

# Just For The Helluva It, Let's Talk About the F8F Bearcat



by **Ralph J. Ferrusi**

Of course I was aware of the F8F Bearcat, but never really formed any kind of attachment with it, as I did, for instance, with the Corsair, or Hellcat. I recall it as a small(ish) fighter plane with a HUGE radial engine, swinging a big four-bladed prop, necessitating tall—and wide-spaced—landing gear, sort of like a U. S. Navy FW-190. I do recall it was fast, duking it out in post World War II air races (Reno???) with souped up P-51 Mustangs.

OK, while we're at it, just for the fun of it, let's do some free-wheeling impressions of famous WW II fighter planes:

The graceful—almost delicate—Spitfire was, particularly in comparison with its ugly stepsister Hurricane, almost feminine: human-wise, a ballerina would come to mind. And, did any other

aircraft, ever, sport those graceful elliptical wings??? Not that I know of.

The Thunderbolt was a night club bouncer, or, a thug-like bodyguard (And, it now has the unique distinction of being Indiana's State Airplane!!! 6,242 Thunderbolts were manufactured in Evansville during World War II. As of this writing, 14 airworthy P-47's still exist.)

The P-40 Warhawk was perpetually out-classed, by the Zero and the ME-109. Taking off on a combat mission, you were never going to be the superior airplane.

The Hellcat was always a bit "thick around the middle": the Bearcat finally got the bubble canopy that the Hellcat never had. As far as I know, the Hellcat had the best kill ratio—an astounding overall kill-to-loss ratio of 19:1 based on claimed kills—of any World War II fighter, Air Force or Navy.

The Corsair: you had to love it: period. The Stuka shared its inverted gull wings, but was an ugly piece of shit...

And, the P-38 Lightning: why oh why oh why did Lockheed never ever think about chucking those Allison engines and replacing them with V-1650 Rolls Royce Merlins???. This woulda/coulda been the prop-driven fighter plane of all time; an outrageous performer...

Ummmm, how's about the P-51D Mustang???. Words fail me... :)))))))))

Back to the Bearcat. Did it have folding wings??? Was it ever carrier-based??? Did it ever fire a shot in anger in World War II??? How fast was it??? Let's do some research (but first let's answer the above four questions):

Yes, it had folding wings, but there were some weird caveats...

Carrier based: it was designed to operate from escort carriers. The Hellcat couldn't: too big, and, too heavy...

No, it did not see combat in World War II: it's first combat was in the 1946-1954 French Indochina War.

Fast???: how does a racing version's 528.33 mph sound...

OK, now let's get around to more information about the F8F than you probably don't really want to know:

Not at all surprisingly, the Bearcat design was strongly influenced by the larger—and heavier—but, extremely successful, F6F Hellcat. But, surprisingly, 'way back on June 23, 1942 the concept of the Bearcat began at a meeting of veteran F4F Wildcat Battle of Midway pilots and then-Grumman VP Jake Swirbul at Pearl Harbor, where "climb rate"—that is strongly related to power-to-weight ratio—was emphasized. Another goal was the "G-58" should be able to operate from small escort carriers

The Hellcat was powered by the 2,000 horsepower Pratt & Whitney R-2800 engine, the most powerful American engine available at that time. The Bearcat's fuselage was five feet shorter and it's wingspan seven feet less than the Hellcat's, and it had a bubble canopy, the first ever on a US Navy fighter. Compared to the Hellcat, the Bearcat was—Hoo Boy!—20% lighter, had a 30% better rate of climb and was 50 mph faster. The dubious concept of "detachable wingtips" saved 230 pounds. But...

The first prototype flew August 21, 1944, but "Testing demonstrated a number of problems". Regardless, on October 6, 1944 the Navy placed a production contract for 2,023 aircraft, and deliveries began on February 1945. Fighter Squadron VF-19 became operational May 21, 1945. VJ Day was right around the corner on August 15, 1945, and the Bearcat never saw World War combat. It's first combat was during the 1946-1954 French Indochina War when nearly 200 Bearcats were delivered to the French in 1951. When the war ended the 28 surviving Bearcats were supplied to the Republic of Vietnam Air Force

Post World War II, the F8F was "Often mentioned as

one of the best-handling piston-engine fighters ever built, its performance was sufficient to outperform many early jets." It became a major U.S. Navy and Marine Corps fighter. On August 25, 1946, the Blue Angels converted from F6F Hellcats to F8F-1 Bearcats and introduced the famous "diamond" formation. In 1948 Grumman introduced the F8F-2 powered by the 2,240 hp R-2800-30W engine. 293 F8F-2s were produced, along with 12 F8F-2N night fighters and 60 F8F-2P reconnaissance versions. Production ended in 1949, and the last Bearcats were withdrawn in 1952, eventually being replaced by F9F Panthers and F2H Banshees.

In 1946 an unmodified production F8F-1 set a time-to-climb record to 10,000 feet in 94 seconds: 6,383ft/min. It held this record for 10 years until it was broken by a jet fighter.

Not surprisingly—at least to me—the ill-conceived snap-off wingtips were "not working as expected", and there was "the possibility of the aircraft crashing." "In the end, the wings were reinforced [whatever this means]...and the aircraft limited to 7.5 g."

## Air racing

Bearcats became popular in air racing. In 1964, a stock Bearcat flown by Mira Slovak won the inaugural Reno Air Race. Rare Bear, a highly modified F8F owned by Lyle Shelton, dominated the event for decades. It also set many performance records, including the 1989 3 km World Speed Record for piston-driven aircraft (528.33 mph), and in 1972 a new time-to-climb record (9,800 ft in 91.9 seconds, 6,425.9 ft/min). Daryl Greenamyers Conquest I, holder of a piston-engined aircraft world speed record, is on display at the Smithsonian's National Air and Space Museum.

## Variants:

F8F-1B-P, F8F-2 D-P, G-58A/B (Civilian aircraft)  
**Surviving airworthy aircraft** (as of this writing)  
U.S: three F8F-1's, eight F8F-2's, and two G-58  
Gulfhawks (civilian built Bearcats).  
Thailand: one F8F-1  
United Kingdom: one F8F-2

## Specifications (F8F-2)

- Length: 28 ft 3 in
- Wingspan: 35 ft 10in
- Height: 13 ft 10 in
- Empty weight: 7,650 lb
- Max takeoff weight: 13,460 lb
- Powerplant: Pratt & Whitney R-2800-30W Double Wasp 2,250 hp 18-cylinder air-cooled radial piston engine
- Maximum speed: 455 mph
- Range: 1,105 mi
- Service ceiling: 40,800 ft
- Rate of climb: 4,465 ft/min
- Guns: 4 × 20 mm AN/M3 cannon

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