



Capt. Wally Schirra

# The Good



# F7U Cutlass

## Reconsidering an aviator's opinion of the Cutlass

By JACK MORRISSEY

WITH ASSISTANCE FROM RETIRED CAPT. WALLY SCHIRRA (U.S. NAVY)

A few years back I reviewed the U.S. Navy's F7U Cutlass, and the review was bad. Three pilots died while the Cutlass was undergoing testing. Not a good beginning, and that should tell you something about the aircraft; however, Bill Montague, a former U.S. Navy fighter pilot, flew the Cutlass and took his initial Cutlass instruction from Wally Schirra, who went on to become one of our more famous astronauts. Both said good things about this aircraft and its flying characteristics, which caused me to re-examine my previous thoughts.

When it was presented to the U.S. Navy back in the late 1940s, the F7U Cutlass was not only unique, but also way ahead of its time. After seeing the first American-built jet aircraft fly in 1942, the Navy recognized that jet propulsion was the future of fighter aircraft. Westinghouse was brought into the picture to develop a jet en-

gine, as was General Electric. The first initial jet fighter that flew was built by McDonnell. It was successful enough for the U.S. Navy to send a request out to the aircraft manufacturers to ensure that the Navy received the best design available. Grumman, at that time, was up to its proverbial rear end in producing the F6F Hellcat, and waiting in line were the F7F Tigercat and the F8F Bearcat. That left North American, McDonnell, and Vought to submit designs. North American's contribution was the FJ Fury, but it was a short, stubby plane and did not fulfill all of the requirements. The basic design, however, was improved and later became the Air Force's F-86, which allowed the United States to regain air superiority in the Korean conflict. McDonnell submitted the best and most successful design, which was the F2H Banshee, and it saw service during the Korean conflict.

Vought's model was the XF6U-1 Pirate. Using Westinghouse's J-34

engine it was underpowered from the start, and other problems became apparent. Lack of stability and poor handling only added to the woes of flying this aircraft. The Navy ordered 30 Pirates on February 5, 1947. Vought then introduced afterburners, so these 30 F6U-1s became the first afterburner-equipped production models. By the time they were flying, other problems developed, and the design quickly became outdated. In 1950 the Navy disposed of its F6Us and moved on.

Chance Vought went back to the drawing board and started with a clean sheet of paper. Swept wings along with an afterburner system were parts of the basic design of the F7U. No standard vertical and horizontal stabilizers, but a radical new swept-wing with no conventional tail assembly. Instead there were two vertical stabilizers with rudders and no horizontal tail surfaces. The leading edge of each wing featured hydraulically actuated slats for low-speed

flight. When the slats were extended the aircraft would not stall. At low speed with the slats retracted, the aircraft could go into a non-recoverable spin. This spin was called a post-stall gyration, and the next step was ejection. Schirra said he was happy at high altitudes doing combat maneuvers at low indicated airspeeds at about Mach .90 with the slats out. He could out-turn many contemporary aircraft while in afterburner. He said he also demonstrated the stability of the Cutlass with the slats out by descending from the high cone to the low cone near NAS Moffett Field, California, almost vertically. He used afterburner to recover at the low altitude of the low cone.

Schirra was also part of a team named Project Cutlass at NAS Miramar in 1954 and 1955. Its recommendation to Naval Air Forces, Pacific Fleet was to cancel the Cutlass' deployment. The U.S. Navy went ahead with the deployment despite the recommendation.

Carrier trials showed the F7U-1 unacceptable for shipboard landings. Pilot visibility during approach left a lot to be desired, and the high angle of attack coupled with a high sink rate made for some



abnormal landings. Fourteen F7U-1s, which constituted the initial order, were never put into squadron service. However, in 1952, two of these did see service with the U.S. Navy's flight demonstration team, the Blue Angels, as solo performers. The aircraft were a maintenance nightmare and were eventually abandoned by the team at NAS Memphis, where they ended up serving as instructional airframes.

The F7U-2 did contain many improvements, and 88 were ordered,

but that order was later canceled. The F7U-3 was almost a total redesign, and it was bigger, faster, more versatile, and most of the initial shortcomings had been eliminated. The initial 10 F7U-3s ordered in 1952 proved to be good enough for service with the fleet. After that, the order went to 290, which encompassed the F7U-3s, F7U-3Ms, and F7U-3Ps. The good Cutlass was the F7U-3. This was the model that Schirra and Bill Montague flew during part of their naval tour. Schirra pointed out he did not





**Bill Montague**

fly any of the other Cutlass models, just the F7U-3. He also said he had no problems with carrier landings on the USS Hancock (CV-19) with Project Steam (steam catapult tests of the Cutlass).

The service life of the F7U was short. The F7U-1's engine, a Westinghouse J-46, did not provide the power that was originally promised. Landings got a little tricky when power applied did not live up to power anticipated. Nicknames like the Ensign Eliminator cropped up, along with Gutless Cutlass. Not too flattering.

The consensus was that the Cutlass could have been an effective and good aircraft if the J-46 engine had lived up to what it had promised. Also, the U.S. Navy kept adding additional hard points and duties to the plane. This added weight while the engine stayed the same, with no increase in power.

Montague told me, "I enjoyed flying the Cutlass very much and really enjoyed doing high-speed aerobatic maneuvers that had no restrictions as to g-load. But a lot of why I enjoyed the aircraft was the instruction from Schirra that showed me the little things that are not always in the manual."

The story of the Cutlass put me in mind of the B-26 Marauder attack bomber. The B-26 was, according to those who flew it in the European campaigns of World War II, like flying a twin-engine fighter. The early, short-wing variants of the Marauder killed a lot of the low-time pilots early in its career. But the seasoned pilot, with a fair amount of com-





**The Blue Angels had two Cutlasses forced on the team in 1952. The F7U-1 had such troubles that the team landed at NAS Memphis and parked the planes, never to fly them again. The Navy used the aircraft as instructional airframes. They were presumably scrapped in the 1960s.**



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bat flying time, loved it for its speed and maneuverability. We see today's military jets at some of the bigger air shows, and the pilots make it look so easy. But it is only easy for them, as they have mastered all of the little idiosyncrasies each plane presents. Unfortunately, we never get a chance to see what the pilots go through to master their trade. We only see and admire the finished product!

*Author's Note: Many thanks to Capt. Wally Schirra for his input on the Cutlass.* ✈



**Vought built 30 F6U-1 Pirates, the Navy's first afterburner-equipped jet fighter. The aircraft was underpowered, and had poor flying qualities.**

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