

Grumman F6F



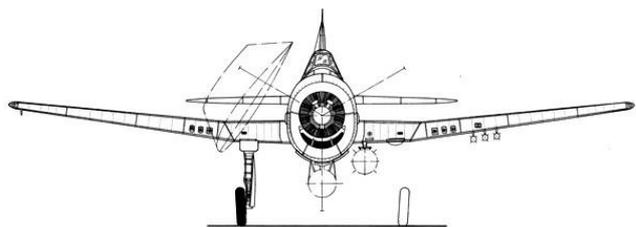
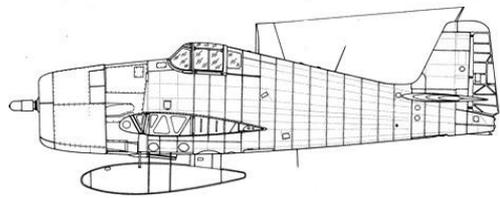
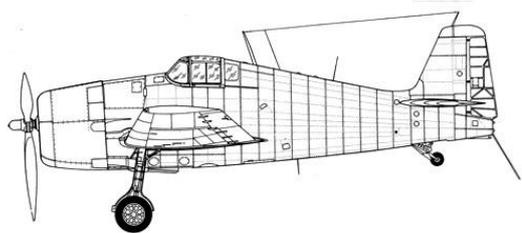
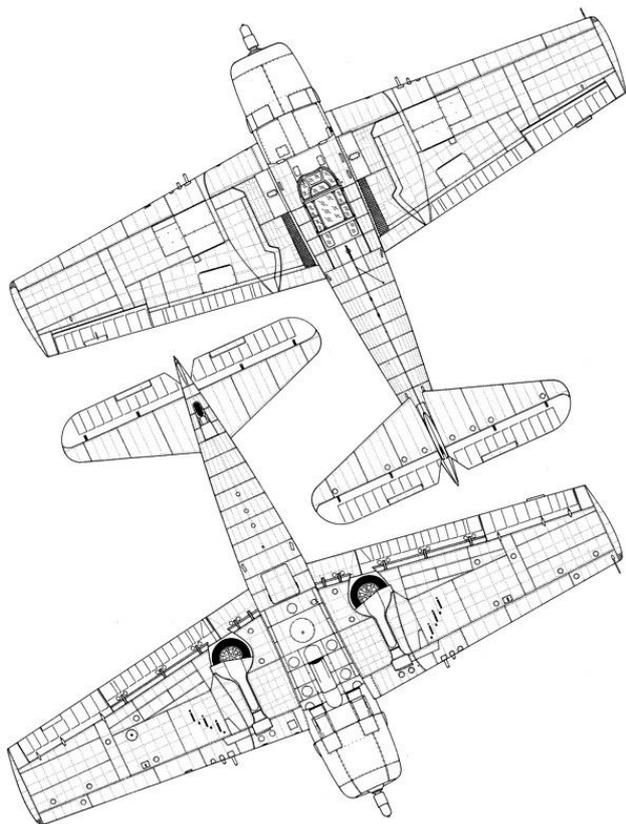
Le Grumman F6F Hellcat est une extrapolation du F4F Wildcat. C'est, comme son prédécesseur, un chasseur embarqué à bord de porte-avions. Le 30 juin 1941, Grumman signa le contrat prévoyant le remplacement du Wildcat par un nouveau chasseur embarqué, le prototype qui vola le 26 juin 1942 bénéficia de l'expérience des premiers combats dans le Pacifique et se caractérisait par un poids très supérieur au F4F et par un moteur plus puissant. En septembre 1943 les premiers F6F-3 opérationnels participèrent à l'attaque de l'île Marcus. Le F6F Hellcat a été utilisé sur tous les théâtres d'opération de la Seconde Guerre mondiale par l'US Navy. Cependant, de par sa conception, on le retrouve essentiellement dans le Pacifique où il se distingue : le F6F remporte à lui seul 75% des victoires de l'aviation embarquée américaine. Il était très apprécié par les pilotes, qui le surnommait " Ace-maker " (le faiseur d' as) . Il fut l'un des rares appareils engagés dans le Pacifique à pouvoir affronter en combat tournoyant le célèbre Zero A6M (à l' exception du North American P51 Mustang et du F4U Corsair), les autres appareils s'en remettant à la tactique dite du "hit and run" (toucher et s'en aller). En Europe, le F6F intervient notamment sur le théâtre méditerranéen. Il participe ainsi au débarquement de Provence au sein de la Task Force 88. Le Grumman F6F Hellcat était un chasseur "rustique" plutôt qu'un bolide, facile à piloter, équipé de réserves de carburant énormes, pour l'époque, lui qui ne trouva guère d'adversaires à sa mesure. Il rendit aussi de fiers services tout au long de la guerre et fut l'un des avions essentiels à la victoire alliée. Le F6F Hellcat a connu un grand succès et on le retrouve dans l'aviation embarquée britannique, mais aussi dans la Marine (139 avions entre 1950 et 1953 qui furent réformés en 1960) et dans l'Armée de l'air française qui l'utilisèrent dans la guerre d'Indochine. Le Hellcat a été le premier avion utilisé par la patrouille acrobatique des Blue Angels de la marine américaine.

Production totale du F6F Hellcat : 12 275 exemplaires.

Grumman F6F HELLCAT :

- Moteur Pratt Whitney R-2800-10W
- 2000 Ch
- 605 Km/h
- 6 Mitrailleuses 12.7 mm ou 2 canons 20mm et 4 Mitrailleuses 12.7 mm 900 Kg de bombes ou 6 roquettes
- 6990 Kg en charge
- 11700 m de plafond pratique
- 1750 Km en distance franchissable
- 1 pilote





Version anglaise Wikipédia

The **Grumman F6F Hellcat** is an American [carrier-based fighter aircraft](#) of [World War II](#). Designed to replace the earlier [F4F Wildcat](#) and to counter the Japanese [Mitsubishi A6M Zero](#), it was the [United States Navy](#)'s dominant fighter in the second half of the [Pacific War](#). In gaining that role, it prevailed over its faster competitor, the [Vought F4U Corsair](#), which initially had problems with visibility and carrier landings. Powered by a 2,000 hp (1,500 kW) [Pratt & Whitney R-2800 Double Wasp](#), the same powerplant used for both the Corsair and the [United States Army Air Forces](#) (USAAF) [Republic P-47 Thunderbolt](#) fighters, the F6F was an entirely new design, but it still resembled the Wildcat in many ways.^[3] Some military observers tagged the Hellcat as the "Wildcat's big brother".^[4] The F6F made its combat debut in September 1943. It subsequently established itself as a rugged, well-designed carrier fighter, which was able to outperform the A6M Zero and help secure [air superiority](#) over the [Pacific theater](#). In total, 12,275 were built in just over two years.^[5] Hellcats were credited with destroying a total of 5,223 enemy aircraft while in service with the U.S. Navy, U.S. Marine Corps, and [Royal Navy Fleet Air Arm](#) (FAA).^{[6][Note 2]} This was more than any other Allied naval aircraft.^[8] After the war, Hellcats were phased out of front-line service in the US, but radar-equipped F6F-5Ns remained in service as late as 1954 as [night fighters](#).^{[9][10]}

Design and development

XF6F



Unpainted XF6F-1 prior to its first flight (1942)



F6F-3 aboard USS *Yorktown* has its "[Sto-Wing](#)" folding wings deployed for takeoff (circa 1943-44).

Grumman had been working on a successor to the F4F Wildcat since 1938, and the contract for the prototype **XF6F-1** was signed on 30 June 1941. The aircraft was originally designed to use the [Wright R-2600 Twin Cyclone](#) two-row, 14-cylinder radial engine of 1,700 hp (1,300 kW) (the same engine used with Grumman's then-[new torpedo bomber under development](#)), driving a three-bladed Curtiss Electric propeller.^[11] Instead of the Wildcat's narrow-track, hand-cranked, main [landing gear](#) retracting into the fuselage inherited from the F3F (a design from the 1930s [Grumman FF-1](#) fighter biplane), the Hellcat had wide-set, hydraulically actuated landing-gear struts that rotated through 90° while retracting backwards into the wings, but with full wheel doors fitted to the struts that covered the entire strut and the upper half of the main wheel when retracted, and twisted with the main gear struts through 90° during retraction.^[12] The wing was mounted lower on the fuselage and was able to be hydraulically or manually folded, with each panel outboard of the undercarriage bay folding backwards from pivoting on a specially oriented, Grumman-patented "[Sto-Wing](#)" diagonal axis pivoting system much like the earlier F4F, with a folded stowage position parallel to the fuselage with the leading edges pointing diagonally down.^[13] Throughout early 1942, [Leroy Grumman](#), along with his chief designers [Jake Swirbul](#) and Bill Schwendler, worked closely with the U.S. Navy's [Bureau of Aeronautics](#) (BuAer) and experienced F4F pilots,^[14] to develop the new fighter in such a way that it could counter the Zero's strengths and help gain air dominance in the Pacific Theater of Operations.^[15] On 22 April 1942, Lieutenant Commander [Butch O'Hare](#) toured the Grumman Aircraft company and spoke with Grumman engineers, analyzing the performance of the F4F Wildcat against the Mitsubishi A6M Zero in aerial combat.^[16]^[Note 3] BuAer's Lt Cdr A. M. Jackson ^[Note 4] directed Grumman's designers to mount the cockpit higher in the fuselage.^[19] In addition, the forward fuselage sloped down slightly to the engine cowling, giving the Hellcat's pilot good visibility.^[20]

Change of powerplant

Based on combat accounts of encounters between the F4F Wildcat and A6M Zero, on 26 April 1942, BuAer directed Grumman to install the more-powerful, 18-cylinder [Pratt & Whitney R-2800 Double Wasp](#) radial engine – which was already in use with Chance Vought's Corsair since 1940 – in the second XF6F-1 prototype.^[21] Grumman complied by redesigning and strengthening the F6F airframe to incorporate the 2,000 hp (1,500 kW) R-2800-10, driving a three-bladed [Hamilton Standard](#) propeller. With this combination, Grumman estimated the XF6F-3s performance would increase by 25% over that of the XF6F-1.^[4] The Cyclone-powered XF6F-1 (02981) first flew on 26 June 1942, followed by the first Double Wasp-equipped aircraft, the XF6F-3 (02982), which first flew on 30 July 1942. The first production F6F-3, powered by an R-2800-10, flew on 3 October 1942, with the type reaching operational readiness with [VF-9](#) on [USS Essex](#) in February 1943.^[22] ^[Note 5]

Further development

The F6F series was designed to take damage and get the pilot safely back to base. A bullet-resistant windshield was used and a total of 212 lb (96 kg) of cockpit armor was fitted, along with armor around the oil tank and oil cooler. A 250 US gal (950 L) [self-sealing fuel tank](#) was fitted in the fuselage.^[22] Standard armament on the F6F-3 consisted of six .50 in (12.7 mm) [M2/AN Browning](#) air-cooled [machine guns](#) with 400 rounds per gun. A center-section [hardpoint](#) under the fuselage could carry a single 150 US gal (570 L) disposable [drop tank](#), while later aircraft had single bomb racks installed under each wing, inboard of the undercarriage bays; with these and the center-section hard point, late-model F6F-3s could carry a total bomb load in excess of 2,000 lb (910 kg). Six 5 in (127 mm) [High Velocity Aircraft Rockets](#) (HVARs) could be carried – three under each wing on "zero-length" launchers.^[23]^[24] Two night-fighter subvariants of the F6F-3 were developed; the 18 F6F-3Es were converted from standard-3s and featured the [AN/APS-4](#) 10 GHz frequency radar in a pod mounted on a rack beneath the right wing, with a small radar scope fitted in the middle of the main instrument panel and radar operating controls installed on the port side of the cockpit.^[25] The later F6F-3N, first flown in July 1943, was fitted with the AN/APS-6 radar in the fuselage, with the antenna dish in a bulbous fairing mounted on the leading edge of the outer right wing as a development of the AN/APS-4; about 200 F6F-3Ns were built.^[26] Hellcat night fighters claimed their first victories in November 1943.^[27] In total, 4,402 F6F-3s were built through until April 1944, when production was changed to the F6F-5.^[20]



An early-production F6F-5 being tested with eight 5-inch HVAR rockets (*circa* 1944-45)

The F6F-5 featured several improvements, including a more powerful R-2800-10W engine employing a water-injection system and housed in a slightly more streamlined engine cowling, spring-loaded control [tabs](#) on the [ailerons](#), and an improved, clear-view windscreen, with a flat armored-glass front panel replacing the F6F-3's curved plexiglass panel and internal armor glass screen.^{[12][20]} In addition, the rear fuselage and tail units were strengthened, and apart from some early production aircraft, most of the F6F-5s built were painted in an overall gloss sea-blue finish.^[28] After the first few F6F-5s were built, the small windows behind the main canopy were deleted.^[29] The F6F-5N night-fighter variant was fitted with an AN/APS-6 radar in a fairing on the outer-starboard wing. A few standard F6F-5s were also fitted with camera equipment for reconnaissance duties as the F6F-5P.^[30] While all F6F-5s were capable of carrying an armament mix of one 20-mm (.79-in) [M2 cannon](#) in each of the inboard gun bays (220 rounds per gun), along with two pairs of .50-in (12.7-mm) machine guns (each with 400 rounds per gun), this configuration was only used on later F6F-5N night fighters.^[31] The F6F-5 was the most common F6F variant, with 7,870 being built.^{[20][Note 6]} Other prototypes in the F6F series included the XF6F-4 (02981, a conversion of the XF6F-1 powered by an R-2800-27 and armed with four 20-mm M2 cannon), which first flew on 3 October 1942 as the prototype for the projected F6F-4. This version never entered production and 02981 was converted to an F6F-3 production aircraft.^[32] Another experimental prototype was the XF6F-2 (66244), an F6F-3 converted to use a Wright R-2600-15, fitted with a Birman-manufactured mixed-flow [turbocharger](#), which was later replaced by a Pratt & Whitney R-2800-21, also fitted with a Birman turbocharger.^[33] The turbochargers proved to be unreliable on both engines, while performance improvements were marginal. As with the XF6F-4, 66244 was soon converted back to a standard F6F-3.^[34] Two **XF6F-6s** (70188 and 70913) were converted from F6F-5s and used the 18-cylinder 2,100 hp (1,566 kW) Pratt and Whitney R-2800-18W two-stage supercharged radial engine with water injection and driving a Hamilton-Standard four-bladed propeller.^[35] The XF6F-6s were the fastest version of the Hellcat series with a top speed of 417 mph (671 km/h), but the war ended before this variant could be mass-produced.^{[12][36]} The last Hellcat rolled out in November 1945, the total production being 12,275, of which 11,000 had been built in just two years.^[37] This high production rate was credited to the sound original design, which required little modification once production was under way.

Operational history

U.S. Navy and Marines

The U.S. Navy much preferred the more docile flight qualities of the F6F compared with the Vought F4U Corsair, despite the superior speed of the Corsair. This preference was especially noted during carrier landings, a critical success requirement for the Navy. The Corsair was thus released by the Navy to the Marine Corps, which without the need to worry about carrier landings, used the Corsair to immense effect in land-based sorties.

The Hellcat remained the standard USN carrier-borne fighter until the F4U series was finally cleared for U.S. carrier operations in late 1944 (the carrier landing issues had by now been tackled largely due to use of Corsair by the Royal Navy Fleet Air Arm, which started in 1943).^[38] In addition to its good flight qualities, the Hellcat was easy to maintain and had an airframe tough enough to withstand the rigors of routine carrier operations.^[39] Like the Wildcat, the Hellcat was designed for ease of manufacture and ability to withstand significant damage.



[VF-82](#) Grumman F6F-5 ready for launch from [USS Bennington](#) off [Okinawa](#) in May 1945: Most of the F6F-5s built were painted overall glossy sea blue.

The Hellcat first saw action against the Japanese on 1 September 1943, when fighters off [USS Independence](#) shot down a [Kawanishi H8K](#) "Emily" [flying boat](#).^[40] Soon after, on 23 and 24 November, Hellcats engaged Japanese aircraft over [Tarawa](#), shooting down a claimed 30 Mitsubishi Zeros for the loss of one F6F.^[40] Over [Rabaul, New Britain](#), on 11 November 1943, Hellcats and F4U Corsairs were engaged in day-long fights with many Japanese aircraft including A6M Zeros, claiming nearly 50 aircraft.^[40] When trials were flown against a captured [A6M5](#) model Zero, they showed that the Hellcat was faster at all altitudes. The F6F out-climbed the Zero marginally above 14,000 ft (4,300 m) and rolled faster at speeds above 235 mph (378 km/h). The Japanese fighter could out-turn its American opponent with ease at low speed and enjoyed a slightly better rate of climb below 14,000 ft (4,300 m). The trials report concluded:

Do not dogfight with a Zero 52. Do not try to follow a loop or half-roll with a pull-through. When attacking, use your superior power and high-speed performance to engage at the most favorable moment. To evade a Zero 52 on your tail, roll and dive away into a high-speed turn.^[41]

Hellcats were the major U.S. Navy fighter type involved in the [Battle of the Philippine Sea](#), where so many Japanese aircraft were shot down that Navy aircrews nicknamed the battle [the "Great Marianas Turkey Shoot"](#). The F6F accounted for 75% of all aerial victories recorded by the U.S. Navy in the Pacific.^[42] [Radar](#)-equipped Hellcat night-fighter squadrons appeared in early 1944. A formidable opponent for the Hellcat was the [Kawanishi N1K](#), but it was produced too late and in insufficient numbers to affect the outcome of the war.^[43]

Sortie, kill, and loss figures

U.S. Navy and Marine F6F pilots flew 66,530 combat sorties and claimed 5,163 kills (56% of all U.S. Navy/Marine air victories of the war) at a recorded cost of 270 Hellcats in aerial combat (an overall kill-to-loss ratio of 19:1 based on claimed kills).^[44] Claimed victories were often highly exaggerated during the war. Even so, the aircraft performed well against the best Japanese opponents with a claimed 13:1 kill ratio against the A6M Zero, 9.5:1 against the [Nakajima Ki-84](#), and 3.7:1 against the [Mitsubishi J2M](#) during the last year of the war.^[45] The F6F became the prime ace-maker aircraft in the American inventory, with 305 Hellcat aces. The U.S. successes were not just attributed to superior aircraft; from 1942 onwards, they faced increasingly inexperienced Japanese aviators and had the advantage of increasing numerical superiority.^[Note 7] In the ground-attack role, Hellcats dropped 6,503 tons (5,899 tonnes) of bombs.^[44]



A [U.S. Marine](#) inspects a Japanese-captured F6F-5 in [Yokosuka](#) in September 1945.

The U.S. Navy's all-time leading ace, [Captain David McCampbell](#), scored all his 34 victories in the Hellcat. He once described the F6F as "... an outstanding fighter plane. It performed well, was easy to fly, and was a stable gun platform, but what I really remember most was that it was rugged and easy to maintain."^[47] During the course of World War II, 2,462 F6F Hellcats were lost to all causes – 270 in aerial combat, 553 to anti-aircraft ground and shipboard fire, and 341 due to operational causes. Of the total figure, 1,298 were destroyed in training and ferry operations, normally outside of the combat zones.^[48] [Hamilton McWhorter III](#), a Navy aviator and a [flying ace](#) of World War II, was credited with shooting down 12 Japanese aircraft. He was the first U.S. Navy aviator to become an ace while flying the Grumman F6F Hellcat and the first Navy carrier pilot to achieve double ace status.^[49] [Arthur Van Haren, Jr.](#), a Navy combat Hellcat ace of WWII from Arizona, was credited with shooting down 9 Japanese planes. He was awarded a DFC, and a Gold Star in lieu of a second DFC. In 2012, Van Haren, Jr. was inducted into the Arizona Aviation Hall of Fame. ^[50]

British use



A section of Fleet Air Arm Hellcat F Mk.IIs of [1840 Squadron](#) in June 1944

The British Fleet Air Arm (FAA) received 1,263 F6Fs under the [Lend-Lease Act](#); initially, it was known as the Grumman [Gannet](#) Mark I. The name Hellcat replaced it in early 1943 for the sake of simplicity, the Royal Navy at that time adopting the use of the existing American naval names for all the U.S.-made aircraft supplied to it, with the F6F-3 being designated Hellcat F Mk. I, the F6F-5, the Hellcat F Mk. II and the F6F-5N, the Hellcat NF Mk. II.^[Note 8] They saw action off Norway, in the Mediterranean, and in the Far East. Several were fitted with photographic reconnaissance equipment similar to the F6F-5P, receiving the designation Hellcat FR Mk. II.^[51] The [Pacific War](#) being primarily a naval war, the FAA Hellcats primarily faced land-based aircraft in the European and Mediterranean theaters,^{[52][53]} so experienced far fewer opportunities for air-to-air combat than their USN/Marines counterparts; nevertheless, they claimed a total of 52 enemy aircraft kills during 18 aerial combats from May 1944 to July 1945. [1844 Naval Air Squadron](#), on board [HMS Indomitable](#) of the [British Pacific Fleet](#) was the highest-scoring unit, with 32.5 kills.^[54]

FAA Hellcats, as with other Lend-Lease aircraft, were rapidly replaced by British aircraft after the end of the war, with only two of the 12 squadrons equipped with the Hellcat at [VJ-Day](#) still retaining Hellcats by the end of 1945.^[55] These two squadrons were disbanded in 1946.^[55]



Postwar service: A bright orange F6F-3K target drone



A F6F-5K Hellcat target drone is shot down by the heavy cruiser [USS Saint Paul](#), in 1954.

Postwar use

After the war, the Hellcat was succeeded by the [F8F Bearcat](#), which was smaller, more powerful (powered by uprated Double Wasp radials) and more maneuverable, but entered service too late to see combat in World War II.^[56] The Hellcat was used for second-line USN duties, including training and [Naval Reserve](#) squadrons, and a handful were converted to target drones.^[9] In late 1952, Guided Missile Unit 90 used F6F-5K drones, each carrying a 2,000 lb (910 kg) bomb, to attack bridges in Korea. Flying from [USS Boxer](#), the Hellcat drones were radio controlled from an escorting [AD Skyraider](#).^[57] The F6F-5 was the first aircraft used by the U.S. Navy's [Blue Angels](#) official flight demonstration team at its formation in 1946.^[58] The French Navy ([Aéronavale](#)) was equipped with F6F-5 Hellcats and used them in combat in [Indochina](#). These were painted in Gloss Sea Blue, similar to post-World War II US Navy aircraft until about 1955, but had a modified French roundel with an image of an anchor.^[59] The [French Air Force](#) also used the Hellcat in Indochina from 1950 to 1952. The plane equipped four squadrons (including the [Normandie-Niemen](#) squadron of WWII fame) before these units transitioned to the F8F Bearcat.^[60] The Uruguayan Navy also used them until the early 1960s.^[61]

Variants

XF6F prototypes

XF6F-1

First prototype, powered by a two-stage 1,600 hp (1,193 kW) [Wright R-2600-10](#) Cyclone 14 radial piston engine.

XF6F-2

The first XF6F-1 prototype revised and fitted with a turbocharged Wright R-2600-16 Cyclone radial piston engine. R-2600 replaced by turbocharged R-2800-21.



XF6F-2 showing the later R-2800-21 installation with Birman [turbocharger](#) (1943)

XF6F-3

Second prototype fitted with a two-stage supercharged 2,000 hp (1,491 kW) Pratt & Whitney R-2800-10 Double Wasp radial piston engine.

XF6F-4

One F6F-3 fitted with a two-stage, two-speed supercharged 2,100 hp (1,566 kW) Pratt & Whitney R-2800-27 Double Wasp radial piston engine.

XF6F-6

Two F6F-5s that were fitted with the 2,100 hp (1,566 kW) Pratt & Whitney R-2800-18W radial piston engine, and four-bladed propellers.

Series production

F6F-3 (British designation Gannet F. Mk. I, and then later, renamed Hellcat F. Mk. I, January 1944)

Single-seat fighter, fighter-bomber aircraft, powered by a 2,000 hp (1,491 kW) Pratt & Whitney R-2800-10 Double Wasp radial piston engine.

F6F-3E

Night fighter version, equipped with an AN/APS-4 radar in a fairing on the starboard outer wing.

F6F-3N

Another night fighter version, equipped with a newer AN/APS-6 radar in a fairing on the starboard outer wing.

F6F-5 Hellcat (British Hellcat F. Mk. II)

Improved version, with a redesigned engine cowling, a new windscreen structure with an integral bulletproof windscreen, new ailerons and strengthened tail surfaces; powered by a 2,200 hp (1,641 kW) Pratt & Whitney R-2800-10W (-W denotes Water Injection) radial piston engine.

F6F-5K Hellcat

A number of F6F-5s and F6F-5Ns were converted into radio-controlled target drones.



F6F-5N night fighter with AN/APS-6 radar and 2 20mm M2 cannon (c. 1944/45)

F6F-5N Hellcat (British Hellcat N.F. Mk II)

Night fighter version, fitted with an AN/APS-6 radar. Some were armed with two 20 mm (0.79 in) [AN/M2](#) cannon in the inner wing bays and four 0.50 in (12.7 mm) [M2 Browning machine guns](#) in the outer.

F6F-5P Hellcat

Small numbers of F6F-5s were converted into photo-reconnaissance aircraft, with the camera equipment being fitted in the rear fuselage.

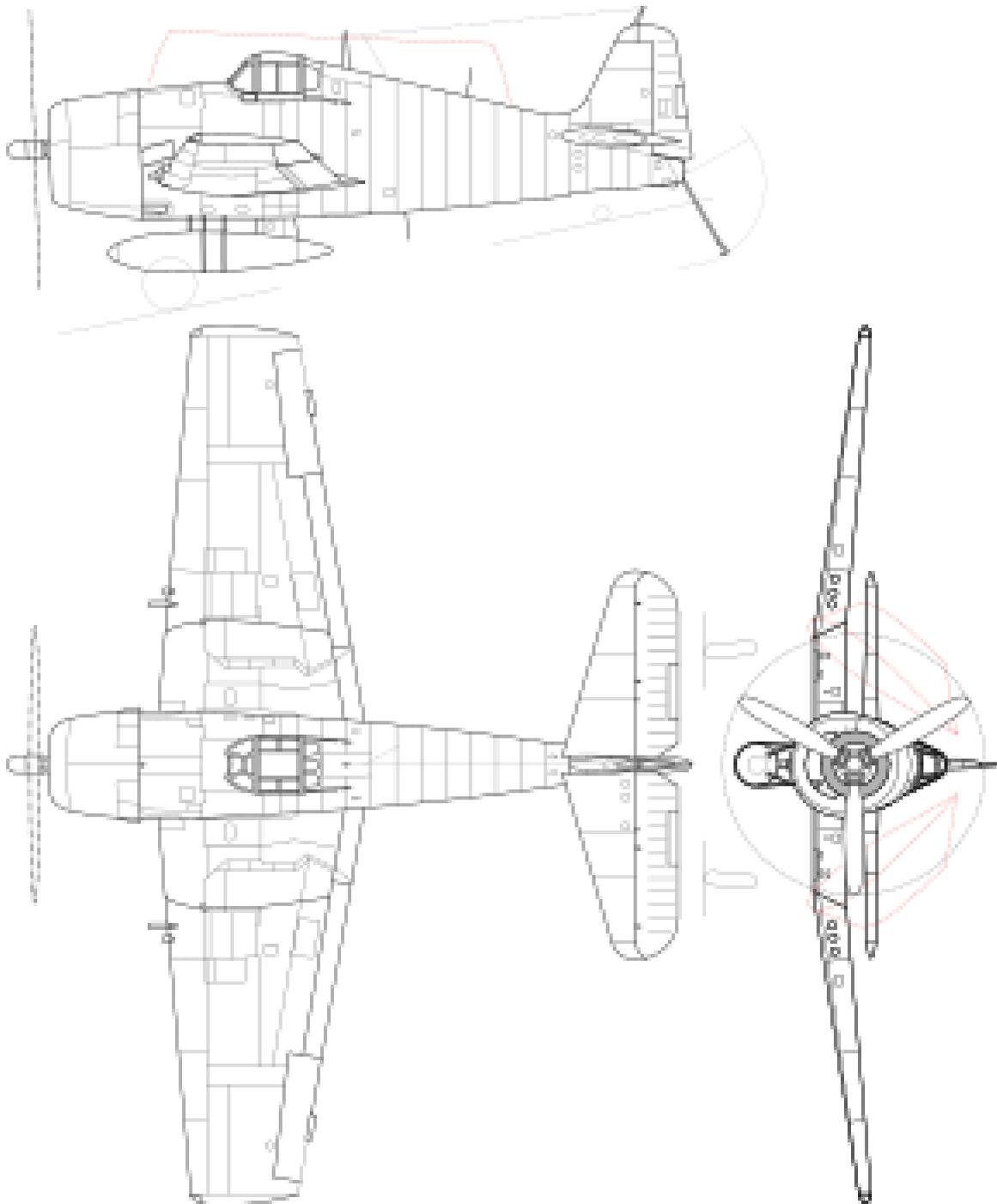
Hellcat FR. Mk. II

This designation was given to British Hellcats fitted with camera equipment.

FV-1

Proposed designation for Hellcats to be built by [Canadian Vickers](#); cancelled before any built.^[62]

Specifications (F6F-5 Hellcat)





An F6F-5 flown by Air Group Commander (CAG), Cdr. Louis H. Bauer of [Carrier Air Group 3 \(CVG-3\)](#), leads a formation of CVG-3 aircraft (a [Helldiver](#), [Avenger](#) and [Bearcat](#)) in 1946.

General characteristics

- **Crew:** 1
- **Length:** 33 ft 7 in (10.24 m)
- **Wingspan:** 42 ft 10 in (13.06 m)
- **Height:** 13 ft 1 in (3.99 m)
- **Wing area:** 334 sq ft (31.0 m²)
- **Aspect ratio:** 5.5
- **Airfoil:** root: [NACA 23015.6](#); tip: [NACA 23009^{\[98\]}](#)
- **Empty weight:** 9,238 lb (4,190 kg)
- **Gross weight:** 12,598 lb (5,714 kg)
- **Max takeoff weight:** 15,415 lb (6,992 kg)
- **Fuel capacity:** 250 US gal (208 imp gal; 946 L) internal; up to 3 × 150 US gal (125 imp gal; 568 L) external drop tanks
- **Zero-lift drag coefficient:** 0.0211
- **Drag area:** 7.05 sq ft (0.655 m²)
- **Powerplant:** 1 × [Pratt & Whitney R-2800-10W Double Wasp](#) 18-cylinder air-cooled radial piston engine, 2,200 hp (1,600 kW) with a two-speed two-stage [supercharger](#) and water injection
- **Propellers:** 3-bladed [Hamilton Standard](#), 13 ft 1 in (3.99 m) diameter constant-speed propeller

Performance

- **Maximum speed:** 391 mph (629 km/h, 340 kn)
- **Stall speed:** 84 mph (135 km/h, 73 kn)
- **Combat range:** 945 mi (1,521 km, 821 nmi)
- **Ferry range:** 1,530 mi (2,460 km, 1,330 nmi)
- **Service ceiling:** 37,300 ft (11,400 m)
- **Rate of climb:** 2,600 ft/min (13 m/s)
- **Time to altitude:** 20,000 ft (6,096 m) in 7 minutes 42 seconds
- **Lift-to-drag:** 12.2
- **Wing loading:** 37.7 lb/sq ft (184 kg/m²)
- **Power/mass:** 0.16 hp/lb (0.26 kW/kg)
- **Take-off run:** 799 ft (244 m)

Armament

- **Guns:**
 - 6 × 0.50 in (12.7 mm) [M2 Browning machine guns](#), with 400 rounds per gun, (All F6F-3, and most F6F-5) *or*
 - 2 × 0.79 in (20 mm) AN/M2 cannon, with 225 rounds per gun *and* 4 × 0.50 in (12.7 mm) Browning machine guns with 400 rounds per gun
- **Rockets:**
 - 6 × 5 in (127 mm) [HVARs](#) *or*
 - 2 × 11.75 in (298 mm) [Tiny Tim](#) unguided rockets
- **Bombs:** up to 4,000 lb (1,800 kg) full load, including:
 - **Centerline rack:**
 - 1 × 2,000 lb (910 kg) bomb *or*
 - 1 × [Mark 13 torpedo](#);
 - **Underwing bombs:** (F6F-5 had two additional weapons racks either side of fuselage on wing center-section)
 - 2 × 1,000 lb (450 kg), 500 lb (230 kg), 250 lb (110 kg), *or*
 - 6 × 100 lb (45 kg) (Mk.3 Bomb Cluster)

