

In 1934 the U.S. Navy Bureau of Aeronautics requested designs for a new torpedo plane. The Douglas TBD-1 met all the requirements for replacing the planes in use at that time and was accepted.

In 1937 the TBD-1 Devastators went into Navy service as the first all metal, low wing aircraft with hydraulically powered folding wings. At that time it was the most modern and efficient aircraft of its type. It could perform steep reversals at a low air speed and with perfection, execute the high speed dives used during the early part of the torpedo run.

The TBD-1 carried a crew of three—a pilot, torpedo officer or bombardier, and rear gunner/radio operator. They sat in tandem under a continuous transparent canopy which had sliding sections over each cockpit. For torpedo missions in World War II, only a crew of two was used.

The Devastator served as two different versions, a torpedo plane and bomber. As a torpedo plane the doors under the front of the fuselage were closed and the torpedo was held by a special cradle. While as a bomber, the doors were opened to enable the bombardier to sight through the window in the bottom of the plane.

The specifications of the aircraft were a wing span of 50 feet, length of 35 feet and a height of 15 feet 1 inch. Weighing 5,600 lbs. empty, 9,289 lbs. loaded, the TBD-1 had a fuel capacity of 180 gallons. With a climb rate of 720 ft/min. the maximum speed was 206 mph at 8000 feet and a minimum of 66 mph. Powered by a Pratt and Whitney R-1830-64 engine the TBD-1 had a range of 435 miles with its torpedo. Like all naval aircraft for this period it had flotation bags in the wings that could displace 3,431 pounds of sea water.

The U.S.S. Saratoga, (CV-3) in November 1937, received the first Douglas TBD-1 Devastators. TBD's also served on the U.S.S. Lexington, Yorktown, Enterprise, Wasp and Ranger.

Devastators saw action in the Pacific on February 1, 1942. In the Battle of the Coral Sea, the TBD's had their greatest success by aiding in the sinking of one carrier and seriously damaging another. On May 8, 1942 during the Battle of Midway, the Douglas TBD's saw their last major action.

Following that, TBD's were used for training new pilots and mechanics or as practice planes for fire-fighting crews.

This accurately detailed model was designed from authentic drawings and photographs. Technical information was supplied by McDonnell Douglas and the U.S. Navy.

## PLEASE READ CAREFULLY BEFORE YOU BEGIN

Read the instruction and study the assembly drawings to become familiar with all the parts. Refer to the PAINTING and DECAL directions on rear page.

Each illustration in the assembly procedure indicates color to be used and where the paint should be applied.

As your TBD may be built to any one of two versions, you must decide on which version you want before you begin.

Refer to airplane drawings on rear page for versions and for painting schemes.

The assembly procedure is written for two versions. The assembly of a specific version is helped by the LARGE titles in the steps. Where NO title is used, the assembly is identical for all versions.

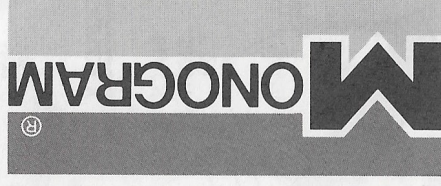
Each "tree" of plastic parts is molded with identifying numbers, appearing on the part or on a tab next to the corresponding part. In the assembly instructions, identifying numbers are indicated. This method makes it easy for you to locate parts during the assembly.

Do not detach parts from the trees until you are ready to use them. After cutting or breaking off the required parts, trim away any excess bits of plastic. Use a small sharp knife, such as a modeling knife, available at your hobby counter. Check the fit of each part before you cement it in place.

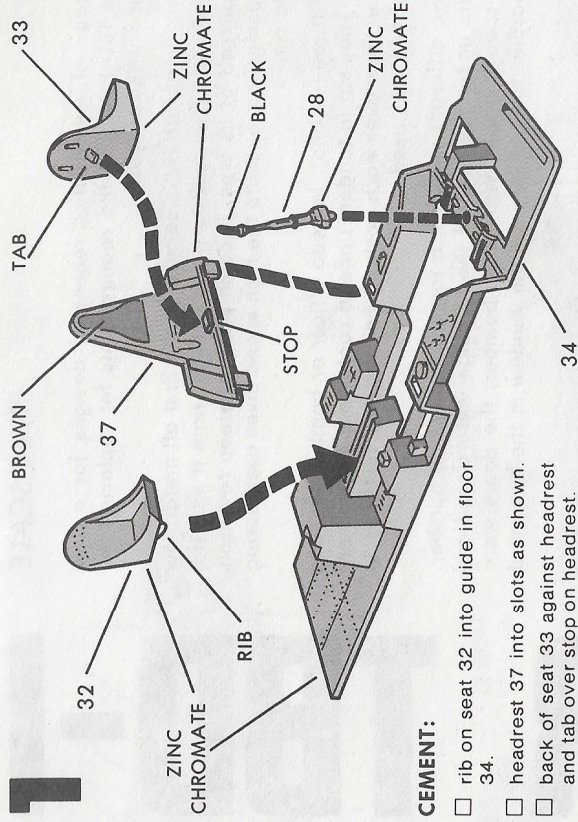
Keep in mind the importance of not rushing the assembly of your model and avoid the use of excessive amounts of cement. All plastic cements contain solvents that dissolve plastic in order to form a weld between the cemented parts. Too much cement can soften and distort the plastic, spoiling your model's appearance. When applying cement to small or confined areas, use cement on the end of a toothpick instead of the tube nozzle to better regulate the amount of cement being applied.

For better paint and decal adhesion, it is advisable to wash the plastic parts trees in a mild detergent solution. Rinse and let dry. After washing, handle the parts carefully to avoid skin-oil which may affect the adhesion.

# DEVASTATOR TBD-1



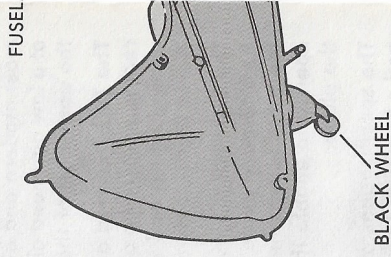
# 1



### CEMENT:

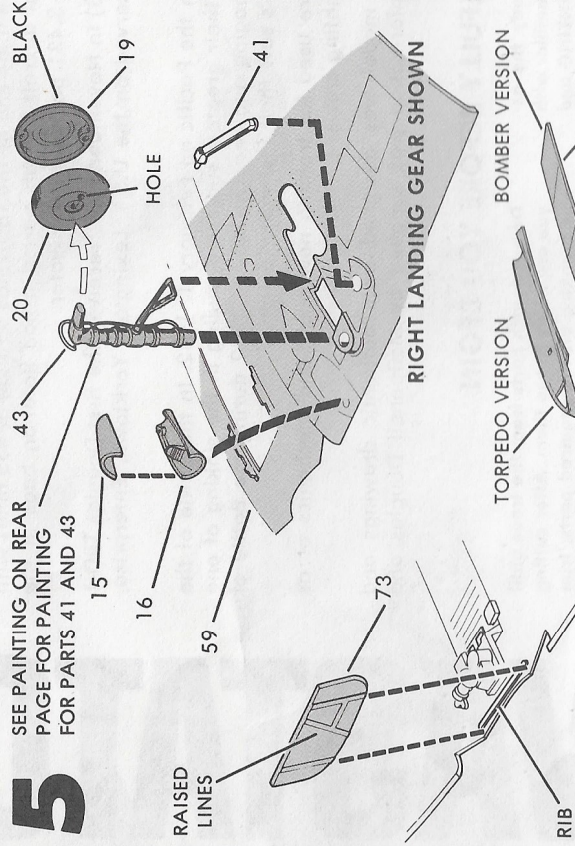
- rib on seat 32 into guide in floor 34.
- headrest 37 into slots as shown.
- back of seat 33 against headrest and tab over stop on headrest.
- control stick 28 into hole.

# 2



# 5

### SEE PAINTING ON REAR PAGE FOR PAINTING FOR PARTS 41 AND 43



- Cement strut 43 into wing bottom 59.
- Cement brace 41 into wing and hole in strut.
- Next, cement wheel halves 19 and 20 together.
- Hold wheel with SMALL HOLE as shown and cement onto strut. Tubing on strut fits into small hole.
- Repeat for strut 42, brace 41 and wheels 19 and 20.
- Cement scoop halves 15 and 16 together.
- Cement scoop onto wing as shown.

### BOMBER VERSION

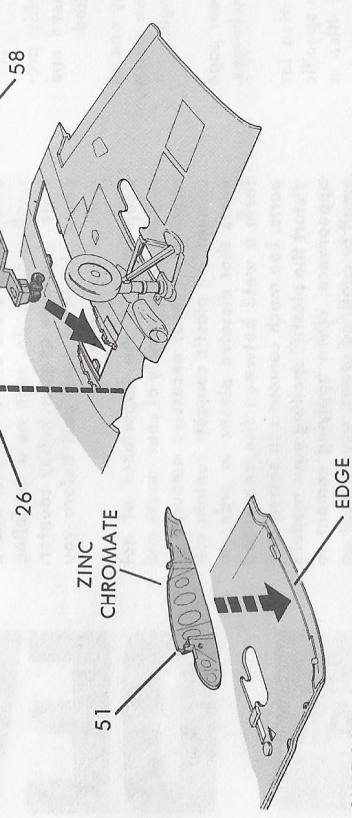
- Cement sight 24 into wing plate 58 as shown in SKETCH G.
- Cement wing plate into opening in wing bottom 59.

### TORPEDO VERSION

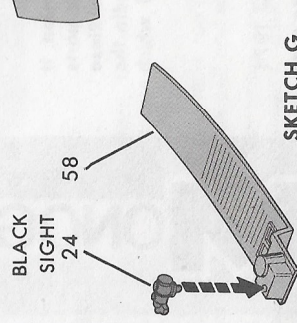
- Cement cradle 26 into opening in wing bottom 59.

### CONTINUE ASSEMBLY

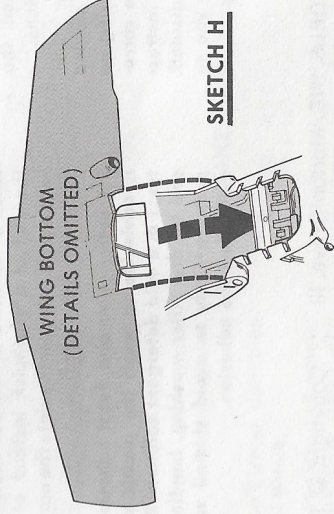
- Cement sight window 73 onto wing bottom against rib as shown. BEVEL on edge of window gives proper angle.
- Now, cement wing bottom onto fuselage as shown in SKETCH H.
- Cement rib 51 against edge on wing bottom as shown in SKETCH K. Rib leans towards fuselage.
- Repeat for rib 50.

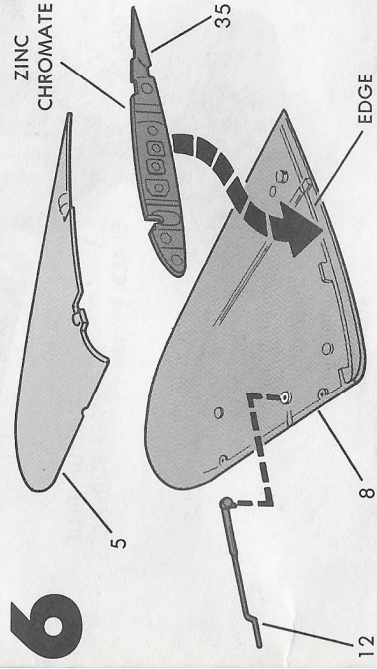
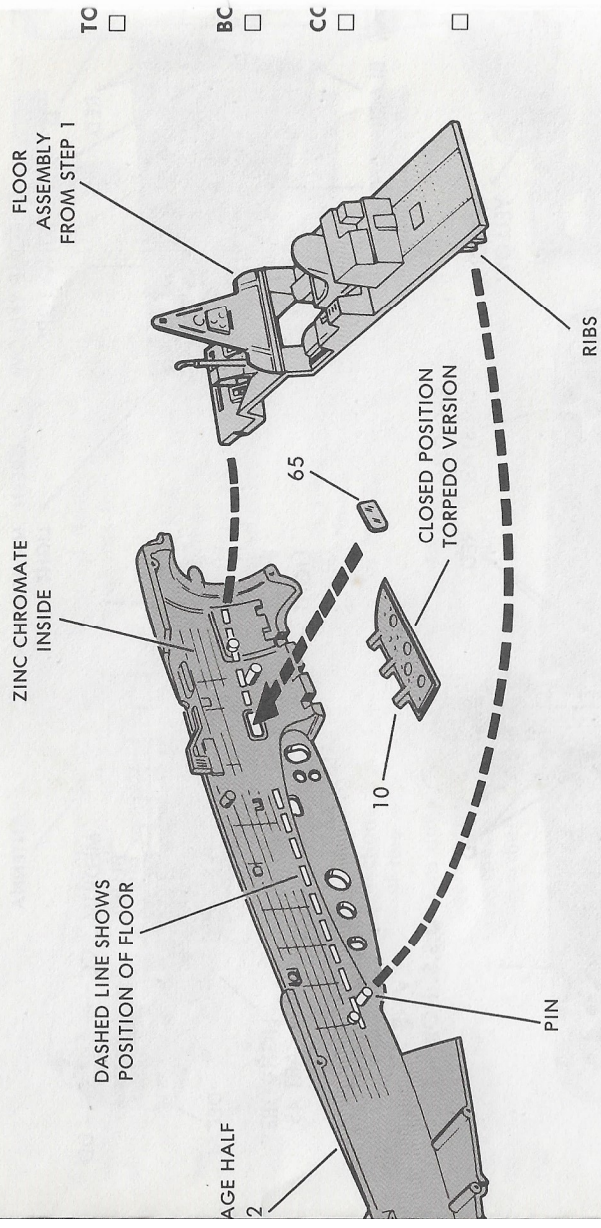


### SKETCH K

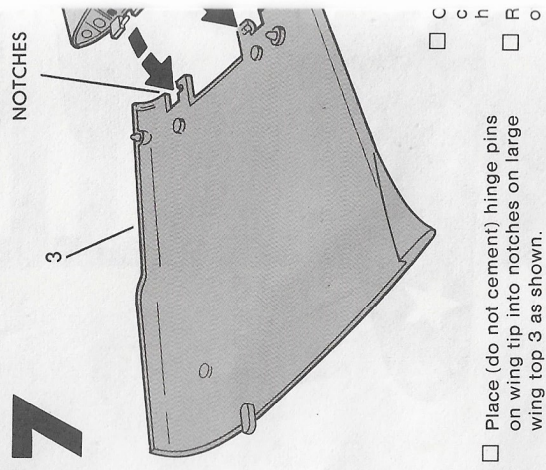


### SKETCH H

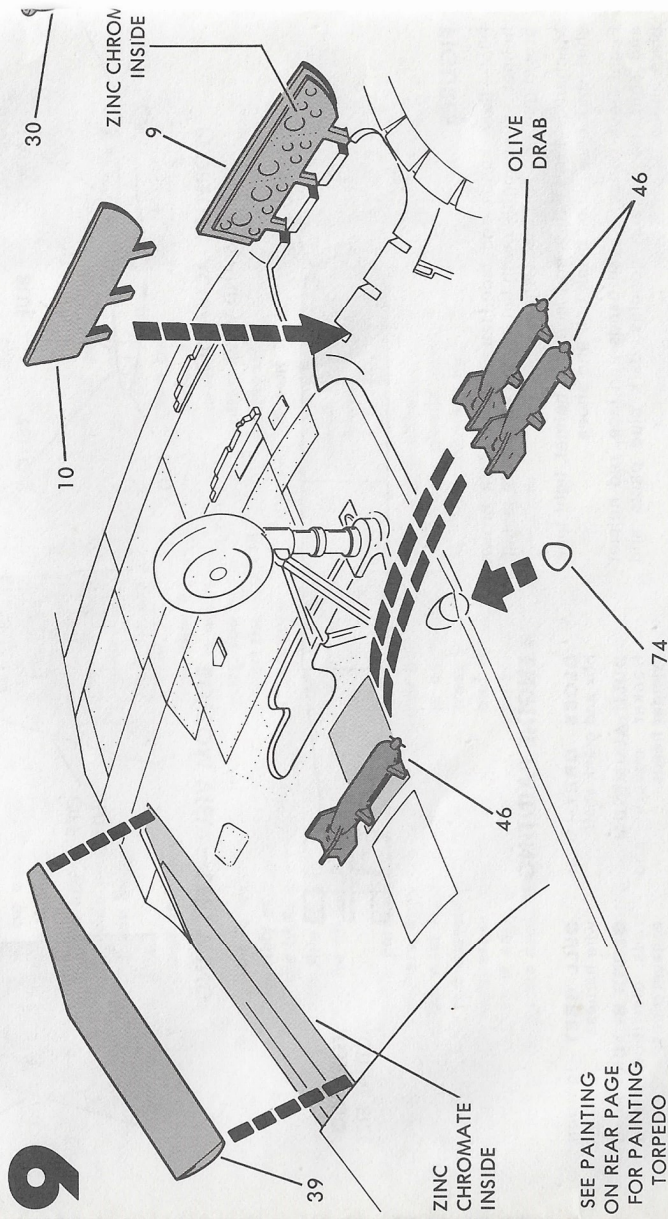




- Cement rib 35 against edge on wing tip half 8.
- Cement pitot tube 12 into hole.
- Cement wing tip half 5 into place.
- Repeat for rib 36 and wing tip halves 6 and 7.



- Place (do not cement) hinge pins on wing tip into notches on large wing top 3 as shown.



SEE PAINTING ON REAR PAGE FOR PAINTING TORPEDO

# 3

## TORPEDO VERSION

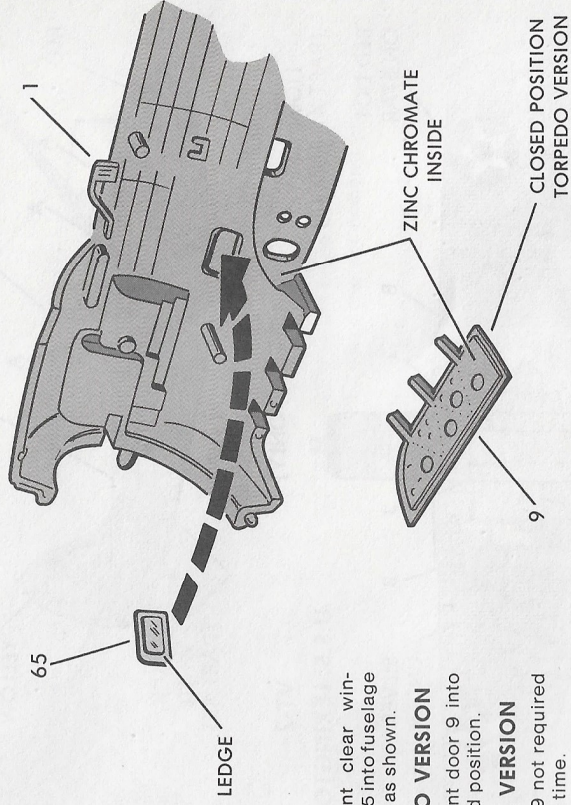
Cement door 10 into closed position — push with bottom of page 2.

## BOMBER VERSION

Door 10 is not required at this time.

## TIP —

Carefully cement smaller side of window 65 into fuselage half 2 as shown. Dashed lines in illustration indicate position. RIBS fit over as shown.



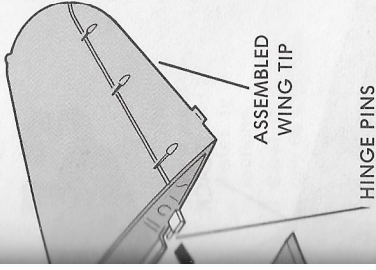
- Cement clear window 65 into fuselage half 1 as shown.

## TORPEDO VERSION

- Cement door 9 into closed position.

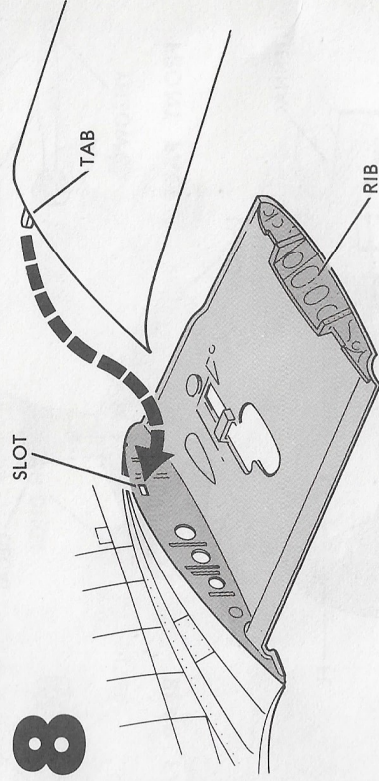
## BOMBER VERSION

- Door 9 not required at this time.



Fully and slowly open and close several times to loosen the wing action. Repeat for large wing top 4 and for wing tip.

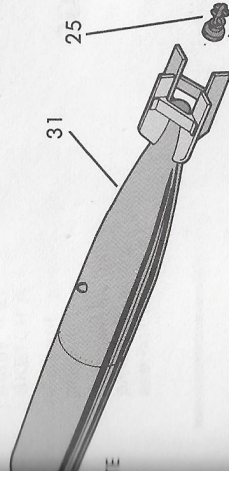
# 8



- Apply cement to wing bottom, fuselage and along top of rib. DO NOT apply cement near hinge areas.

- Place (do not cement) wing tips into large wing tops as before.

- Press large wing tops into wing bottom. Hold until cement sets.
- Tape wing into OPEN position so that wing will not FOLD.
- Repeat for other side of airplane.



- Cement clear landing light 74 onto wing.

- Flaps 39 and 40 may be cemented OPEN or CLOSED. FOR CLOSED VERSION REMOVE TWO SMALL TABS.

## ORPEDO VERSION

- Cement torpedo halves 30 and 31 together.

- Cement unit 25 to end as shown.

- Now, cement torpedo into cradle. PIN on torpedo fits into hole in cradle.

# 10

SEE PAINTING ON REAR PAGE FOR PAINTING DETAILS

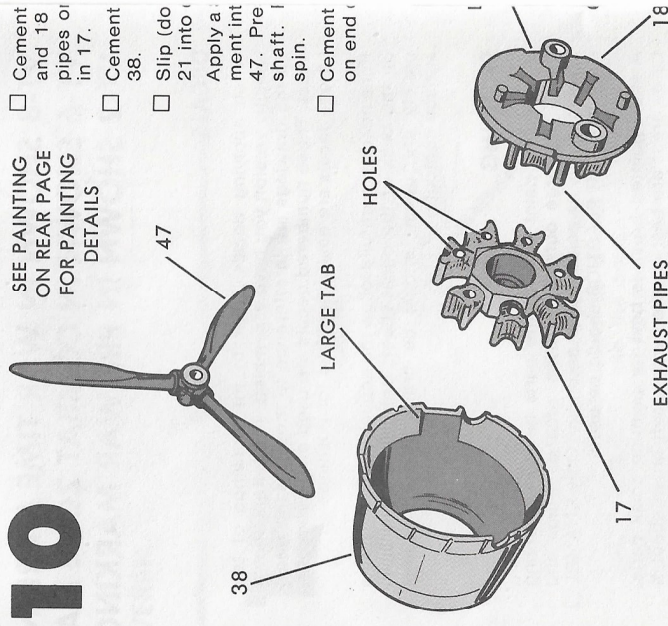
- Cement and 18 pipes or in 17.

- Cement 38.

- Slip (do 21 into

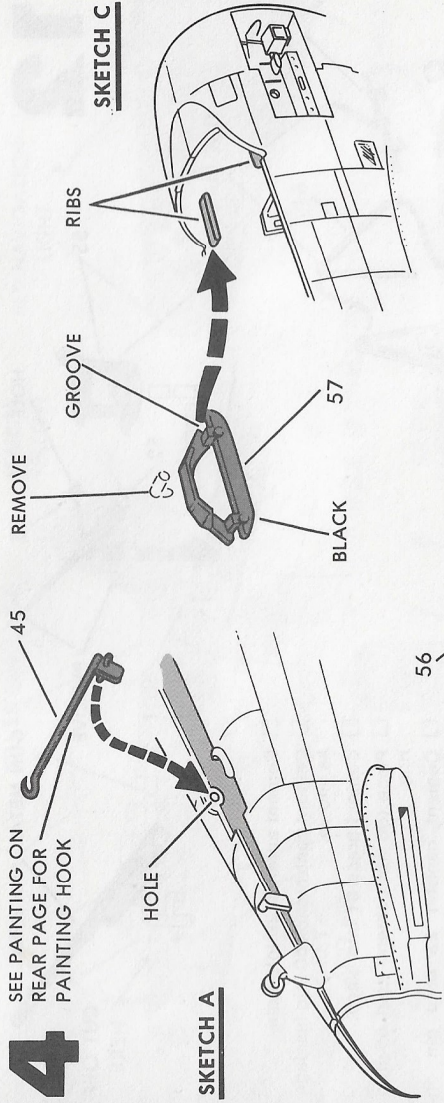
- Apply cement into 47. Pre shaft. spin.

- Cement on end

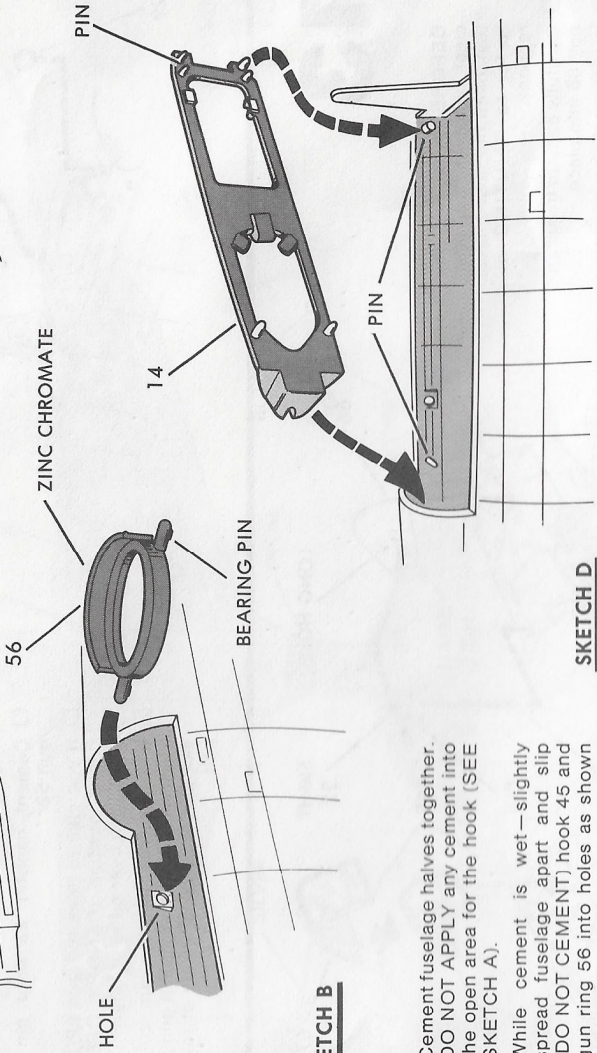


# 4

SEE PAINTING ON REAR PAGE FOR PAINTING HOOK



SKETCH A



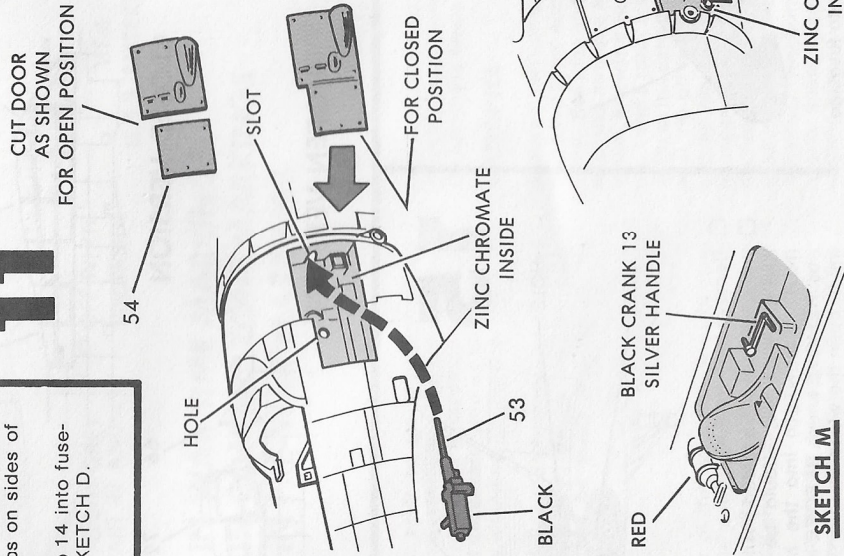
SKETCH B

- Cement fuselage halves together. DO NOT APPLY any cement into the open area for the hook (SEE SKETCH A).
- While cement is wet—slightly spread fuselage apart and slip (DO NOT CEMENT) hook 45 and gun ring 56 into holes as shown in SKETCH A and B.
- Press fuselage together again and hold until cement sets.
- Cement instrument panel 57 into fuselage as shown in SKETCH C. Grooves fit over ribs on sides of fuselage.
- Cement cockpit top 14 into fuselage as shown in SKETCH D.

SKETCH D

# 11

- Cement gun 53 into place.
- Door 54 may be cemented in a closed position or cut as shown and placed on the display surface.
- Door 11 may be cemented in an OPEN or CLOSED position. REMOVE TWO TABS FOR CLOSED POSITION.
- Crank 13 may be cemented into the front or into the cockpit as in SKETCH M. If you plan to place the figure on the wing, holding crank as on front of box, position crank to fit hand.



SKETCH M

engine halves 17 together. Exhaust 18 fit into holes

engine into cowl (not cement) shaft engine.

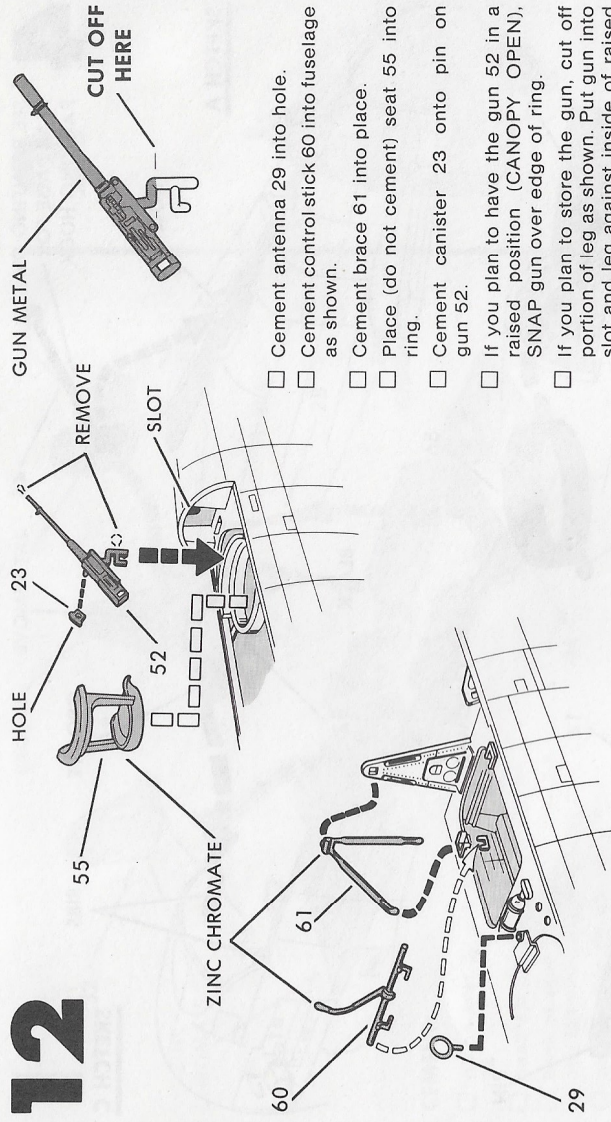
SMALL drop of cement in propeller hole in propeller as propeller onto propeller should

engine onto pins of fuselage.

LARGE NOTCH SHAFT 21

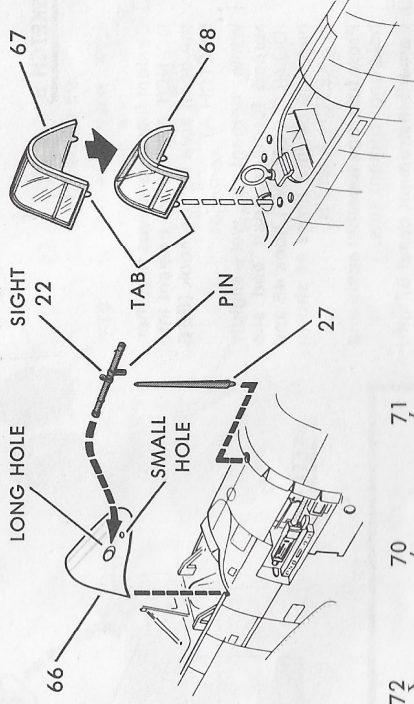


# 12



- Cement antenna 29 into hole.
- Cement control stick 60 into fuselage as shown.
- Cement brace 61 into place.
- Place (do not cement) seat 55 into ring.
- Cement canister 23 onto pin on gun 52.
- If you plan to have the gun 52 in a raised position (CANOPY OPEN), SNAP gun over edge of ring.
- If you plan to store the gun, cut off portion of leg as shown. Put gun into slot and leg against inside of raised pad.

# 13



BEFORE cementing the clear canopies into position, paint the raised lines. Refer to PAINTING directions.

- Carefully cement front canopy 66 into place.
- Cement sight 22 into holes in canopy.
- Cement antenna 27 into place.

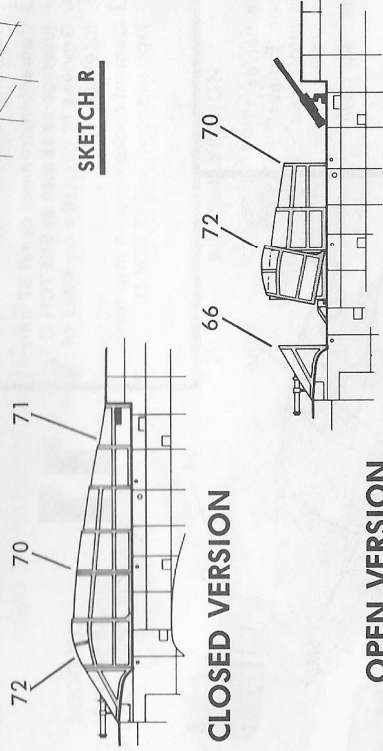
## FOR CLOSED CANOPY

- Carefully cement clear pieces 70, 71 and 72 into place.

## FOR OPEN CANOPY

- Carefully cement clear pieces 67 and 68 into holes as shown in SKETCH R.
- Cement piece 70 into place.
- Cement piece 72 over piece 70 as shown. ALSO see box photo.

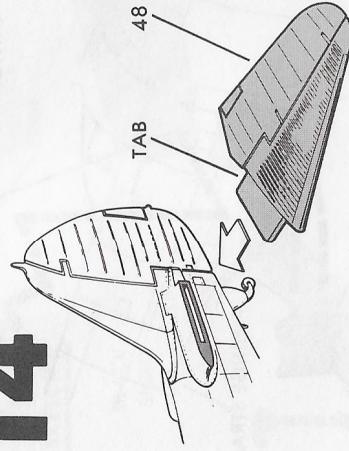
## SKETCH R



## CLOSED VERSION

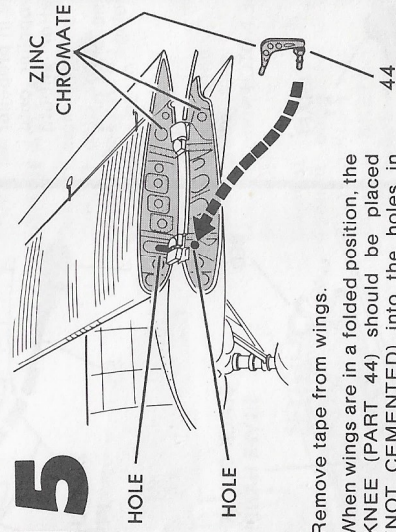
## OPEN VERSION

# 14

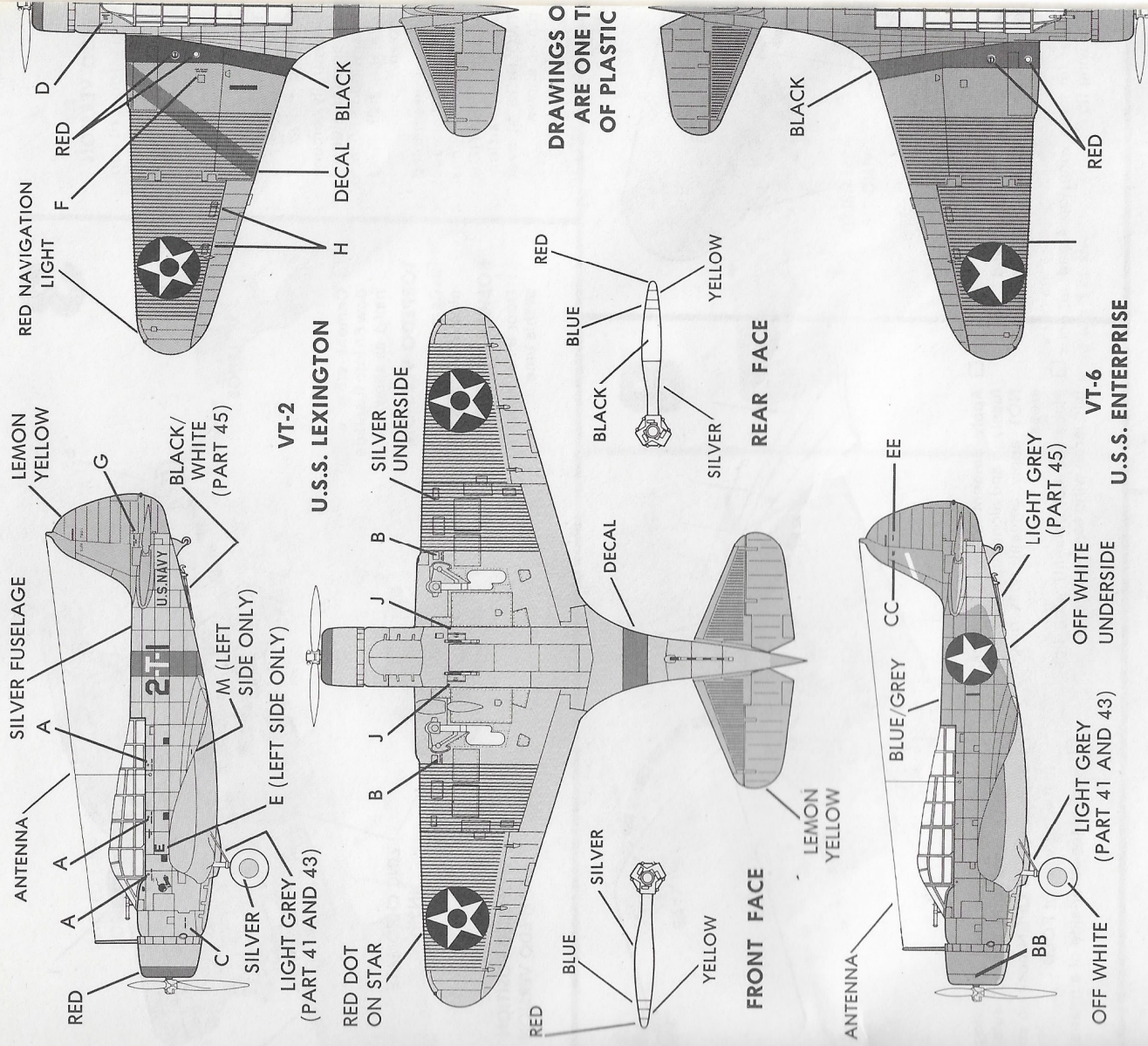


- Cement stabilizers 48 and 49 into fuselage.

# 15



- Remove tape from wings.
- When wings are in a folded position, the KNEE (PART 44) should be placed (NOT CEMENTED) into the holes in ribs. REMOVE knees BEFORE attempting to open the wings.



**VT-8 SHOWN IN WAR TIME MARKINGS**  
**VT-6 SHOWN IN COMBAT ZONE MARKINGS**  
**VT-2 SHOWN IN PRE-WAR MARKINGS**

**DECALS**

When applying decals, refer to the drawings of the specific version you have assembled. The letters shown on the drawings are in reference to those on the decal sheet. These numbered decals are used on all versions. Larger decals are easily identified for position.

For a neat job, carefully follow the application instructions on the back of the decal sheet. Before they are completely dry, decals should be firmly pressed against surface contours.

**PAINTING**

It is best to paint most of the parts before cementing them. The large outside surfaces such as wings and fuselages may be painted after assembly. Only ENAMEL or PAINT FOR PLASTICS should be used.

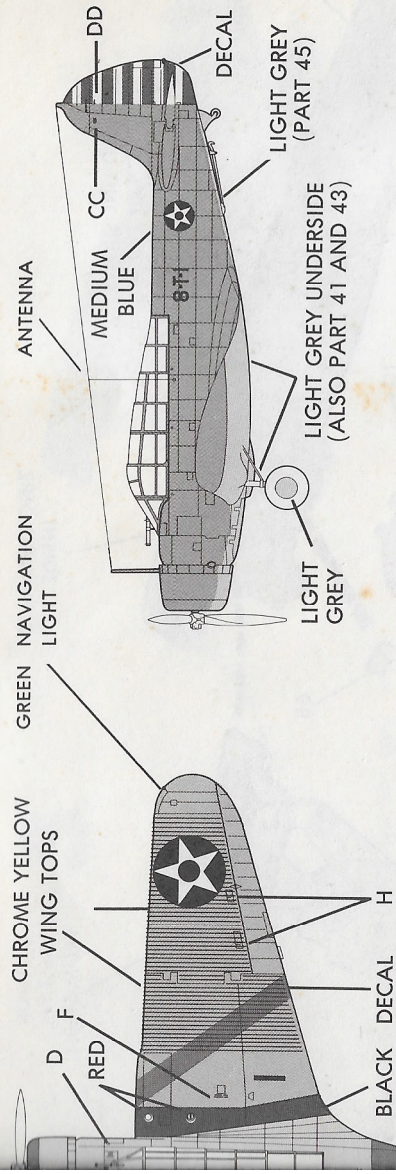
A small pointed brush is best for painting small parts. Large areas are best covered with a soft brush about 1/4

inch wide. Allow time for paint to dry thoroughly before handling parts. Scrape paint away from areas which will be cemented because cement will not hold to paint.

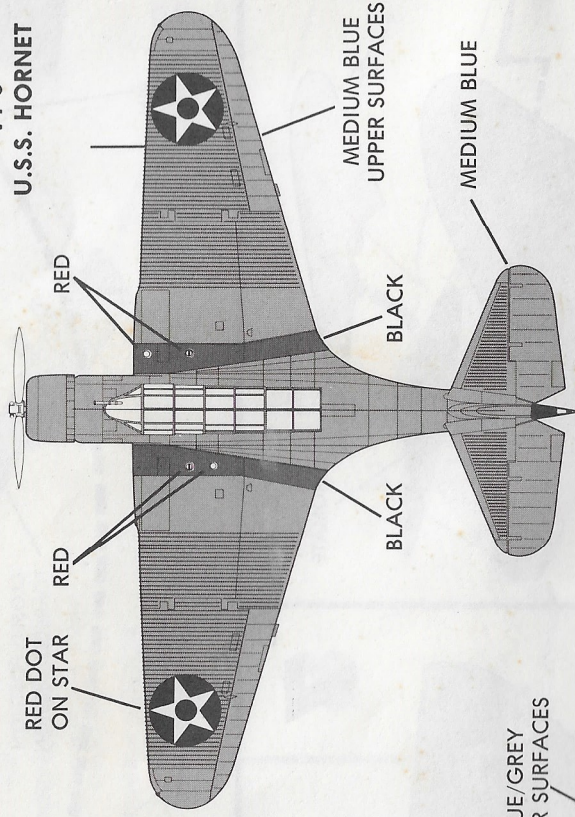
**CANOPIES**

Canopy detail can be easily and neatly done by using one of the dull finish acetate mending tapes. Cut a strip about five inches long and stick it to a piece of glass or plastic, paint this strip the same color as the upper part of your model. Allow the paint to dry thoroughly. Using a straight edge and a razor blade cut strips from the tape the same width as the canopy ribs. Lift up the strips and apply over each rib on the canopy. Another method of achieving canopy realism is by masking the entire canopy with transparent tape. Use a sharp knife and very carefully cut the tape from any area that is to be painted. Paint the exposed parts and allow to dry thoroughly. Remove the remaining tape from the canopy by lifting it with the tip of your knife. Either method will result in an extremely realistic canopy.

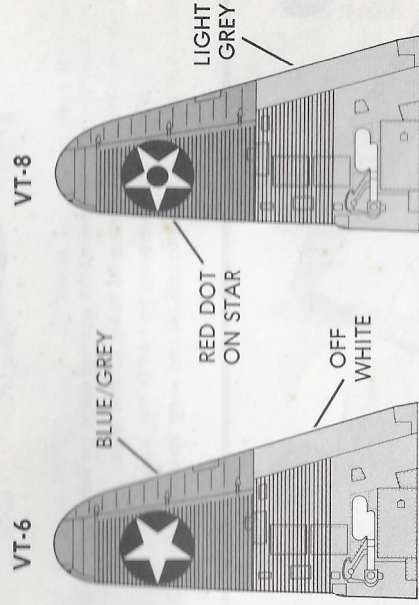
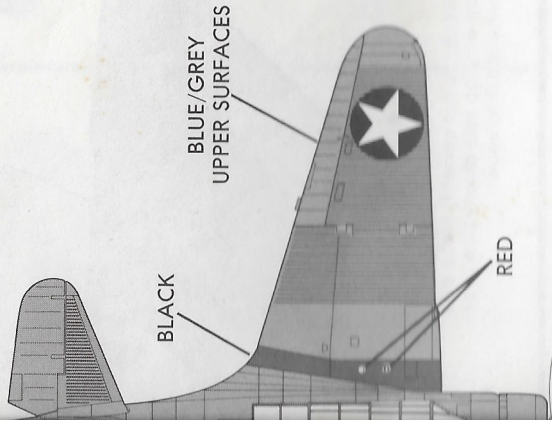
SILVER



**VT-8  
U.S.S. HORNET**

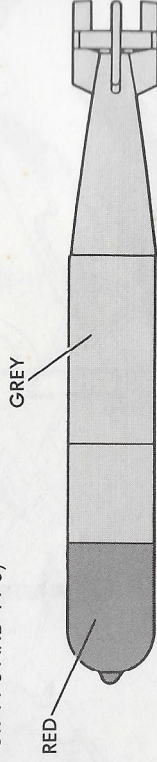
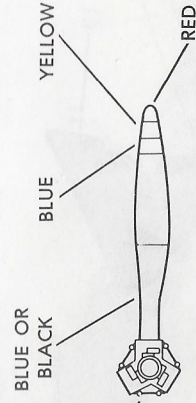


**F AIRPLANE  
MIRD SIZE  
AIRPLANE**



**BOTTOM VIEW — LEFT WING**

**PROPELLER ACTUAL SIZE  
(FOR VT-6 AND VT-8)**



**FIGURES**

Pilot—flesh hands and face, tan uniform, dark brown helmet, silver goggles with tan straps, yellow life jacket, brown gun belt and black shoes.

Mechanic—flesh hands and face, red helmet, light blue shirt, dark blue pants, black belt and shoes.

Flight Deck Officer—flesh hands and face, red helmet and shirt, dark green goggles, dark blue pants and black shoes.

**ENGINE PAINTING**

**GLOSS GREY**—Gear box and crank shaft.  
**DULL GREY**—Ignition wire harness.  
**DULL ALUMINUM**—Rocker covers and cylinder heads.  
**GLOSS BLACK**—Push rods, distributors and exhaust pipes.