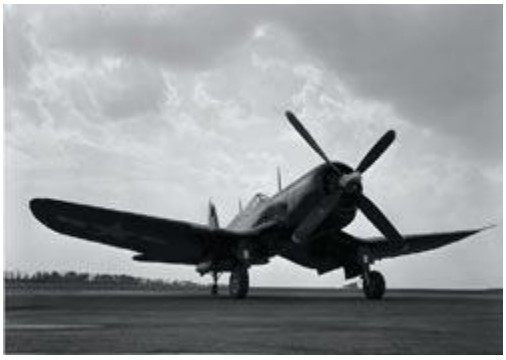
Model Number : F4U
Model Name : Corsair
Model Type: Fighter

Designed in 1938 and first flown in 1940, Corsairs first tasted combat at Guadalcanal. It was at the 'Canal that Corsairs definitely established their aerial superiority over the vaunted Japanese Zero, a highly maneuverable aircraft that had previously outperformed all U. S. fighters.

The Corsair was the first American fighter to top 400 miles an hour and the first to house a 2,000 horsepower engine. The gull wing Corsairs were the toughest foe faced by enemy pilots. Interrogation of high Japanese brass at the end of the war disclosed the fact that they considered the Corsair the top fighter in use by any opposing service in the Pacific.

From Guadalcanal, spearheading the drive toward Tokyo, Corsairs took part in nearly every major campaign in the Pacific. Known to the Japanese as 'whistling death' and to its Marine pilots as the "Sweetheart of Okinawa," the Corsair also made aerial history in areas other than the Pacific. Among them: the Indian Ocean and the North Sea.



Corsairs were flown in combat by the U. S. Marines, U S Navy, the Royal Navy and the New Zealand Air Force. The name Corsair became synonymous with the names of Marine and Navy Aces like Lt. Col. Gregory (Pappy) Boyington, Lt. Ken Walsh, Lt. Bob Hansen, CDR Tommy Blackburn, Lt. Ira (ike) Kepford, and a host of others. The most famous pilot to take the Corsair into action was Col. Charles A.Lindbergh. In one attack on Wotje Atoll he took off in a Corsair with a bomb load of 4,000 pounds which was the heaviest ever carried up to that time by a single-engine fighter.

In the course of shooting down 2,140 enemy aircraft, only 189 Corsairs were lost in combat - a ratio of better than 11 to one. From February 13, 1942, when a handful of Corsairs first engaged the Japanese at Guadalcanal, until V-J Day Corsairs carried out a total of 64,051 action sorties. Of this total, 54, 470 were flown from land bases and 9,58l from the decks of aircraft carriers.

The end of WWII and the advent of jets spelled the finish of most Propeller driven fighters. Not so for the Corsair. From 1946 until 1950, Corsairs were the top fighters in the two big U. S. Fleets, the Sixth and Seventh. When the jets finally "came aboard" the Navy didn't eliminate the versatile Corsairs, they just assigned them another equally important role, that of low altitude attack aircraft.

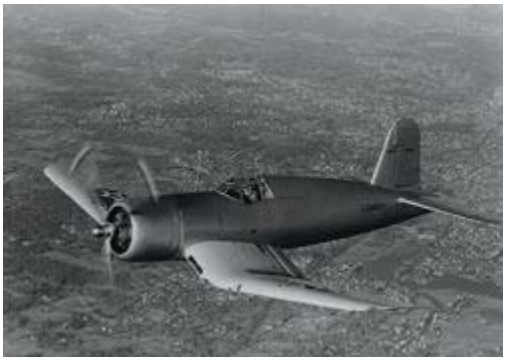
Meanwhile, by way of pointing up the fact that the old girl still had plenty of life left in her, Corsairs placed one-two in the grueling Thompson Trophy event at the Cleveland Air Races in 1947. Cook Cleland, the winner, broke the closed course record with an average speed of 396.13 miles an hour. Again, in 1949, Corsairs triumphed, placing one, two, three.

When war flamed in Korea, the Corsairs were ready. Assigned primarily to the low-altitude, fighter-bomber phase of the action, they were on familiar ground, flying close air support missions in support of ground troops, a function they helped pioneer in World War II.

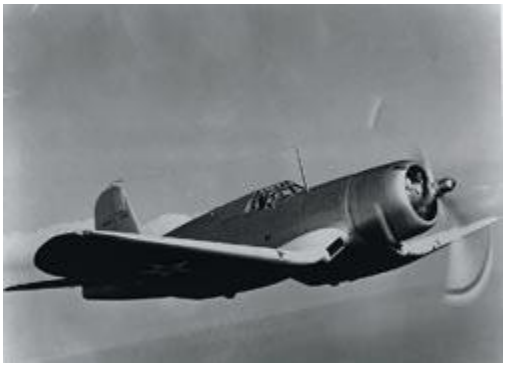
In 1952 the last of the Corsair line, designated the F4U-7, was delivered to the French under terms of the Mutual Defense Assistance Program making it the last piston powered fighter aircraft to be produced in the United States. Even though Corsair production finally reached a halt with the delivery of these 94 F4U-7s, Corsairs continued to see service for many years thereafter.

Model Number : XF4U-1
Model Name : Corsair
Model Type: Fighter

In February of 1938, the U. S. Navy opened design competition for a high-speed, high-altitude fighter airplane. Headed by Rex Beisel, Vought's chief engineer, the company set out to produce the naval fighter of its day. What emerged was the XF4U-1. The most obvious innovation of this single-engine monoplane fighter, powered by a 1,800-hp Pratt and Whitney radial engine, was the inverted gull wing.

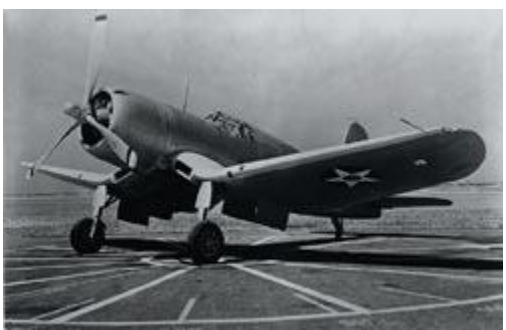


The XF4U-1 was the first fighter to exceed a speed of over 400 miles per hour with a full military load. The Corsair became one of the most famous World War II fighters with its contribution to the air and ground war in the Pacific theater.



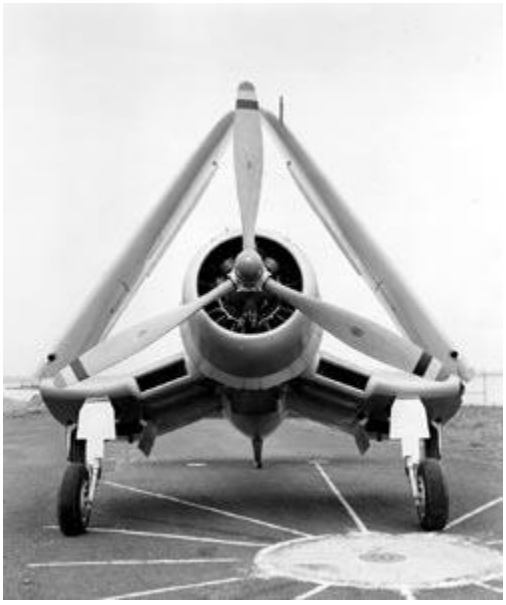
The primary requirement stressed by the Navy in their direction to Vought engineers (who created the famous bent-wing Corsair) was speed. To this end, they designed the smallest possible fuselage around the soon to be 2,000-horsepower, 18-cylinder, twin-row, air-cooled radial Pratt and Whitney engine. Everything that could cause drag was eliminated. For the first time, "flush riveting" and "spot welding" were used throughout an airframe. Air scoops and all other unusual protuberances were prohibited. The landing gear, tail wheel, and arresting gear were not only retractable, but completely faired-in when retracted. The result was a shipboard fighter described at that time by Admiral John H. Towers as the fastest airplane in the United States.

The use of the largest diameter propeller possible, 13 feet 4 inches, posed problems as to how to store the lengthy landing gear required with the use of a conventional wing. Chief Engineer Rex Beisel came up with the inverted gull wing idea to provide the propeller clearance which allowed the use of a short



landing gear that could retract aft into the bottom of the wing. This also provided the most efficient junction of the wing to the fuselage that is erodynamically possible by allowing the wing root to be at a right angle to the circular section of the fuselage, thereby minimizing aerodynamic drag. Additionally the hinge point for the wing fold was located at the low point of the gull wing which reduced the aircraft height with wings folded thereby conserving deck space and facilitating storage in the under deck hangars of the aircraft carriers.

By May 1940, Vought was ready to conduct first flights of the “Corsair.” This prototype became the first American aircraft to reach 400 mph (644kph).



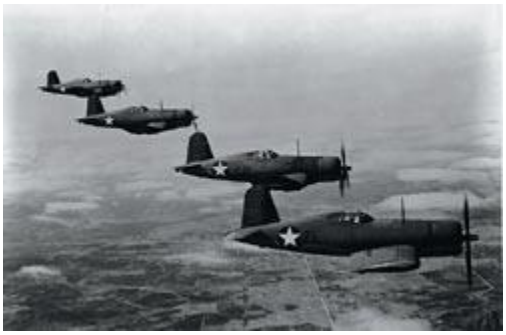
The performance was so outstanding that even the U. S. Army Air Corps took notice of it, as interest was expressed by General “Hap” Arnold. The early version of the 1850-hp Pratt and Whitney engine, combined with the large diameter Hamilton Standard propeller, provided a cruise speed of 180 mph and a service ceiling of 31,000 feet. The enthusiasm produced by the performance of the XF4U-1 prompted an initial order from the U. S. Navy for 584 airplanes.

With its powerful engine, this fighter could outfly its opponents despite having heavy fuel loads, heavy armament and considerable armor protection. The F4U was one of the most useful aircraft flown during WW II, whose range, endurance and load capacity provided both fighter and bomber operational capability.

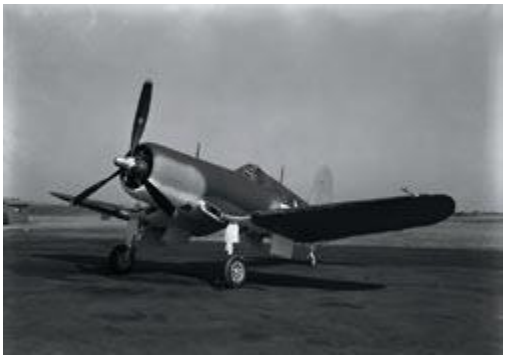
Dimensions	
Wingspan	40.00 ft
Overall Langth	30.00 ft
Height	15.60 ft
Weights and Capacities	
Empty Weight	7505 lb
Gross Weight	10500 lb
Useful Load	
Fuel Capacity	272 gal
Oil Capacity	gal
Powerplant Characteristics	
Type: Pratt & Whitney 18-cylinder, twin row, air cooled radial. R-2800-4	
Rating	1800 hp

Displacement	in^3
Weight	lb
Size (length X diameter)	
Performance	
Maximum Speed, Sea Level	405 mph
Landing Speed, Sea Leavel	
Stall Speed, Sea Level	mph
Initial Rate-of-Climb	2265 ft/min
Cruise Speed, Sea Level	180 mph
Range at Cruise Speed	850 miles
Service Ceiling	31000 ft
Absolute Ceiling	
Crew: 1	
Armament: Three .50-caliber machine guns One .30-caliber machine gun.	

Model Number : F4U-1
Model Name : Corsair
Model Type: Fighter



Designed to operate from aircraft carriers and/or land-based facilities. The Corsair became a major challenge to the Japanese during WW II, with 2,140 enemy aircraft destroyed in air combat with the loss of only 189 Corsairs. Excluding service in reserve squadrons, the F4U's operation with the U.S. Navy lasted over 13 years. The seven nations that ultimately flew the bent wing birds employed them in virtually every mission, climate and type of combat possible for a fighter-bomber. Corsairs were still in active service with foreign nations 38 years after the prototype first flew in 1940.



In March and April 1941, Vought and the U.S. Navy concluded contract negotiations, and on June 30th the F4U-1 was ordered into production. Due to the pending world conditions many saw it as inevitable that the parent company could not provide as many of the new fighters as the Navy and the Marines could absorb. Therefore, during November and December, two other manufacturers were brought into the Corsair program scheme. These were Brewster Aeronautical (designated F3A-1) and

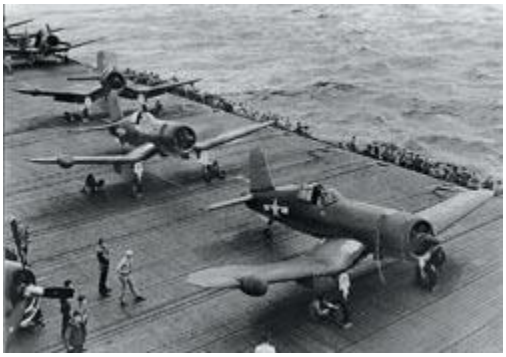
Goodyear Aircraft (designated FG-1).

Dimensions	
Wingspan	40.90 ft
Overall Langth	33.30 ft
Height	16.10 ft
Weights and Capacities	
Empty Weight	8982 lb
Gross Weight	14009 lb
Useful Load	
Fuel Capacity	* 537 gal
Oil Capacity	20 gal
Powerplant Characteristics	
Type: Pratt & Whitney 18 cylinder, twin row air cooled radial, R-2800-8	
Rating	2000 hp
Displacement	in^3
Weight	lb
Size (length X diameter)	
Performance	
Maximum Speed, Sea Level	425 mph
Landing Speed, Sea Leavel	
Stall Speed, Sea Level	
Initial Rate-of-Climb	3100 ft/min
Cruise Speed, Sea Level	186 mph
Range at Cruise Speed	1015 miles
Service Ceiling	37000 ft
Absolute Ceiling	
Crew: 1	
Armament: Six .50-caliber machine guns.	

NOTES:

* Internal fuel (273 gal) plus two 150-gal drop tanks = standard maximum
fuel (537 gal).
Internal fuel (237gal) plus three 170-gal drop tanks = ablolute maximum
fuel (747 gal).

Model Number : F4U-2
Model Name : Corsair
Model Type: Night Fighter



Prior to the first flight of the XF4U-1 the Navy commissioned Vought to study a night fighter, version of the F4U-1. Working with the Sperry company and the MIT Radiation Laboratory the necessary radar equipment needed to accomplish the mission was developed and the necessary Engineering design modifications determined for conversion of the F4U-1 to the F4U-2 Night Fighter.

The initial Engineering design of the F4U-2 was complete at the time of the Japanese attack on Pearl Harbor. A mock up was complete and ready for review on January 28, 1942. Because Vought was heavily committed to meet schedules on other programs, arrangements were made with the Naval Aircraft Factory at Philadelphia, Pa. to convert production F4U-l's to the F4U-2 configuration. A total of 34 F4U-1's were converted to F4U-2's. Thirty two conversions were made at the Naval Aircraft Factory and two were made in the field at Rio Island, Kwajalein Atoll.

Navy Night Fighter Squadron VF-(N) drew first blood at Munda in April of 1944 when it surprised a flight of obsolete Japanese aircraft conducting nuisance raids. They were known as "washing machine charlies" for they were old and noisy aircraft that would not normally be used in combat. Up to that point they probably considered themselves relatively safe since there had been no night airborne resistance.

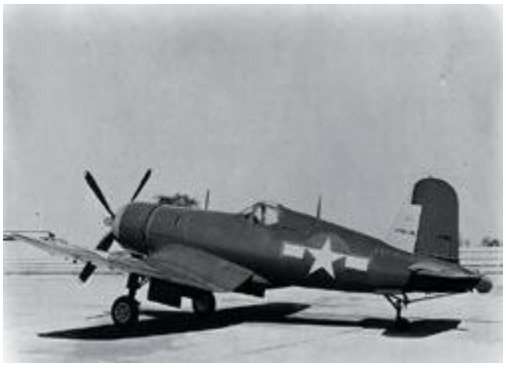
Imagine the raider's surprise, when out of the night came fire belching aircraft to end their existence. The night fighters did not destroy a vast number of Japanese aircraft but so effective was their mission that the Japanese soon ceased night bombing raids altogether. They accomplished their objective in combat as well as pioneering the night fighter mission. The F4U-2 experience served as a sound basis for the F4U-5N which later served with distinction in the Korean conflict.

Dimensions	
Wingspan	40.90 ft
Overall Langth	33.30 ft
Height	16.10 ft
Weights and Capacities	
Empty Weight	8962 lb
Gross Weight	14009 lb
Useful Load	
Fuel Capacity	* 537 gal
Oil Capacity	20 gal
Powerplant Characteristics	
Type: Pratt & Whitney 18 cylinder, twin row air cooled radial, R-2800-8	
Rating	2000 hp
Displacement	in^3
Weight	lb
Size (length X diameter)	
Performance	
Maximum Speed, Sea Level	425 mph
Landing Speed, Sea Leavel	
Stall Speed, Sea Level	
Initial Rate-of-Climb	3100 ft/min
Cruise Speed, Sea Level	182 mph
Range at Cruise Speed	1015 miles
Service Ceiling	37000 ft
Absolute Ceiling	
Crew: 1	
Armament: Six .50-caliber machine guns.	

NOTES:

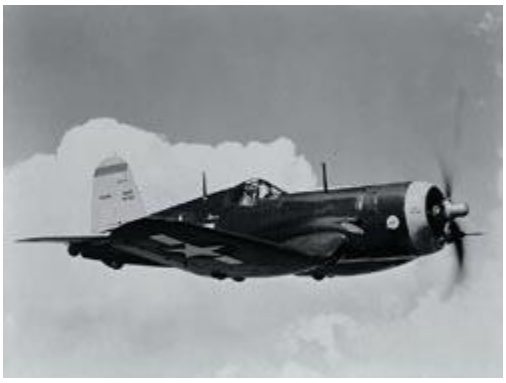
* Internal fuel (273 gal) plus two 150-gal drop tanks = standard maximum fuel (537 gal).
Internal fuel (237gal) plus three 170-gal drop tanks = ablolute maximum fuel (747 gal).

Model Number : XF4U-3 and XF4U-3B
Model Name : Corsair
Model Type: Fighter



In 1944 Vought converted 3 F4Us as test beds to test R-2800-18W and –16 engines equipped with high altitude turbo-superchargers. The R-2800-8 engine used in the basic Corsair had a two stage supercharger system. The objective of the proposed change to the turbo-supercharger system was to obtain greater speeds for the Corsair at higher altitudes. During evaluation tests in 1944, the turbo system proved to be faulty and cumbersome and though there was a measurable increase in speed in the 30,000 foot region the project was cancelled. Goodyear was to have built these high altitude turbo-supercharged aircraft as FG-3s. All three test aircraft were returned to the F4U-1 configuration. One of the XF4U-3 aircraft used to test the R-2800-16 engine is sometimes referred to as the XF4U-3B.

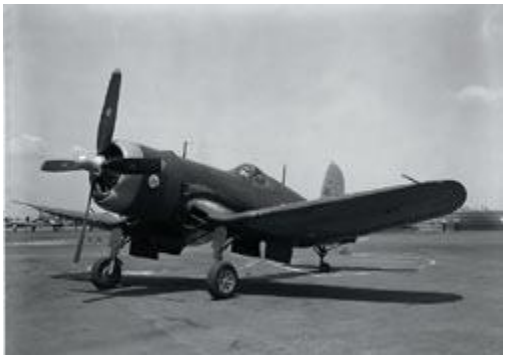
Model Number : XF4U-4
Model Name : Corsair
Model Type: Fighter



On January 25, 1944 Chance Vought Aircraft received from the Navy a letter of intent on a company proposal to build the XF4U-4. The program began with the modification of two F4U-1 airplanes as prototypes which contained the essentials of a new engine, revised air ducts, large oil coolers and a new air duct at the bottom of the engine cowl to handle increased engine air requirements, and a four-bladed propeller instead of three. These two airplanes were designated F4U-4X models. First flight of the F4U-4X was April 19, 1944.

The test pilot reported a markedly increased performance on the first flight. The top speed increased to 450 mph at 26,200 feet compared to the F4U-1D's 425 mph at 20,000 feet. The rate of climb increased from 3,100 feet per minute to 4,000 feet per minute. The service ceiling increased by almost 5,000 feet to 41,500 feet.

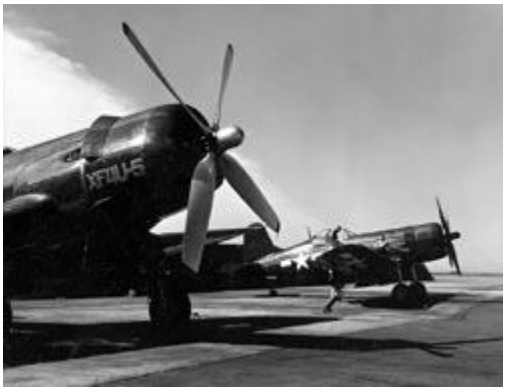
Other changes included in the XF4U-4 were the raising of the cockpit deck to raise the pilot's legs to decrease the effect of acceleration during combat manueuvers, the repositioning of instruments and controls, the use of a new bubble canopy and the addition of a new armor-plated seat that provided more pilot protection.



Fighter-Bomber capabilities were enhanced by installing rocket stations on the wing outer panels. The appearance of the new Corsair remained essentially the same with the long-nose inverted-gull-wing design. In addition to the increased performance the F4U-4B version carried four 20-mm cannons in place of the six 50-caliber machine guns. It could carry rockets

on the outer panel wing mounts. Twin pylons located on the wing center section could carry either two 150-gallon drop tanks, two 1,000-pound bombs or two big 11.75-inch rockets.

Model Number : F4U-4
Model Name : Corsair
Model Type: Fighter

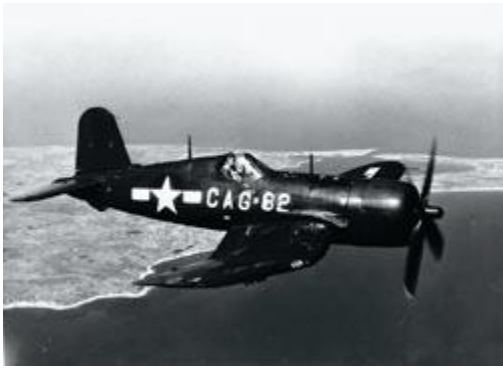


The gull wing F4U-4 was equipped with a Pratt and Whitney R-2800-18W, a 2100-horsepower engine with a two-stage supercharger and a new Hamilton Standard four-bladed, 13-foot-2 inch diameter propeller, it was rated a 446-mph fighter. It arrived on the battlefront in June of 1945 for the final push against the Japanese mainland.

The first flight of the production F4U-4 was in September 1944.

The F4U-4, with a rate-of-climb of nearly 4,000 feet per minute and a service ceiling of 41,500 feet, was the Navy's answer to the much improved Japanese fighters that were arriving in the Pacific.

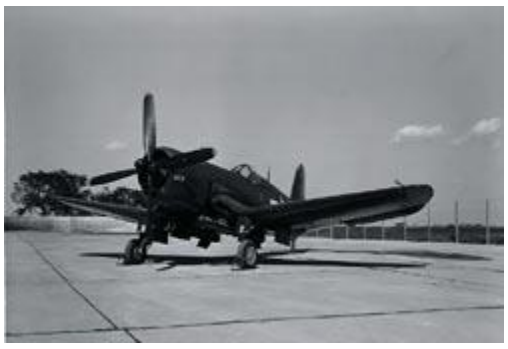
The new airplanes had a gross (combat) weight of 12,420 pounds and, in the cannon version, carried four 20 millimeter cannons, armed with 924 rounds each.



In addition to a new propeller, the F4U-4 had a completely redesigned cockpit, a new canopy for improved bubble effect, new armor-plated bucket seat, and regrouped instruments. Improved access to radio gear was made possible by the folding seat. A change was also made to a downdraft-type carburetor, and intake ducts were switched from the wings to the cowl. Improved fighter-bomber capabilities were made possible by putting rocket stations on the outer wing panels.

Other versions of the F4U-4 produced during the war years were:

- **F4U-4B:** This airplane was equipped with four 20-mm cannons instead of 50-caliber machine guns (used in the early F4U-4 production) and eight 5-inch rockets under wings or up to 4,000 pounds on centerline and pylon racks. Vought built 297.
- **F4U-4C:** Many F4U-4's became F4U-4C's with four 20-mm cannons in the wing instead of six 50-caliber machine guns which were used in the early F4U-4 production.
- **F4U-4N:** This was a night version fighter of the F4U-4. Only one was built.
- **F4U-4P:** This airplane was equipped cameras installed behind the pilot. Vought built 9.



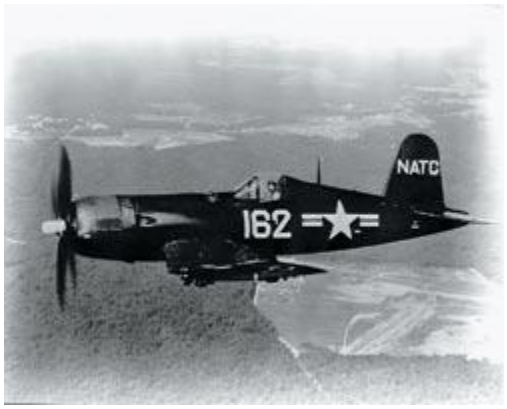
By the end of 1944, Chance Vought was turning out 300 Corsairs a month, or one complete air[plane every 82 minutes. A total of 5,380 F4U's were built during the year.

Chance Vought turned out 2,673, Brewster Aeronautical 599, and Goodyear Aircraft 2,108

Dimensions	
Wingspan	40.90 ft
Overall Langth	33.50 ft
Height	14.75 ft
Weights and Capacities	
Empty Weight	9683 lb
Gross Weight	14610 lb
Useful Load	
Fuel Capacity	* 534 gal
Oil Capacity	
Powerplant Characteristics	
Type: Pratt & Whitney 18 cylider,twin-row,air-cooled radial, R-2800-32W	
Rating	2300 hp
Displacement	
Weight	
Size (length X diameter)	
Performance	
Maximum Speed, Sea Level	469 mph
Landing Speed, Sea Leavel	
Stall Speed, Sea Level	
Initial Rate-of-Climb	3780 ft/min
Cruise Speed, Sea Level	227 mph
Range at Cruise Speed	1120 miles
Service Ceiling	41400 ft
Absolute Ceiling	
Crew: 1	
Armament: Four 20-mm cannons Ten 5-inch rockets under wings or up to 5000 lb on centerline and pylon racks.	

Model Number : XF4U-5 and F4U-5
Model Name : Corsair
Model Type: Fighter

In 1945, the attention of the military aviation community turned to the turbo-jet-powered aircraft. The U.S. Navy, however, had decided they would keep the Corsair (and Grumman Bearcat) as their first-line fighter until the jet had been satisfactorily developed for carrier operations.

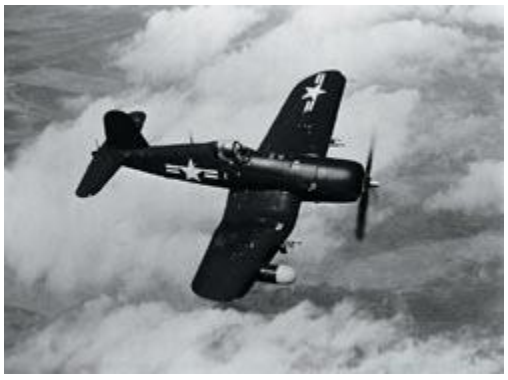


During F4U-4 production, three were modified as prototypes for the F4U-5 model and were designated XF4U-5.

On February 6, 1946, the Navy gave Chance Vought a letter-of-intent on the company's proposal to build the F4U-5.

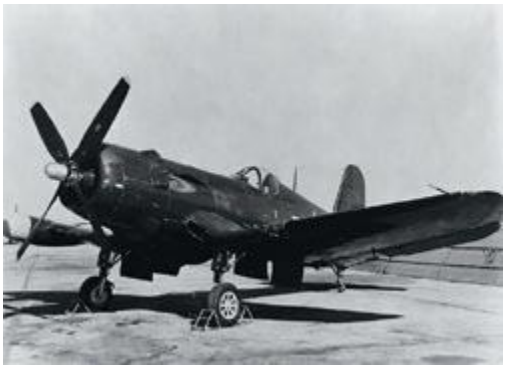
Equipped with a new Pratt and Whitney engine and a sidewheel supercharger, it was a high-altitude fighter, designed to fight at 45,000 feet.

The F4U-5 housed a R-2800-32W engine, developing approximately 2,300 horsepower which was 200 horsepower more than the "C" engine used in the F4U-4. The engine also maintained greater power to a higher critical altitude than did its predecessor. Maximum speed was listed at 469 miles per hour at 26,800 feet, rate-of-climb was 3,780 feet/min at sea level.



Other features included automatic controls for the supercharger, cowl flaps, intercooler doors, and oil cooler doors. The combat power system was automatic. Pilot comfort was emphasized to a high degree in a completely modernized cockpit.

A redesigned cowl had air inlets at 4 o'clock and 8 o'clock. The entire outer-wing panels, for the first time on any Corsair, were metal covered. A substantial reduction in drag resulted.



Spring tabs for use on the elevator and rudder controls reduced pilot effort as much as 40 percent. Guns and pitot tubes were electrically heated. The nose was dropped about 2 degrees to improve longitudinal stability and vision.

Production began in 1946 with an order for 223. At that time, interest in night and all-weather fighters had grown to such an extent that the Navy ordered a large number of airplanes in the first group

converted to night fighters (F4U-5N's). This version is easily distinguished by its two-foot diameter radar dome in the leading edge of the right wing.

The F4U-5NL was a winterized version of the F4U-5N airplane. It was basically the same as the F4U-5 airplane except that it included provisions for both night-fighter and cold weather operations. The winterization facilities are identified by the installation of de-ice boots on the wings and empennage, and de-ice shoes on the propeller blades.

The F4U-5P was a long-range photo-reconnaissance airplane and was equipped with a unique rotating camera mount.

Despite the 45,000-foot high-altitude capability, in actual use the F4U-5 would not require such an option. Its combat would be nearly all low-level, where the tremendous payload was eminently useful. When necessary, over 5000 pounds of ordnance could be carried on the twin underwing pylons and the centerline rack. And there were times when it was necessary.

When the North Koreans invaded South Korea in June of 1950, the veteran Corsairs went back into combat. They were assigned the task of flying low-level attack and ground support missions.

For post-war accomplishments of F4U, refer to "F4U post-world war II Corsair operations."

Dimensions	
Wingspan	40.90 ft
Overall Langth	33.50 ft
Height	14.75 ft
Weights and Capacities	
Empty Weight	9683 lb
Gross Weight	14610 lb
Useful Load	
Fuel Capacity	* 534 gal
Oil Capacity	
Powerplant Characteristics	
Type: Pratt & Whitney 18 cylider,twin-row,air-cooled radial, R-2800-32W	
Rating	2300 hp
Displacement	
Weight	
Size (length X diameter)	
Performance	
Maximum Speed, Sea Level	469 mph
Landing Speed, Sea Leavel	
Stall Speed, Sea Level	

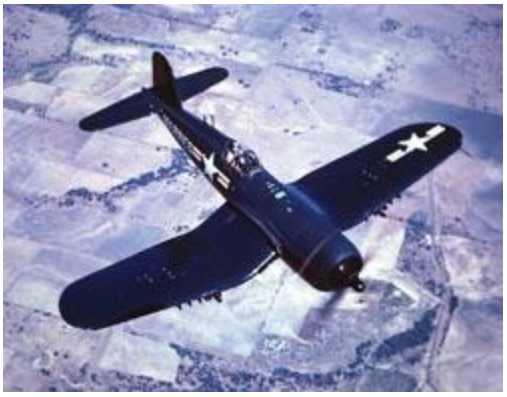
Initial Rate-of-Climb	3780 ft/min
Cruise Speed, Sea Level	227 mph
Range at Cruise Speed	1120 miles
Service Ceiling	41400 ft
Absolute Ceiling	
Crew: 1	
Armament: Four 20-mm cannons Ten 5-inch rockets under wings or up to 5000 lb on centerline and pylon racks.	

NOTES:

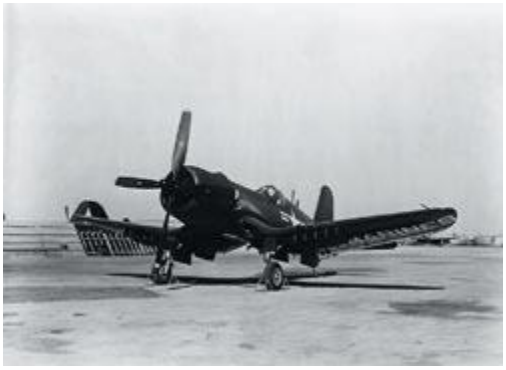
* Includes two 150-gal drop tanks.

Model Number : F4U-6, AU-1
Model Name : Corsair

Model Type: Fighter



The US Marine Corp has always provided it's ground troops with superior support from Marine aircraft. As such they were constantly looking for improvements in those aircraft. Although they were pleased with the performance of all versions of the Corsair in the Korean close support combat they pressed Vought for an attack version of the airplane that would incorporate the lessons being learned from that combat.



The F4U-6 (later to designated the AU-1) was Vought's answer. Employing anly a single stage supercharger, which reflected the "in the mud" nature of the mission, the AU-1 featured extensive added armor plate and many other changes to improve the combat survivability.

The AU-1's joined six other models of the Corsair engaged in the Korean fighting: F4U-4, F4U-4B, F4U-5, F4U-5N, F4U-5P and F4U-5NL.

Marine pilots received the last of the AU-1's in the summer of 1952.

After Korea, the French Navy used 69 of these planes in campaigns in Indochina and Africa.

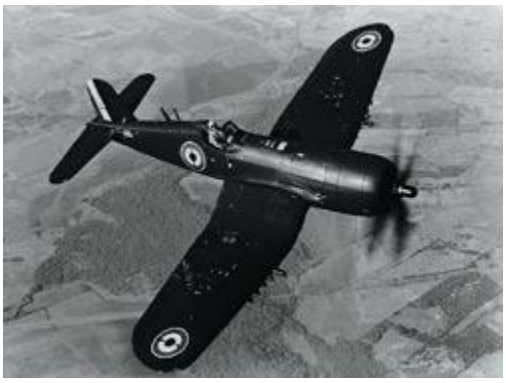
Dimensions	
Wingspan	40.90 ft
Overall Langth	34.10 ft
Height	14.80 ft
Weights and Capacities	
Empty Weight	9835 lb
Gross Weight	19398 lb
Useful Load	
Fuel Capacity	* 534 gal
Oil Capacity	
Powerplant Characteristics	
Type: Pratt & Whitney 18 cylinder, twin-row , air cooled radial, R-2800-83W	
Rating	2300 hp
Displacement	
Weight	
Size (length X diameter)	
Performance	
Maximum Speed, Sea Level	238 mph
Landing Speed, Sea Leavel	
Stall Speed, Sea Level	
Initial Rate-of-Climb	920 ft/min
Cruise Speed, Sea Level	184 mph
Range at Cruise Speed	484 miles
Service Ceiling	19500 ft
Absolute Ceiling	
Crew: 1	
Armament: Four 20-mm cannons Ten 5-inch rockets under wings or up to 3000 lb on centerline and pylon racks.	

NOTES:

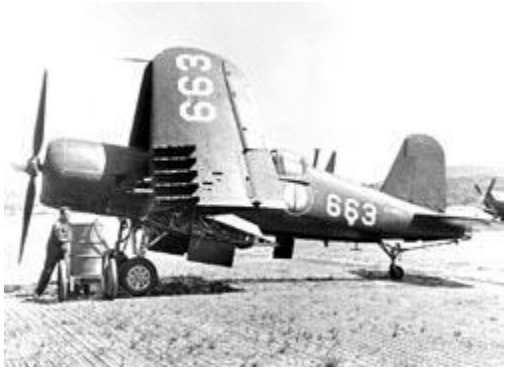
* Includes two 150-gal drop tanks.

Model Number : F4U-7
Model Name : Corsair
Model Type: Fighter

The F4U-7, built for the French Navy, completed the venerable Corsair line. Essentially the same as an F4U-4 in an F4U-6 (AU-1) airframe, it was equipped with a Pratt and Whitney two-speed, two-stage engine (R-2800-18W), making it a high-altitude fighter.



In 1952, the F4U-7 was used by the French in Indochina - the Corsair's third war.



For 13 years (1940 through 1952), F4U Corsairs were produced for the U.S. Navy. The last of the Corsairs (the F4U-7) was delivered to the French Navy early in 1952, making it the last piston-engined fighter to be built in the United States. When the last Corsair rolled off the production line it had the number 12,571. Never before had a fighter enjoyed such a long production life. Nor was the Corsair's glory all of battle origin. Commander Cook Cleland, USNR, flying the Vought-designed airplane as a civilian, captured the Thompson Trophy event in 1947 and again in 1949 with average speeds of 396 and 397 miles an hour over closed courses

The Corsair thus completed the cycle: from fighter to dive-bomber, to fighter-bomber, to attack plane, and back to fighter.

Dimensions	
Wingspan	* 40.90 ft
Overall Langth	* 34.50 ft
Height	* 13.00 ft
Weights and Capacities	
Empty Weight	** 9835 lb
Gross Weight	* 17600 lb
Useful Load	
Fuel Capacity	* *** 534 gal
Oil Capacity	

Powerplant Characteristics	
Type: Pratt & Whitney 18-cylinder, twin row, air cooled radial, R-2800-18W.	
Rating	** 2100 hp
Displacement	
Weight	
Size (length X diameter)	
Performance	
Maximum Speed, Sea Level	** 446 mph
Landing Speed, Sea Leavel	
Stall Speed, Sea Level	
Initial Rate-of-Climb	** 3870 ft/min
Cruise Speed, Sea Level	** 215 mph
Range at Cruise Speed	** 1015 miles
Service Ceiling	** 41500 ft
Absolute Ceiling	
Crew: 1	
Armament: Four 20-mm cannons or ten 5-inch rockets under wings or one 1000-lb bomb on centerline rack or two 500-lb bombs on pylon racks,	

NOTES:

* Data from F4U-7 handbook.

** Estimated data based on use of R-2800-18 engine and AU-1 airframe.

*** Includes two 150-gal drop tanks