North American T-6

More pilots have flown it than any other plane. One of the most detailed scale plans of all time is this fine "Harvard", "Texan", SNJI. By S. Calhoun Smith.

Flip open any military pilot's log book, be he Aussie, Canadian, British, Mexican, Brazilian or U. S., and chances are you will find some AT-6 time listed. Undoubtedly more military pilots the world over have won their wings flying the AT-6 than any other training aircraft. The AT-6 became universally accepted during the last war when thousands were produced both here and in other countries. Its various names included Harvard (Canadian and British), Wirraway. (Australia), and AT-6, SNJ-4, Texan (U. S. A.).

Built by the manufacturer of the famed P-51 and B-25, the North American AT-6 is no less famous as a trainer. It has become a fixture in flying training since it was first used by the U. S. Army Air Corps in 1936 under the designation BC-1.

Known most familiarly by its ear-cracking "high rpm" roar (exceeded only slightly by the Vultee Vibrator), the AT-6 has served well in advanced flying, fixed and flexible gunnery, instrument flying and carrier transition training—a record few other airplanes can even begin to touch. The AT-6 was also used as an all-purpose cross-country aircraft, a fighter, and a patrol and reconnaissance aircraft, particularly by the Latin American nations.

More recently the AT-6 (now T-6 under new Air Force designation) is still being flown by the National Guard and the Navy and Air Force Reserve. The regular Navy and Air Force now use the "6" as a primary trainer. Time changes everything yesterday's Advanced Trainer now in Primary!

The model is scaled directly from the prototype. Since actual measurements were made and factory 3 views used we feel certain the drawings will satisfy the most rabid scale fan. Scale is 1'' equals 1, giving a 42" span model. The exterior detail drawing includes the decoration and insignia used on the prototype which was based at the Newark, N. J., Air Force Base. This particular airplane is an instrument ship flown by Air Force Reserve pilots, including this model builder.

The model weighs 32 oz. and effective wing area is 232 sq. in., resulting in a wing loading of 13.5 oz./100 sq. in. This is a bit on the heavy side for tight vertical 8's, but big loops and inverted flight can be done easily if you want to do some limited stunt flying. The plans show a symmetrical airfoil which is the only departure from scale on the original model. True scale airfoils are also shown. Power can be any of the glow plug engines from .32 to .60 cubic inch displacement . . . the small motors for low and slow.

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As the result of flight reports from numerous modelers who have built this model, we recommend that you lower the bell crank location at least 1/2 inch from that shown on the plans. The line leads come down too. This means they pass through the wing part way out toward the tip. We have changed the location on our model so that the bell crank is level with the top of the wing with the leads passing out through the wing, and emerging from the bottom of the wing, about halfway out to the tip. This is not difficult to do before the model is completed, and well worth the trouble.

Another thing that will help stability is to move the C.G. forward about 1/2" by adding a bit of lead weight in the nose. The line leads need not come out straight from the bell crank. The front wire can be slanted back so it is even with the L. E. at the tip as on the original set-up. The combination of slant front and straight rear makes up enough of an angle to yaw the model outward slightly.

Since insignia and numerals of scale size and. shape are practically unobtainable commercially, Trim-Film sheets were used to good advantage to cut out the shapes needed. Check the exterior detail plan for outlines and positioning.

Details such as steps, hinges and control horns are included in the drawings. Aileron, flap and tab outlines can be added with drawing ink and a ruling pen.

Details such as sheet dural seams have been omitted as being impractical to duplicate on the model. The prototype carries numerous instructions and placards on the exterior pertaining to starting, hydraulic filler caps, external power source, etc. the aircraft is literally covered with them.

Most of this lettering is 1/2" high or less. This scales down to 1/32" or less on the model so you can see why they have been omitted. However, if you detail boys are hot for it, we suggest a visit to the nearest AF Base and the flight line. Or better still, see your recruiting officer he can guarantee you a good close look at the T-6!

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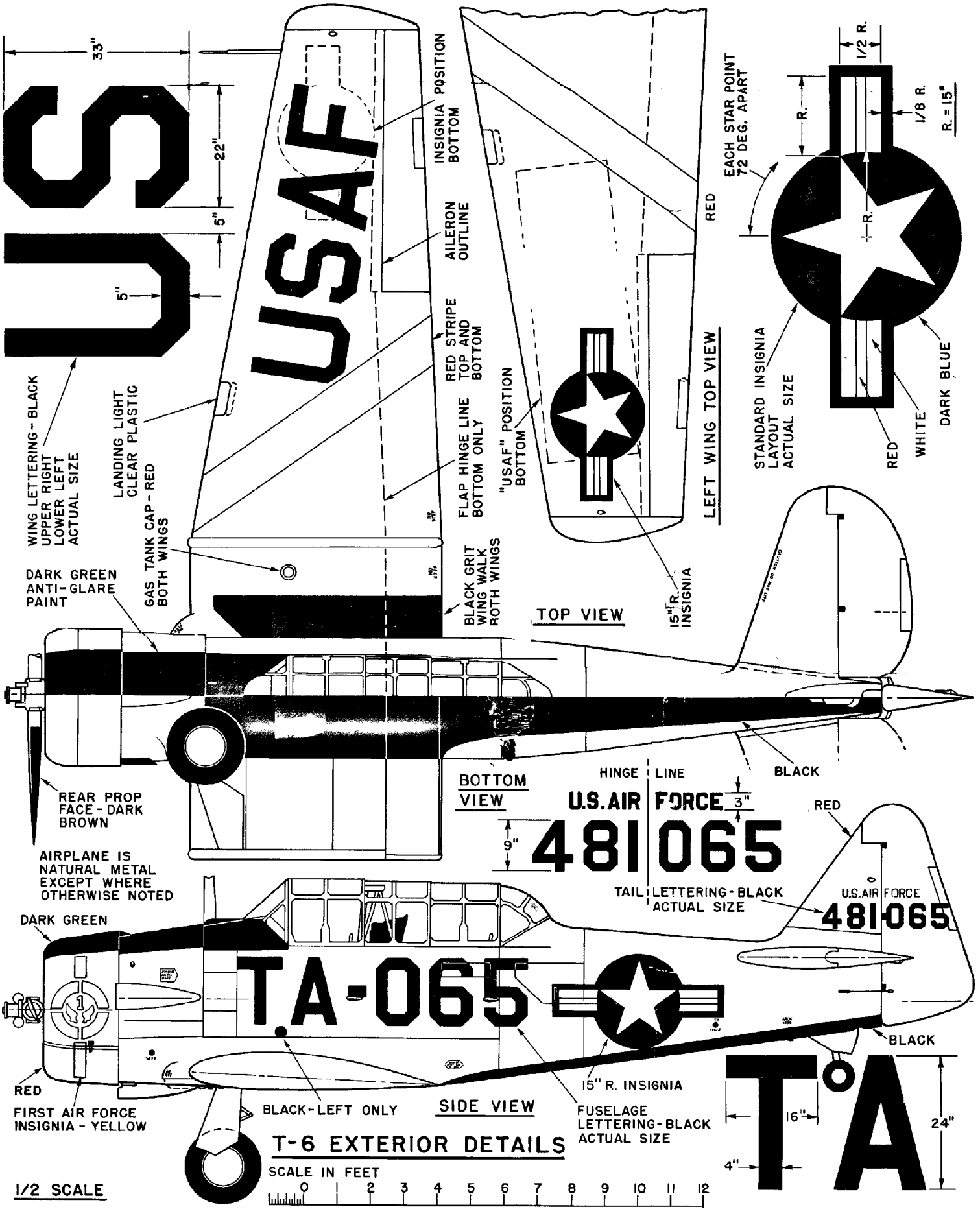
AT-6—Bill of Materials
(Balsa, unless otherwise specified)

2 pcs. ¼" x 1" x 36", crutch, 3 pcs. ⅛" x 3" x 36", formers, ribs. 1 pc. ¼" x ½" x 36", wing L.E. 1 pc. ¼" x 2" x 36", tail spars & L.E. 1 pc. ½" x 2" x 36", tail spars & L.E. 1 pc. ½" x 2" x 36", fillets, tips, fairing. 6 pcs. 3/32" x ⅜" x 36", fuselage planking. 1 pc. ⅛" x ¼" x 36", fuselage stringers. 9 pcs. 1/16" x 3" x 36", wing-tail covering. 2 pcs. 1/16" x 6" x 12" (plywood), crutch sides, wing spars.

1 pc. ⅛" x 6" x 12" (plywood), center section spars. 1 pc. 2½" x 4½" x 5" (built-up block), engine cowling. 1 pc. ¼" x ⅝" x 12" (hard wood), elevator spar. 1 pc. ¼" x 3½" x 4½" (hard plywood), firewall. Scrap blocks for cowling, wheel wells, fillets, cockpit details.

Twenty inches of ⅛"-dia. steel wire, landing gear. Eye or J bolts for L.G. mounting. 18" of 1/16"-dia. steel wire for push rod. 18" of 1/32" dia. steel wire for canopy frames. .020" thick celluloid for canopy. 3" Ceco bell-crank. 1 pr. 2¼" Snafu wheels. One 1" tail wheel.

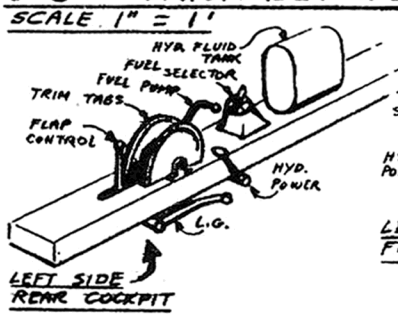
Heavy flexible wire for control line leads. Scrap 1/32" aluminum sheet for wheel covers, steps, etc. Wood filler, silver dope, dark O.D. dope, black dope, red dope, fuel-proofer, cement. Red, white, blue, yellow, black Trim-Film decal material for scale decorations. Wedge tank.


33"
22"
5"
5"
USAF
INSIGNIA POSITION
BOTTOM
AILERON
OUTLINE
RED STRIPE
TOP AND
BOTTOM
FLAP HINGE LINE
BOTTOM ONLY
"USAF" POSITION
BOTTOM
RED
LEFT WING TOP VIEW
15" R.
INSIGNIA
WING LETTERING - BLACK
UPPER RIGHT
LOWER LEFT
ACTUAL SIZE
LANDING LIGHT
CLEAR PLASTIC
GAS TANK CAP - RED
BOTH WINGS
BLACK GRIT
WING WALK
BOTH WINGS
DARK GREEN
ANTI-GLARE
PAINT
TOP VIEW
REAR PROP
FACE - DARK
BROWN
AIRPLANE IS
NATURAL METAL
EXCEPT WHERE
OTHERWISE NOTED
BOTTOM
VIEW
HINGE LINE
BLACK
U.S. AIR FORCE
3"
9"
481065
TAIL LETTERING - BLACK
ACTUAL SIZE
RED
U.S. AIR FORCE
481065
DARK GREEN
TA-065
BLACK
RED
FIRST AIR FORCE
INSIGNIA - YELLOW
BLACK - LEFT ONLY
SIDE VIEW
15" R. INSIGNIA
FUSELAGE
LETTERING - BLACK
ACTUAL SIZE
T-6 EXTERIOR DETAILS
SCALE IN FEET
0 1 2 3 4 5 6 7 8 9 10 11 12
1/2 SCALE
EACH STAR POINT
72 DEG. APART
1/2 R.
R.
1/8 R.
R. = 15"
R.
STANDARD INSIGNIA
LAYOUT
ACTUAL SIZE
RED
WHITE
DARK BLUE
T°A
16"
24"
4"

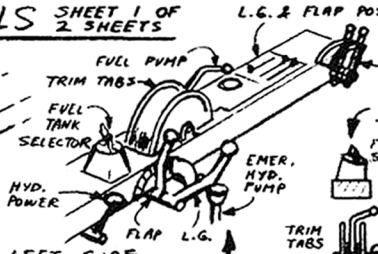
T-6 INTERIOR DETAILS

SHEET 1 OF 2 SHEETS

SCALE 1" = 1'

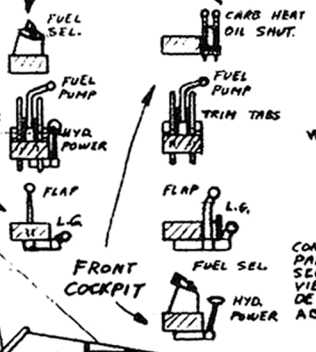


LEFT SIDE REAR COCKPIT

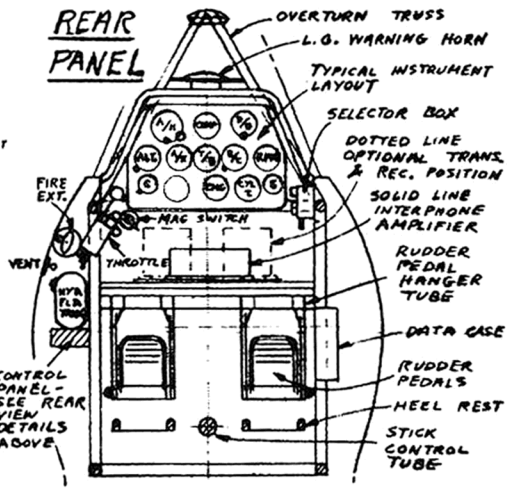


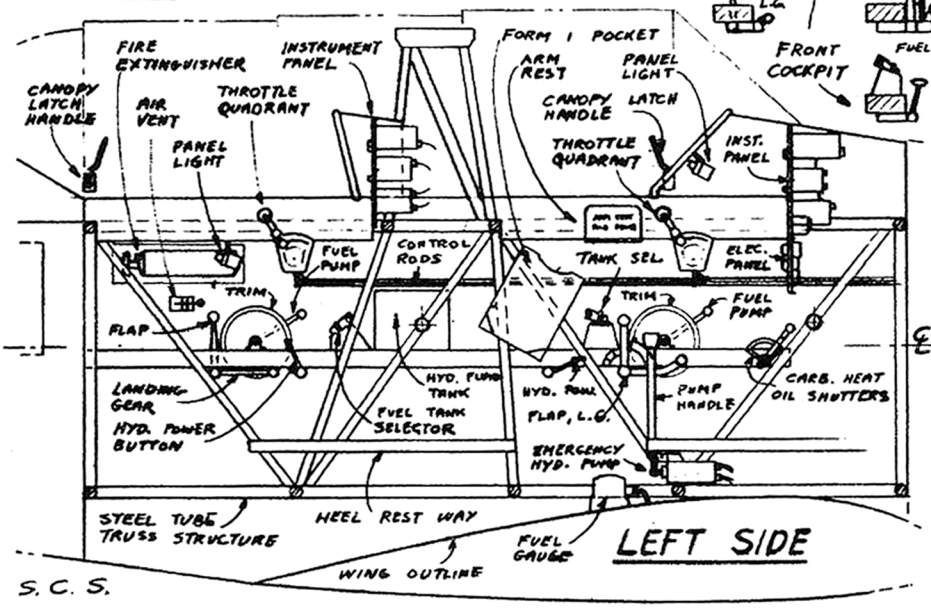
LEFT SIDE FRONT COCKPIT

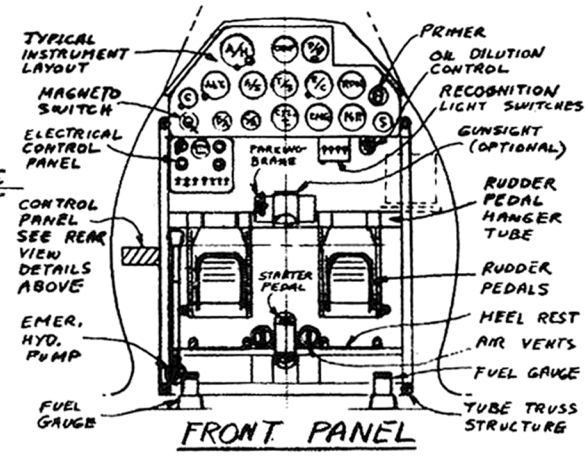
LEFT SIDE SECTIONS FROM REAR

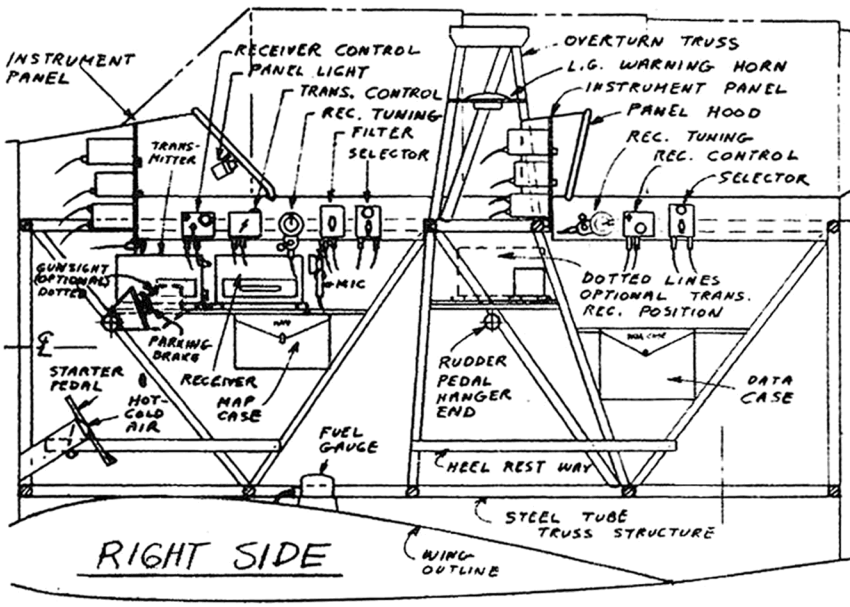


REAR PANEL



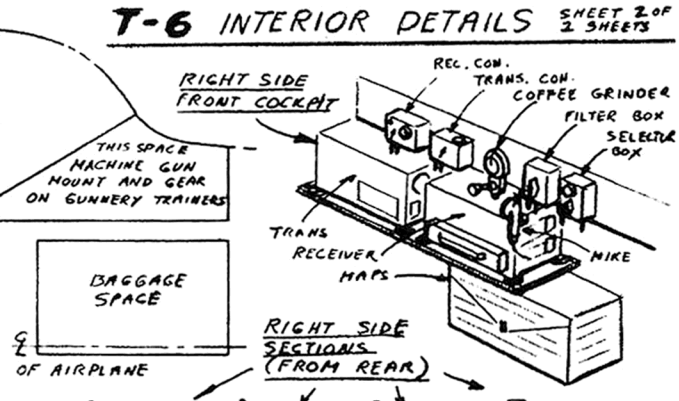




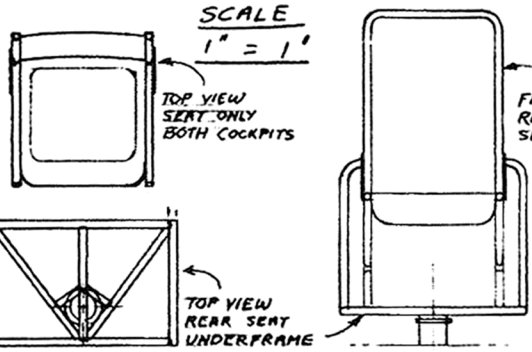


T-6 INTERIOR DETAILS

SHEET 2 OF 2 SHEETS



SCALE 1" = 1'



SIDE VIEW SEATS & CONTROLS