By Hal Andrews

F2H BANSHEE

F2H-2B

Banjos" or "Big Banjos," McDonnell's F2H-1/2 and F2H-3/4 *Banshee* respectively, never seem to get the attention given other carrier jet fighters. McDonnell's first jet fighter, the FD/FH *Phantom,* and North American's first carrier jet, the FJ *Fury,* got the first operational carrier jet fighter attention while later swept-wing and afterburner jets overshadowed the post-Korean service of Naval Aviation's first widely used all-weather jet fighters, F2H-3/4 *Banshees.* The -2's Korean combat service paralleled that of F9F *Panthers,* but the latter got the limelight. Today's long-time-retired Naval Aviators tend to recall rugged

F2H-1

Panthers, while memories of those who flew "Banjos" tend toward the affectionate, emphasizing fine flight characteristics, especially for -2s.

Early Years

Banshee beginnings trace to fall 1944. McDonnell was one of three companies studying future carrier fighter designs for the Navy's Bureau of Aeronautics using advanced piston-engine and prop, turbojet or turboprop propulsion. One of its proposals using two of Westinghouse's new 24C jet engines was selected for prototype development. The 3,000-pound thrust of the 24C (later designated J34) was nearly twice that of the 19B engines in its—and the Navy's—first jet fighter, the XFD-1, which would soon make its first flight. With a similar overall configuration but having four 20mm cannon, the all new design made maximum use of experience gained with the XFD.

Contract go-ahead for three XF2D-1s (later XF2H-1s) in March 1945 followed specification negotiations, with mock-up inspections in April. The major mock-up change was increasing the internal fuel capacity. With the war's end, McDonnell's move into the former Curtiss-Wright plant at Lambert Field, St. Louis, Mo., and engine delivery delays, the first XF2D-1 finally flew in January 1947.

Early flight tests justified a production order in March, later increased to 56. The XF2H airplanes were kept busy smoothing out design wrinkles, particularly with various aerodynamic problems as the design maximum speed was approached. Not as obvious as the production design's removal of horizontal tail dihedral were other necessary changes, including thinner wings and tail surfaces and power-boosted ailerons. Cockpit pressurization and an ejection seat were by then standard, but inlet doors that could be closed for intentional or unintentional single-engine flight were unique. Climb and high-altitude performance were particularly impressive to Navy evaluation pilots.

Banshees for the Fleet

Deliveries of production airplanes began in August 1948, with modifications initiated for future *Banshees.* These included a one-foot-longer fuselage for additional internal fuel and also droppable tip tanks. By the time these were incorporated, uprated J34 engines partially offset the increased weight and brought the F2H-2 designation. The -1s went to Fighter Squadron (VF) 171 replacing its FH-1 *Phantoms,* and later VF-172; in both squadrons they were replaced by -2s entering service in late 1949. While flying an F2H-1, a VF-171 pilot made the first American ejection seat escape, when failing to recover from a spiral dive in adverse weather.

Typical for carrier day fighters, night-fighter and photo versions of the F2H were soon developed. With extended forward fuselages for

night-fighter radar, 14 F2H-2Ns were built, the first in 1949. An initial batch of eight photo F2H-2Ps followed, with armament removed and an even longer nose for cameras. The effectiveness of -2Ps for Navy and Marine reconnaissance in Korea led to an additional 50 of these. A lesser-known version of the -2 was the F2H-2B. Basic -2s could carry rockets or bombs on wing pylons for ground attack. Long-range nuclear weapon delivery missions required special provisions, incorporated on 50 of 334 production -2s as -2Bs.

Later Years

The next step in *Banshee* development was an all-weather multimission "strike fighter" version. Initiated after the start of the Korean War, it incorporated the latest radar and fire control system for all-weather combat and a further mid-fuselage extension for a major increase in mission radius. Cannon were moved aft and the airframe strengthened. One of the F2H-2Ns was converted to an aerodynamic prototype to flight test the fuselage-mounted horizontal tail with dihedral. Hydraulically powered ailerons and elevators were new in Navy fighters, as was an extendable nose gear strut for catapult launch.

The resulting F2H-3 production deliveries began in 1952. Two different fire control radars were then being developed for the Navy and the final production contract covered 400 airplanes, 250 -3s with a Westinghouse radar and 150 -4s with a Hughes radar. Navy pilots were divided as to which system was most effective.

The last "Big Banjos" (F2H-3s) were accepted in September 1953. Early -3s were in all-weather detachments of Composite Squadrons, later All-Weather Fighter Squadrons. Both -3s and -4s subsequently also operated in full VF squadrons. Multimission roles included all-weather fighter and long-range nuclear weapon delivery. For extended range missions, one engine was routinely shut down with its inlet door closed. Many -3s and -4s had an in-flight refueling kit installed which provided a fixed refueling probe in place of the lower left cannon. During early squadron operations, a horizontal tail structural problem was fixed with additional forward strut braces. Extension of root leading edge skins to the brace gave a fillet appearance. Some -2, -3 and -4s were produced in bare metal finish; all transitioned to gray and white after 1955.

The "Big Banjos" were the fleet's all-weather fighters through the mid-fifties. In 1955 Canada acquired F2H-3s for use on the Royal Canadian Navy carrier *Bonadventure;* these later incorporated Sidewinder missiles. In 1959 Canada decided to discontinue its carrier operation and the F2H-3s were gradually phased out.

F2H-2

F2H-2

Span:	44'10"
Length:	40'2"
Height:	14'6"
Engines:	2 Westinghouse J34-WE-34 3,250 lbs thrust
Max speed:	460 kts at 35,000 ft
Max range:	1,280 nm
Service ceiling:	48,500 ft
Weight:	11,150 lbs (empty) 20,500 lbs (takeoff)
Crew:	1
Armament:	4 20mm cannon 1,000 lbs bombs/rockets

F2H-2s were assigned to the Navy and Marine reserves in the post-Korean War years, and were later joined by F2H-3s. They served there and in special functions until the early 1960s. Those remaining in 1962 were scheduled to become F-2s in the Department of Defense's (DOD) Air Force type designation system; however, by September implementation time the last few were awaiting disposal, so the F-2 materialized only on paper.

Naval Aviation personnel from the early DOD days love to recall a story. An F2H reached more than 50,000 feet over Washington, D.C., and photographed the scene below, showing that the new Air Force B-36 wasn't invincible to jet fighters.

Appreciation is extended to Fred Roos, Boeing St. Louis, and several early jet Naval Aviators, especially Tim Wooldridge, for their assistance.

F2H-4

F2H-2P