GRUMMAN TONCAT, 1/72 Scale Series HEL







The development of the F-14A Tomcats was demanded in April of 1968, in order to replace the F-4 Phantoms which until that time had been the main strength of the carrier borne fighters of the U.S. Navy. The conversion from the F-4 to the F14A has been going relatively smooth to date mainly because there was no big difference in their primary missions. However, on comparison of these two airframes, the F14A has such percentage improvement over the F-4 as: 40% better turn radius. 27% better maneuvering climb, 21% better sustained G, 80% more combat radius on internal fuel, 50% more loiter time with 6 Phoenix missiles, 100% more loiter time with 4 Sparrow missiles, more than twice the radar range and more than 2 and 1/2 times the missiles range. Furthermore, the F-4 Phantom can be said to have been a highly excellent fighter with top maneuverability in the past but not to be today of the more powerful and capable new machine age.

Thus the F14A Tomcat was developed to meet the U.S. Navy's expectation. The F14A is an all-mighty fighter plane that has every ability required for all missions. It does not only fullfil all of the missions assigned to the carrier borne airplanes but also perform each of them with much superiority over the aircrafts specially built for the individual tasks.

As mentioned above, today's most advanced aircraft technology and engineerings are concentrated on the F14A, and among its outstanding features the variable sweep wing is the first to mention. The wings of the F14A sweep from 20° full forward to 68° back in flight. On the flightdeck they will oversweep to 75° to reduce the amount of space the plane occupies. This variable sweep wing is controlled through the computor and let the F14A have the best movement and maneuver within the sweeping range of 20° – 68°, for instance, the wings are set to 20° full forward for takeoff to increase a lift force.

The F14A is also provided with the glove vanes which creat a lift force to compensate the shift of the center-of-gravity in supersonic flight, and the leading edge flaps

that improve maneuverability in a low-speed flight and/or a rapid circular flight.

Another feature that distinguishes the F14A is the AWG-9, the world's newest and most powerful fire controller. This, with such a large radar scope as has never been rendered to fighters so far, can use multiple modes for air-to-air and/or air-to-ground attack and track 24 targets, 6 of which are to be chosen for simultaneous firing of a 70nm range Phoenix missile.

At present, according to the plan made at the beginning, the F-14B and its improved type F-14C are under development with the introduction of the low-specific fuel consumption engine to give them more cruising power and higher acceleration capacity.

To date the U.S. Navy has produced 390 airframes of the F14A, with which the Navy intends to organize 18 flight squadrons. The Imperial Iranian Air Force has also ordered 80 aircrafts. The F14A Tomcat, the successor of the F-4 Phantom, is the very hope and pride of the U.S. Navy now, and it is indeed the most noteworthy carrier borne fighter plane in the world today.

DATA Overall width

Overall length / height Wing area Operating weight empty Gross weight Max. launching weight Engine Max. speed (Sparrow x 4) 19.54m / 11.45m / 10.15m (Sweepback: 20° / 69° / 75°) 18.90m / 4.88m 52.5m 18,080Kg 26,340Kg

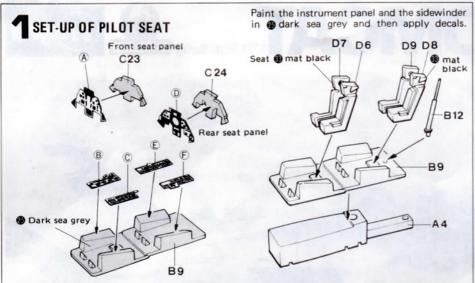
24,950Kg P & WTF30-P-412 (A/B9,48Kg) x 2 M = 2.34 (1,430kt) / 12,200m M = 1.2 (790kt) / SL

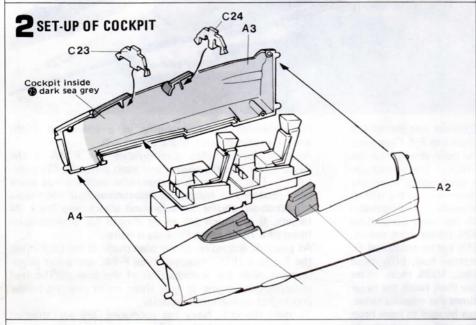
Stalling/Deck-landing speed 103kt / 117 - 128kt
Service ceiling 18,300m + 2.1min. to climb 18,300m

Combat maneuvering radius (H-L-H, Mk82 x 6) 1,000mm / (Air superiority) 450 - 500mm / (CAP with add. tank) 100-200mm + over 2 hrs. reconnaissance Takeoff/landing distance 792 - 518m (taxiing: 533 - 405m)

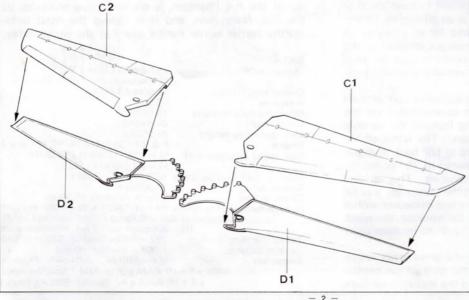
Armament 1,094m (taxiing: 802m)
20mmM61AI, A/M-54A Phoenix
AAM x 6 + IR AAM x 2, or AIM-7 Sparrow AAM
x 4 + IR AAM x 4, Bombs: 6580Kg (max.)

Manufactured in Japan & Packed in England by A. A. Hales Ltd., Hinckley, Leics.



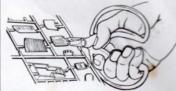


3 SET-UP OF MAIN WING



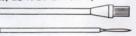
BEFORE SETTING TO WORK

- Read instructions through first.
- To cut off parts from runner, use a nipper or a knife.
- When cementing, apply adhesive to both parts to be cemented, and be sparing in application.



MODEL COLORS

Model Colors are numbered 1-1. Be sure to paint the model after assembling in order to enhance your workmanship. As to paint tiny parts, do it before set-up.



Setting up Pilot Seat

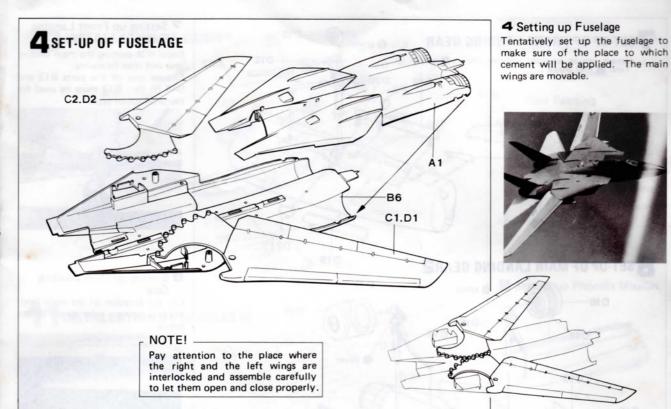
First paint the parts C23, C24 in grey and then apply decals. The canopy part B12 must be put only when the canopy is to be in open appearance.

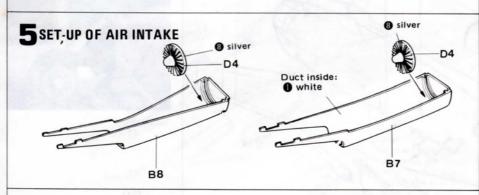


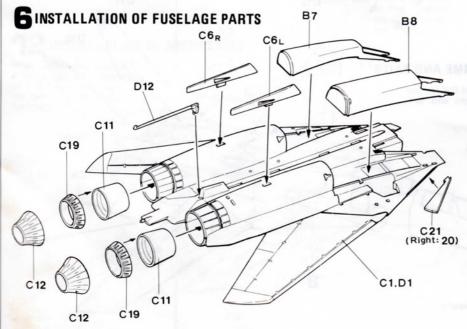
3 Setting up Main Wing

Cement together the upper surface and the undersurface parts properly.









5 Setting up Air Intake

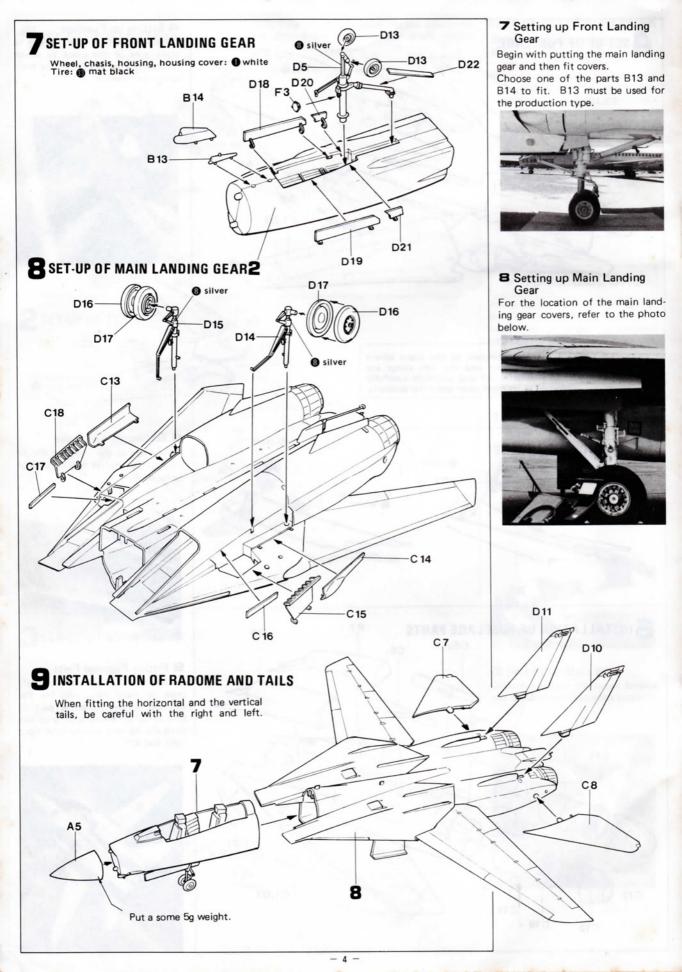
Fit the fan in the inside of the air intake. Do it after making sure of its location.

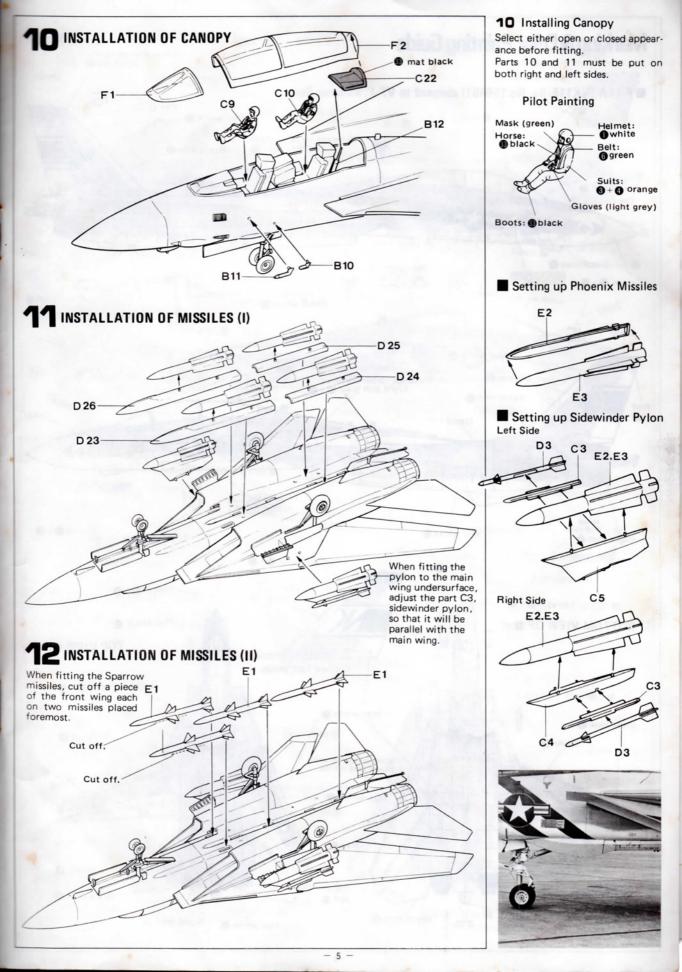


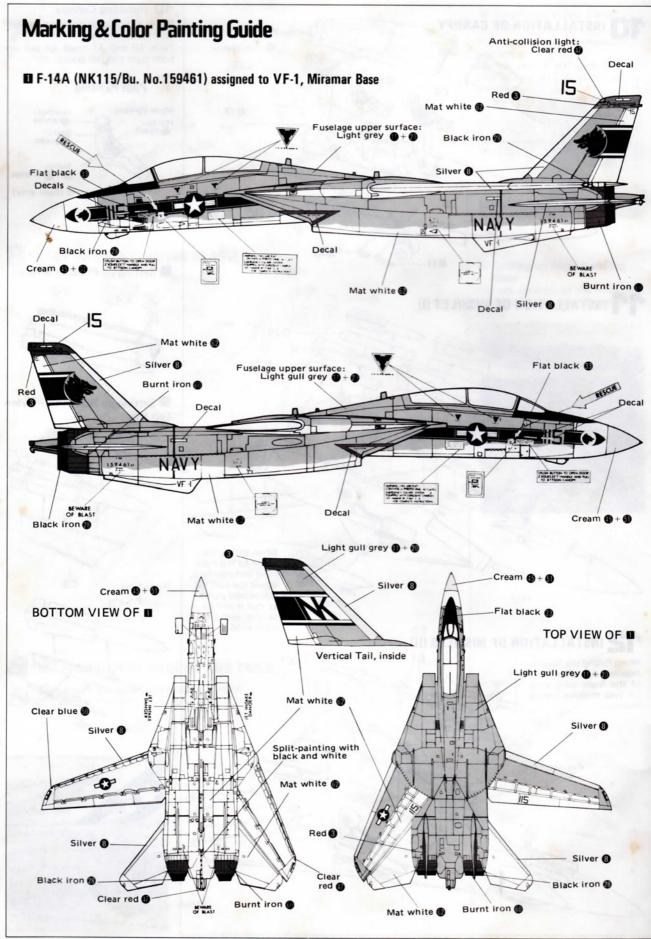
9 Fitting Fuselage Parts

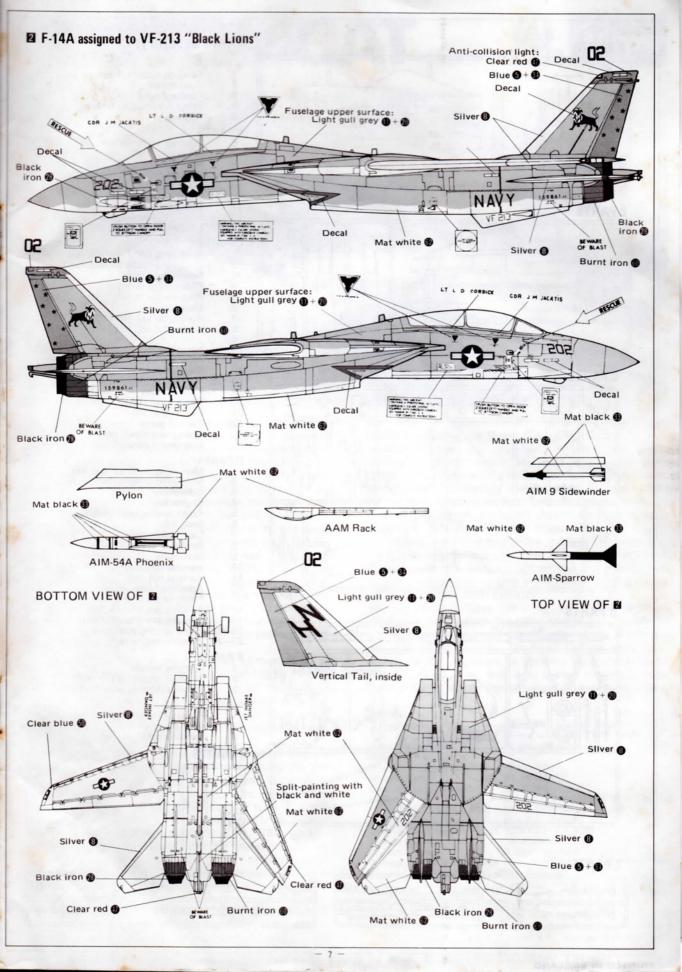
Do not mix the right and the left ones on each part. As for the exhaust nozzle, fit either part of C19 or C12. When setting up the parts C6, be very careful with their right and left.



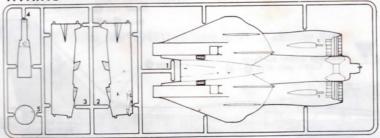




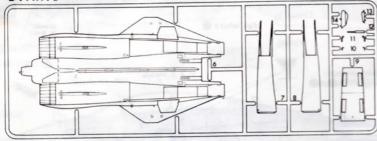




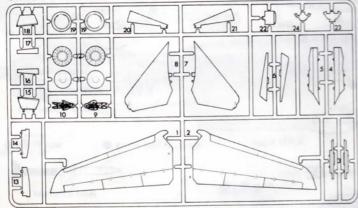
A PARTS



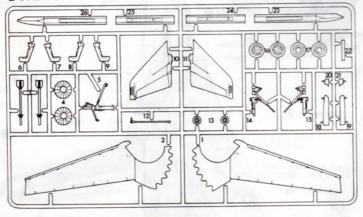
BPARTS



CPARTS



D PARTS



PARTS DESCRIPTION

A PARTS

1. Fuselage upper surface

Fuselage left 2. 3. Fuselage right

Front landing gear housing 4.

5. Radome

BPARTS

Fuselage undersurface

Air intake, right Air intake, left

6. 7. 8. 9. Cockpit floor

10. AIC probe

Pittot static probe

11. 12. Canopy actuator

13. AN/ALQ-100 antenna

14. IR scanner

CPARTS

Main wing upper surface, left Main wing upper surface, right

2. Sidewinder pylon 4.

Phoenix pylon, right Phoenix pylon, left Ventral fin

5.

Horizontal tail, right

Horizontal tail, left 8.

9. pilot

Navigator 10.

After burner 11.

Exhaust duct 12 13-18. Main landing gear cover

Exhaust duct 19

Glove vane, right Glove vane, left 20.

21. 22. 23. Canopy parts

Instrument panel, rear Instrument panel, front 24.

D PARTS

Main wing undersurface, left 1.

Main wing undersurface, right

2. Sidewinder 3.

4. Engine fan

Front landing gear chassis

6. Seat, left 7.

Seat, right Seat, left 8.

Seat, right Vertical tail, right 9.

10. Vertical tail, left

11. 12.

Arresting hook Front wheel 13.

Landing gear chassis, left 14.

Landing gear chassis, right Front landing gear cover 15.

18-22.

23-26. Phoenix missile rack

E PARTS

Sparrow missile 1.

Phoenix missile, upper half 2.

Phoenix missile, lower half 3.

FPARTS

3.

Front canopy

2. Rear canopy

Landing light

F PARTS



E PARTS

