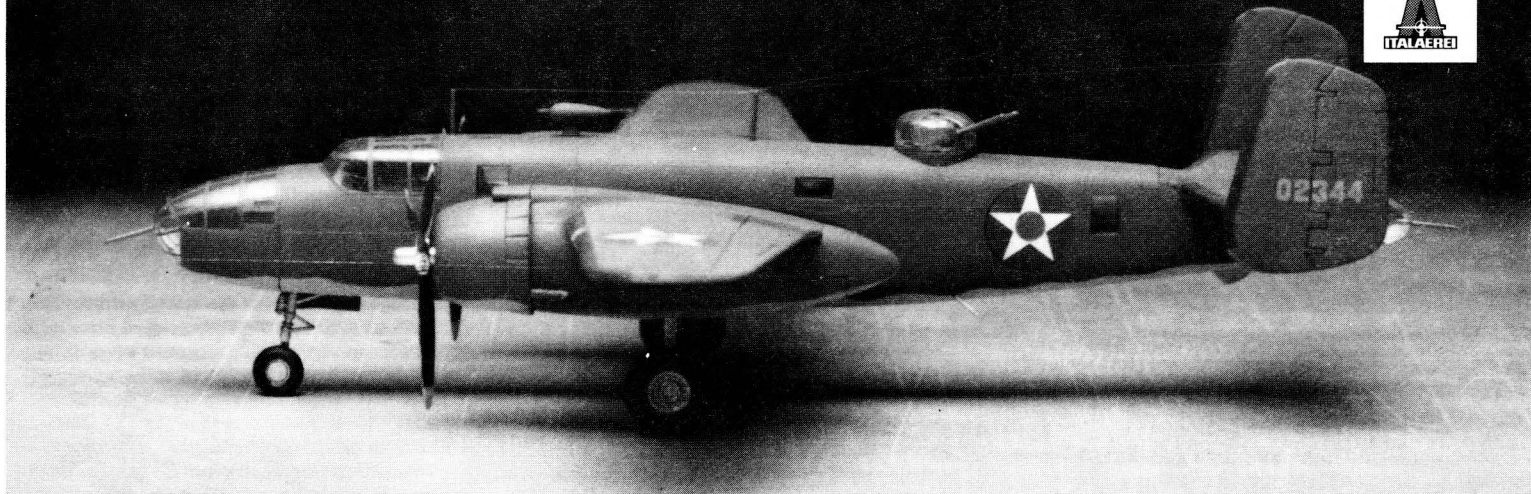


# MITCHELL B-25B

No. 861

TESTORS



## HISTORY

The B-25 began as North America Aviation's response to a 1938 Air Corp proposal for a new attack bomber. The design was later modified to meet requirements for a medium bomber. The first B-25 flew in mid-1940. Surprisingly few visual changes resulted from the extensive testing of this first model. The principal change was the breaking of the wing dihedral outboard of the engines.

The B-25 was used throughout the war by the U.S. and Royal Air Forces as well as other Allied countries. Many went to Russia for use in the Soviet Air Force.

Many variations and improvements were added during the war. Major types went from A to J with many subtypes. Approximately 9000 of all types were built and used in a very wide variety of roles. It did a superior job in almost all its assigned missions.

The B and C versions, represented by this kit, played a very important part early in the Pacific war. Its excellent range and speed were most important in this success. It was selected for the Doolittle Raid because it was the only suitable plane which had the take-off performance necessary to operate from a carrier.

## SPECIFICATIONS (C version)

Span	67' 6 3/4"
Length	54' 1/2"
Weight Empty	20,300 lb.
Weight Loaded	35,000 lb. max.
Crew	5
Armament	5 or 6 50 cal. machine guns
Maximum Speed	290 mph @ 15,000'
Cruise Speed	230 mph
Range	1525 miles
Load at Range	3200 lbs. of bombs
Service Ceiling	21,000'
Power	Two 1350 hp 14 cylinder Wright Cyclone Engines

## Reference Sources

The printed matter and data available on this plane is enormous. The modeler will have no problem finding information for finishing this kit using other markings or variations. A few good sources are listed.

**Aircraft in Profile, The North American B-25 B-G Mitchell**, Vol. 3 #59 (Profile Publications, Ltd.)

**Air Classics**, Vol. 4 #4, April 1968 (Challenge Publications)

**North American Aircraft Album**, #6 (Arco Publishing Co.)

**North American B-25 A/J Mitchell**, Arco Aircam Aviation Series #32 (Arco Publishing Co.) —many color drawings

**Camouflage and Markings, N.A. B-25 Mitchell** #22 (Ducimus Books Ltd.)—much information on alternate markings

**Air International**, Vol. 7 #3, September 1974, p. 135-138 (Fine Scroll Ltd.)

**Flying Review International**, Vol. 22 #14, October 1967, p. 934-5 (Purnell Publications)

**B-25 Mitchell in Action**, Aircraft No. 34, E. R. McDowell (Squadron/Signal Publications)

## 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 runners (sprue) until you need them. This helps avoid confusion and lost parts.
4. When cementing the parts together, check the way in which one part fits together with another. This ensures a neat job.
5. Always remember, when working with plastic model cement and paint, make sure your work is well-ventilated. The fumes from plastic modeling products can be harmful if inhaled.

## PREPARATION OF PARTS

1. Never tear parts off the runners (sprue). Use a Testor Hobby Knife, nail clippers, or small wire cutters.
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 PLA Flat Enamels and overspraying according to the instructions in the **APPLYING DECALS** section.

First of all, be sure your brushes are soft, clean and flexible. (Keep them that way by cleaning them thoroughly with Testor Paint Thinner.) Never use inexpensive brushes! A selection of Testor Shed-Proof Brushes will serve you well.

Wash plastic parts before detaching them from the sprue. Use warm water and liquid detergent. Let the parts air dry and avoid excessive handling.

Most parts should be painted while still attached to the sprue. Paint in one direction only. If your paint is the correct consistency, brush strokes will disappear as the color dries. If the paint seems too thick, thin it with Testor Paint Thinner. Let the paint dry completely before handling. When the parts are dry, assemble the model, following the directions closely. Remember, cement will not stick to painted surfaces. Using your Testor Hobby Knife, carefully remove paint from all surfaces to be cemented. After you have assembled your model you may touch up areas where cement has marred the finish.

## DETAIL PAINTING

It is best to paint small parts before assembly if you are to produce a neat model. They may be painted while still attached to the sprue or may be detached and held with tweezers or "magic" type transparent tape. Remember to allow the painted parts to dry thoroughly before handling, and always scrape paint away from the surfaces that are to be cemented, as the paint will not allow the part to stick.

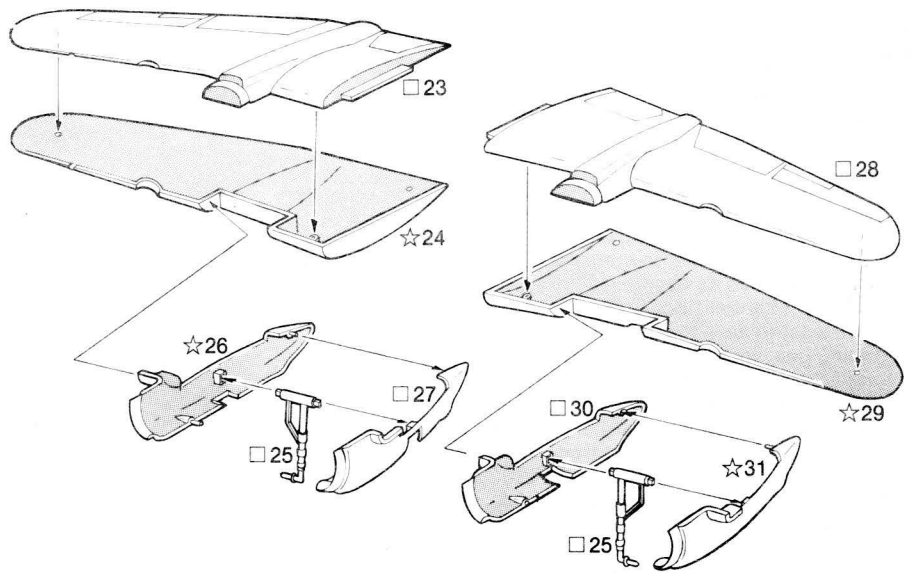
Wheels may be detached from the sprue and fitted onto toothpicks or matchsticks for painting. Then just hold the paintbrush against the edge of the wheel and rotate the wheel to obtain a neat, fast finish.



## 2 PARTS 23-31

### Preliminary Painting

- 25 main landing gear struts:  
#1180 Steel (Or mix one part #1149 Flat Black with two parts #1146 Silver.)
- 1. Glue upper wing halves □ 23 and □ 28 to lower wing halves ☆ 24 and ☆ 29 respectively.
- 2. Glue one landing gear strut □ 25 to nacelle side ☆ 26, and glue the other □ 25 to nacelle side ☆ 31. Be sure you have the proper parts.
- 3. Glue □ 27 to ☆ 26/□ 25 assembly and glue □ 30 to ☆ 31/□ 25 assembly.
- 4. Cement nacelles, as assembled above, to the underside of wings as shown.

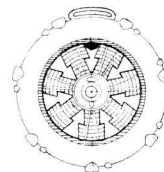
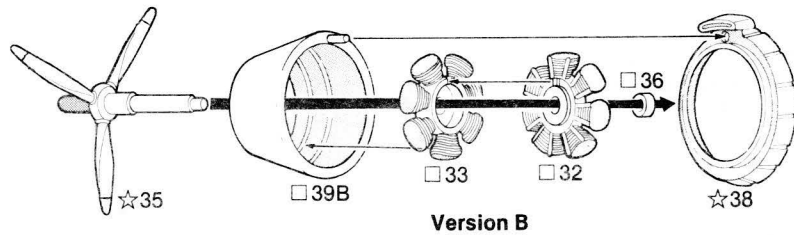
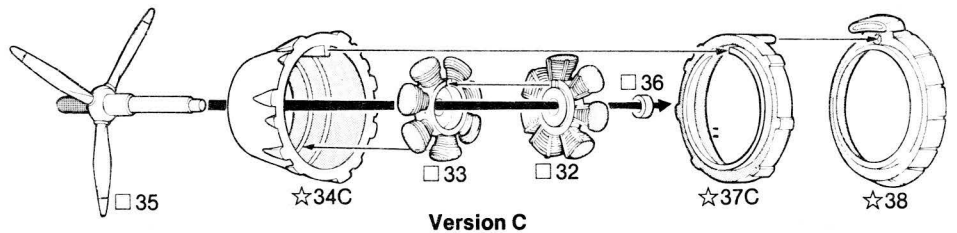


## 3 PARTS 32-39

### Preliminary Painting

- 32 and □ 33 rear and front cylinder rows:  
#1180 Steel (Or mix one part #1149 Flat Black with two parts #1146 Silver.)
- ☆ 35/□ 35 propeller:  
#1146 Silver
- ☆ 35/□ 35 tips of blades:  
#1169 Yellow
- ☆ 35/□ 35 middle of blades:  
#1149 Flat Black

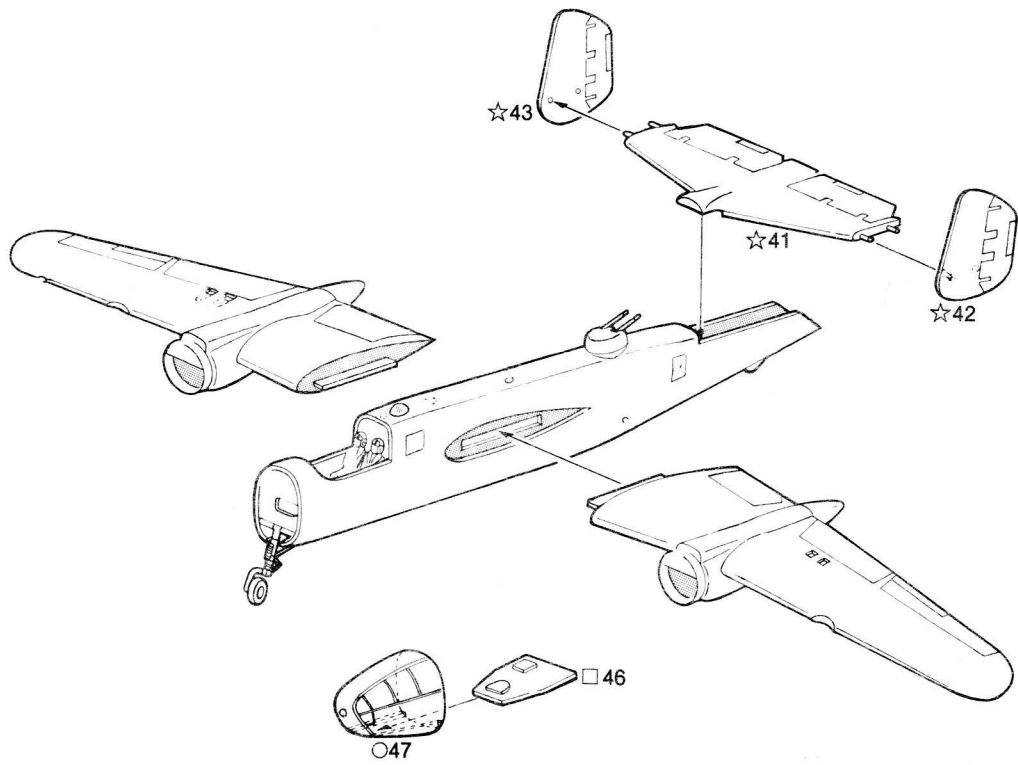
- 1. Put engines □ 32 and □ 33 together. For version C slide engines into ☆ 34. For version B, slide engines into □ 39. Note orientation of the bottom cylinder.
- 2. Next insert the propellers ☆ 35/□ 35 and secure with retainer □ 36. Use glue sparingly if you want the propellers to spin.
- 3. For the C version, add ☆ 37 to ☆ 34, then attach ☆ 38 to ☆ 37. For the B version, cement ☆ 38 to □ 39.



# 4 PARTS 41-43, 46, 47

## Preliminary Painting

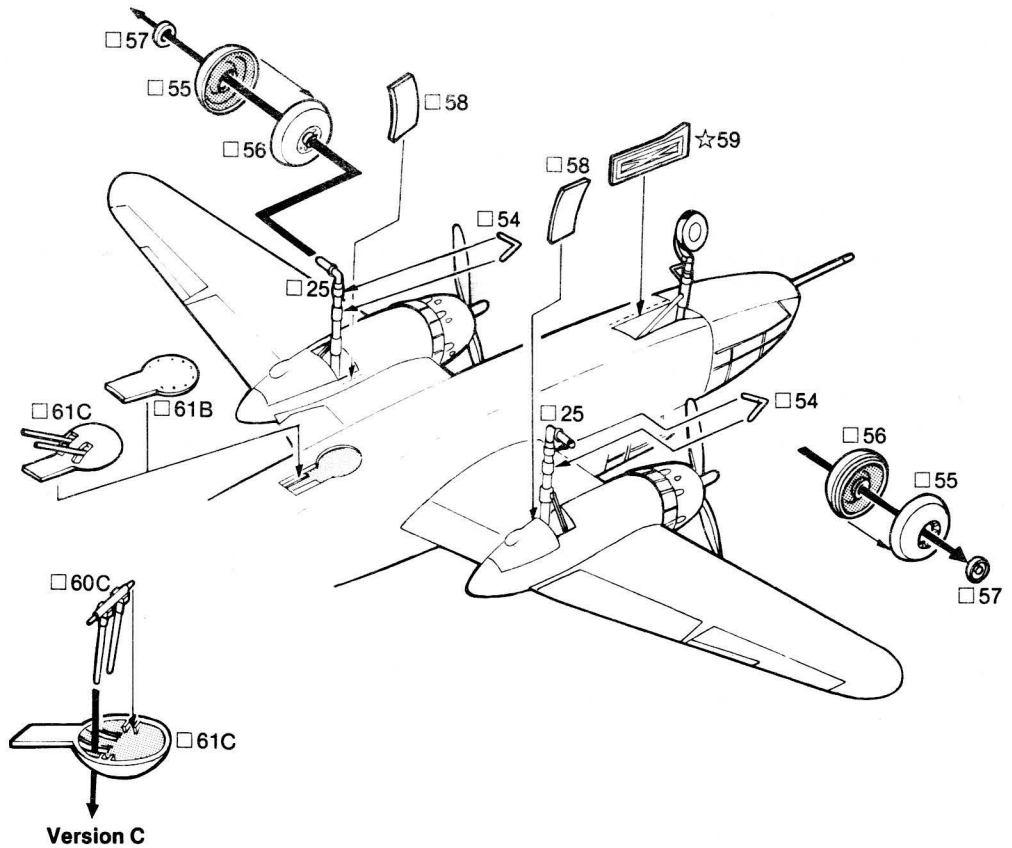
- 46 bombardier floor:  
#1184 Zinc Chromate
- 1. Install wings as assembled in Step 2 to fuselage. Attach tail ☆41 to rear of fuselage. Check alignment frequently while drying. It will be easier to insure alignment if the plane is on its back.
- 2. Install bombardier floor □ 46 in nose ○47. If you want to have the model stand on its landing gear without using a stand or the supports ○63 and ○64, you can use lead shot (not supplied with this kit) to weight the plane. When ○46/○47 are dry, fill the cavity under the floor with flattened lead. Secure with white glue and let dry. The total weight needed to make the model stand properly is 1/2 ounce. All of this will not fit in the nose, so put the remainder in the nose gear opening.
- 3. With the model right side up, install vertical tails ☆42 and ☆43 to the ends of ☆41, being sure they are straight. Allow plenty of time for these to dry.



# 5 PARTS 54-61

## Preliminary Painting

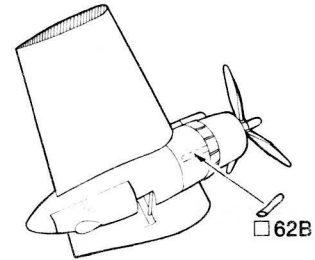
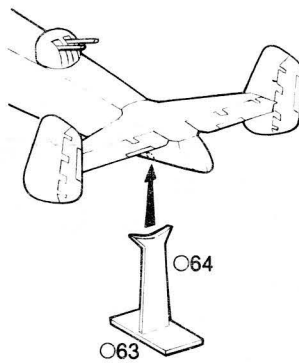
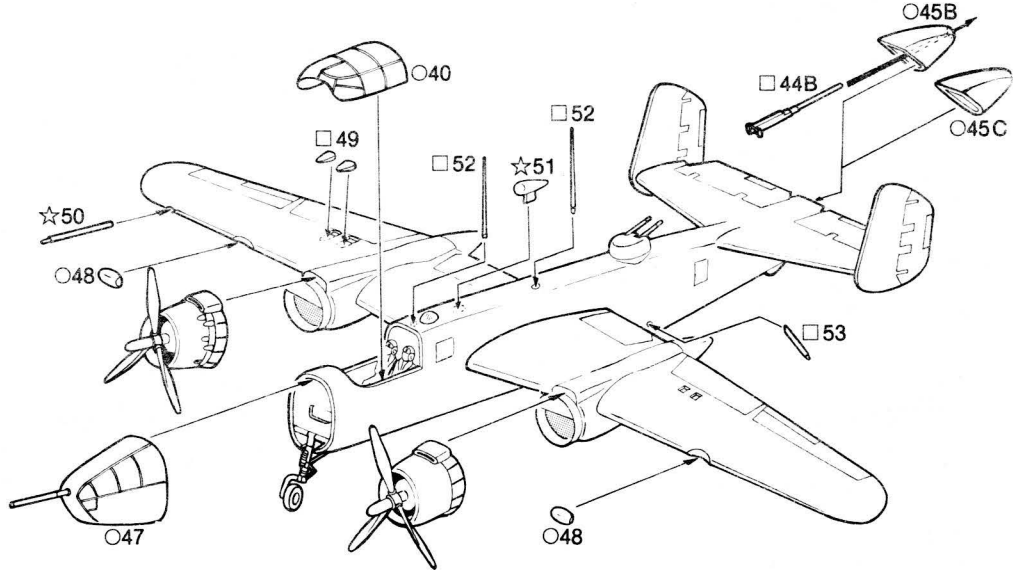
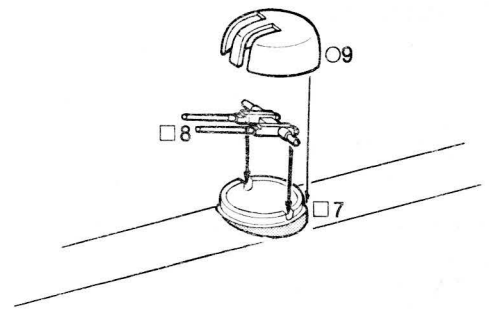
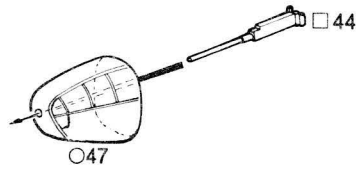
- 55 and □ 56 wheels:  
#1183 Rubber
- 57 wheel retainer, □ 54 struts, and □ 60 machine guns:  
#1180 Steel (Or mix one part #1149 Flat Black with two parts #1146 Silver.)
- 58 and ☆59 doors:  
#1184 Zinc Chromate
- 1. Cement wheel halves □ 55 and □ 56 together. With the model upside down, fit these wheel assemblies onto the struts □ 25 and retain with □ 57. Use very little glue.
- 2. Add doors (2) □ 58 and ☆59 as shown in drawing. Install strut (2) □ 54.
- 3. For the B version, install cover □ 61, as shown. For the C version, add □ 60 to □ 61 and then install this assembly to hole in fuselage.



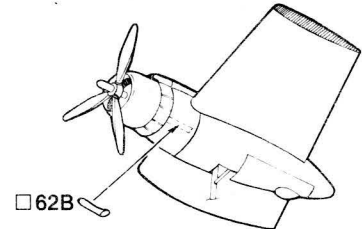
# 6 PARTS 8, 9, 40, 44, 45, 48, 49, 50-53, 62

## Preliminary Painting

- 8 and □ 44 machine guns: #1180 Steel (Or mix one part #1149 Flat Black with two parts #1146 Silver.)
  - 48 back side of landing lights: #1146 Silver
  - 62 exhausts: #1185 Rust drybrushed over Steel (see above)
1. Add guns □ 44 to nose ○ 47, and (for the B version) tail ○ 45. Also add guns □ 8 to turret □ 7.
  2. Put instrument panel decal in place on panel □ 17. See Step 1 diagram.
  3. Install cockpit cover ○ 40. Cement turret top ○ 9 to turret bottom □ 7.
  4. For the B version, install gun/tail assembly □ 44/○ 45. For the C version, use tail cone ○ 45.
  5. Next install nose ○ 47. Then attach appropriate propeller sections, as assembled in Step 3, to each wing.
  6. Finish model with details: antenna posts (2) □ 52, radio DF ☆ 51, pitot ☆ 50, landing lights ○ 48, vent fairing □ 49, tube □ 53 and (for the B version) exhausts □ 62. Refer to the diagram on the **APPLYING DECALS** page for variations in positioning the antenna wires. Use a very light thread, wire, or stretched sprue between the antenna posts and the tail.



Version B

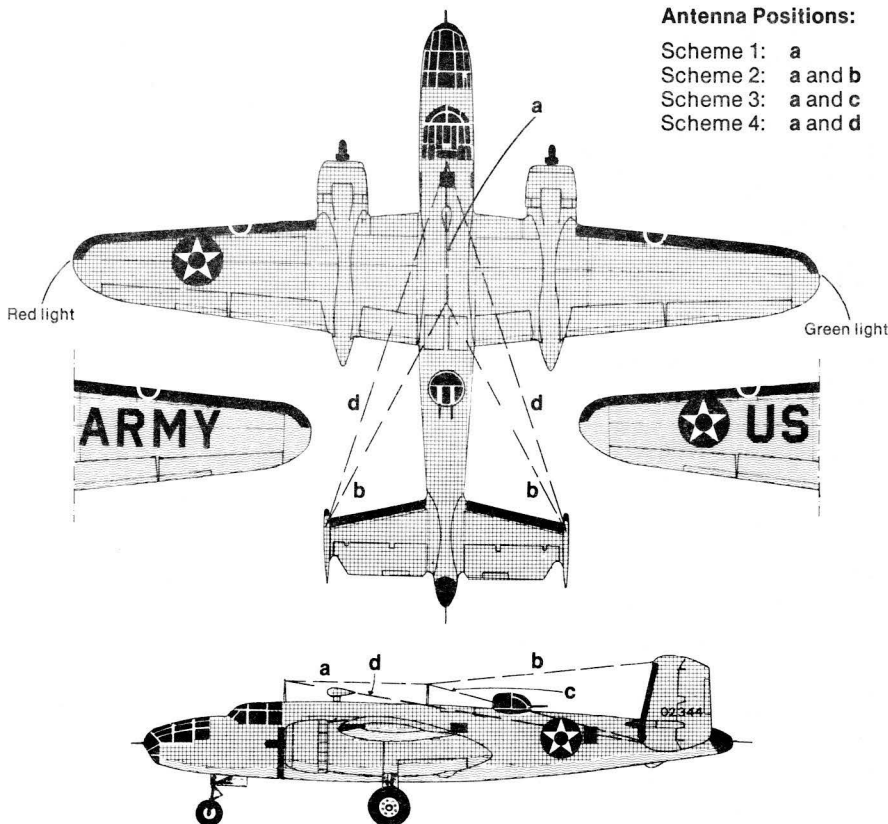


## APPLYING DECALS

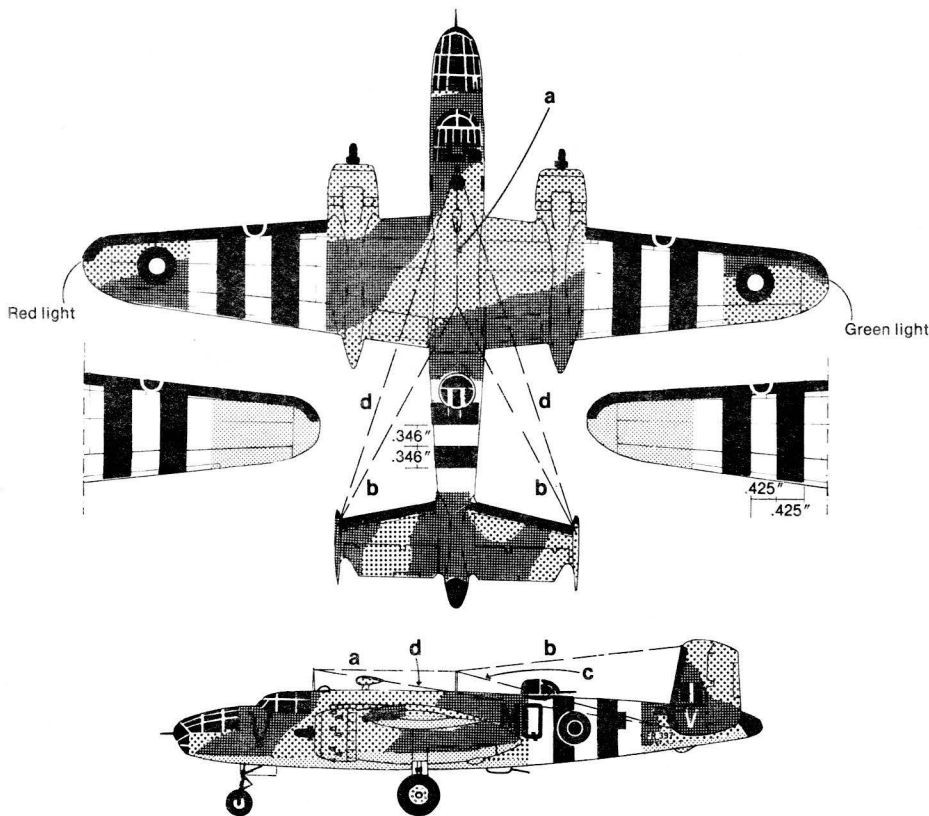
1. Spray entire model with Testor Glosscote #1261. Decals adhere best to a smooth surface and the shinier the finish, the smoother it is. Allow the Glosscote to dry thoroughly before going further.
2. Select the decals you plan to use, and cut each of them out from the decal sheet with small scissors or Testor Hobby Knife.
3. Working with only one decal at a time, dip the decal in clean water for no more than five seconds, then 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 the paper and onto the surface of the model with a soft paintbrush or tweezers. Remember: the decals are very thin and can be easily ripped if care is not taken. Work slowly and patiently.
5. Once the decal is in the desired position, apply a small amount of Testor Decal Set #8804. This will help the decal to conform to any irregularities in the surface of the model (rivets, curves, etc.). Allow the decal to dry undisturbed. Should you find the decal has moved or should you desire to purposely move it, 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.

## Antenna Positions:

- Scheme 1: a  
 Scheme 2: a and b  
 Scheme 3: a and c  
 Scheme 4: a and d



Mitchell B25B, Ten. Col. J. Doolittle raid over Tokyo 18-4-1942



Mitchell B25C, 226a Squad. R.A.F. Oland 1944



#1165 Flat Army Olive



"Neutral Gray" (Mix twenty parts #1168 Flat White, one part #1149 Flat Black, and one part #1162 Flat Sky Blue.)



#1149 Flat Black



#1168 Flat White



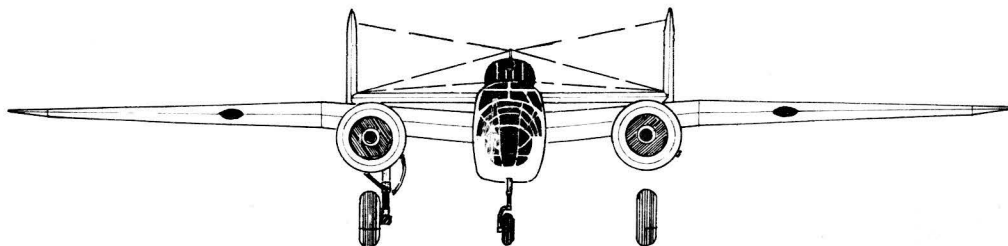
"Dark Brown" (Mix four parts #1166 Flat Military Brown with one part #1149 Flat Black.)



"Dark Green" (Mix two parts #1171 Flat Beret Green with one part #1149 Flat Black.)



"Light Blue" (Mix ten parts #1168 Flat White with one part #1162 Flat Sky Blue.)



## FIGURE PAINTING

Figures add dimension and life to your models. Painting figures is considered by many to be the most difficult aspect of modeling. However, if you are willing to take your time and practice, it can become the most rewarding.

After you have assembled your figure, it should be primed with a coat of #1168 Flat White. Use Testor spray paint or an airbrush if you have one. It is nearly impossible to get proper coverage with a brush. Accessories may be glued on at this point, but this sometimes makes certain areas of the figure difficult to reach with a brush. In these cases it is more convenient to paint these pieces separately and attach them to the finished figure.

Always use flat paints. Testor Flat Paints are manufactured for use on military vehicles and airplanes. However, when using Flat Paint for clothing on the figures, it is necessary to add talcum powder to the paint in order to make the painted surface appear really flat. Add powder to the paint gradually, testing it until the paint has no gloss. A #0 brush with a fine point is best for painting figures. Smaller brushes do not hold enough paint. Put some #1170 Flat Light Tan on a palette and mix in a little thinner so the paint flows smoothly off your brush. Apply an even coat over all the flesh areas. A second coat may be required for proper coverage. Now paint the eyes with #1149 Flat Black. These can be indicated by black slits. If they need shaping up, you can do this by painting around them with #1170 Flat Light Tan.

Begin shading by adding a very small amount of #1185 Rust with Flat Light Tan. Fill in under cheek bones. Proceed mixing progressively darker tones using Flat Light Tan and Rust until you finally use pure Rust. Use this color to outline all areas where the flesh meets the clothing (collar, cuffs, gloves, etc.). Finally, mix a small amount of #1183 Rubber with the Rust and paint fine lines in the mouth, nostrils, under eyebrows, inside ears and between fingers. Add highlights by mixing #1168 Flat White with Flat Light Tan.

Now begin shading the clothing. After the uniform is painted the proper color, hold it directly underneath a strong light. Notice where all the shadows fall. Mix #1149 Flat Black with your uniform color and fill in these areas, carefully following the sculpted wrinkles on the figure. You can blend the color on the uniform to this shadow color by lightly moistening your clean brush with thinner and carefully going over where these colors meet.

After you are satisfied with the shadows, hold the figure under the light again. Notice the areas where the light hits the strongest. Mix a little #1168 Flat White with the base color and

carefully apply the highlights to these areas. Remember, the shadows go *under* the folds and the highlights go *on top* of the folds. Finally, you can outline all straps, belts, pockets, collars, and edges of clothing with a thin wash of #1149 Flat Black.

Observe real faces and clothing and notice how the light falls on them. Adapt these ideas to your figures, trying to make them as realistic as possible. You can also learn a lot from studying other people's figures. Don't be too subtle in your shading — contrast is what gives figures life.

Practice and experience are the best teachers, so do not be discouraged if you aren't pleased with your first few attempts. Always take your time and strive for a neat, crisp appearance. Have patience. It takes time to learn a new skill and it's worth it.

## 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 the paint 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 Dulcote. After this dries, 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. Paint chips sometimes appear on leading edges or where crew members or maintenance men walk across the plane. However, try to remember that any well kept plane would only show minimum amounts of wear.

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 Dulcote to avoid rubbing off the stains.

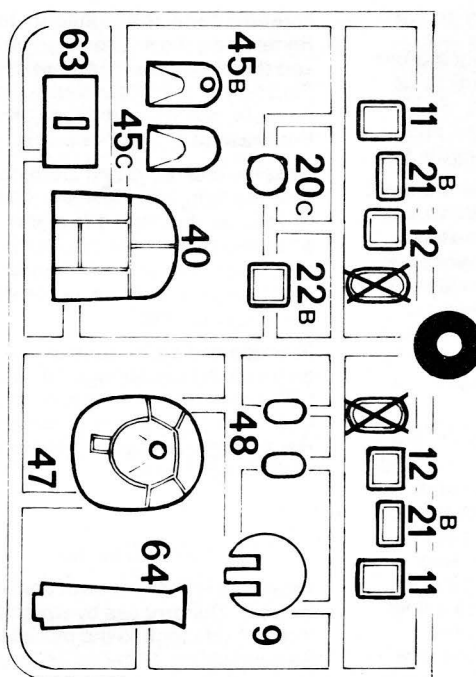
Oil stains should be done very subtly. Oil really has very little color, so it only leaves light stains. Tint a small amount of thinner lightly with black paint. Add a small drop to the area you want to appear oily. Now with a strong breath, blow the "oil" back along the plane. Keep in mind the direction in which the plane flies, making sure you are blowing the "oil" from front to back. It is very easy to overdo this, so remember, one or two places are usually 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 #1181 Testor Aluminum for paint chips, applying with a fine pointed brush. With a very little amount of paint on the brush, apply the chips in small dots, the smaller the better. Large amoeba shaped chips look too obtrusive. Be wary of fabric covered control surfaces though; they don't chip.

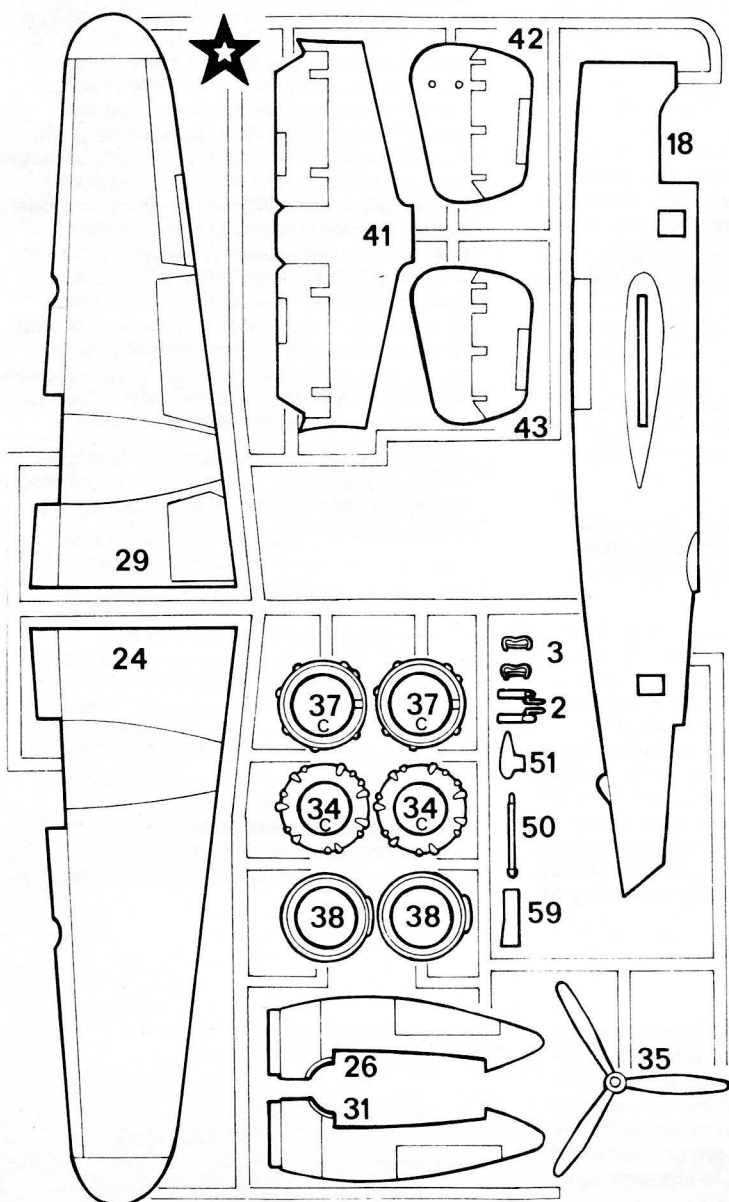
Experienced modelers do several things to aid them in their hobby. One of the most helpful is attending meetings of their local International Plastic Modeling Society chapter. Here they see and discuss modeling techniques. Your local hobby shop will help you locate your local I.P.M.S. group. Serious modelers also collect books and photographs to use as reference when they finish their models. Again, your local hobby shop can help. Last, but certainly not least, your own observation will prove helpful. Visit museums. 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.

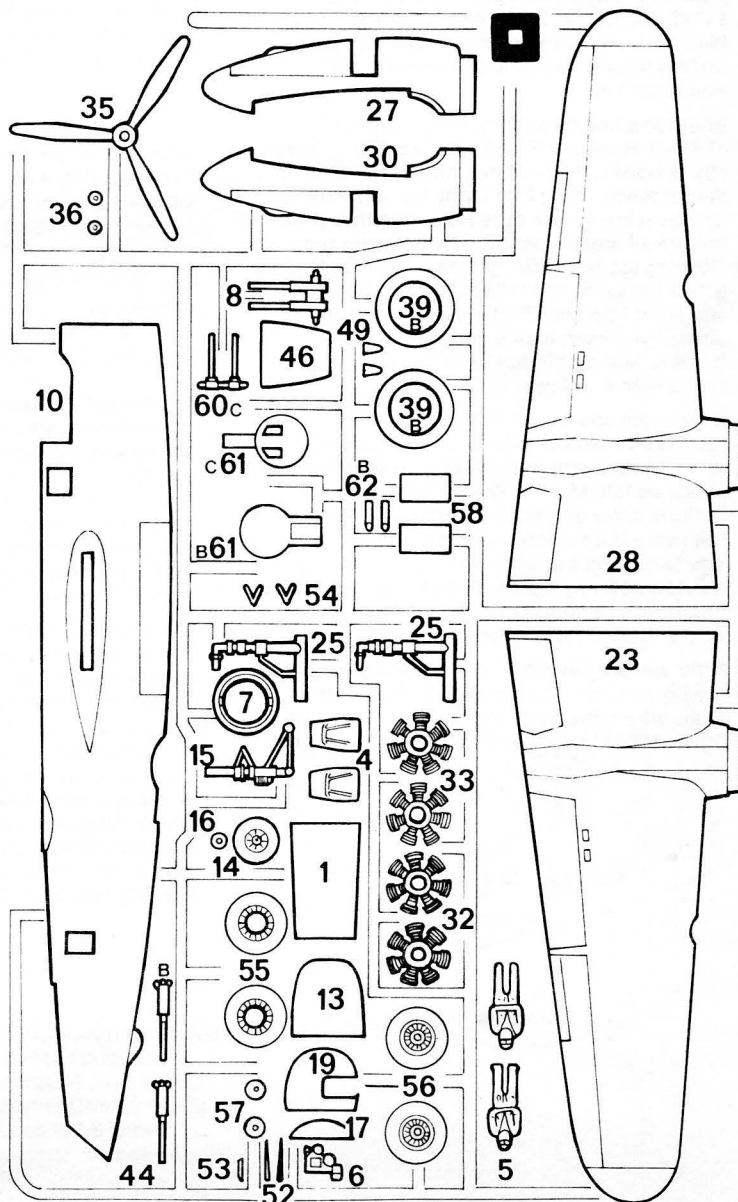
Remove this page from the instruction sheet by cutting along indicated line. Use the drawings of the complete sprue as a part-locating reference when building the model.



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