

## HISTORY

More *F-4 Phantom II*'s have been produced than any other modern warplane. Over 5,000 *Phantoms* have rolled out of the factory since the initial flight of the first prototype in 1958. The *F-4 Phantom* in its different variants has been in production for over 20 years, a rather remarkable life span for a modern combat aircraft.

The one word which most readily describes the *Phantom* is adaptability. The *F-4* has appeared in many guises, and seems to perform each function admirably. Our kit depicts the photo-reconnaissance version. The *Phantom* has also served as a fighter-interceptor, bomber and attack aircraft.

The *F-4 Phantom II* is one of the very few modern aircraft which can truly be considered as a legend in its own time.

## SPECIFICATIONS

Power	2	General Electric J79-GE-15 turbo jets
Weight		29,000 lbs (empty)
Span		38 ft., 4 7/8 in.
Length		62 ft., 11 3/4 in.
Height		16 ft., 5 1/2 in.
Max. Speed		Mach 2.2
Service Ceiling		70,000 ft.
Combat Radius		900 miles

## REFERENCES

- F-4 Phantom "In Action", Phantom II (A Pictorial History)* (Squadron/Signal Publications)  
*Janes All the Worlds Aircraft 1958 through 1980* (McGraw/Hill)

Before you begin construction of your RF-4 study pages 9 and 10. Your model can be constructed as a special Bicentennial Marine RF-4 from the 1976 time period or a U.S. Air Force RF-4 of the pre-Vietnam camouflage era - 1964. Basic colors are the same with difference being in the decal markings. Both types of markings are historically significant.

## BEFORE STARTING

1. Study the illustrations and sequence of assembly before beginning.
2. Decide how much detail you wish to add to your model and whether or not you intend to modify or "convert" the basic model in any way. Study carefully all available reference material before beginning to ensure an authentic model.
3. Due to the amount of parts in this kit, do not detach the parts from the runner of the parts tree until you need them. This helps avoid confusion and lost parts.
4. When cementing the parts together, check the way one part fits together with another. This assures a neat job with no surprises.
5. Always remember when working with plastic model cement and paint to keep your work area well ventilated. The fumes from plastic modeling products can be harmful if inhaled.

## PREPARATION OF PARTS

1. Never tear parts off the runner (parts tree). Use a Testor Hobby Knife, fingernail clippers, or a small wire cutters to remove the parts from the tree.
2. It is possible some parts may require a little attention with a file or sandpaper to ensure a proper fit and neat appearance. Hobby files and Testor Hobby Sandpaper appropriate for model building are available in most good hobby shops.
3. If you desire you may fill any seams (where parts go together) or imperfections with Testor Contour Putty for Plastic Models which is also available at good hobby shops.

## PAINTING

You can obtain an excellent finish on your model using Testor finish preparation products and paints. Detailed descriptions of paint types and color are included on the pages that follow.

Good brushes are essential for proper detailing. Testor *Model Master* brushes are recommended and available at good hobby stores. Be sure you have the entire selection for all your modeling needs. Always clean them in Testor thinner, wash in soap and water, and store with bristles upward when not in use.

Wash plastic parts before detaching them from the parts tree. Warm water and liquid dishwashing detergent will remove the oils left from the manufacturing process. Let the parts dry and avoid excessive handling. Immediately before painting, wipe the parts with a "tac rag" (available at auto parts stores) to remove dust and lint.

Most small parts are best painted while still attached to the parts tree. You can also detach them and hold with tweezers or "magic" tape while painting. Paint in one direction only. If your paint is the correct thickness brush strokes will disappear as the color dries. If the paint seems too thick, thin with Testor Paint Thinner. Wheels may be detached from the parts tree and fit onto toothpicks or matchsticks for painting. Just hold the paintbrush against the edge of the wheel and rotate the stick and wheel to obtain a neat finish.

Let the paint dry completely before handling. When the parts are dry, assemble the model, following the directions closely. Remember cement will not hold strongly to painted surfaces. Use your Testor Hobby Knife to carefully remove paint from all surfaces to be cemented. After you have assembled the model you can touchup areas where cement might have marred the finish.

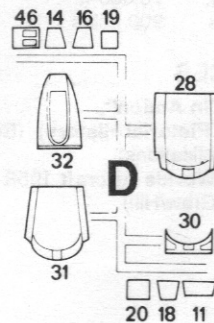
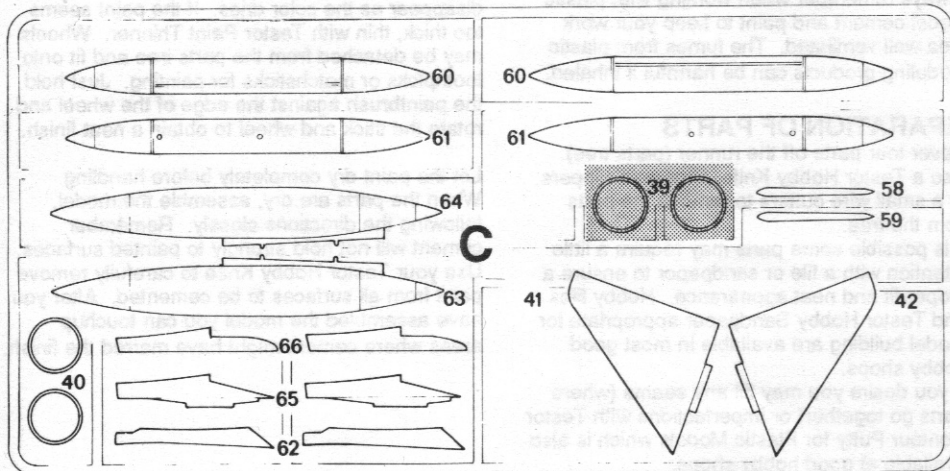
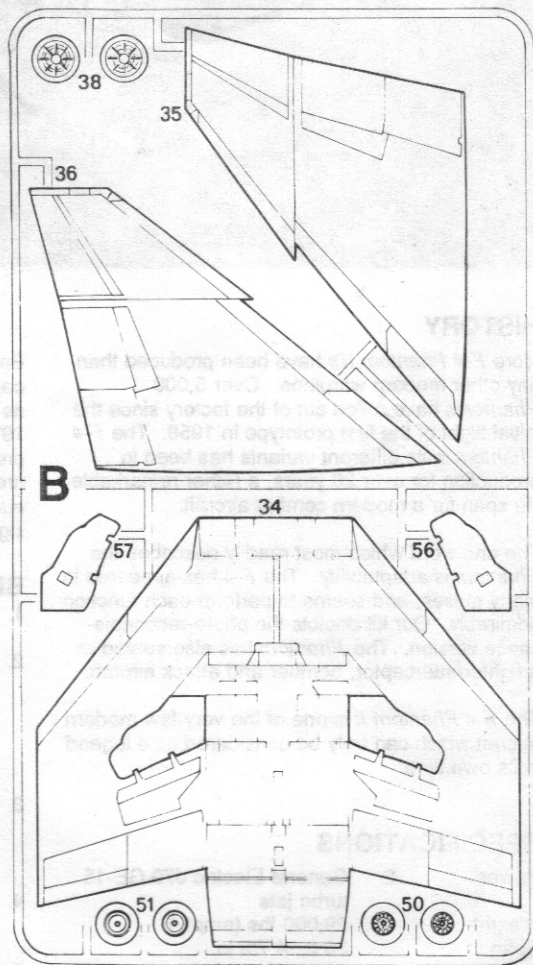
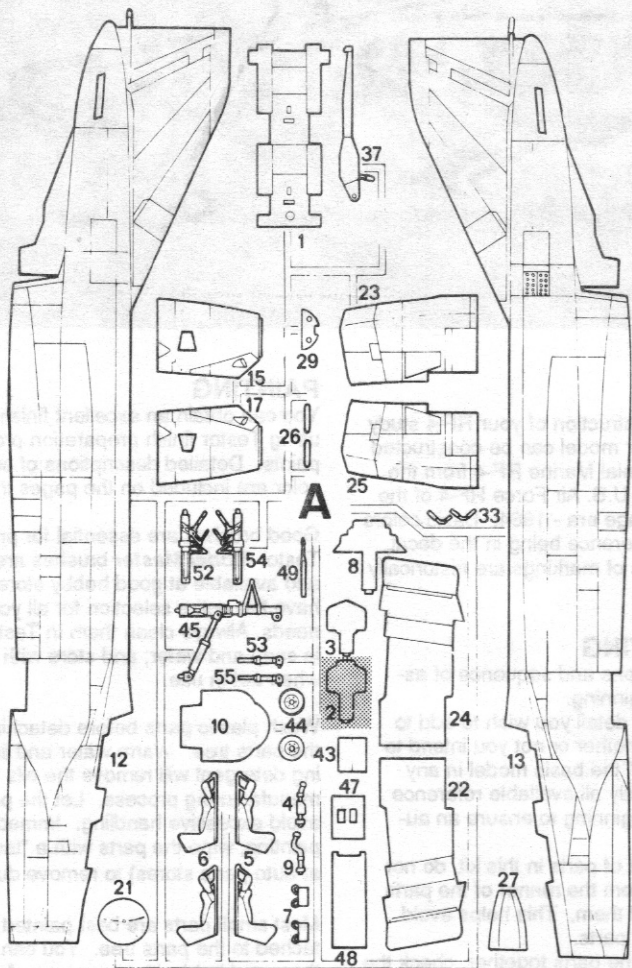
Use the drawings of the complete parts trees as a part locating reference while building the model.

Tweezers will be useful in assembling the many small parts in this kit. The type used by postage stamp collectors is recommended.

**Note:** Parts in shaded areas are not used in assembly of this kit.

Liquid cement, Testor #3502, is recommended for construction since it can produce the neatest, quickest, and strongest glue joints. Apply small amounts of cement, using the tip of a Testor **Model Master** No. 2 brush, to the surfaces to be joined while holding the parts in place. **Do not** use large amounts of cement.

The Testor **Model Master** paint system is specially designed to be used on military models. The **Preliminary Painting** instructions on this sheet indicate which **Model Master** colors to use as indicated by name and Federal Standard (FS) number. These colors are called out by **bold italic type**. Wherever **Model Master** colors are not applicable the required Testor color will be called out by number and name in **regular bold type**.



# 1 COCKPIT ASSEMBLY

## Preliminary Painting

**A1, A3, A4, A8, A9 and A10:**

**No. 1721 Medium Gray**

**A4, A9 hand grips only; A5, A6, A7:**

**No. 1749 Flat Black**

**A7 pull rings only:**

**No. 1745 Insignia White with No. 1103**

**Red stripes (see photos on box)**

**A5, A6 cushions only:**

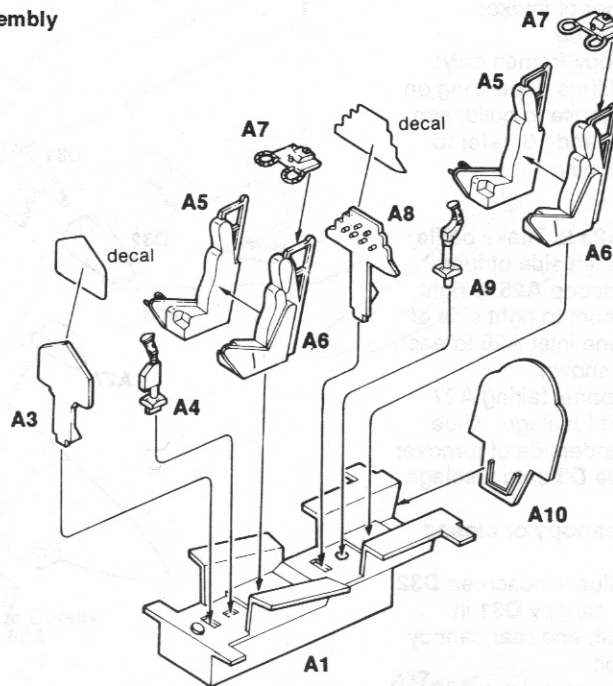
**No. 1171 Flat Beret Green**

## Assembly

1. Apply instrument panel decal to instrument panel **A3**. Notice that the shape of the decal corresponds to the shape of the part. Cement instrument panel into forward notch in floor of crew module **A1**.
2. Cement ejector seat halves **A5** and **A6** together, making two sets. Now glue one head protector shield **A7** to the top of each seat, set aside to dry. Cement pilot's control column **A4** into slot in front cockpit and rear control column **A9** into hole in rear cockpit.
3. Apply instrument panel decal to rear instrument panel **A8** matching the decal with the shape of the part. Glue one ejector seat assembly into the front cockpit as shown in drawing. Cement rear instrument panel **A8** into slot behind pilot's seat. Glue remaining ejector seat into place in rear cockpit, then cement rear bulkhead **A10** to rear of cockpit module.

**NOTE:** Before beginning, parts **A2** and **C39** should be discarded to avoid confusion.

Cockpit Assembly



**Note:** Clear parts are best glued in place with white glue. White glue will not mar the plastic and thus results in a better appearance than conventional model cement.

# 2 FUSELAGE ASSEMBLY

## Preliminary Painting

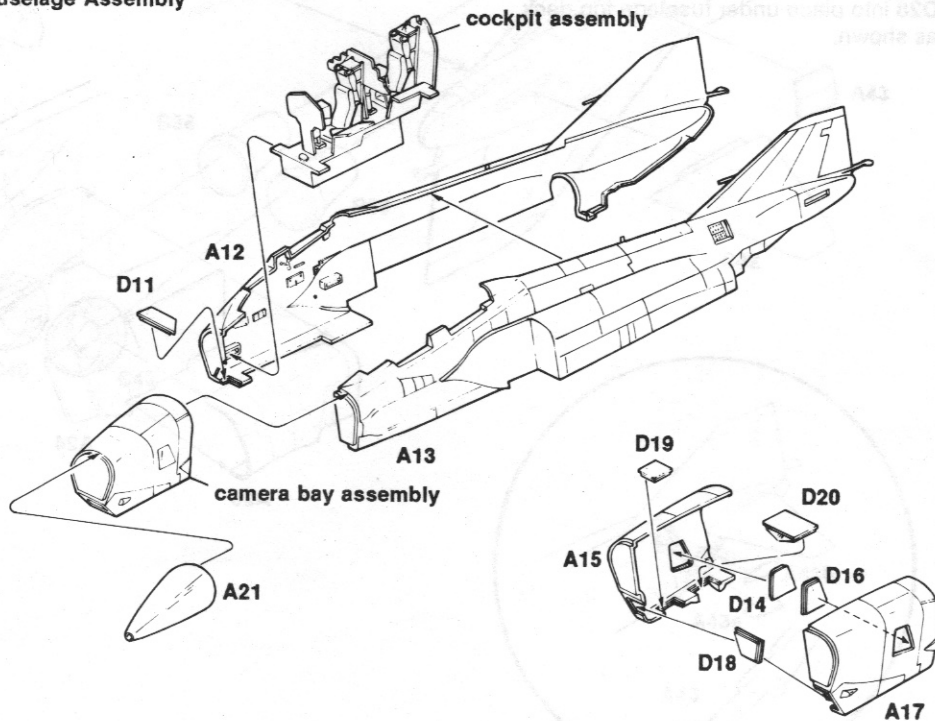
**A12, A13, inside walls of cockpit area:**

**No. 1721 Medium Gray**

## Assembly

1. Glue camera window **D11** into notch in fuselage half **A12** and then cement cockpit assembly into locating lugs inside **A12**. Now cement fuselage halves **A12** and **A13** together, making sure that **D11** and cockpit assembly line up properly inside fuselage.
2. Glue camera window **D14** into hole inside camera bay half **A15**. Glue window **D16** into camera bay half **A17**. Glue camera windows **D18**, **D19** and **D20** into **A15** at positions shown in drawing. Now cement camera bay halves **A15** and **A17** together, making sure that all windows fit flush with the underside of camera bay.
3. Cement finished camera bay to front of fuselage. Cement nose cone **A21** to front of camera bay.

Fuselage Assembly



Camera Bay Assembly

### 3 CANOPY/INTAKES ASSEMBLY

#### Preliminary Painting

**A27, A29, A33:**

*No. 1749 Flat Black*

**A22, A23, A24, A25 interior of intakes:**

*No. 1745 Insignia White*

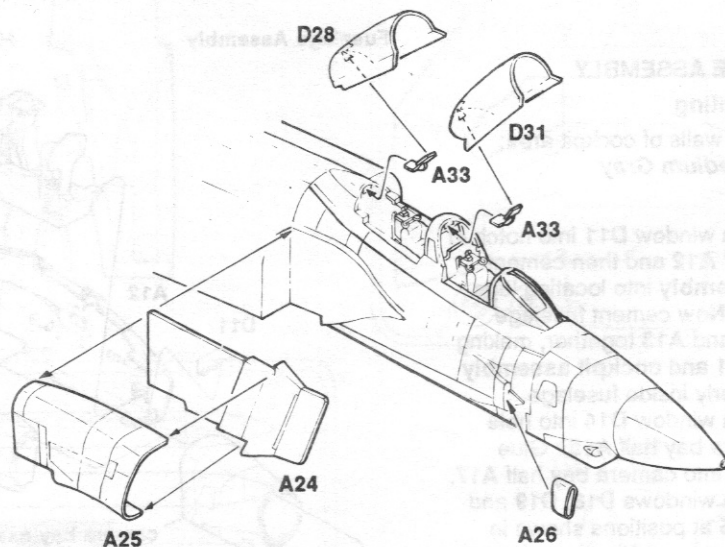
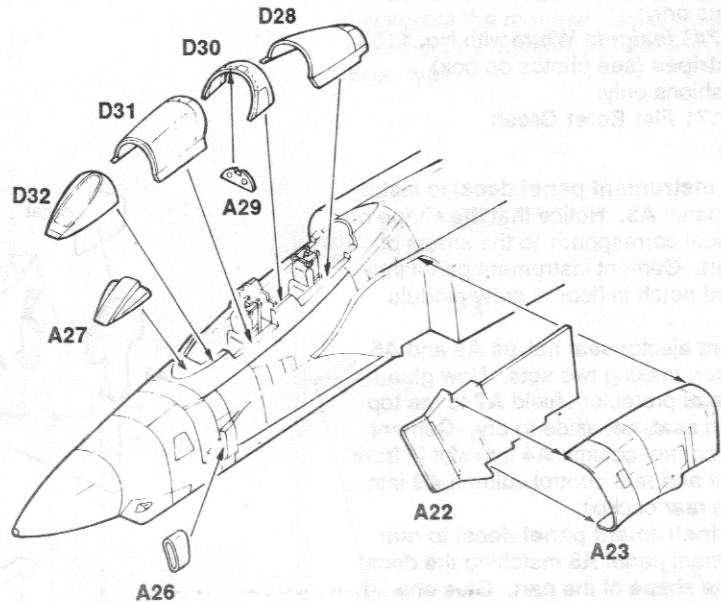
**D28, D30, D31, D32 canopy frames only:**

overall body color (differs depending on which version you choose to build; see drawings on pages 9 and 10, refer to box photos for positioning.)

#### Assembly

1. Cement left scoop **A23** to intake baffle **A22**, then cement to left side of fuselage. Cement right scoop **A25** to right baffle **A24**, then cement to right side of fuselage. Cement one inlet **A26** to each side of fuselage, as shown.
2. Cement instrument panel fairing **A27** into place on forward fuselage. Glue bulkhead **A29** into underside of turnover pylon **D30**. Now glue **D3** onto fuselage in position shown.
3. Select either **open canopy** or **closed canopy**.
4. **Closed Canopy:** Glue windscreen **D32** in place. Glue front canopy **D31** in place on front cockpit, and rear canopy **D28** onto rear cockpit.
5. **Open Canopy:** Glue one hinge **A33** to rear of each canopy **D28** and **D31** as shown and allow these to dry. Cement windscreen **D32** into place on forward fuselage. After hinges have hardened, glue the hinge on forward canopy **D31** into the underside of turnover pylon **D30**. Cement the hinge on rear canopy **D28** into place under fuselage top deck, as shown.

#### Canopy/Intakes Assembly



**Note:** Clear parts are best glued in place with white glue. White glue will not mar the plastic and thus results in a better appearance than conventional model cement.

# 4 WINGS ASSEMBLY

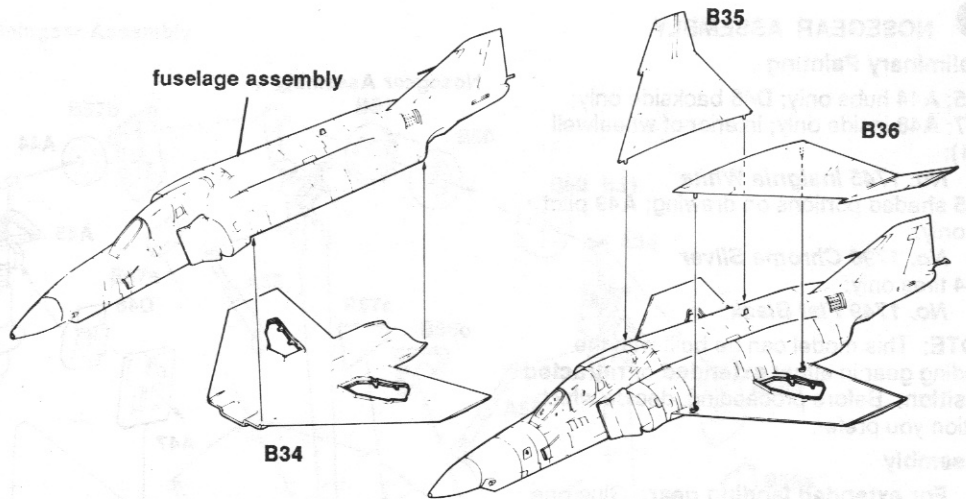
## Preliminary Painting

B34, B35, B36 interior of wheelwells:  
**No. 1745 Insignia White**

## Assembly

1. Cement lower wing **B34** to underside of fuselage. Cement right upper wing half **B35** to right lower wing, then cement left upper wing half **B36** onto left lower wing.

Wings Assembly



# 5 REAR FUSELAGE DETAILS

## Preliminary Painting

A37, C40:  
**No. 1796 Jet Exhaust**

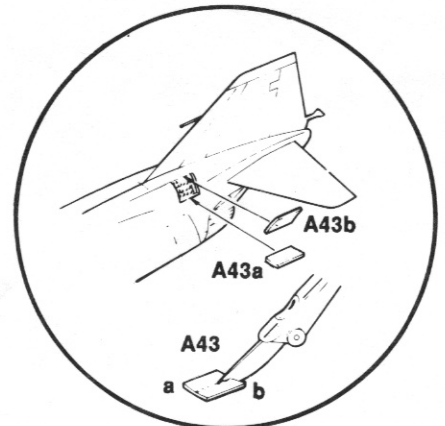
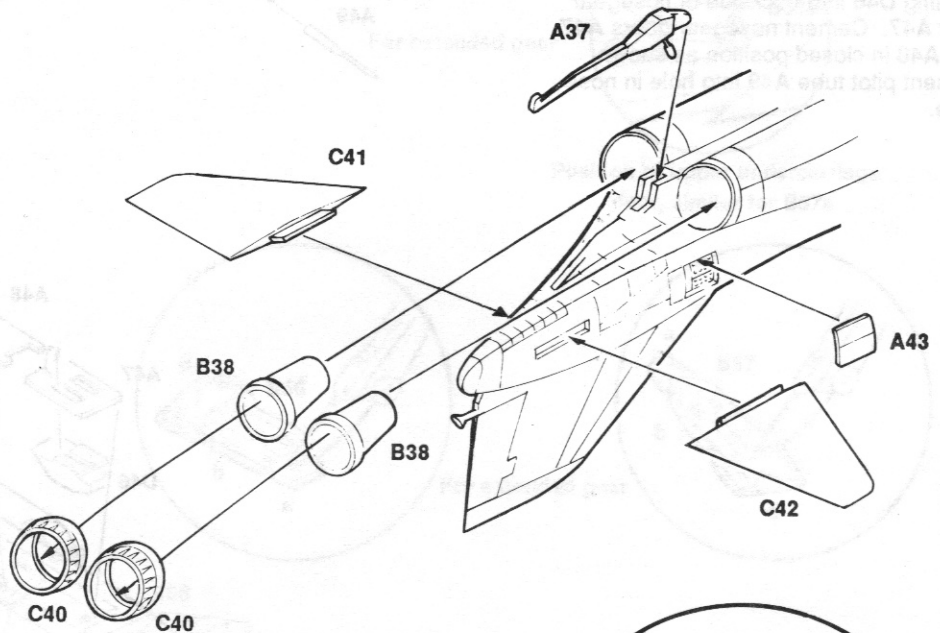
B38:  
**No. 1749 Flat Black**

A43 inside doors and interior of photo flash ejector chute:  
**No. 1705 Insignia Red**

## Assembly

1. Cement arrestor hook **A37** to underside of fuselage. Glue turbine housings **B38** onto rear of fuselage, then cement tail cones **C40** in place as shown.
2. Cement right stabilizer **C41** and left stabilizer **C42** onto fuselage. The photo flash ejector chute doors **A43** can be installed in the **open** or **closed** positions. For **closed** position, cement **A43** flush with fuselage surface. For **open** position, *carefully* cut **A43** in half as shown and cement **A43a** into lower position of ejector chute and **A43b** to upper position.

Rear Fuselage Details



# 6 NOSEGEAR ASSEMBLY

## Preliminary Painting

**A45; A44 hubs only; D46 backside only; A47; A48 inside only; interior of wheelwell (A1):**

**No. 1745 Insignia White**

**A45 shaded portions on drawing; A49 pitot tip only:**

**No. 1790 Chrome Silver**

**A44 tires only:**

**No. 1749 Flat Black**

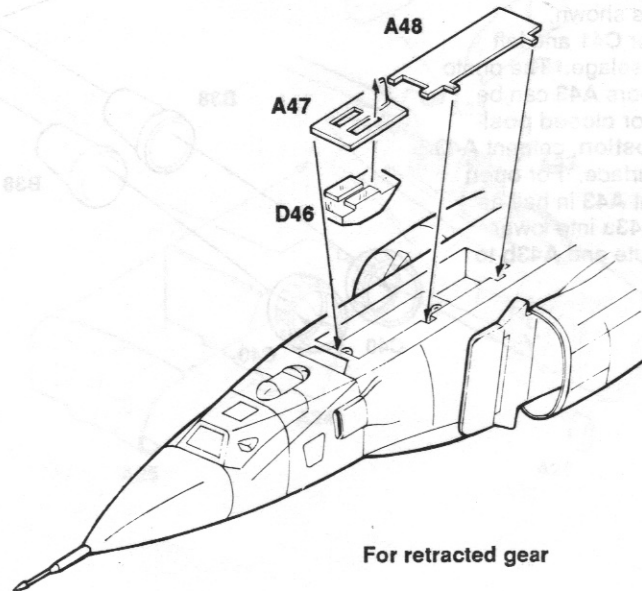
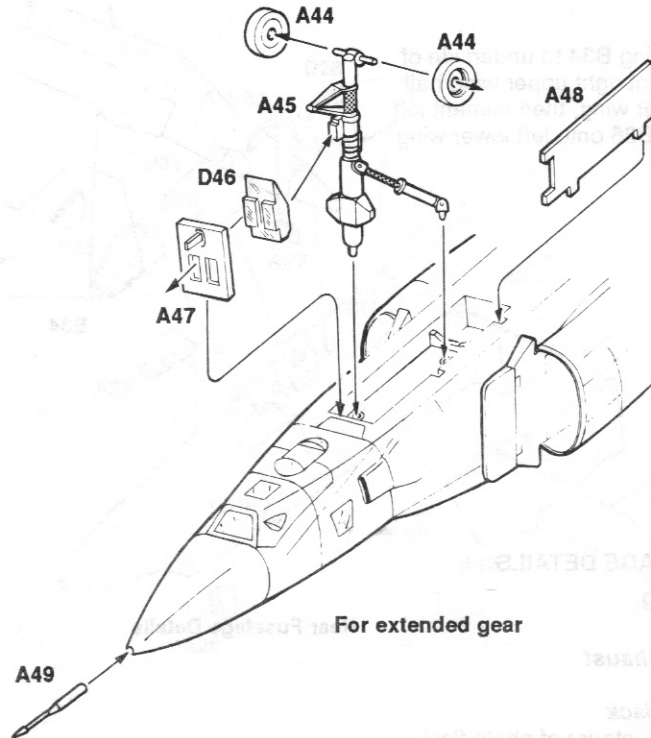
**NOTE:** This model can be built with the landing gear in either **extended** or **retracted** position. Before proceeding, decide which option you prefer.

## Assembly

- For extended landing gear:** Glue one nosewheel **A44** to each axle on nosegear strut **A45**. Cement **A45** into front wheelwell.
- Glue landing light housing **D46** onto inside of nosegear door **A47**, then cement **A47** into position as shown. Cement main nosegear door **A48** into notches at side of wheelwell. Glue pitot tube **A49** into hole in nose cone.
- For retracted gear:** Glue landing light housing **D46** into backside of nosegear door **A47**. Cement nosegear doors **A47** and **A48** in closed position as shown. Cement pitot tube **A49** into hole in nose cone.

Nosegear Assembly

**Note:** Clear parts are best glued in place with white glue. White glue will not mar the plastic and thus results in a better appearance than conventional model cement.



# 7 MAINGEAR ASSEMBLY

## Preliminary Painting

A52, A53, A54, A55; B50, B51 wheel hubs only; B56, B57 insides only:

*No. 1745 Insignia White*

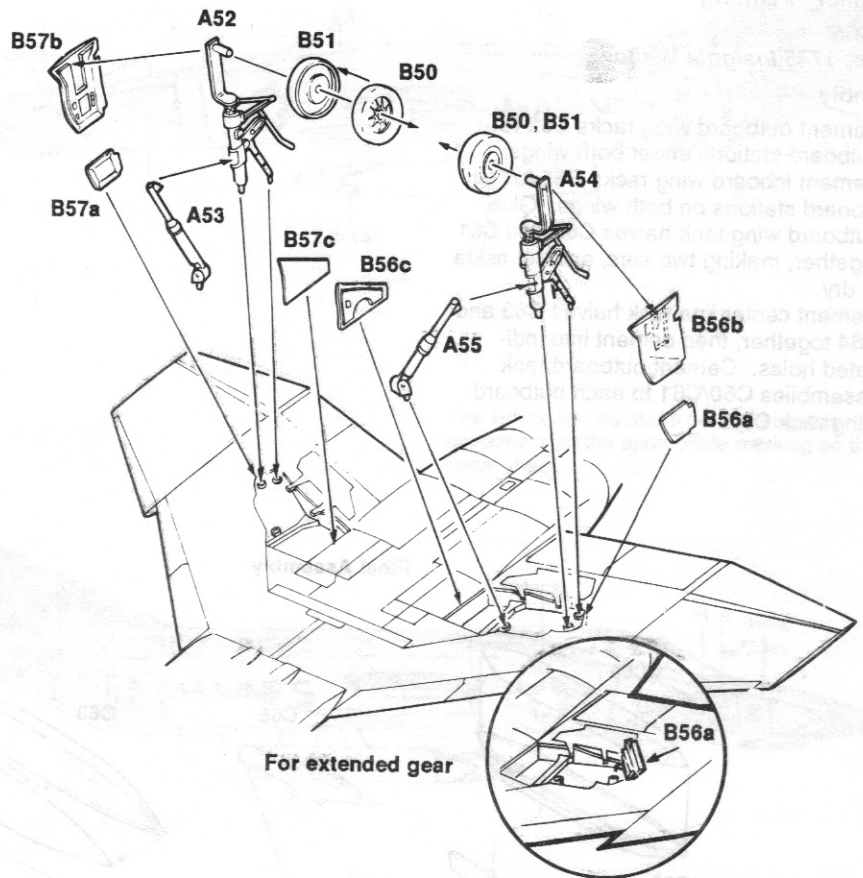
A52, A54 shade portions on drawing:

*No. 1790 Chrome Silver*

## Assembly

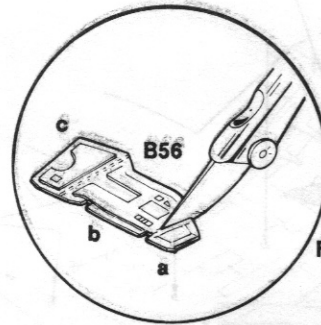
1. **For extended landing gear:** Cement wheel halves B50 and B51 together, making two sets. Cement one wheel assembly to each main landing gear strut A52 and A54. Glue landing gear strut A52 into left wheelwell and right strut A54 into right wheelwell.
2. Glue left actuator A53 into hole in left wheelwell and notch on left landing gear strut A52. Cement right actuator A55 into right wheelwell and strut A54. Cut maingear doors B56 and B57 into three pieces, as shown in drawing.
3. Cement door B56a onto underside of wing at an angle so that it is parallel with the outer edge of the wheelwell. (See inset.) Repeat procedure with door B57a under left wing. Glue door B56b to landing gear strut A54. Cement door B57b to left strut A52.
4. Cement door B56c to edge of right wheelwell. Glue door B57c to edge of left wheelwell. Cement wing hinge fairing C58 to underside of left wing and hinge fairing C59 under right wing.
5. **For retracted landing gear:** Glue right maingear door B56 into right wheelwell. Cement door B57 into left wheelwell. Cement wing hinge fairing C58 under left wing and hinge fairing C59 under right wing.

Maingear Assembly

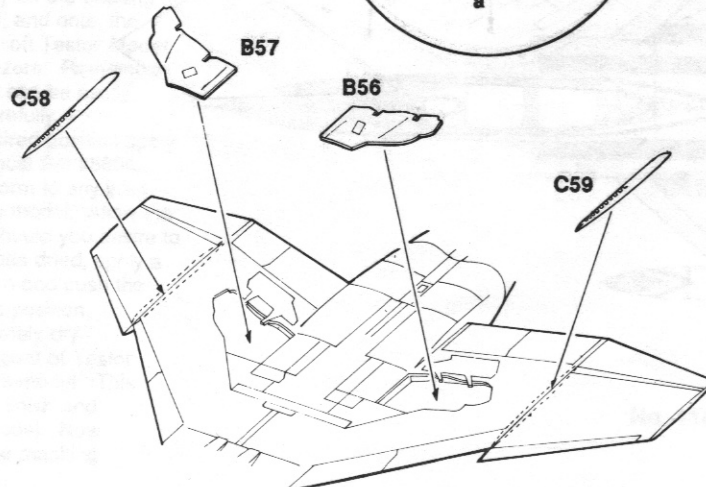
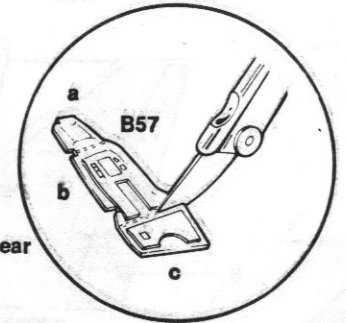


For extended gear

Position of upper undercarriage door, similar for B57a



For extended gear



For retracted gear

# 8 FINAL ASSEMBLY

## Preliminary Painting

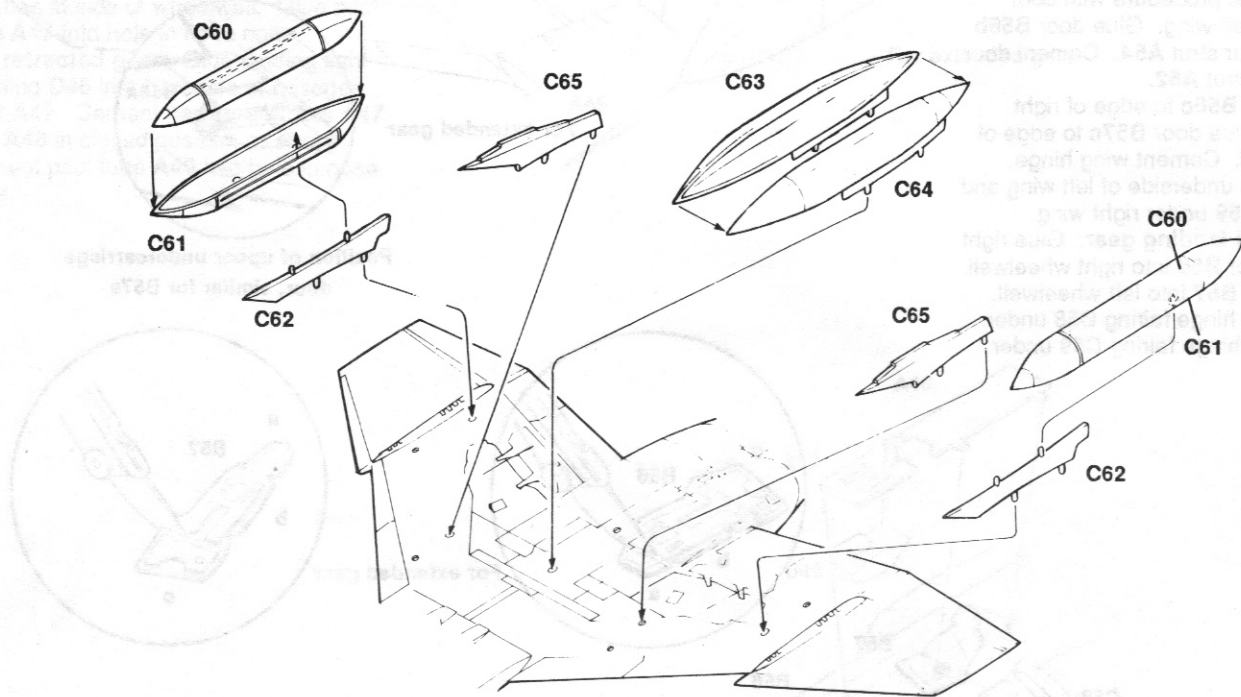
C62, C65:

No. 1745 Insignia White

## Assembly

1. Cement outboard wing racks C62 to outboard stations under both wings. Cement inboard wing racks C65 to inboard stations on both wings. Glue outboard wing tank halves C60 and C61 together, making two sets, and set aside to dry.
2. Cement center line tank halves C63 and C64 together, then cement into indicated holes. Cement outboard tank assemblies C60/C61 to each outboard wing rack C62.








### Final Assembly

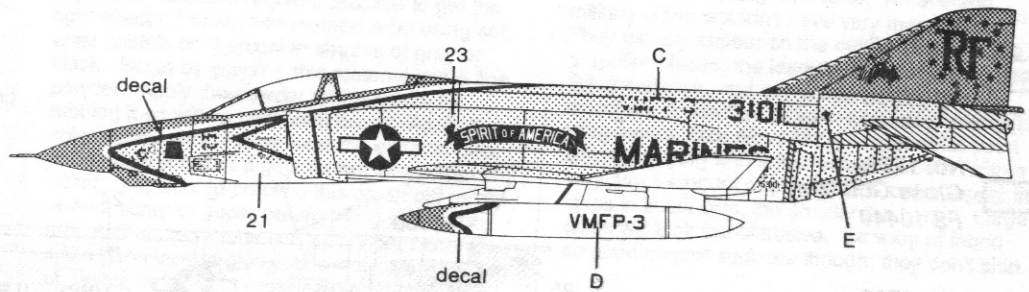




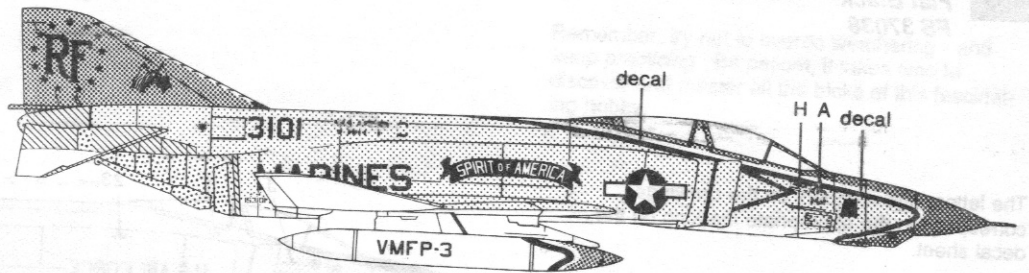
PAINTING

RF-4, U.S. Marine Squadron VMFP-3,  
July 1976

-  No. 1729  
Gloss Gull Gray  
FS 16440
-  No. 1745  
Insignia White  
FS 17875
-  No. 1717  
Dark Sea Blue  
FS 15042
-  No. 1790  
Chrome Silver  
FS 17178
-  No. 1796  
Jet Exhaust
-  No. 1749  
Flat Black  
FS 37038
-  No. 1705  
Insignia Red  
FS 31136

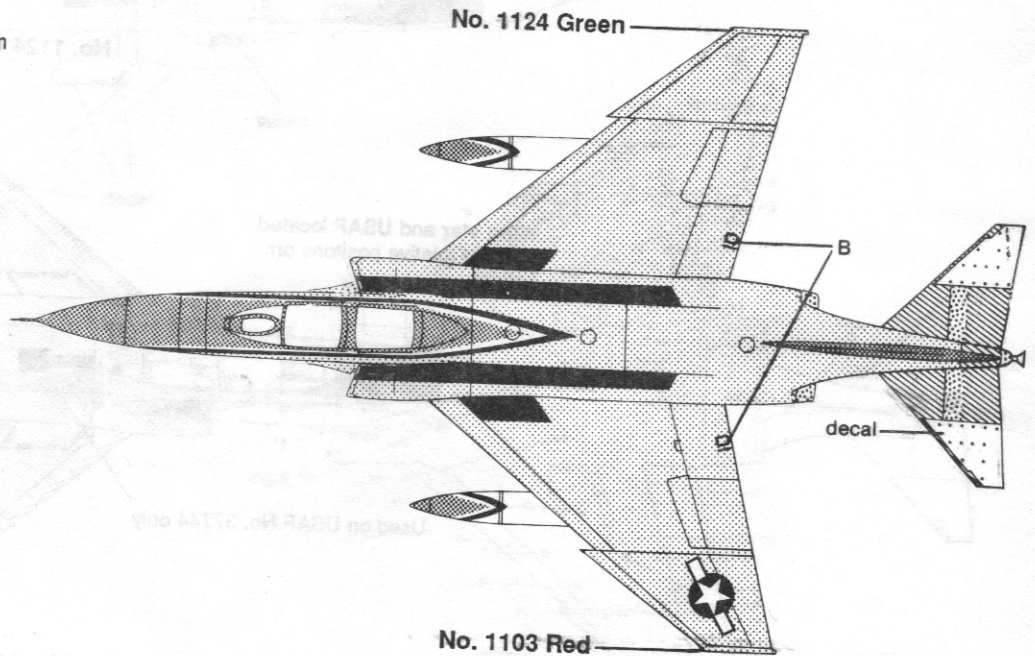


The letters and numbers on the drawings correspond to the appropriate marking on the decal sheet.








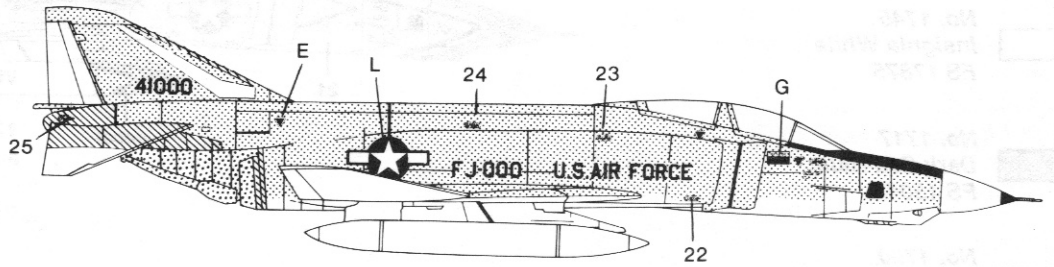
APPLYING DECALS

1. After carefully masking clear areas, spray entire model with Testor Glosscote #1261. Decals adhere best to a smooth surface and the shinier the finish the smoother it is. Allow the Glosscote to dry before going further.
2. Select the decals you plan to use and cut them from the decal sheet with scissors or a Testor Hobby Knife.
3. Working with only one decal at a time, dip the decal in clear water for no more than five seconds. Remove it from the water and place on a dry paper towel for about one minute.
4. When the decal slides easily on the backing paper, slide it to the edge of, and onto, the surface of the model with a soft Testor *Model Master* paint brush or tweezers. Remember the decals are very thin and can be easily ripped. Work slowly and carefully.
5. Once the decal is in the desired position apply a small amount of Testor Decal Set #8804. This will help the decal conform to any irregularities in the surface of the model. Allow the decal to dry undisturbed. Should you desire to purposely move it before it has dried, apply a little Decal Set to a soft brush and push the decal slowly into the desired position.
6. When the decals are completely dry (usually overnight), apply a coat of Testor Dullcote, #1260, to the entire model. This will give it an authentic, dull finish and protect the surface of the model. Now you can carefully remove the masking from the clear parts.



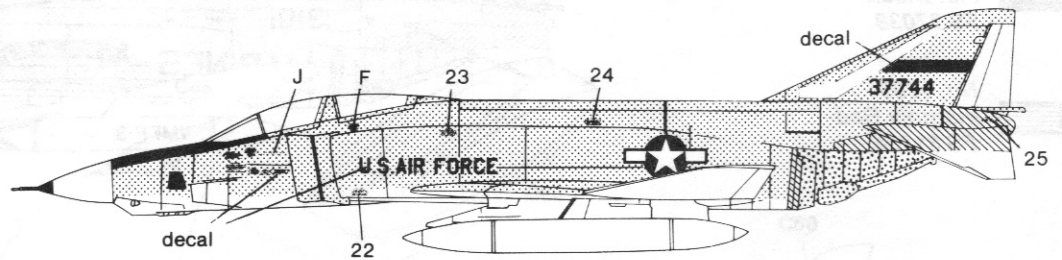
**PAINTING**

-  **No. 1745**  
**Insignia White**  
**FS 17875**
-  **No. 1729**  
**Gloss Gull Gray**  
**FS 16440**
-  **No. 1796**  
**Jet Exhaust**
-  **No. 1790**  
**Chrome Silver**  
**FS 17178**
-  **No. 1749**  
**Flat Black**  
**FS 37038**

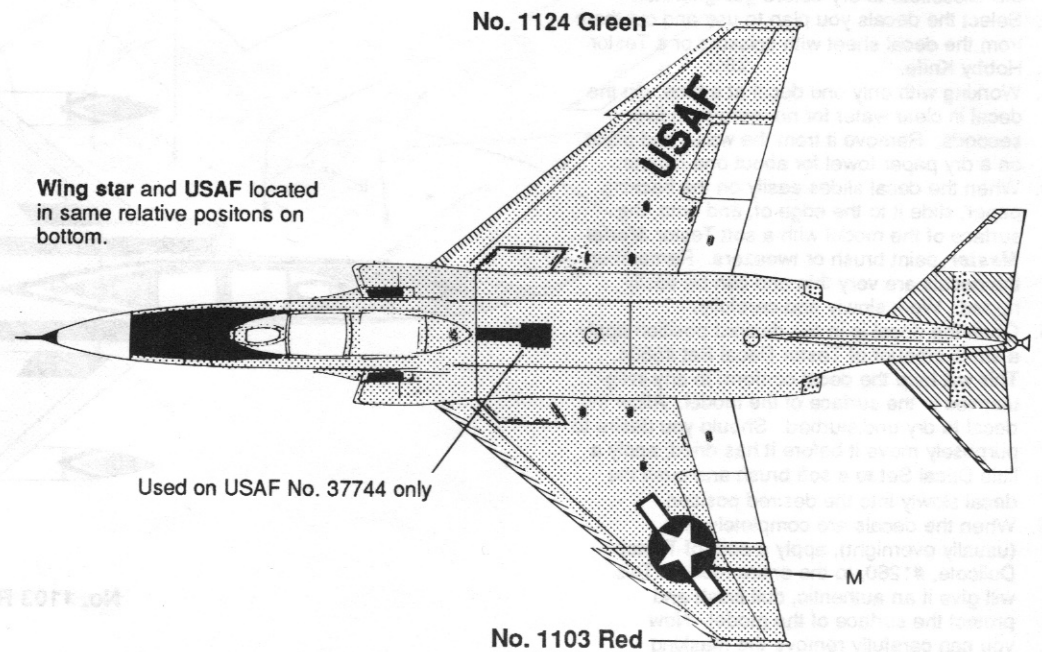


**RF-4C, U.S. Air Force 30th TRS, 1964**

The letters and numbers on the drawings correspond to the appropriate marking on the decal sheet.



**RF-4C, U.S. Air Force ASD, 1963**



Wing star and USAF located in same relative positions on bottom.

Used on USAF No. 37744 only

No. 1124 Green

No. 1103 Red

### WEATHERING HINTS

Nearly all military aircraft show some signs of wear. The process by which the modeler imparts this look to the model is referred to as **weathering**. Many times the weathering, that is, the representing on the model of soot, oil stains, or chipped paint, etc., can really make a model stand out and give it amazing authenticity.

After you have painted your model the proper colors, you can add the decals. If you first paint your model with Testor Glosscote, the decal carrier film will seem to disappear. Apply one or two coats of Glosscote for a smooth, glossy finish. Then, after this dries, apply the decals. This gives them a "painted on" look. If you want your model to have a matte finish, wait 24 hours for the decals to dry. Then spray on one or two coats of Testor Dullcote. When dry, you can begin weathering.

Always try to be logical in applying weathering techniques. For instance, you wouldn't want to put exhaust stains on a model and then apply a bright clean decal to the sooty area. Airplanes are normally well cared for, so they don't usually appear very battered. However, soot stains do tend to collect behind exhaust stacks and sometimes oil leaks onto the outside of the plane.

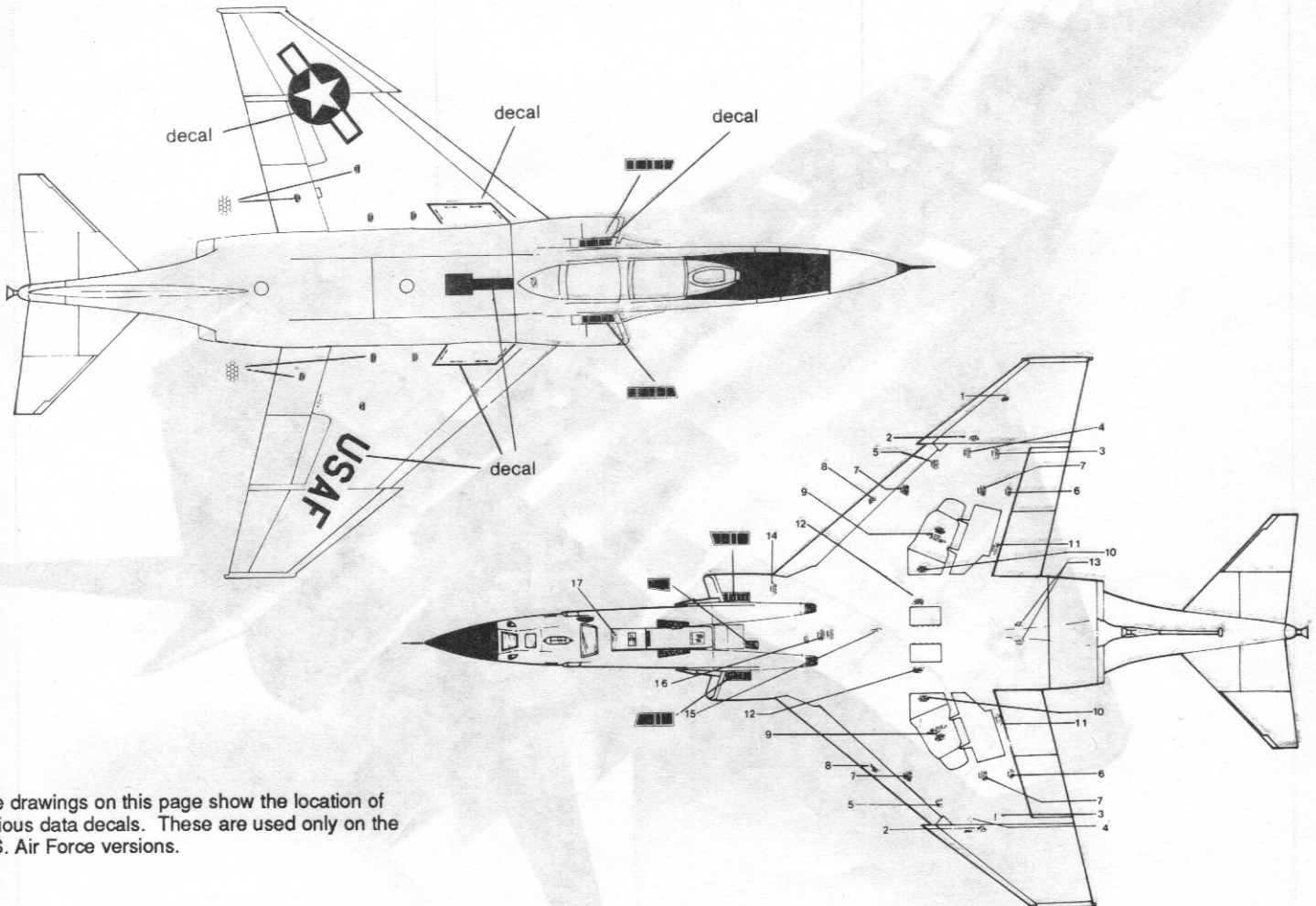
There are two methods of showing exhaust stains. The first is with an airbrush. This is a rather expensive item and requires practice to get the right effect. The second method is by using soft artist pastels or charcoal in shades of gray or black. Begin by grinding this material into a fine powder. Apply the powder to the model by rubbing it on with an old paint brush. Apply the color thicker and blacker near the exhaust outlet, and feather it out as it gets further away from the outlet. You should practice this on an old model or on a scrap of paper before trying it on your model. This technique is not very permanent, so it is a good idea to give your model a coat or two of Testor Dullcote to avoid rubbing off the stains.

Oil stains should be done very subtly. Oil really has very little color, so it only leaves light stains. Tint a small amount of thinner lightly with black paint. Add a small drop to the area you want to appear oily. Now with a strong breath, blow the "oil" back along the plane. Keep in mind the direction in which the planes flies, making sure you are blowing the "oil" from front to back. It is very easy to overdo this - one or two places are enough.

Paint chips are the simplest technique, but like the others, are easily overdone. An average military plane wouldn't have very many chips. They usually appear on the cutting edges of the propeller blades, the leading edges of wings and flying surfaces, and any areas where crew members or mechanics walk across the plane (i.e. wing roots). Use **No. 1781 Aluminum** for paint chips, applying with a fine pointed brush. With a very small amount of paint on the brush, apply the chips in small dots, the smaller the better. Large chips will look too obtrusive. Be wary of fabric covered control surfaces though; they don't chip.

Serious modelers collect books and photographs to use as reference when they finish their models. Your local hobby shop can help. Last, but certainly not least, your own observation will prove helpful. Visit museums and local airports, look at buildings and vehicles around you. Notice how rust streaks a metal roof. See the oil and dirt on a piece of road grading equipment. Study railroad boxcars and locomotives to see what the weather has done to them. Your own observation can be the best aid of all.

Remember: try not to overdo weathering - and **keep practicing**. Be patient, it takes time to discover and master all the tricks of this fascinating hobby.



The drawings on this page show the location of various data decals. These are used only on the U.S. Air Force versions.

# TURN PLASTIC INTO STEEL...

**...or magnesium or titanium or even burnt iron.** New Model Master Metalizer™ paints allow you to authentically duplicate almost any natural metal "plate" finish.



Premixed for airbrushing in 1/2 oz. bottles, Metalizer™ includes a wide range of buffing and non-buffing metallic colors. Spray Metalizer™ with your airbrush (internal or external mix) on clean, unpainted plastic model parts, let dry for about ten minutes, and then buff to the desired sheen with facial tissue or a soft cloth.

Subtle variances in color – that truly distinguish your model – are obtained by refining your buffing technique. Buff vigorously for one kind of effect, softly and easily for another. If you're painting an aircraft wing, for example, reflectance and tone can be precisely defined from

panel to panel. An automobile engine, with all of its metal parts, also is a perfect application for Metalizer.™ Add decals to a surface painted with Metalizer™ in the usual way.



Look for the Metalizer™ merchandiser and informative instruction booklets on top of the Testor Model Master paint racks in your favorite hobby store.

The Testor Corporation  
620 Buckbee Street  
Rockford, Illinois 61104



Model by: Mike Fritz

\*Manufactured under license from Metalizer Products

010494