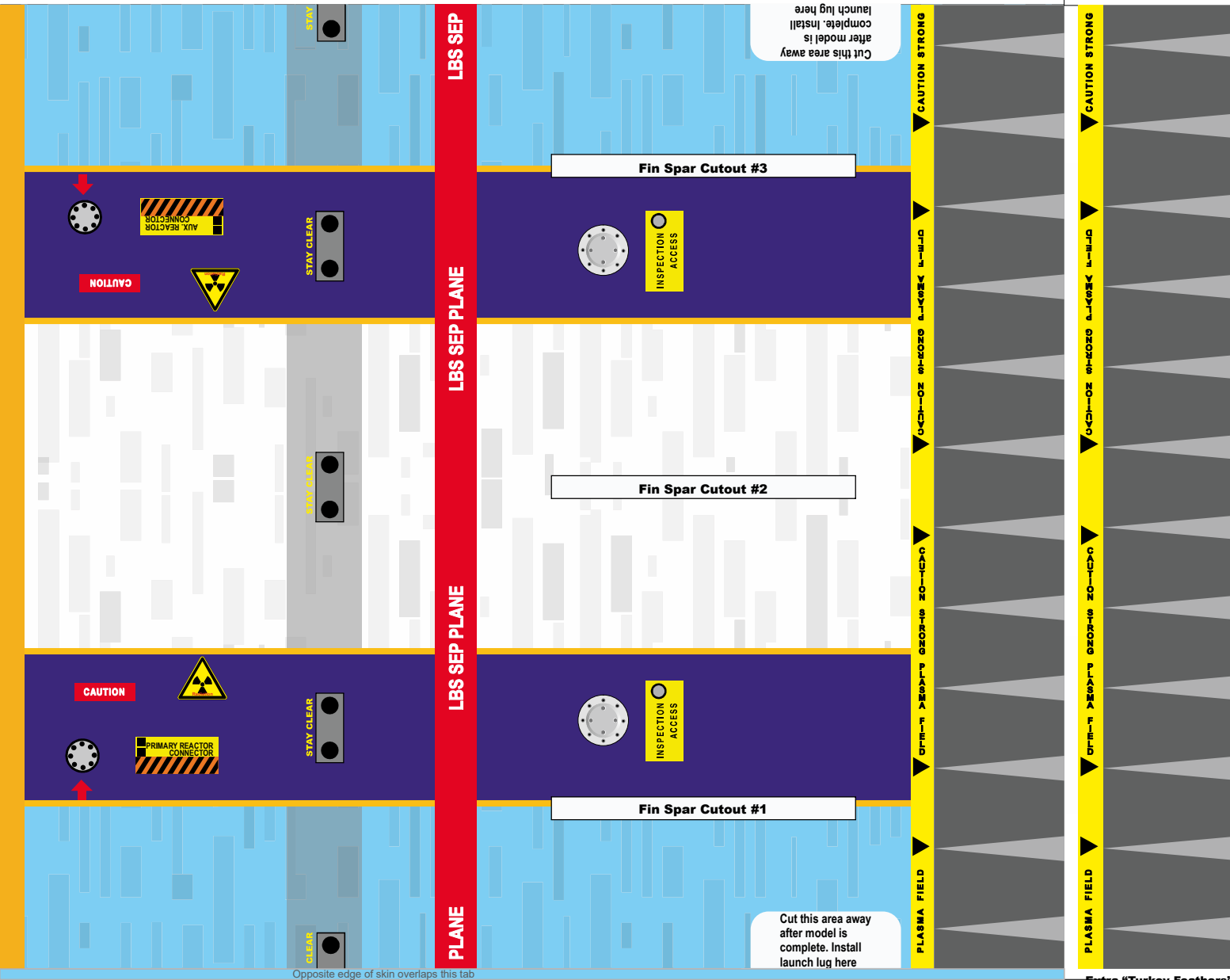
After you have applied the aft skin, move to Sheet 2 and follow the instructions for **Middle Skin Section Application**.

Finally, after you have applied the Middle Skin Section, move to Sheet 3 and follow the instructions for applying the **Forward Skin Section Application**

Check applied skin. If you discover any “air pockets” you can gently prick through the skin to release the trapped air.

You may want to apply another light coat of the clear spray to the whole body tube at this point to seal all edges. After this “sealing” coat or clear spray, I suggest 4 or more coats of Pledge Floor Polish be applied.

After the body is covered, go back and make sure the Fin Spar Cutouts completely clear the cutouts in the body tube



Cut this area away after model is complete. Install launch lug here

Cut this area away after model is complete. Install launch lug here

Apply this edge first  
Apply this edge first

Apply this body tube wrap first

# Sheet 1

Rev 3-14-19

## NASA Trajector

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Align rear skin paying attention to the forward yellow band. It is best to have forward edge perfectly aligned. If the rear exhaust detail does not perfectly align, an extra set of “Turkey Feathers” has been provided so that you can cut it out and apply it separately over the aft end of the body.

Questions? Contact [johnpursley@accur8.com](mailto:johnpursley@accur8.com)

### Body Tube Skin Section Application

After cutting skin out, place on a clean flat surface, facing up. Also, for the aft skin section (the one above), cut out the “Fin Spar Cutout #1” rectangle assist with aligning the rear skin over the fin slots (for best results, don't cut out the other two fin spar cutouts until after the skin is applied).

Carefully peel back the covering from the edge marked “Apply this edge first” to expose about 1” of the backing. Cut away approx 1/4” of the backing from this edge. Flip skin over and replace the backing you cut away, making sure the slick side of the backing goes back against the adhesive of the skin.

Tightly wrap the skin around body tube (printed side facing out) so that the aft edge of this wrap (nearest “Strong Magnetic Field strip”) is flush with the end of the body tube (the end nearest the three fin cutouts) fore and aft ends of the wrap edges of this wrap are even. **Make sure Fin Spar Cutout #1 aligns on all edges with one of the fin spar cutout in the body tube.** Still holding wrap on body tube tightly with one hand, use your other hand to lift this edge and remove the 1/4” backing strip. Press the exposed adhesive against body tube along the length of the wrap.

Release the wrap that you have been holding tightly around the body tube and “swing” it out such that it “hinges” away from the body tube along the 1/4” backing cut line. The backing will release from the covering along this line once you have foiled it back far enough. Carefully adhere the remainder of the skin to body tube slowly working around the tube circumference while lightly burnishing the adhesive to the tube by running your finger back and forth on the surface of the skin as you progress around the circumference.

Apply the other body tube skin sections following the instructions above. Carefully butt the rear edge of each succeeding skin to the forward edge of the skin that has been applied to the body.

Spray light coat of clear (such as Blair 500 Digi-Finish) to sheet before using

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### Covering the Nose Cone

Covering the nosecone requires a bit more care and attention to its application than you encountered with the body tube but still not that difficult if you just take your time (see any provided supplemental instruction/tip sheets)

For best results, use a filler such as Squadron White putty to fill all the grooves and "gunports". DO NOT fill the groove that runs unbroken all the way around the nosecone just aft of the cockpit and about 3/4" forward of the cone-to-cylinder transition. After sanding everything smooth, give the nosecone a coat of silver or light grey. Filling all the grooves is optional...the skin will go over them just fine but you will be able to see them through the skin (which really isn't bad).

Cut the nosecone skin from Sheet 4 noting which edge is marked "Apply this edge first." After the skin is cut from the main sheet, cut very forwardmost nosecone skin section along the curved line just ahead of the blue "cut away" areas. Don't discard the smaller section. Also, cut about 3/8" of the backing away from this edge and replace as you did with the body tube sections.

The red line in the yellow "Linear Charge" stripe aligns exactly over the groove just behind the cockpit canopy mentioned above. The "Apply this edge first" edge of the skin aligns along the top centerline of the cockpit. Use the mold line seam of the nosecone as a guide. Make sure that the two ends of the red "Linear Charge" stripe align both end-to-end and over the nosecone groove. Finally, make sure the two light blue "cut away" areas over the cockpit canopy are even on each side (they will not completely cover the canopy). Once satisfied with positioning and while still holding the wrap tightly to the nosecone, lift the edge with the 3/8" backing strip and carefully remove the strip.

Very carefully "stick" exposed skin down to the very top of the canopy along the centerline, working your way down into the "valley" formed by the junction of the raised cockpit and the conical section of the nosecone. You want to be sure that the skin actually goes all the way into this valley and securely adheres without bridging the valley. Finish sticking the skin in place all the way toward the small end of the nosecone. Once the 3/8" strip of skin is adhered in place, release the remainder of the skin and "swing" it up along the 3/8" cut line. Carefully work around the nosecone adhering the skin in place until the wrap is almost completely around the nosecone at the "valley" on the other side of the cockpit. You will want to make sure the skin snuggles down in this valley before finally finishing along the top centerline.

As you are working the skin into place you DON'T want to tightly adhere the very aft edge of the skin. If you try to stick the aft edge down during application, you will end up with ugly wrinkles due to the slight compound curve that is formed between the conical and cylindrical portions of the nosecone.

Cut along the edges of the light blue areas of the cockpit canopy cutaways and peel them off to expose the canopy windows. Optional "framed" canopy windows are included in the skin set to a little bit "extra" to the model.

Next apply the forwardmost nosecone skin. Its seam runs along the bottom of the nose. Use the mold seam as a guide. The grey glare shield centers in front of the cockpit canopy. Only about 3/16" of the tip of the plastic nose will be exposed when you are complete.

Though the polyvinyl material the skin is printed on is not designed to be heat shrinkable it WILL shrink slightly under fairly high heat and light pressure applied by a small clothes iron or a "covering iron" sometimes called a Monokote Iron that is available for about \$15 at your local RC airplane shop. You can heat shrink most of the wrinkles out by setting the iron to the cotton setting (or "High" for a covering iron). You might want to test the heat setting by touching the iron to a scrap of covering to make sure it doesn't melt the covering material after touching for about a second. Once satisfied with heat setting, begin removing wrinkles by very lightly touching one end (the end of the wrinkle nearest the small end of the nosecone) of each wrinkle with the tip of the iron. Only touch very lightly for one second but no more than two seconds. Then immediately lift and move the iron a little further along the wrinkle (about 1/64" or so) and repeat. Though it sounds tedious, the process goes rather quickly. Also, NEVER slide the iron...just touch and apply light pressure straight against the wrinkle.

Once you get all the wrinkles worked down, follow up by setting the iron heat cooler by about 24% (wait for it to drop to that temp) and then "roll" the edge of the covering under the flat surface working all the way around the aft edge of the covering.

You may end up with a few creases or "ugly" attempts to iron out the wrinkles but don't worry. Unless you made a real mess the wrinkles will go almost unnoticed against the grey color pattern of the skin. If you just can live with the wrinkles, carefully cut along the printed line that runs around the rear edge of the skin and remove the offending wrinkled section. The nosecone will still look just fine with an exposed band of silver or grey painted nosecone surface.

Repeat the skinning and the "dewrinkling" process for the aft (cylindrical) nosecone wrap. Again, if you end up with unbearable wrinkles, just cut along the printed line and expose the base nosecone. You can also paint the "gap" yellow, orange, or black and the results will be quite nice.

This edge butts against forward edge of aft body tube skin

**X6970N**

Cut this area away after model is complete. Install launch lug here

CAUTION: MICROWAVE RADIATION

WARNING

INSPECTION ACCESS



**N9709X**

Cut this area away after model is complete. Install launch lug here

CAUTION: MICROWAVE RADIATION

WARNING

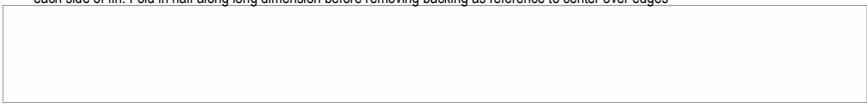
INSPECTION ACCESS

Opposite edge of skin overlaps this tab      Apply this edge first      Opposite edge of skin overlaps this tab

Apply this body tube wrap second

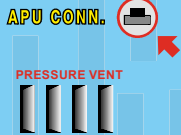
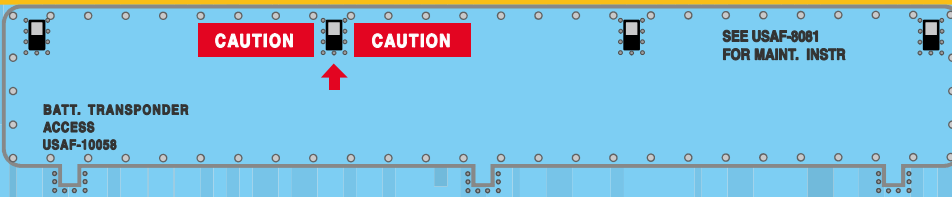
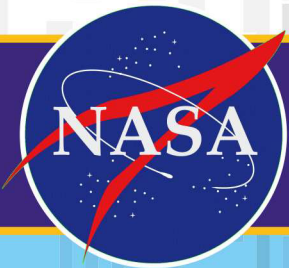
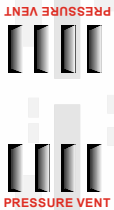
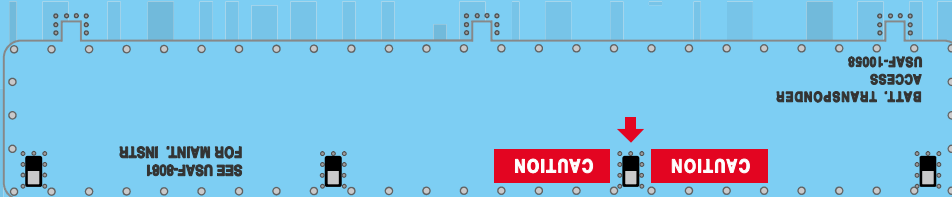
Vertical fin (NASA Yellow stripe) leading/trailing edge cuffs. Apply to leading and trailing edges of vertical fin before applying skins to each side of fin. Fold in half along long dimension before removing backing as reference to center over edges

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Spray light coat of clear (such as Blair 500 Digi-Finish) to sheet before using

Before starting, make copies of all sheets as instruction reference



Opposite edge of skin overlaps this tab

Opposite edge of skin overlaps this tab

If the nosecone skin seam has a slight mismatch, it can be "camouflaged" by wrapping this "gold" band around the seam

Apply this body tube wrap last

# Sheet 3

NASA Trajector

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SPACEMODELS

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## Assemble the Model and Clear Coat

Assemble the model according to the instructions. When finished, I recommend applying several coats of Pledge Floor Polish (Future) using a high quality artist's 1" foam brush. Apply in single long strokes along the entire length of the surface. Don't "2nd pass" over previous strokes. If you "miss a spot" simply cover that spot on the next coat. Apply 3 or more coats. Don't worry, Pledge dries quickly and the process doesn't take long.

You can also use your favorite clear coat. Just test it on a scrap of skin material to assure compatability. Blair 400 Digi-Gloss is a very good clear for use over the skins and the entire model. I personally recommend several coats of Pledge Floor Polish.

As a final step, cut away the skin where the launch lugs go and glue them in place using epoxy or thick CA.

"Clutter Markings"  
Apply over blemishes or mismatched lines or seams to "camouflage" such imperfections



▲ Apply this edge to body tube first ▲

Alternative leading edge cuff to simulate RCC leading edge

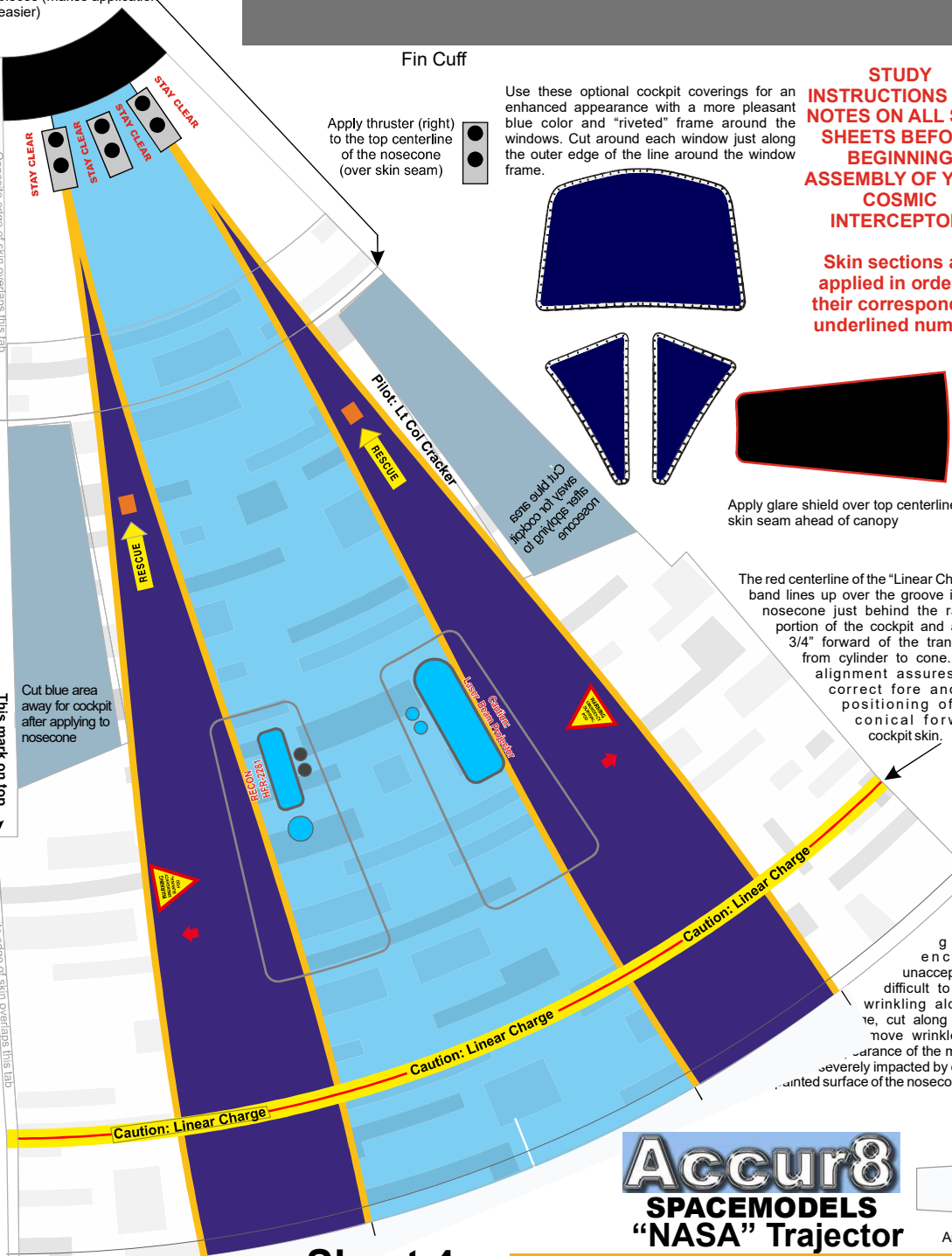


Alternative leading edge cuff to simulate RCC leading edge

This edge of aft cockpit skin is positioned exactly opposite the seam of the fore cockpit skin. There is a thin white line printed on the forward skin that will align with this edge.

Cut nose skin apart along this curve to apply nose skin in two pieces (makes application easier)

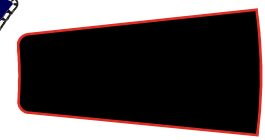
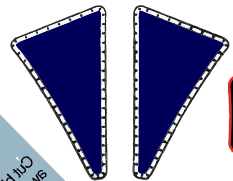
Remove 1/4" backing from this edge after cutting out skin  
Opposite edge of skin overlaps this tab  
This mark on top centerline of nose cone  
Opposite edge of skin overlaps this tab  
Cut blue area away for cockpit after applying to nosecone  
This mark on top centerline of nose cone  
Opposite edge of skin overlaps this tab



### Fin Cuff

Apply thruster (right) to the top centerline of the nosecone (over skin seam)

Use these optional cockpit coverings for an enhanced appearance with a more pleasant blue color and "riveted" frame around the windows. Cut around each window just along the outer edge of the line around the window frame.



Apply glare shield over top centerline skin seam ahead of canopy

The red centerline of the "Linear Charge" band lines up over the groove in the nosecone just behind the raised portion of the cockpit and about 3/4" forward of the transition from cylinder to cone. This alignment assures the correct fore and aft positioning of the conical forward cockpit skin.

**STUDY INSTRUCTIONS AND NOTES ON ALL SKIN SHEETS BEFORE BEGINNING ASSEMBLY OF YOUR COSMIC INTERCEPTOR!**

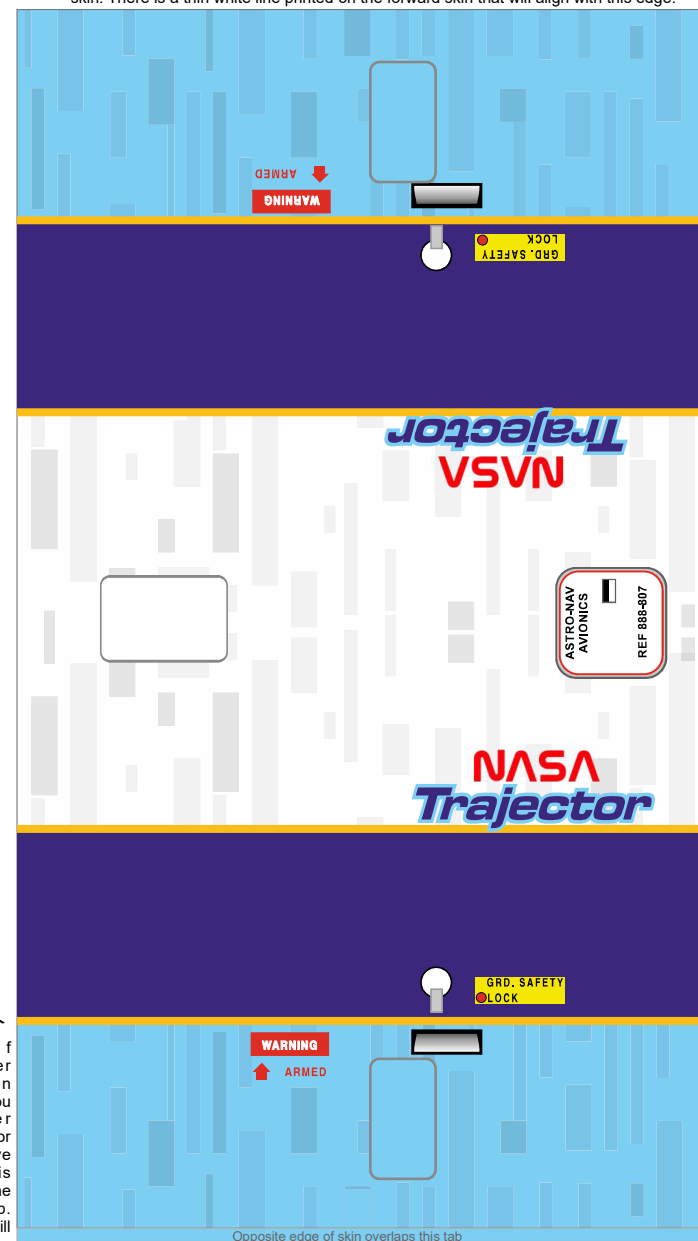
**Skin sections are applied in order of their corresponding underlined number.**

If after applying skin you encounter unacceptable or difficult to remove wrinkling along this line, cut along this line to remove wrinkled strip. Appearance of the model will be severely impacted by exposing painted surface of the nosecone.



## Sheet 4

If the nosecone skin seam around the nosecone has a slight mismatch, it can be "camouflaged" by wrapping this "gold" band around the seam



Cut away approx 1/4" of the backing from this edge and replace. Tightly wrap around nosecone so that the forward edge of this wrap butts against the aft edge of the forward nosecone wrap. Once in position, lift this edge and remove 1/4" backing. Press the exposed adhesive to the Bottom centerline of the nosecone. Follow the instructions to complete the wrapping process for the aft nosecone.



Apply to top of cockpit seam behind canopy



**"Clutter Markings"**  
Apply over blemishes or mismatched lines or seams to "camouflage" such imperfections

Spray light coat of clear (such as Blair 500 Digi-Finish) to sheet before using

**Before starting, make copies of all sheets as instruction reference**

Top Right Vertical Fin



NASA

A

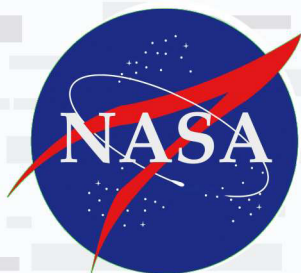
NASA



Top Left Vertical Fin

Spray light coat of clear (such as Blair 500 Digi-Finish) to sheet before using

Top Port (left) Wing



B

Bottom Port (left) Wing

NASA

Bottom Starboard (right) Wing

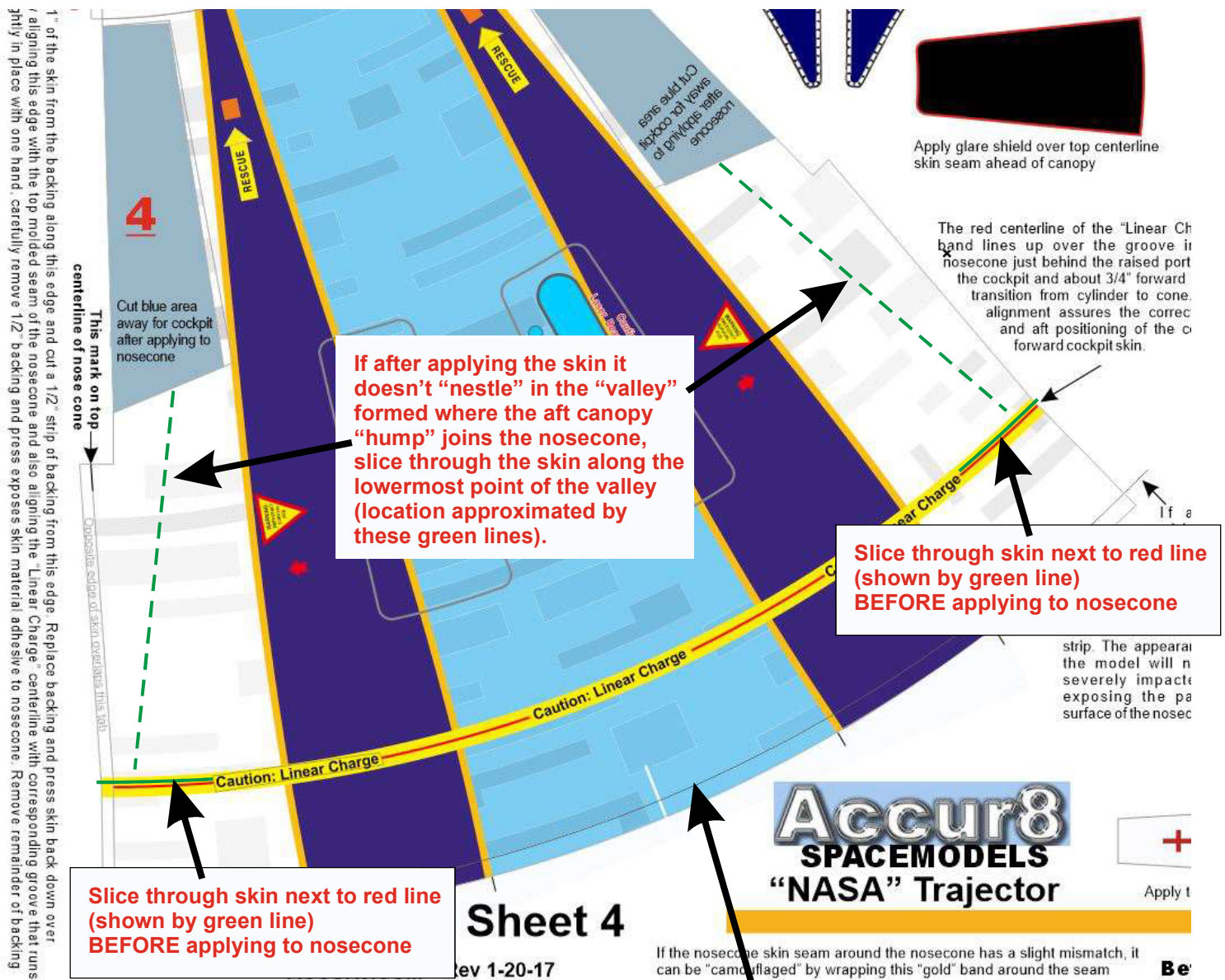


C

Top Starboard (right) Wing

VSVN

Though the skins have excellent adhesion to the bare plastic Trajector fins it is recommended that the fins be painted gloss white before applying the skins. The black bare plastic will cause the white and blue fin skins to not appear as "bright" as they should. Apply **B** skins first, tightly wrapping tabs over leading and trailing edges. Fin skins **A** and **C** are slightly oversized. Apply the "NASA" yellow bar skins and the blue skins to the fins so that an equal amount shows around all edges and then trim even with the fin edges. Then, cut out the grey leading edge cuffs (these cuffs are optional at your choice) and sharply fold along the centerline. Carefully peel the cuff backing away, center the fold over the leading edge of each fin, and then adhere the cuff to both sides of fins. Trim root and tip of cuff flush with fin edges. Finally, cover the vertical fin with the "NASA Stripe" skins (**A**). Locate the white leading and trailing edge cuff skins and apply them first, then apply the white NASA strip skins to each side of the fin. It is best to trim the leading and trailing edges the NASA stripe skins about 1/32 short of the leading edge so the seam falls just inside the leading and trailing edges.



**If after applying this skin section you can't satisfactorily remove wrinkles at the compound curve, cut along this line and remove wrinkled strip. You should be able to remove remaining wrinkles by rolling (don't slide!) a warm clothes iron or covering iron over the remaining wrinkles. Then apply the aft nosecone skin, butting it against the aft edge of this nosecone wrap. Its forward edge will also have wrinkles that you should be able to "iron out". This is the most challenging part of skinning the nosecone. Take your time and be patient!**

The biggest challenge in applying the skin to the Trajectory and Interceptor nosecones is making the skin conform to the curve where the conical section of the nose meets the cylindrical aft section. The skin material WILL heat shrink to a slight degree by using either a clothes iron or, preferably, an iron intended for applying plastic coverings to model airplanes (typically called a "Monokote Iron"...an invaluable tool to have in your toolbox for many uses). I set my "Monokote" iron to half max and slowly "roll" it over the wrinkle (don't slide the iron on the skin or you risk damaging the skin). Apply only light pressure as you roll the iron over the affected area. Only apply the iron to the surface 2-3 seconds at a time so that you don't heat the underlying plastic of the nosecone enough to deform it.

With a clothes iron, due to its size, it may be easier to rest the iron in its "parked" (standing) position and roll the affected area of the nosecone over the stationary surface of the iron.

A few minutes of work with the iron and a bit of patience will go a long way.

If you can't get all the wrinkles out of the forward skin section, cut along the line indicated above and remove the wrinkled strip. Then, apply the aft skin, butting it against the edge of the forward skin. It will likely have wrinkles so repeat the "ironing" process for the aft skin.

Sometimes you just can't satisfactorily get all the wrinkles out. In such cases, you can carefully cut the middle "V section" out of the wrinkle and get the edges to lay flat. Then, you can use the provided "camouflage strip" provided to wrap around and cover the excised wrinkle areas.