McDonnell Douglas OA-4M Skyhawk Instructions



HISTORY

The OA-4M Skyhawk is the most recent A-4 variant to be added to the Navy and Marine Air inventory. In all, more than 3,000 A-4s, of various configurations for the Marine Corps, Navy and at least five foreign nations, have been built since production began in 1954. Manufactured by McDonnell Douglas, the TA-4F is the two-seater of which 23 were modified by the Navy to become OA-4Ms.

The OA-4M was especially developed for reconnaissance and ground attack missions. The Skyhawk's underwing racks can carry various airto-ground rockets and missiles - such as the AGM-45 Shrike as well as a variety of bombs. A lethal pair of 20mm cannon are mounted in the OA-4M's wing leading edge. For long-range missions two auxiliary fuel tanks can be hung from the inboard underwing racks.

The Skyhawk is equipped with the latest hi-tech avionics, transforming it into a state-of-the-art attack and surveillance aircraft. Characteristic features are the shortened avionics "hump" just aft of the cockpit and the distinctive ECM (Electronic Counter Measures) fairing located on top of the vertical stabilizer.

Your Skyhawk kit is provided with the markings of Marine Headquarters and Maintenance Squadrons 12 and 13, the "Outlaws", currently based in Iwakuni, Japan.

SPECIFICATIONS

Engine 1 Pratt & Whitney J52-P-408A Turbojet with

11,200 lbs thrust

Wingspan 27 ft 6 in Length 42 ft 7 in Max. Weight 27,000 lbs

Max. Speed (clean) 550 knts Max. Ceiling 46,500 ft

Armament 2 20mm MK 12 cannon

BEFORE STARTING

 Study the illustrations and sequence of assembly before beginning.

 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.

 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.

When cementing the parts together, check the way one part fits together with another. This assures a neat job with no surprises.

 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

- 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.
- 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.
- 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.

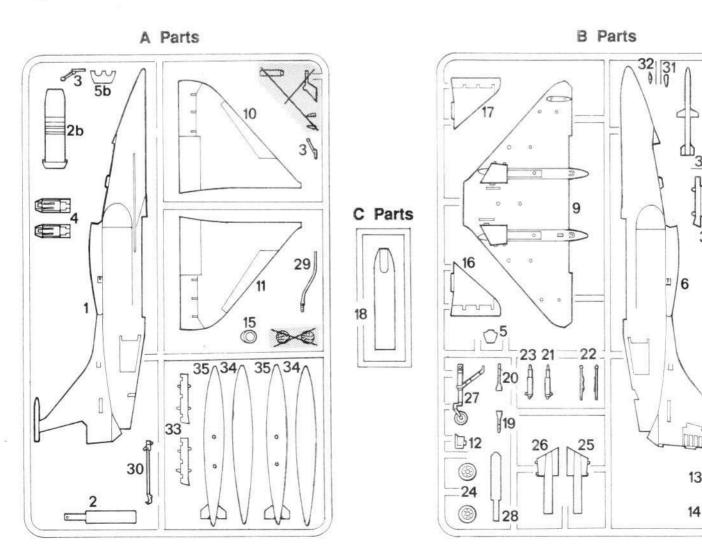
Liquid cement, Testor #3502, is recommended for construction since it can produce the neatest, quickest, and strongest glue joints. Apply small amounts of cement, using the tip of a Testor *Model Master* No. 2 brush, to the surfaces to be joined while holding the parts in place. **Do not** use large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

APPLYING DECALS

- 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 thoroughly before going further.
- Select the decals you plan to use and cut them from the decal sheet with scissors or a Testor Hobby Knife.
- 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 if care is not taken. 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 (rivets,curves, etc.). 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.

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



TUSELAGE ASSEMBLY

Preliminary Painting

Paint parts as indicated by italic letter callouts using the COLOR KEY on this page.

Assembly

- Cement two A3 and two A4 to A2.
 Cement A2 onto A2b. Allow parts to dry thoroughly.
- Cement B5 and A5b to fuselage half A1 as shown. Cement completed cockpit as assembled above into fuselage half A1.
- Add nose weight inside fuselage half
 A1 see NOTE at right.
- Carefully cement fuselage halves A1 and B6 together, insuring proper alignment of instrument panels B5; A5b and cockpit assembly.

COLOR KEY

Testor Model Master Bottle Paints

A No. 1740 Dark Gull Gray FS 36231

B No. 1749 Flat Black FS 37038

C No. 1745 Insignia White FS 17875

D No. 1790 Chrome Silver FS 17178

E No. 1709 Radome Tan FS 33613

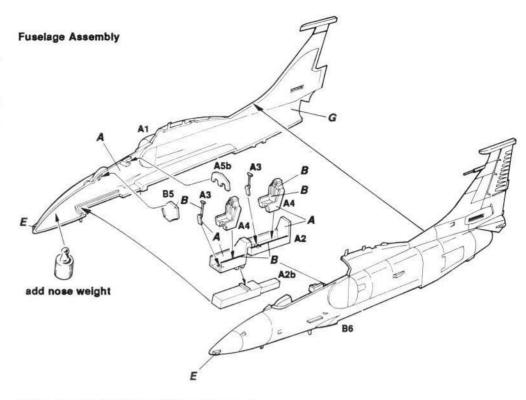
F No. 1795 Gunmetal

G No. 1796 Jet Exhaust

Testor Bottle Paints

H No. 1124 Green

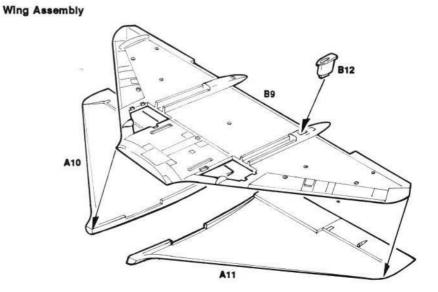
J No. 1103 Red



Note: In order for this model to rest properly on its tricycle landing gear, weight must be added inside the nose before assembling the fuselage halves. Lead split shot as used in fishing is recommended. Lead weights should be held in place with modeling clay or epoxy...do not use plastic cement!!

WING ASSEMBLY Preliminary Painting - None Assembly

 Cement parts together as shown in the illustration.



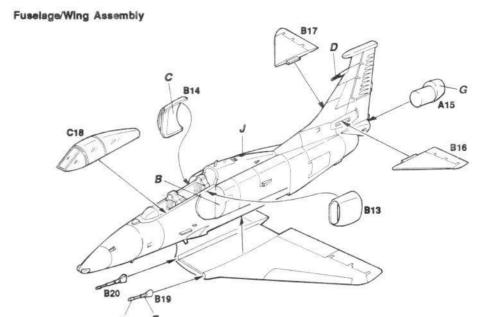
Note: Clear parts are best glued in place with white glue. White glue will not mar the plastic and thus results in a better appearance than conventional model cement.

FUSELAGE / WING ASSEMBLY ,

Paint parts as indicated by italic letter callouts using the COLOR KEY on pg. 5.

Assembly

 Cement all parts together as shown in the illustration.

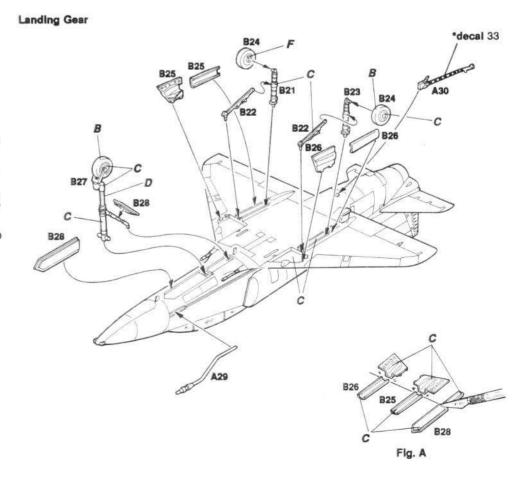


4 LANDING GEAR Preliminary Painting

Paint parts as indicated by italic letter callouts using the COLOR KEY on pg. 5.

Assembly

- Landing Gear Retracted: Cement landing gear doors B25, B26 and B28 flush against wing and fuselage in a "closed" position. Cement A29 and A30 in place as shown.
- 2. Landing Gear Extended: Refer to Fig. A below and carefully separate landing gear doors B25, B26 and B28 as shown using a sharp hobby knife. Cement B27 into nose, then cement nose door parts B28 in place. Cement one wheel B24 to left main gear strut B21. Cement B21 into left main gear well as shown. Cement one actuator B22 to B21 and gear well. Cement left main gear door parts B25 in place on wing as shown. Repeat procedure for right landing gear using remaining wheel B24, right strut B23, remaining actuator B22 and right gear door parts B26. Apply decal 33 to A30 and allow decal to dry thoroughly. Cement A29 and A30 in place as shown.



Note: It may be easier to paint and decal your model if underwing stores and/or armament are left off until model is completely finished.

FINAL ASSEMBLY

Preliminary Painting

Paint parts as indicated by italic letter callouts using the COLOR KEY on this page.

Assembly

1. Cement parts together as shown.

COLOR KEY

Testor Model Master Bottle Paints

No. 1740 Dark Gull Gray FS 36231

No. 1749 Flat Black FS 37038

No. 1745 Insignia White FS 17875 No. 1790 Chrome Silver FS 17178

No. 1709 Radome Tan FS 33613

No. 1795 Gunmetal

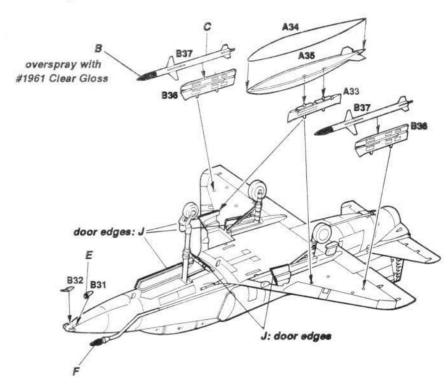
No. 1796 Jet Exhaust

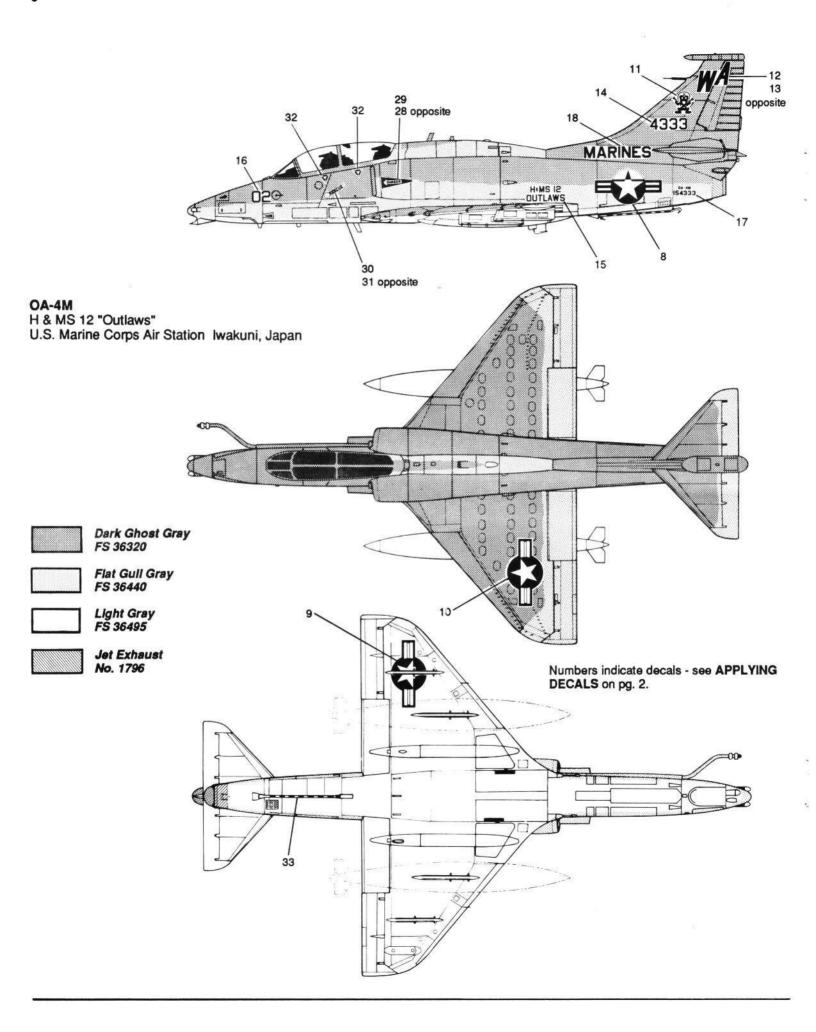
Testor Bottle Paints

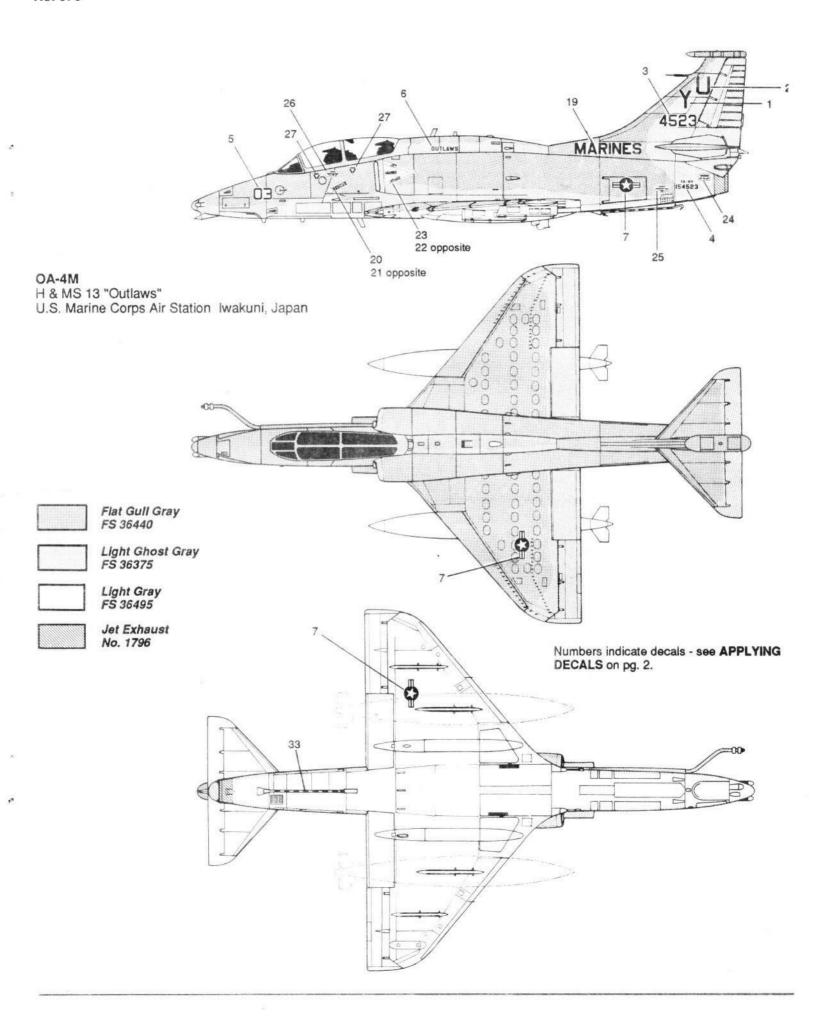
No. 1124 Green

No. 1103 Red

Final Assembly







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.



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