

U.S. NAVY AIRCRAFT WINGFOLDS

-or-

HOW TO GET ALL BENT OUT OF SHAPE

Text & illustrations

by

David Gallagher

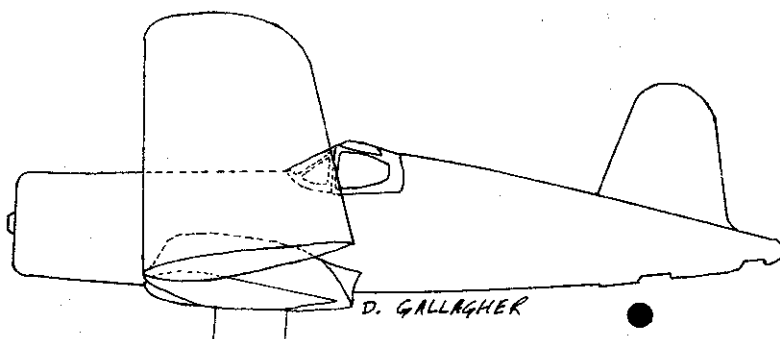
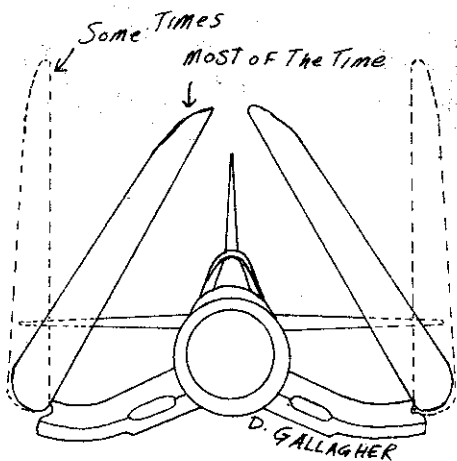
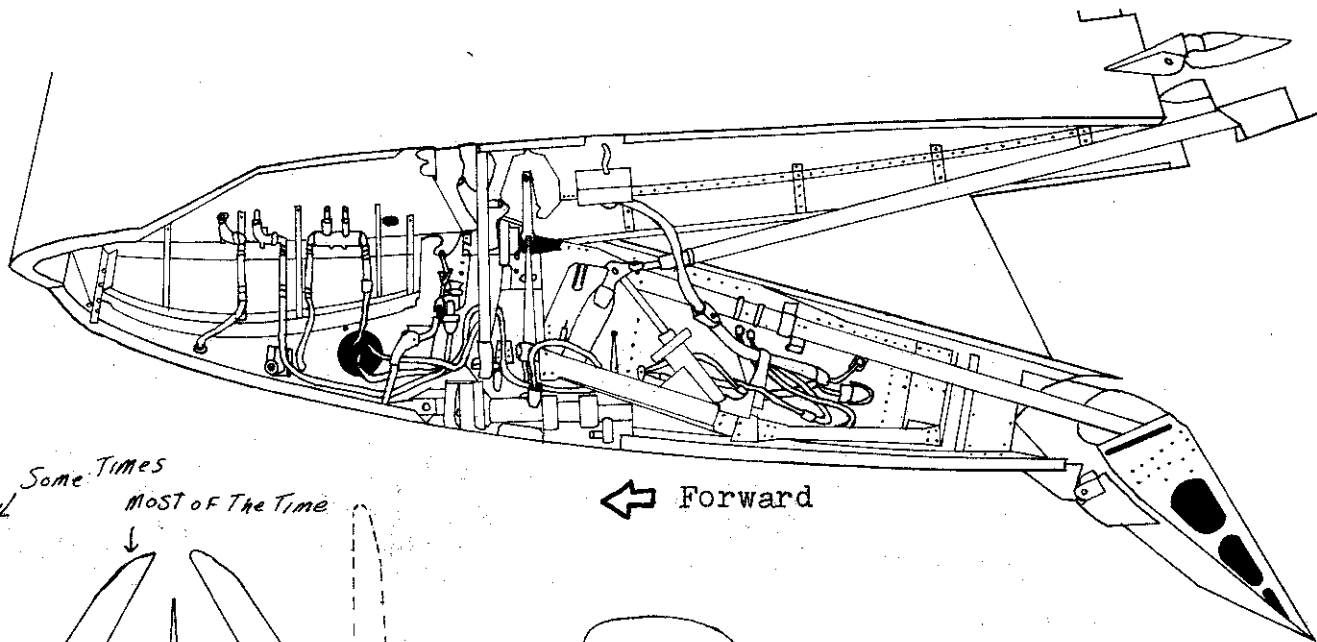
This article is for those of us who are Navy aircraft lovers as well as lovers of detail.....lots of little, complex shapes that are part of the makeup of post WW II carrier-based aircraft.

The aircraft in this article run the gamut from the immediate post war period, where pistons were the main source of power, through the more complex and contemporary jets & piston planes of today. And while the method of propulsion might have changed, the one thing that seems to have remained the same over the years is the intricate & complex equipment that is fitted into a plane's wingfold. Outside of the rather simple wingfolds of the F-8 Crusader and the F-18 Hornet, the remaining 14 aircraft and one helicopter included here have quite a bit of wiring, ribbing, hinges, lightning holes, etc, in them.

All of the planes' wingfolds shown here can be detailed in the hobby kits available. Of course, the decision to fold a model's wings rests with the builder, but it would seem a safe bet that the person seriously thinking of opening up & detailing the various folds on the S-2 Tracker or E-2 Hawkeye or A-3 Skywarrior should consider it a life's project. There is enough stuff to add into each of these folds to make a separate & highly detailed model! However, there do seem to be such modelers amongst us, and that was one of the reasons that I did this article: to put in one article as many of these detailed illustrations as I could. I don't doubt that some of you will read through this article and immediately notice that there quite a few planes missing. I am in the process of drawing more aircraft for the next annual of PNI, So, if the plane you want to build isn't shown here, it will hopefully appear in the future article.

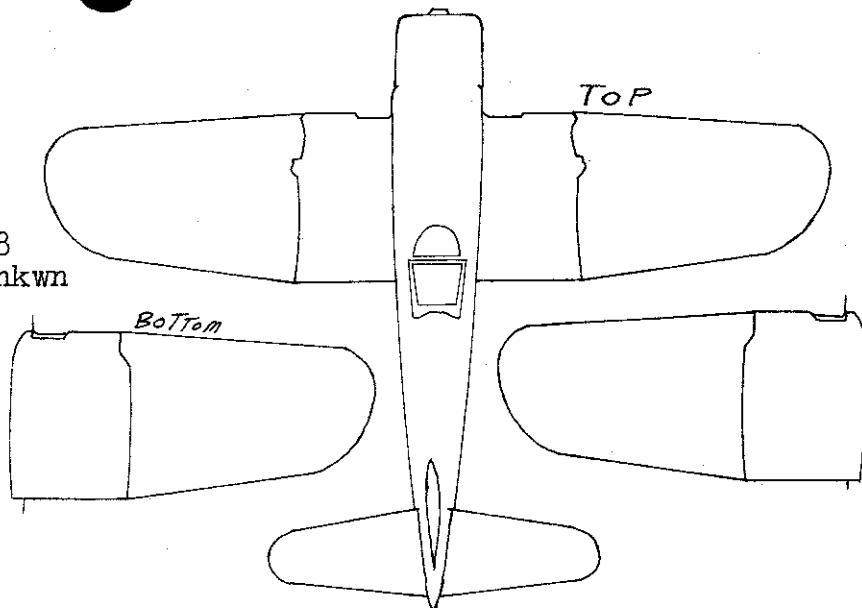
The individual wingfold subjects have three parts: the wingfold itself, with as much detail as possible added; three-view drawings of the plane to show the wingfold (and some tail fold) lines; and a listing of various kits available to the modler in the three major scales (1/72, 1/48, and 1/32). In making up the kit lists I know that I have probably omitted a great number of models that were on or are on the market. If I have somehow left off some kit that you think should absolutely be on the list, I am sorry. However, it's not too feasible to list EVERY model for each plane; and I will be the first to admit that I am not aware of every single model kit that has been produced on each of these subjects. But I hope that there are enough listings to be of use to the modeler should he (or she) consider building a particular plane.

F4U CORSAIR

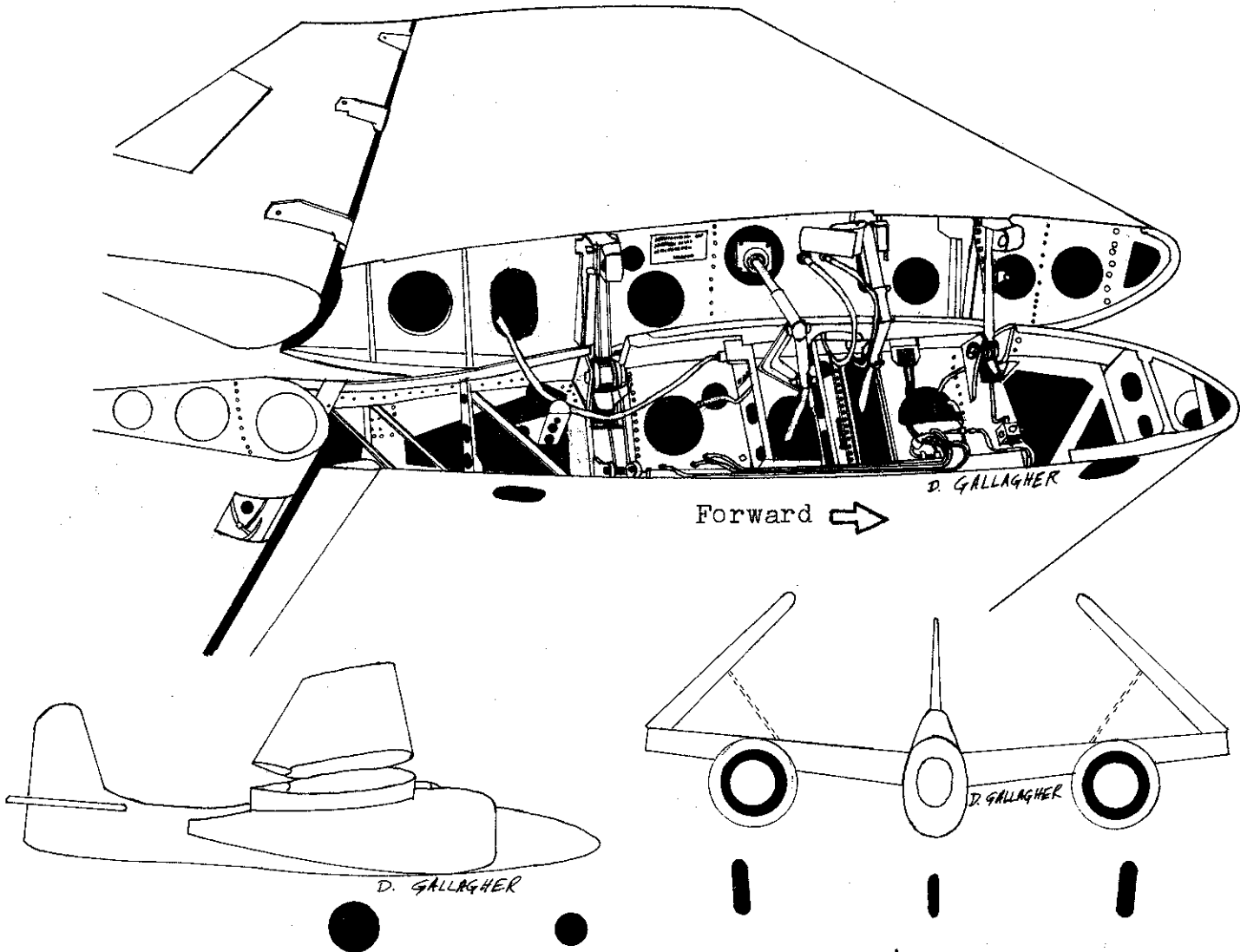


Available kits:

- 1/72nd Heller kit, \$4
- 1/48th Otaki/Arii kit, \$7
- Hasegawa(F4U-4), \$8
- Monogram(" "), unknwn
- 1/32nd Revell kit, \$10



F7F TIGERCAT

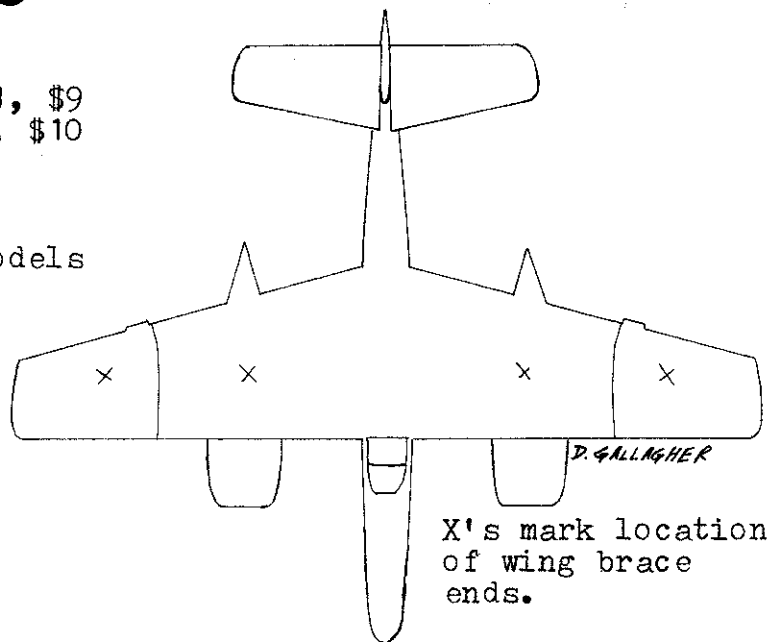


Available kits:

- 1/72nd F7F, Aoshima kit #G6-501, \$9
- " F7F, Monogram kit #6063, \$10

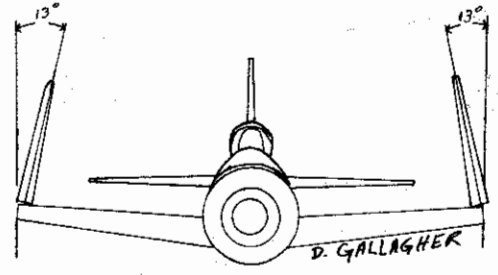
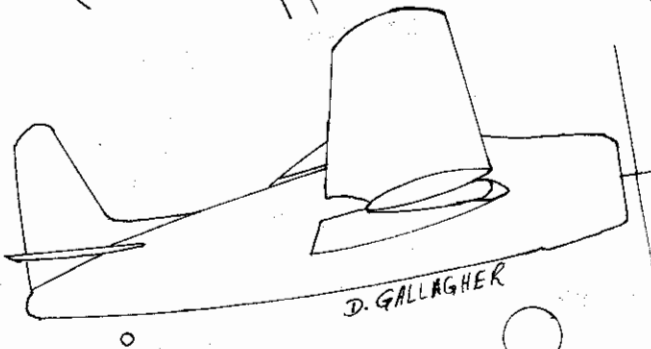
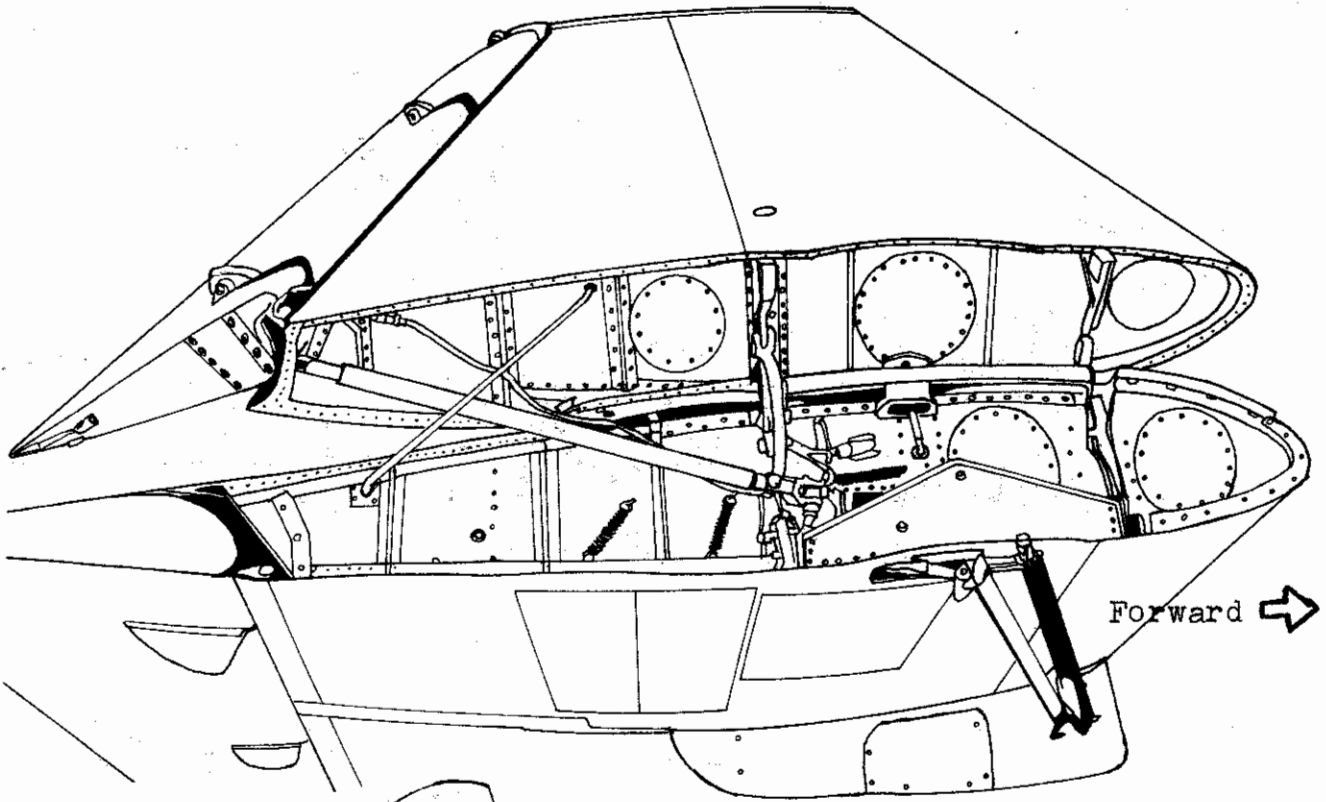
1/48th: none

1/32nd: Two-seat F7F, Combat Models vacform #014, \$28



X's mark location of wing brace ends.

F8F-2 BEARCAT



Available kits:

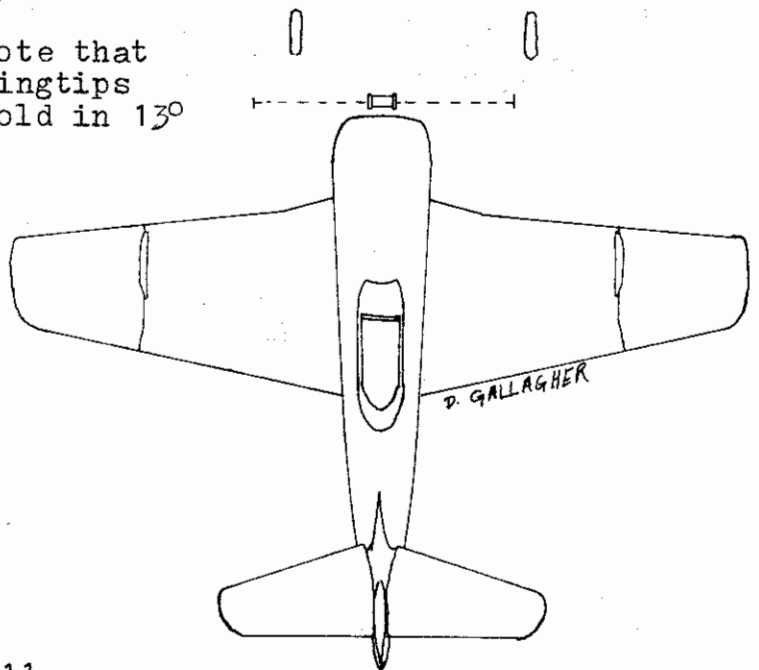
1/72nd: F8F Bearcat,
Monogram, \$5

1/48th: F8F Bearcat,
Testors, \$6

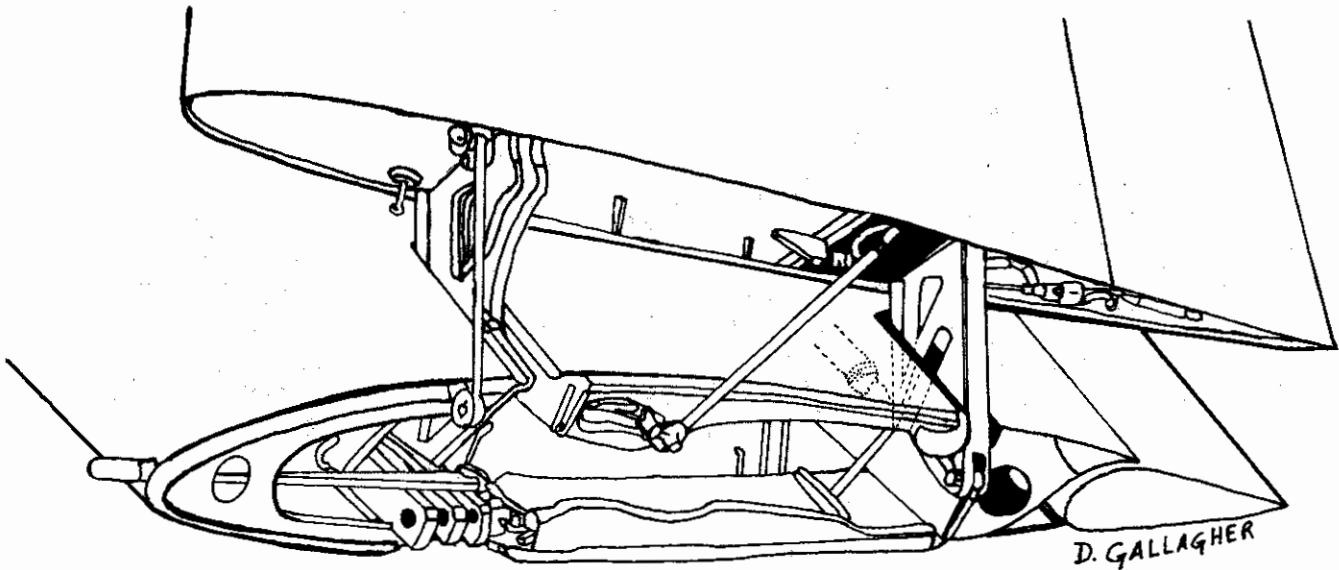
1/32nd: F8F-1 Bearcat,
War Eagle(vacform)
kit #301, \$17

F8F kit by Combat
Models, price unknown

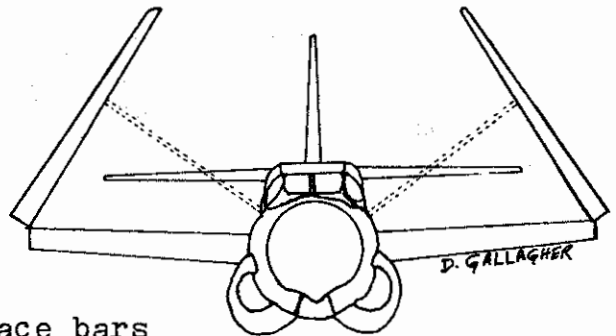
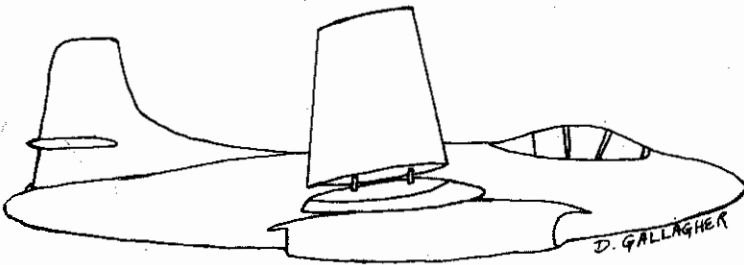
Note that
wingtips
fold in 13°



F-3D SKYKNIGHT



Forward



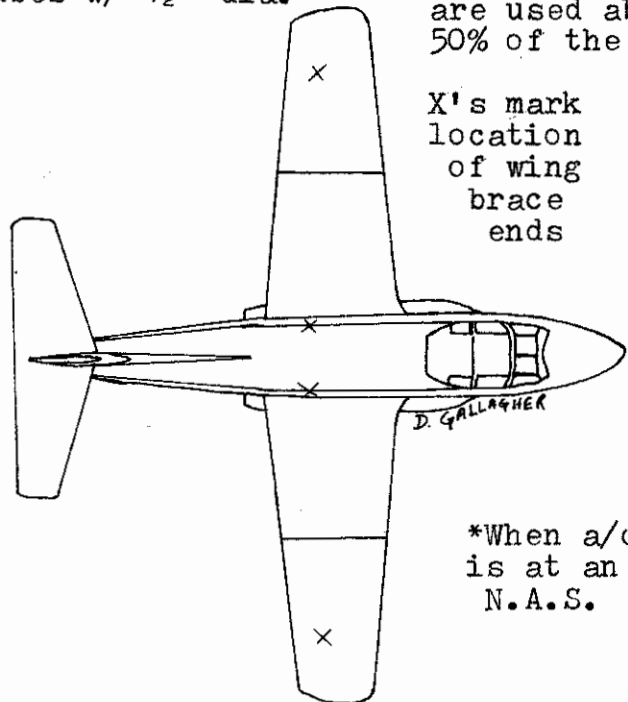
Wing brace bars
are simple straight
tubes w/ 1½" dia.

Wing braces
are used about
50% of the time*

Available kits:

- 1/72nd: Matchbox, about \$6
Falcon (vacform), \$10
- 1/48th: Hobby Systems (F-3D2),
vacform, \$29
- 1/32nd: none

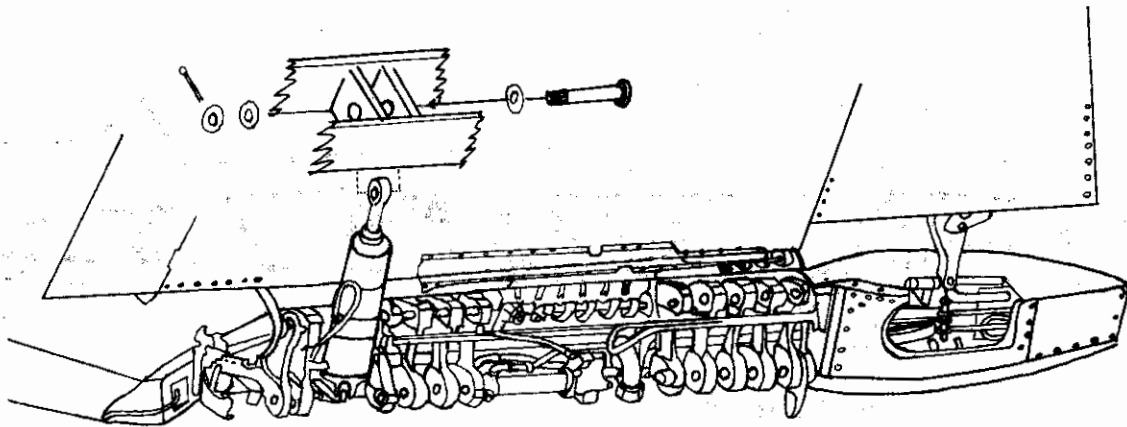
wingspan: 50'0"
wingspan (folded): 26'10"
height: 16'1"
height (wings folded): 16'6"



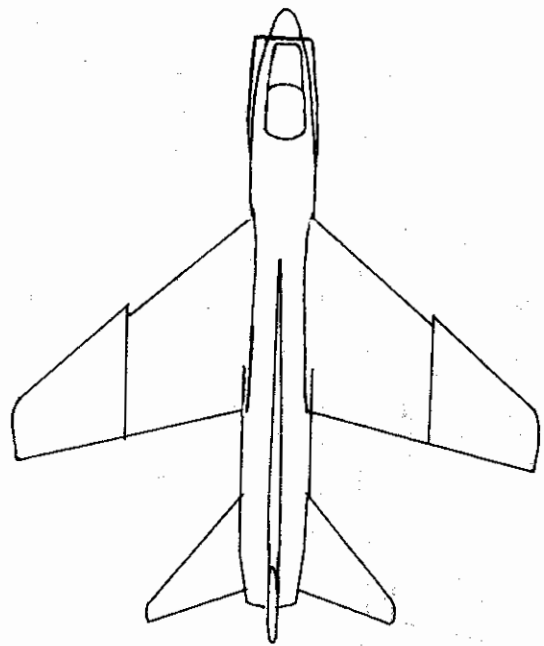
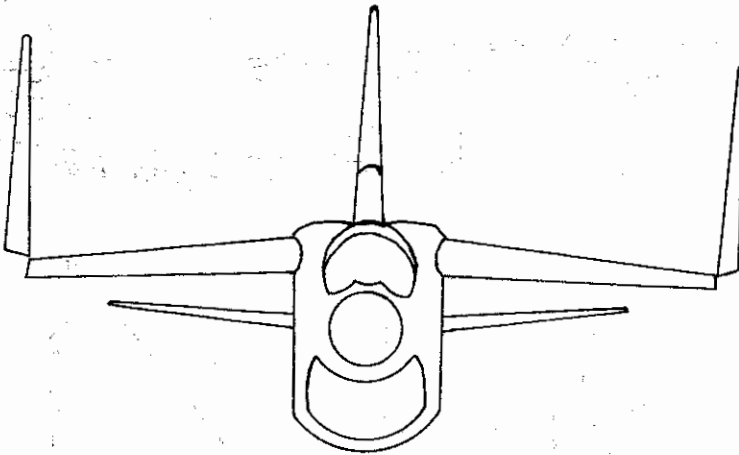
X's mark
location
of wing
brace
ends

*When a/c
is at an
N.A.S.

A-7 CORSAIR II



← Forward



Available kits:

1/72nd: Fujimi kit #AF10(A-7B), \$10

" " #AFO9(A-7E), \$10

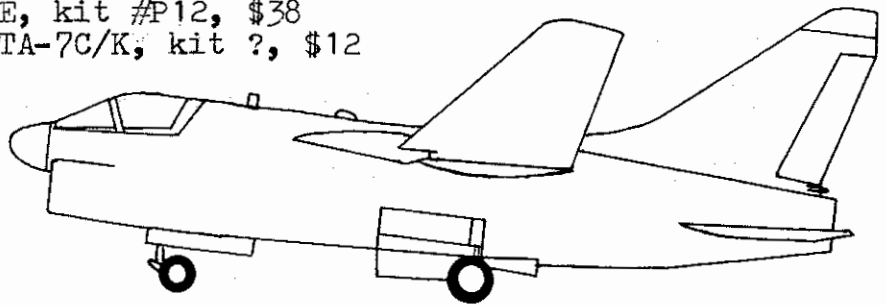
Maintrack resin converts to
TA-7C, \$7

1/48th: Monogram A-7B, kit #5418, \$7

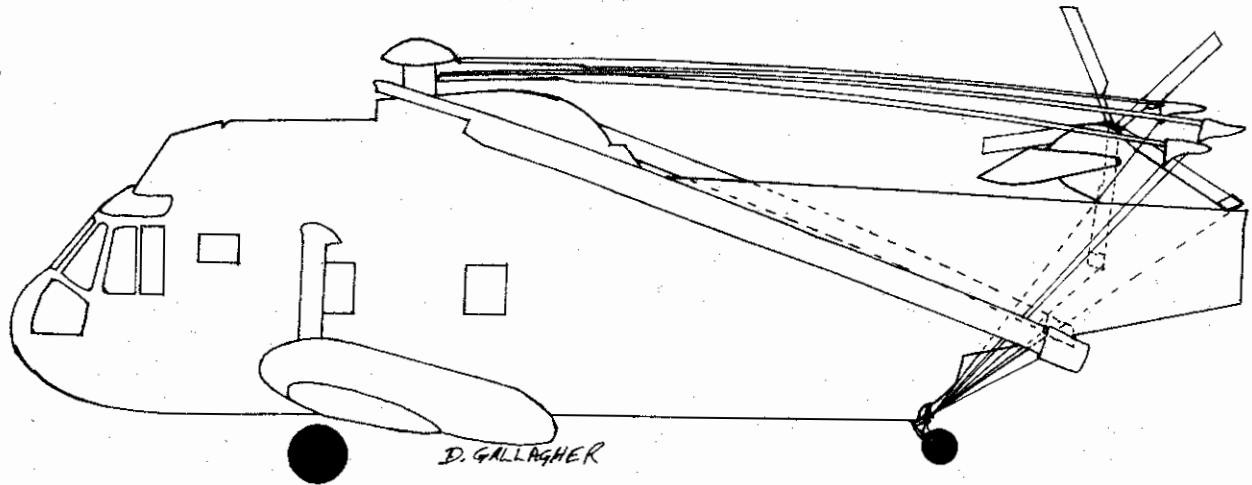
Hasegawa A-7E, kit #P12, \$38

Falcon vac TA-7C/K, kit ?, \$12

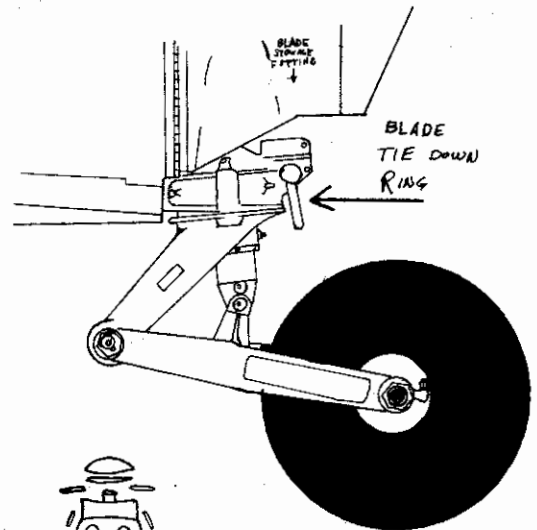
1/32nd: Combat
Models kit
#028, \$23



SH-3 SEA KING

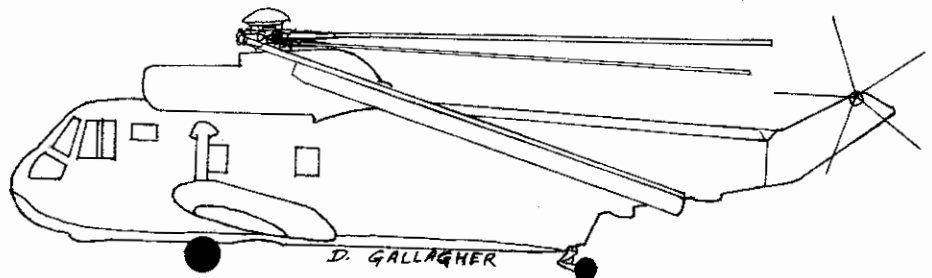
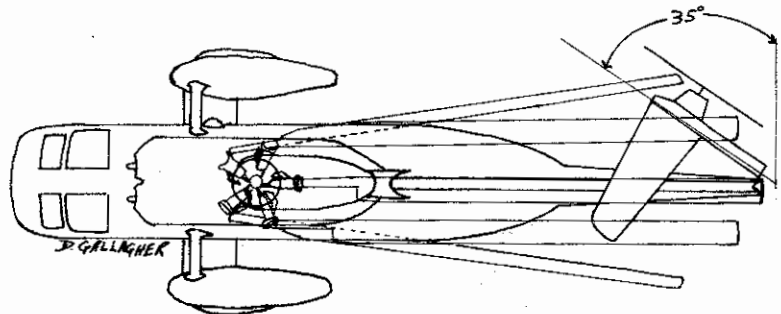
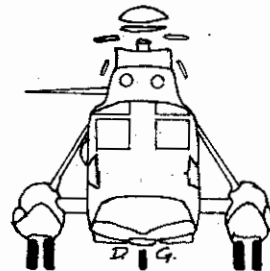


The above drawing shows the blade tie-down system. Blades #1, 2, & 3 have their tie-down lines run on the port side of the chopper; blades #4 & 5 as well as a line for the tail rotor blade run on the starboard side. The detail drawing to the right shows a close-up on the tie-down ring on the tail wheel. Note that each blade has a tip protector of cloth or nylon.

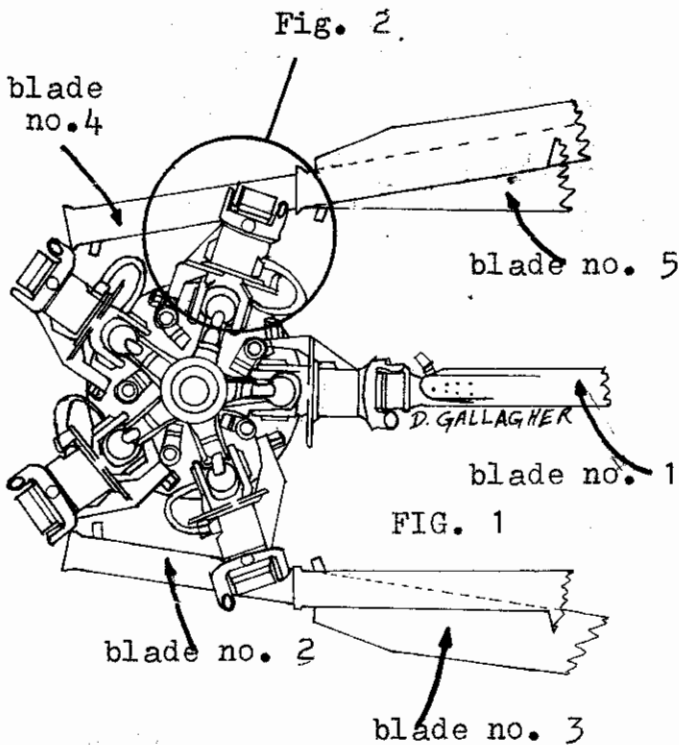


Available kits:

- 1/72nd: Fujimi USN Sea King, kit ?, \$12
Fujimi also sells British variants of the SH-3
- 1/48th: SH-3G/H(USN) by Rick's Models, this is a pre-assembled & painted desktop model, \$100
- 1/32nd: None



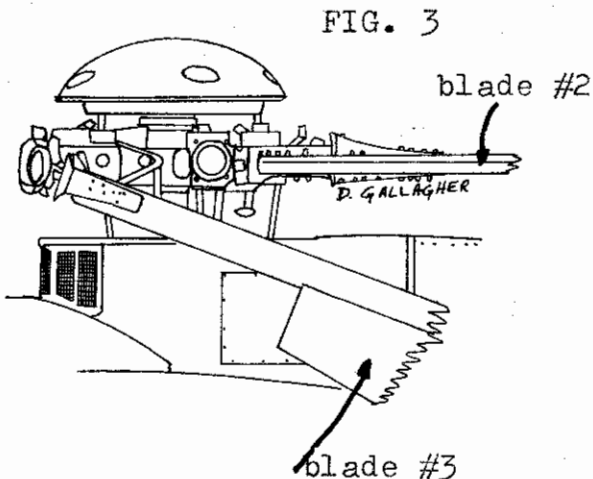
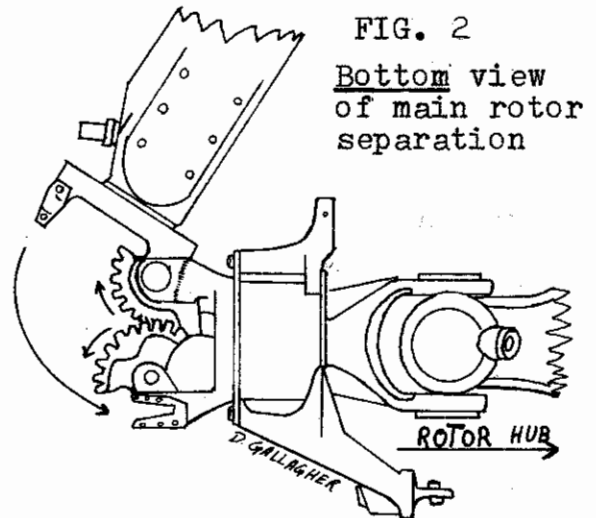
SH-3 SEAKING HELICOPTER



(left) FIG. 1: This drawing shows the top view of the main rotor assembly and how the individual blades fold back. NOTE: the numbering of the blades is my arbitrary system to show the modeler which blades fold where. Each blade has the ability to pivot and to fold back. Depending on where the rotor stops rotating, the deck crew will then fold the blades accordingly. The main shaft does not have to be in one specific location to have the blades fold.

(Right) FIG. 2: This drawing shows a close-up of the blade separation point. Note the meshed gear teeth.

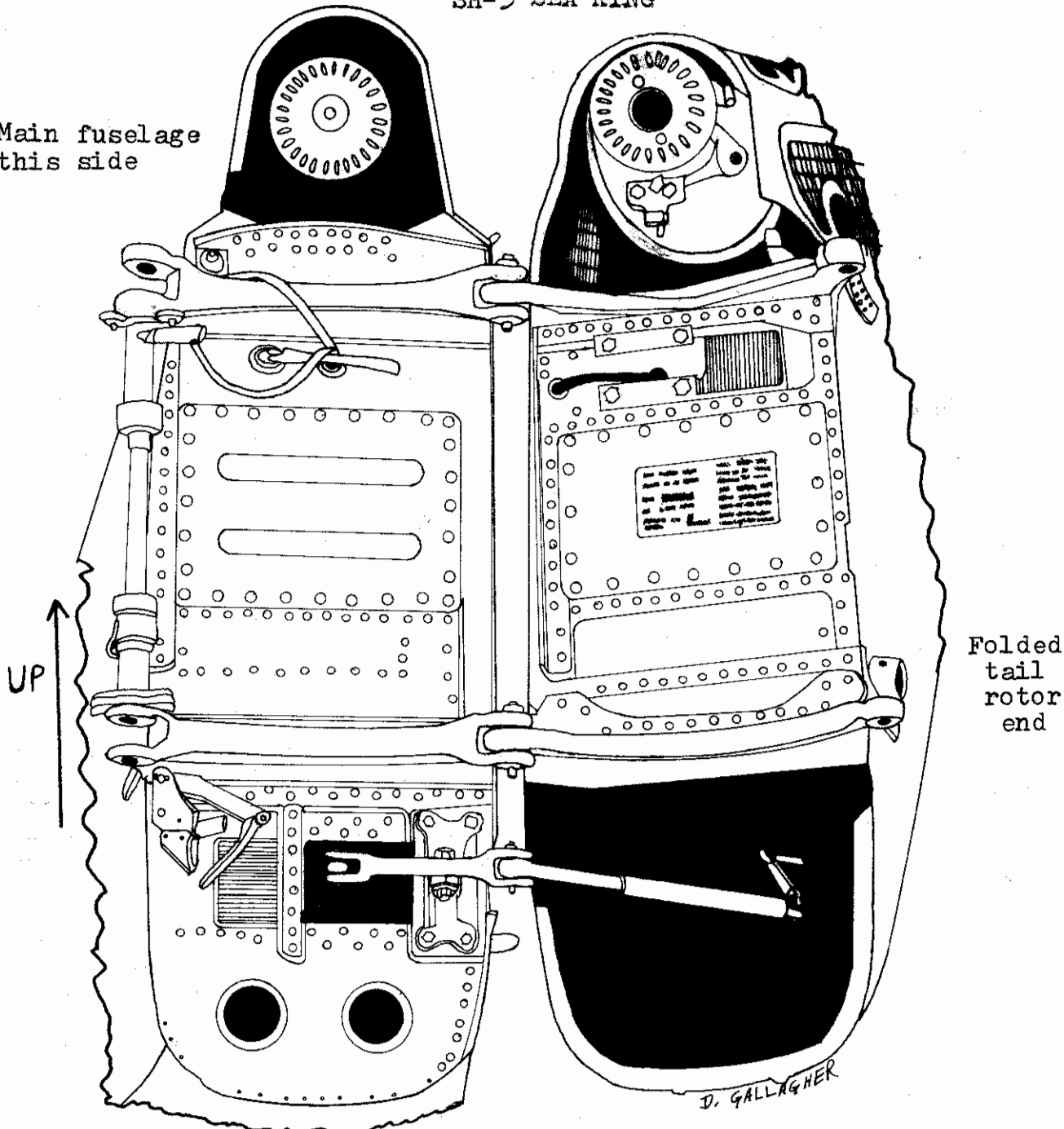
When the helicopter's blades are folded, blade #1 goes straight back along the fuselage spine, blades #2 & #5 fold back, and blades #3 & #4 are angled down and back.



(left) FIG. 3: This shows a close-up side view of the port side showing blades #2 & #3

SH-3 SEA KING

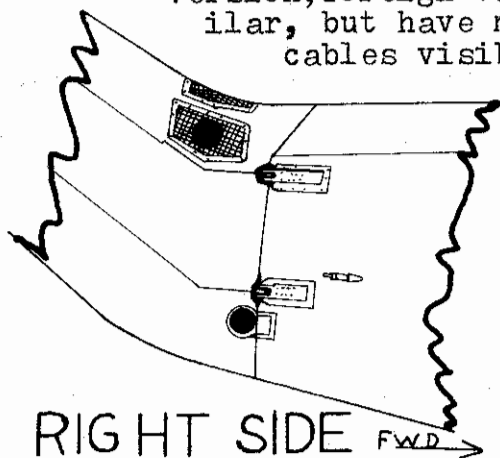
Main fuselage
this side



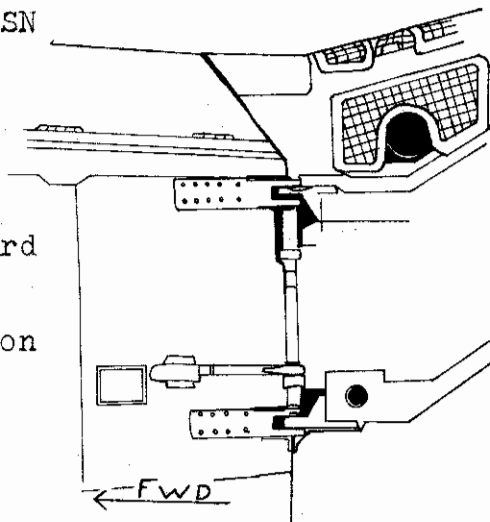
Folded
tail
rotor
end

Above drawing details fuselage fold for USN version; foreign variants are similar, but have more wiring, cables visible. Drawings

to left & right show details of port & starboard fuselage at tail fold for USN version



RIGHT SIDE FWD



LEFT SIDE