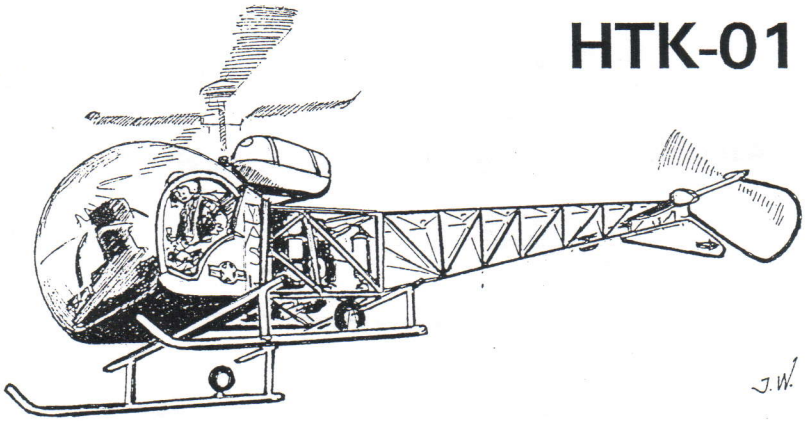


BELL 47/ H-13 SIOUX

HISTORY

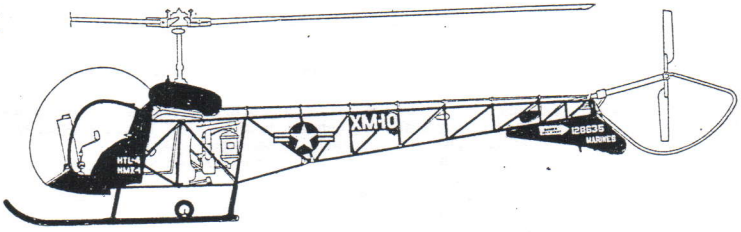
THE Bell model 47 helicopter was quite possibly the product that provided the Bell Aircraft Company the impetus to switch their production of fixed wing types to that of rotary winged machines. From a singularly modest first flight in December of 1945, the Bell 47 (H-13) was to become the most numerable aircraft in the service of the US Army. It wasn't until the production of the now historic and once ubitquitous 'Huey', also a Bell type, that the 'Sioux' was relegated to the training role.

The 'Sioux' was produced in the USA as well as under license in Italy, Japan, and the UK. The 'Sioux' served with at least 22 western air arms and some still remain in the air forces of smaller nations.

The H-13 was first 'blooded' during the Korean war in the 1950's when it was pressed into service as a 'medevac' chopper and served until replaced by the larger Sikorsky types. It achieved a degree of fame as a film star in the Hollywood film and later TV series 'M*A*S*H'. Well over 5000 of these adaptable aircraft were manufactured and many are still flying today in civil hands. It is interesting to note that it's familiar characteristic 'egg-beater' sound has become synonomous with all helicopters as almost every dubbed film sound track that depicts rotary winged aircraft, regardless of whatever type appears on screen, seems to posess 'whop-whop' noise that is the trademark of the two bladed Bell rotor system introduced on their model 47.

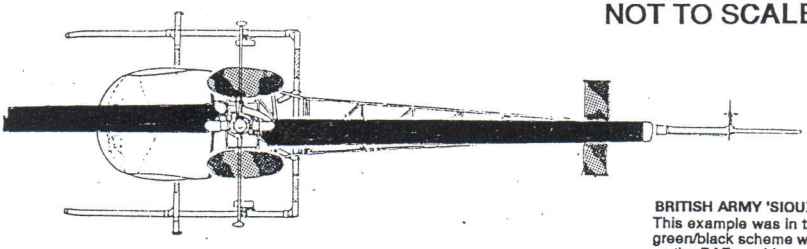
BELL HTL-4 USMC

HTL-4 (128635) USMC based at MCAS Quantico circa 1950. Overall Glossy Sea Blue (FS 15042), with white lettering. Rotors are Matt black with yellow tips. Interior probably Interior Green (FS 34151).

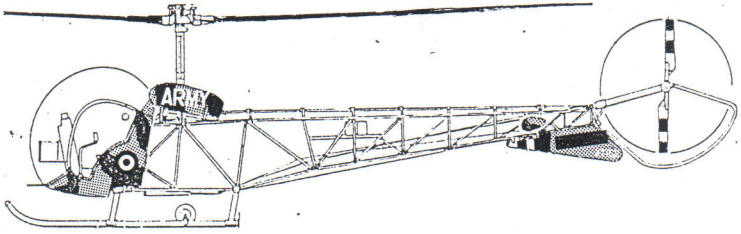


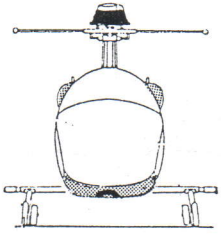
NOT TO SCALE

NOT TO SCALE



BRITISH ARMY 'SIOUX' (XT162)
This example was in the standard green/black scheme with rotors as on the RAF machine.





BELL 47 SIOUX

The master patterns for this kit were made by Tim Perry of PP Models

SPECIFICATIONS

TYPE: Training and liason helicopter
CREW: One pilot and two passengers
POWERPLANT: 260 hp six cylinder VO-435
DIMENSIONS: Length 32 ft 6in; Height 9ft. 3in.; Rotor diameter 37ft 1in.
WEIGHTS: Empty, 1713lbs, Loaded, 2850lbs.
PERFORMANCE: Max speed 105mph; Cruise 83mph; Service ceiling, 17,600ft.

GENERAL NOTES ABOUT THIS KIT

ONE of the main reasons that the Bell 47 has not appeared in kit form before now,(there was a large scale made-up brass model available for a short time in the 1960's) was the difficulty in reproducing the intricate truss of the tail boom, which is in actuality welded steel *tubing*.

Modern modelling materials and methods, such as photo-etching, have made the production of small, complex parts practical.

The parts included in this kit generally represent the Bell 47G type but wth minor modifications many of the earlier and later versions can be made from this kit.

There were many variations among the many 'G' models built so be sure to check your references before choosing which model you wish to complete. Variations in such things as radio equipment and antennae were rampant. Even the clear 'Perspex' bubbles were inconsistant in shape. Take particular note of the position of the oil tank (white metal part) as this could have been mounted either vertically or horizontally.

BELL 47G
1:48th Scale
ASSEMBLY INSTRUCTIONS

ABOUT THIS KIT

As the 1:72nd scale Bell 47 kit was Esoterics all time best seller, this 1:48th scale version, our first to this popular scale, was a logical choice. We have considerably updated the detail and therefore the ultimate complexity of the kit. While this is not a particularly difficult kit to assemble, it does require a degree of patience and care.

It is recommended that the builder refer to the written instructions as well as the illustrations to complete the assembly without complications. We are convinced that the final results will be worth the challenge.

STEP 1

Separate the main truss (PA-1) from the large photo-etched sheet and fold as shown. NOTE: Remove the tab from the front of this part as it is not needed. After separating part (PA-3) from its fret and folding, secure to the main truss.

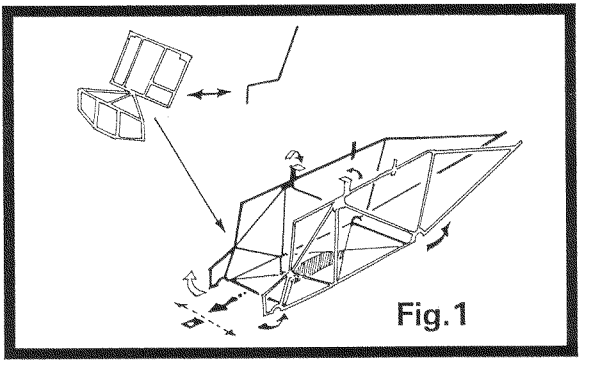


Fig.1

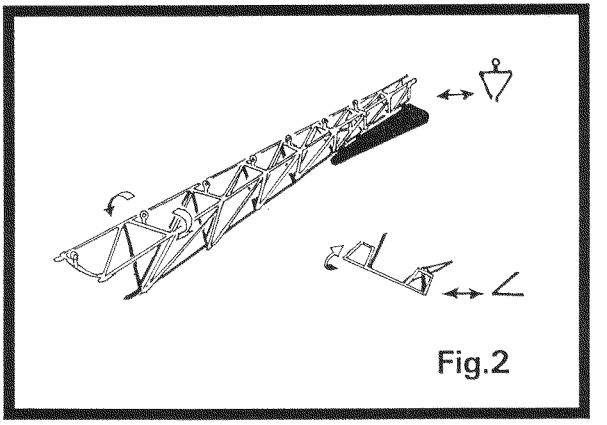


Fig.2

STEP 2

Remove the tail boom truss (PA-2) and fold as illustrated' into a triangular cross section and secure with super-glue or solder. Remove and fold the forward fuel tank bearer, part PA-4, as shown. Set aside for the time being.

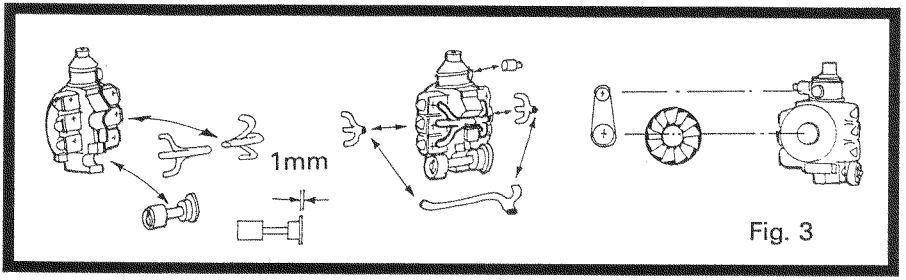


Fig. 3

STEP 3

Assemble the resin and white metal engine parts as shown. Add the P.E. Cooling Fan and Fan Belt (PB-1 and PB-2) to the front of the engine assembly.

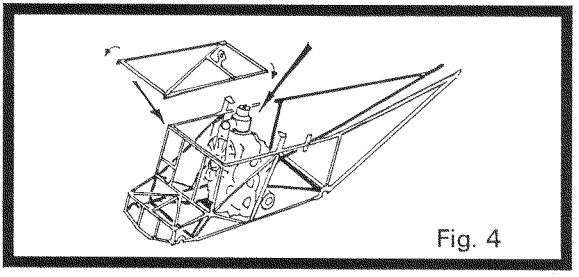


Fig. 4

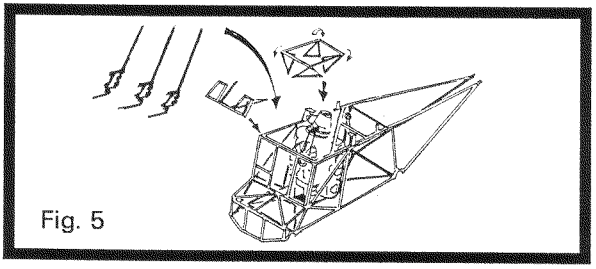


Fig. 5

STEP 4

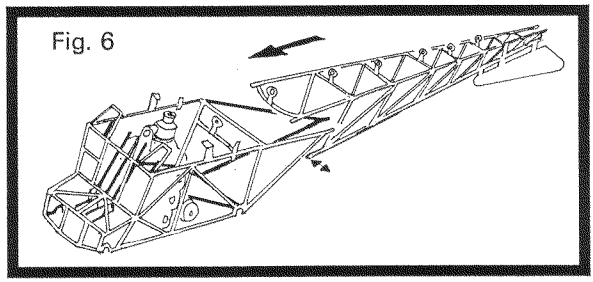
Add the assembled engine to the floor of the main truss. When secure, add the upper box structure, (PA-5), to the top of the main truss. NOTE: The engine is more easily painted before addition into the truss, however, should you decide to do so, complete the whole truss assembly without part PA-5, then add the engine followed by PA-5.

STEP 5

Add the three control linkage arms (PB-3, PB-4, PB-5) to the inside front of the Main truss Assembly. NOTE: These parts are cosmetic and are not fixed to any particular point, you may also choose to omit them. Now add the Front fuel tank bearer (PA-4) to the front top of the main truss. Fold down the corners of the Upper engine truss (PB-15) and install over the engine gear box.

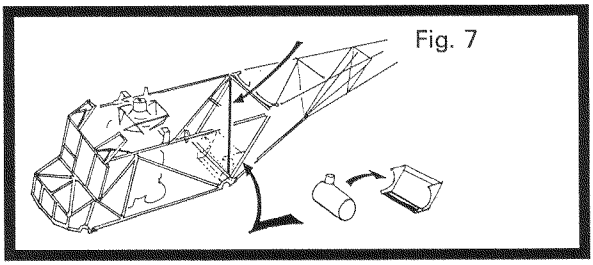
STEP 6

Carefully add the Tail boom truss to the Main truss ensuring correct alignment.



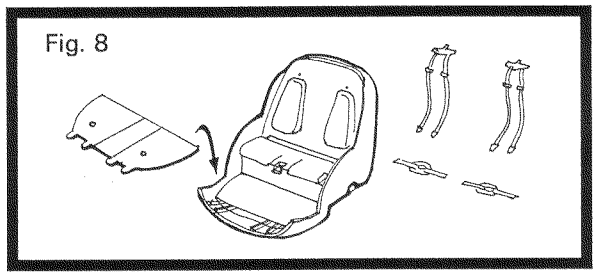
STEP 7

Add the Diagonal truss member (PA-9) to the rear of the Main truss. Fold the Hydraulic reservoir support (PB-19) as shown , including the white metal reservoir.



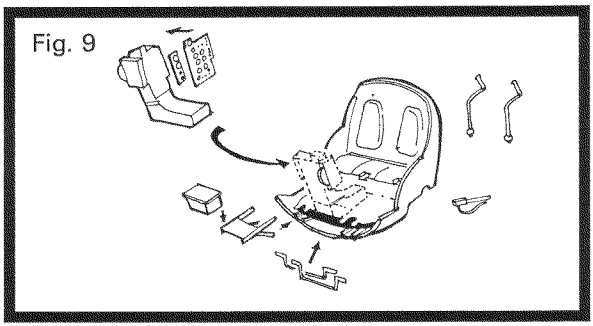
STEP 8

Add the P.E. Cockpit floor (PB-25) to the resin cockpit tray with the part etched surface facing upwards. Add the Seat belts (PB-11,PB-12) and Shoulder harnesses (PB-9, PB-10).



STEP 9

Add the P.E. Instrument panels to the resin center console. Add the console to the cockpit floor on the part etched position. Fold the Battery rack (PB-18) as shown and add to the front of the console. NOTE: Before adding the resin



Battery it will have to be filed to fit. Add the metal Cyclic controls (Joy-sticks) and coll--ective handles (Throttles) as well as the Rotor pedals (PB-13,14).

STEP 10

Add the P.E. Radio rack (PB-33) to the top of the main truss. After adding the cockpit tray to the main truss, add the Transverse landing skid supports to the bottom of the fuselage assembly (Tray+ Truss). NOTE: The longer support is placed forward. Add the Vertical skid struts and set aside to dry before securing the landing skids.

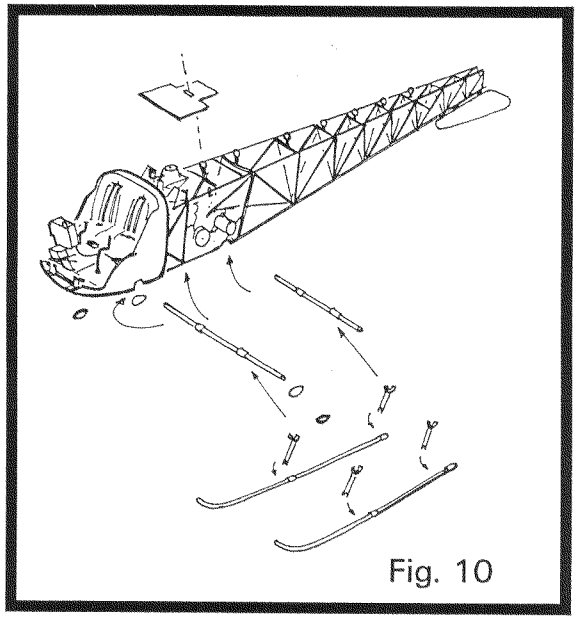


Fig. 10

STEP 11

Insert Horizontal into rear of truss and secure when correctly aligned. NOTE: the square lug on the top of this part may have to be filed to fit the P.E. support lugs. Insert the tail rotor driveshaft (Plastic Rod) when trimmed to size. Add the Tail rotor beam (Gear Box) to the truss. Add P.E. Side plates (PB-22,23) to the tailplane as well as the additional P.E. truss parts (PA-10, 11).

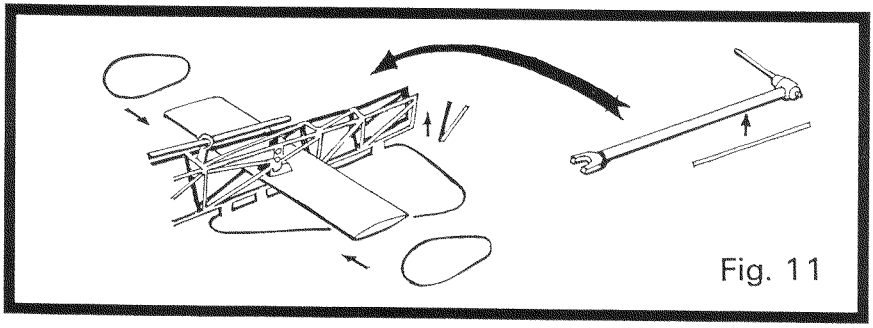


Fig. 11

STEP 12

Begin assembly of Main rotor by inserting the blades into the Main hub. CAUTION: To ensure a proper fit, file the ends of the Blades . DO NOT attempt to file the inside of the slots as they are very fragile. Add the P.E. Governor balances (PB-41,42) to the top of the hub. Add the metal balances to the hub as shown.

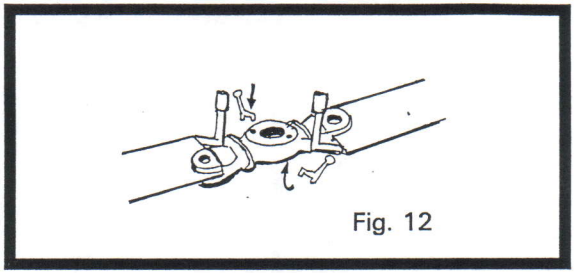


Fig. 12

STEP 13

Add the Dynamic counter-balances to the Main Rotor Shaft and when dried, add the Rotor to the Shaft. Add the P.E. Blade Actuator Arms (PB-30,31) and set aside for the time being.

STEP 14

Assemble the Tail Rotor as shown and add to its shaft. Include P.E part PB-35.

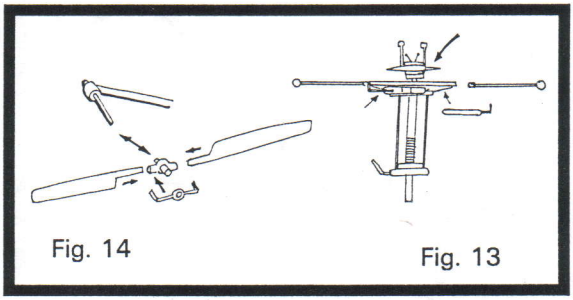


Fig. 14

Fig. 13

STEP 15

Add the following P.E. parts to the Main Rotor. (PB-26,27,and 28,29).

STEP 16

Add Antennae as shown. The whip and the vertical Yagi antennae will have to be made from stretched 'Sprue' (Not provided). NOTE: the antennae illustrated are specific to some British Army versions. Check your references for other configurations. P.E. parts: PB-35,36 and 21.

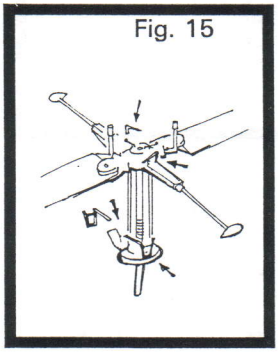


Fig. 15

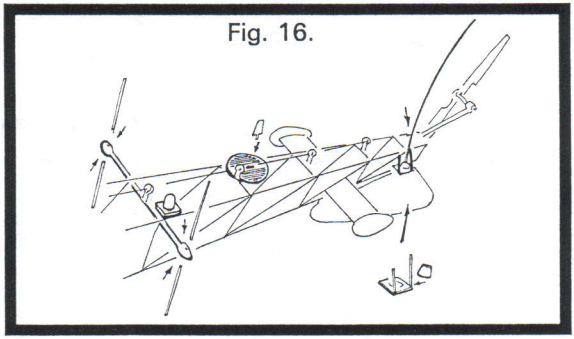


Fig. 16.

STEP 17

Add : P.E. Cable guides, parts (PB-39,40) ; Brackets (PB-43,44) ; Winch Beam (PB-34). Add resin Avionics boxes (2). Add metal Intake Tube.

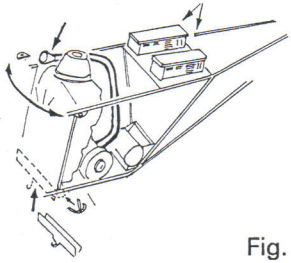


Fig. 17

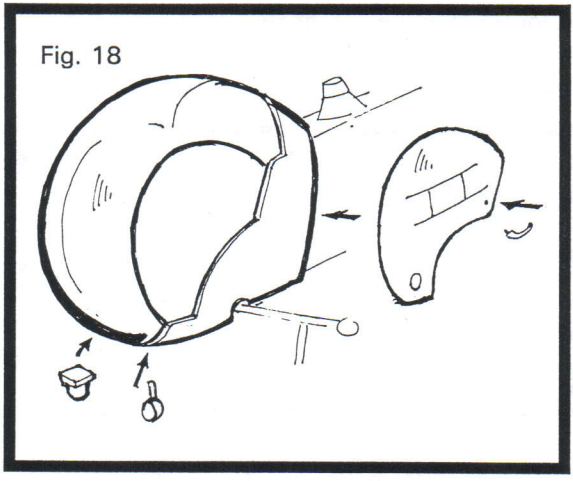


Fig. 18

STEP 18

Cut out Main Canopy checking fit to cockpit tray. When satisfied, cut out Doors and tape to sides of the bubble. Draw a line around the doors and then carefully remove the door shape from the bubble. Add Door Handles (PB-41,42). Add metal Rotating Beacon and Landing Light to underside of cockpit.

STEP 19

Add additional truss members (PA-12,13) if required (Optional). Add metal 'Black Boxes', resin Fuel Tanks, and metal Exhaust Pipes.

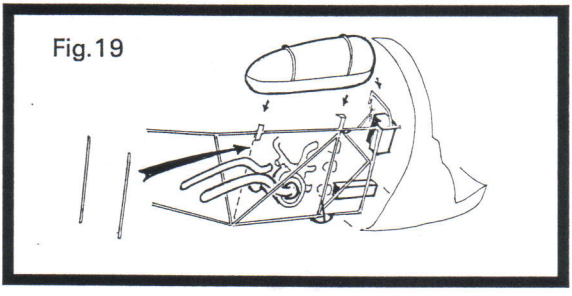


Fig.19

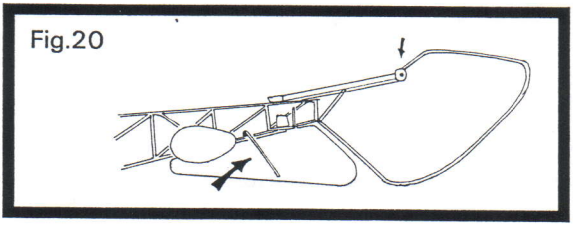
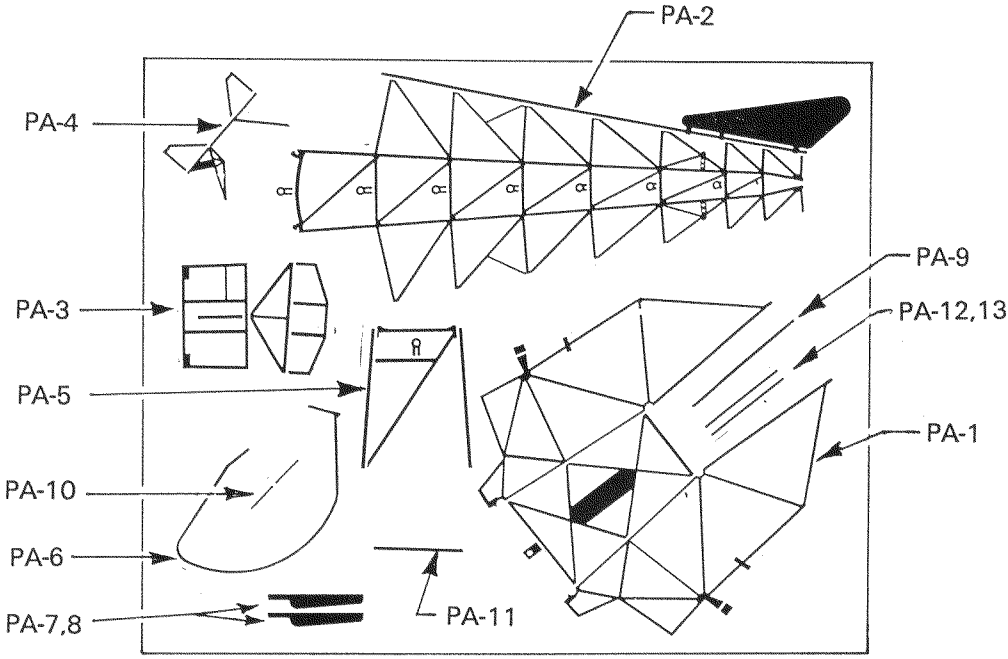


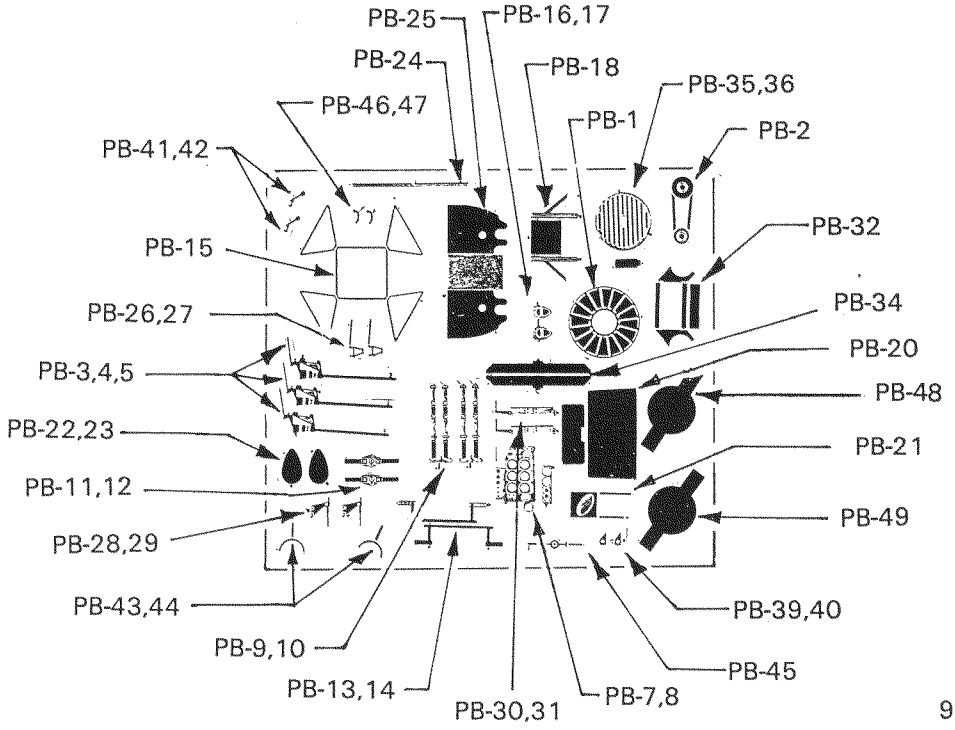
Fig.20

STEP 20

Add Ventral Fin Brace (PB-24) as shown and the Tail Rotor Guard (PA-6).

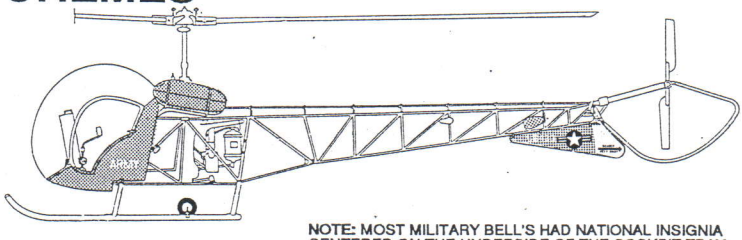
PHOTO-ETCHED PART NUMBERS





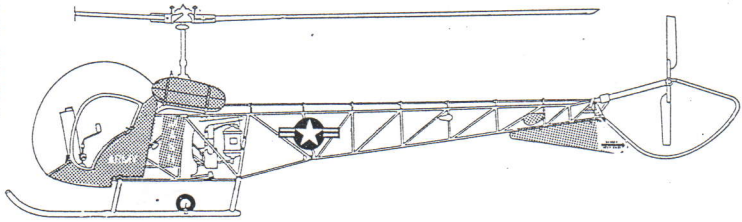
COLOUR SCHEMES

H-13 'Sioux' (59430) US Army liason machine in the mid-1960's. Overall glossy Olive Drab (FS 14087), with white lettering. Light grey interior with rotors matt black and yellow tips.

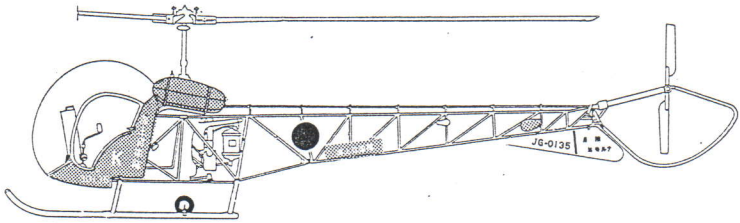


NOTE: MOST MILITARY BELL'S HAD NATIONAL INSIGNIA CENTERED ON THE UNDERSIDE OF THE COCKPIT TRAY

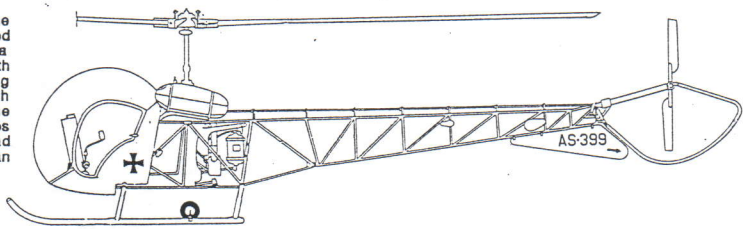
H-13 'Sioux' (Serial unknown) This is a representation of the aircraft participating in the TV series M*A*S*H. The markings are spurious although appropriate for the era, being overall matt Olive Drab (FS 34087) with matt black rotors and yellow tips. A light grey interior is recommended.



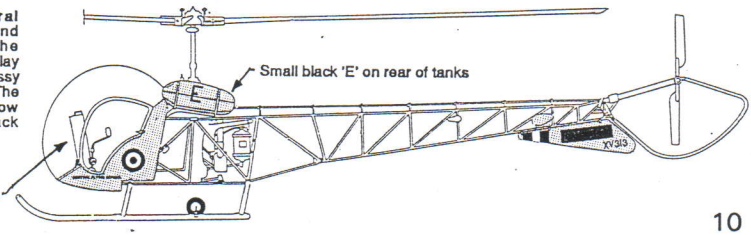
H-13G (30135) JSGDF. This is an example of one of the many Kawasaki built 'Siouxs' made for the Japanese forces. This machine was painted overall glossy Olive Drab (FS 14087) with white lettering. Trim the 'tabs' from the national insignia plates and apply the 'Hinomaru' decals to them.



GAF H-13G (AS-399) One of the US built aircraft that supplimented the many Italian Agusta manufactured types in service with the W.German AF. This training machine was overall yellow with black lettering and insignia. The rotors were black with yellow tips while the tailplane end plates had the black/red/ yellow West German national colours.



RAF 'Sioux' (XV313) Central Flying School. This Westland built example served with the famous 'Tomahawks' flying display team. It was painted overall glossy red with an aircraft grey truss. The main rotor was black with yellow tips while the tail rotor was black with red/white/red bands.



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NEW!!!!! SUPER TECH 48 1:48 scale kit	
* Bell 47 (Souix) (October 91)	TBA

*NEW RELEASES

ESOTERIC UPDATE 1992 Releases

Grumman XF-10F (Jaguar)
Fiat CR 20 (Three versions)
Hiller H-23 (Raven)
Martin AM-1 (Mauler)