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# McDonnell F 2h Banshee

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**DEVELOPMENT AND DESIGN: BUILDING ON THE** McDonnell F 2h Banshee by Oconnor & Ponce

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## INTRODUCTION: THE UNSUNG HERO OF NAVAL AVIATION

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In the pantheon of early Cold War jet fighters, the **McDonnell F2H Banshee** often flies under the radar. While its contemporary, the Grumman F9F Panther, receives much of the glory for pioneering carrier-based jet operations, the Banshee was a larger, more powerful, and longer-legged aircraft that carved out a crucial niche for the U.S. Navy and Marine Corps. Designed as a direct evolution of McDonnell's first jet, the FH-1 Phantom, the F2H Banshee was a straight-winged, twin-engine naval fighter that served with distinction during the Korean War. It performed roles ranging from fleet defense and ground attack to high-speed photo reconnaissance. For many pilots, the Banshee was a reliable, forgiving, and rugged machine that offered a significant step forward in jet-age performance. This article dives deep into the design, development, operational history, and legacy of this often-overlooked but highly capable naval fighter.

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## PHANTOM'S SUCCESS

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The story of the **McDonnell F 2h Banshee** begins in the late 1940s. McDonnell Aircraft Corporation had already achieved a milestone with the FH-1 Phantom, the first purely jet-powered aircraft to operate from an American aircraft carrier. While the Phantom was a success, its Westinghouse J30 engines limited its performance. The Navy needed a faster, more heavily armed fighter capable of countering emerging Soviet threats. McDonnell responded by scaling up the Phantom design, fitting it with a pair of the new, more powerful Westinghouse J34 turbojets.

## Airframe and Aerodynamics

The Banshee retained the Phantom's basic configuration: a straight, laminar-flow wing with a slight dihedral, a conventional tail, and engine intakes set in the wing roots. However, the airframe was substantially larger. The fuselage was stretched to accommodate more fuel, a heavier payload, and the larger engines. The wing area increased by nearly 50%, improving load-carrying capability and high-altitude performance. The straight wing, while limiting top speed compared to later swept-wing designs, provided excellent low-speed handling characteristics

essential for carrier operations. It also gave the Banshee a distinctive, purposeful profile – a sleek, bullet-shaped fuselage with a long nose and a tall vertical stabilizer.

## Powerplant and Systems

The twin Westinghouse J34-WE-34 engines, each producing around 3,250 pounds of thrust, gave the Banshee a top speed of over 580 mph (Mach 0.86) at sea level. More importantly, the paired engines provided a critical safety margin for carrier operations. If one engine failed over the ocean, the remaining engine could maintain level flight and safely return to the carrier. The engines were mounted side-by-side inside the fuselage, with the intake "mouths" clearly visible at the wing roots. Fuel was carried in internal tanks, and later variants could carry external drop tanks to extend range significantly.

### TECHNICAL SPECIFICATIONS OF THE F2H-2 BANSHEE

The F2H-2 was the most produced variant and the backbone of Navy squadrons during the Korean War. Below is a summary of its key specifications:

- **Crew:** 1 (pilot)
- **Length:** 40 ft 2 in (12.24 m)
- **Wingspan:** 41 ft 9 in (12.73 m)
- **Height:** 14 ft 5 in (4.39 m)
- **Empty Weight:** 12,500 lb (5,670 kg)
- **Maximum Takeoff Weight:** 21,500 lb (9,752 kg)
- **Powerplant:** 2 × Westinghouse J34-WE-34 turbojets, 3,250

lbf (14.5 kN) each

- **Maximum Speed:** 580 mph (933 km/h) at sea level
- **Cruise Speed:** 475 mph (764 km/h)
- **Range:** 1,475 mi (2,374 km) with external tanks
- **Service Ceiling:** 48,500 ft (14,800 m)
- **Rate of Climb:** 7,800 ft/min (39.6 m/s)

## Armament

The Banshee's primary armament consisted of four 20-millimeter (0.79 in) McDonnell M3 cannons mounted in the nose. These cannons were derived from the World War II-era Hispano-Suiza design and had a high rate of fire. The fighter could also carry underwing pylons for a total of up to 1,500 pounds (680 kg) of external stores, including bombs, rockets, or drop tanks. This gave the Banshee a respectable ground attack capability, though its main role remained air superiority and fleet defense.

### OPERATIONAL HISTORY: THE BANSHEE IN COMBAT

The F2H Banshee entered service in 1948 with Navy fighter squadrons. Its baptism of fire came almost immediately with the outbreak of the Korean War in June 1950. Operating from carriers of the 7th Fleet, Banshee squadrons flew a wide variety of missions over the Korean Peninsula.

## Fighter and Escort Missions

One of the Banshee's primary roles was escorting attack aircraft such as the Douglas AD Skyraider and the Vought F4U Corsair. The Banshee's superior speed and altitude capability made it well-suited to protect these slower propeller-driven aircraft from North Korean and Chinese MiG-15 fighters. Although the MiG-15 was faster and more maneuverable at high altitude due to its swept wings, the Banshee's two engines and higher service ceiling gave it a fighting chance. U.S. Navy pilots flying the F2H claimed several aerial victories against MiG-15s and other enemy aircraft. The Banshee demonstrated that a well-flown straight-wing fighter could still hold its own in the jet age.

## Photo Reconnaissance: The F2H-2P

Perhaps the most vital role played by the **Mcdonnell F 2h Banshee** in Korea was that of photo reconnaissance. The F2H-2P variant replaced the nose cannons with an array of K-17, K-22, and K-38 cameras. These unarmed Banshees became the workhorses of Navy and Marine Corps reconnaissance squadrons. They flew dangerous, low-level missions over enemy territory to gather intelligence on troop movements, supply lines, and defensive positions. The Banshee's speed and high altitude capability allowed it to outrun many interceptors and avoid most anti-aircraft fire. The intelligence gathered by these photo

Banshees was invaluable to ground commanders and strategic planners.

## Night Fighting

The Banshee also served in a dedicated night fighter role. The F2H-2N variant was equipped with an APS-19 radar in a modified nose, allowing it to intercept enemy aircraft under the cover of darkness. These night-fighting Banshees patrolled the skies over North Korea, protecting friendly forces from surprise night raids. Although they had only limited success in terms of kills, their very presence deterred enemy night operations.

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### VARIANTS: FROM -1 TO -4

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Several distinct variants of the F2H Banshee were produced, each tailored to specific operational needs:

1. **F2H-1:** The initial production version, powered by J34-WE-30 engines. Only 56 were built. It served primarily as a trainer and fleet fighter until replaced by later variants.
2. **F2H-2:** The major production variant with more powerful J34-WE-34 engines, larger fuel capacity, and external hardpoints. Over 300 were built, forming the backbone of Korean War operations.
3. **F2H-2N:** Night fighter version with radar housed in a lengthened nose. The cannons were retained. About 50 were produced.
4. **F2H-2P:** Photo reconnaissance variant with no armament. The nose was packed with cameras. This was one of the

most important roles of the Banshee.

5. **F2H-3:** An extended-range variant with a longer fuselage, increased fuel capacity, and a taller tail to improve directional stability. It carried improved avionics.
6. **F2H-4:** The ultimate Banshee variant, featuring a climate-controlled cockpit (for the first time in a McDonnell jet) and upgraded engines. It also had a larger tail and radar. Only 150 were built.

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### LEGACY AND COMPARISON WITH CONTEMPORARY FIGHTERS

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When comparing the Banshee to its contemporaries, the most obvious competitor was the Grumman F9F Panther. Both were straight-wing, carrier-based jets that served extensively in Korea. The Panther was lighter, more nimble, and initially more numerous. But the Banshee was faster, had a higher ceiling, and carried heavier armament. Its twin-engine configuration provided redundancy that the single-engine Panther lacked – a crucial advantage for long, over-water patrols. However, the Banshee was larger and more complex to maintain. As the war progressed, both were outclassed by the swept-wing MiG-15 at very high altitudes. Nevertheless, the Banshee's robust design and solid performance made it a favorite among pilots.

## Retirement and Final Years

By the mid-1950s, the age of the straight-wing fighter was coming to an end. The U.S. Navy introduced swept-wing fighters like the F9F Cougar and the supersonic F8U Crusader. The Banshee was gradually phased out of frontline service by 1959. Most were relegated to training units or reserve squadrons before being scrapped. A few found their way to the Canadian Navy, which operated a small number of F2H-3s from the carrier HMCS Bonaventure until 1962. Today, only about a dozen Banshees survive in museums across the United States and Canada, preserved as testaments to a critical era in naval aviation history.

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### CONCLUSION: REMEMBERING THE BANSHEE

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The **McDonnell F2H Banshee** may never achieve the iconic status of the F-86 Sabre or the Grumman F-14 Tomcat, but its contributions were no less essential. It bridged the gap between the first generation of fragile, underpowered jets and the more advanced, swept-wing designs of the later 1950s. In Korea, it proved itself as a versatile warhorse – a fighter, a photo scout, a night intruder, and a reliable guardian of the fleet. Its twin-engine safety margin saved many lives, and its long range allowed it to cover vast expanses of sea and sky. For aviation enthusiasts and historians, the Banshee represents a fascinating chapter in the evolution of carrier-based jet aviation – a chapter that deserves to be remembered with respect and admiration.