

## **F-18 History**

Northrop had been working on an advanced fighter since 1963, code named the P-530 Cobra. Based on their experience with the very successful F-5, The Cobra bore many similarities to it, particularly in the wing area. In the early '70s the U.S. Air Force identified the need for a light weight fighter that would be both supersonic, agile and less costly to build than the existing large, complex, and costly fighters. Consequently bids went out in '71 to several U.S. aircraft manufacturers. Paring their selections down to two, General Dynamics and Northrop were both awarded contracts to build prototypes of their designs. Re-instating an old concept, the Air Force felt an actual fly-off between the two prototypes would yield the most positive results for selecting the final aircraft design.

The General Dynamic's plane was given the designation YF-16 and the Northrop plane became the YF-17. The YF-16 first flew on February 1974 and the YF-17 took to the air on 9 June 1974. After 400 hours of flight testing the Air Force chose the single engined YF-16. The YF-17 put in 200 hours of flight testing and despite a very close competition lost out as the Air Forces Advanced Combat Fighter.

A very disappointed Northrop Corporation was happy to learn that the Navy had themselves been looking for a replacement for the aging F-4 Phantom and A-7 Corsair and had instituted a study for a VFAX which translated means Advanced Fighter Aircraft. The U.S. Congress directed the Navy to examine the YF-17 and YF-16 instead of doing totally new design. The Navy after studying the YF-17 became very interested in it. As Northrop had no real experience building aircraft for the Navy, they teamed up with McDonnell Douglas who had a great deal of experience building aircraft for aircraft carrier operations. Although the navy liked the twin-engine design and the ability to carry a great deal of under-wing arms, the YF-17 needed a larger fuel capacity to increase it's operation range. Other requirements were that it be a multi-role aircraft, able to both attack targets and engage in air-to-air combat and that it be a multi-weather flyer. After study, McDonnell-Douglas and Northrop developed what was essentially a new aircraft, based on the original YF-17 proposal, which became the F/A-18 Hornet. Basically the F/A-18 looks identical to the YF-17 but in every dimension is just a little larger. The landing gear was

**IMPORTANT:** Before you begin to assemble your model kit, study the instructions carefully. This will help you to familiarize yourself with the part locations as you proceed. Prior to cementing parts together, be sure to "TEST FIT" them in order to assure proper alignment and also to check for excess "FLASH" that may occur along parting lines. Use a sharp hobby knife or file to remove flash if necessary.

If you wish to paint your model, various sub-assemblies and components should be painted before any parts are attached. During assembly, you may note that the recommended color is stated after the part name.

This model kit is molded from the finest nigh-impact styrene plastic. Use only paints and cements which are specifically formulated for styrene. Read all labels and warnings carefully.

Because the cement will only adhere to bare plastic it is necessary to remove any paint from the area to which the cement is to be applied.

heavied up to take the extra stress of a carrier landing, an arrestor hook was added to snatch the arrestor cable on the carrier deck and a high technology radar was incorporated. This radar system is one of the key features of the F-18. Besides incorporating a look-down shoot-down capability, the Hughes APG-65 Doppler radar can track up to 10 targets while scanning and display 8 of them on the radar screen. The radar also can pick out the most probable target. (This particular radar system was "borrowed" by Soviet intelligence and now has a Russian cousin in the new MiG 29 Fulcrum. If imitation is the sincerest form of flattery, Hughes should be flattered indeed!)

The F/A-18 is powered by two GEF-404-GE-400 Turbofan engines of 16,000 lb. thrust each. These engines are unique in that they have almost instant throttle response, a great aid in aerobatic maneuvers. The pilot can control the plane without removing his hands from the control stick and throttle. Through the use of a Heads Up Display and control buttons on the stick and throttle the pilot can keep his eyes on an enemy and fire any weapon at his disposal while controlling the F/A-18, a very useful feature in a battle situation.

The First F/A-18 flew on 18 November 1978. Due to a particularly rigorous test and evaluation process, the first F/A-18 didn't go into active service until February 1981. The first unit to receive the F/A-18 were the Black Knights of Marine Squadron VMFA-314 of MCAS El Toro California. The first Navy unit to receive the F/A 18 Hornet were the Stingers of VFA-13 in mid August of 1983. The Hornet is the newest aircraft in the American military. Besides it's Hi-tech radar the Hornet is augmented by computers and the latest aerodynamic engineering. It is truly a remarkable aircraft.

	Specifications
Length:	56.0 feet.
Height:	15 feet, 3.5 inches
Wingspan:	37 feet, 6 inches (over tip missiles)
Weight:	Empty 36,050 lbs.
	Maximum Take Off 49,224 lbs.
	Maximum External Load 17,000 lbs.
	Internal Fuel Load 49,224 lbs.
Powerplant:	: Two General Electric F-404-GE-400
	After Burning turbo Fans Static
	Thrust Each 16,000 lbs.

### HOBBY KNIFE

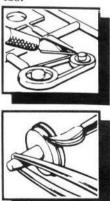
Use a sharp hobby knife to remove parts from the trees. Some parts may appear to have an extra "tab" on them, these should be removed.

### TWEEZERS

Tweezers are handy for holding very small parts during assembly or painting.

#### CEMENT

We recommend the use of liquid polystyrene cement. Apply with a fine brush or toothpick. Use cement sparingly or a sloppy job will result.





# BUILDING TIPS FOR THE ADVANCED MODELER

For the best possible finish, your kit should be painted, even if it is molded in color. Paint should be applied evenly, in several thin coats rather than one heavy coat. The first coat should not completely cover the surface. Each layer should be allowed to thoroughly dry before the next coat is applied. Also, each coat should be "wet sanded" using No. 1200 wet or dry sandpaper which is slightly damp; except for the final coat. Be careful not to remove any detail while sanding.

It is important to keep your hands clean when you are working with your model and always wash the parts before painting. This will remove any mold release agent that may have been used during manufacture, body oil from your hands, sanding residue, and dust, which is naturally attracted to plastic by static electricity. Use a mild solution of dishwashing detergent and water. Use a tack rag to dry the parts. DO NOT use paper towels or tissues, since they will leave lint on the part.

Parting lines and glue joints should be sanded or filed prior to painting and because paint has a tendency to draw away from sharp edges all sharp corners should be filed. Use filler putty designed for plastic to fill small gaps that may occur between parts, and to blend contours. This should be done only after the first or "primer" coat of paint is applied.

We take great pride in providing the finest model kits available, giving strong attention to detail and craftsmanship. Should you have any difficulty with assembly or missing parts, please call \* = TOLL FREE



