



Fifty years ago this month, the F-4 Phantom II made its initial flight. The advanced aircraft would go on to set performance records, and more than 5,000 Phantoms would be built.

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A 'PHABULOUS' FIGHTER

50 years ago this month, the Phantom took to the skies for the first time

By HENRY T. BROWNLEE, JR.

The sun, peering around clouds, cast a lazy warmth on the Terminal Building, the hangars, the grass between the grease-stained runways. It was a quiet weekday morning at the airport." That's how David Brown of the *St. Louis Post-Dispatch* newspaper described May 27, 1958—the day that the McDonnell-built F4H-1 made its first flight.

"Off at the end of the runway the quiet morning was shattered by the horrendous racket of jet engines," Brown continued. "And the little group of men who looked like engineers bristled with tension. The unearthly noise came from a plane which picked up speed, streaked along the runway. It was a white streak, for the plane was new and white. And it was slender and sleek, with a nose pointed like that of a missile."

Brown and these managers and engineers were watching Bob Little, McDonnell Aircraft Company's chief test pilot, take up the newest, most advanced fighter aircraft of its time. The plane was so new that it did not have an official designation that day. It was still known only by the impersonal designation F4H-1—but it would later be christened the Phantom II.

The F4H-1, which was originally designated F3H-G/H and redesignated AH-1, was in competition with the Chance-Vought F8U-3 to succeed the U.S. Navy's existing squadrons of all-weather fighters, the F3H-2Y Demons, also built by McDonnell, and Douglas F4D-1 Skyrajs. The Navy's requirements were tough. Its new fighter was to be an all-weather twin-jet interceptor and attack plane that could fly at speeds up to Mach 2 for 1,000 miles (1,600 kilometers) to a target and back again without refueling—which at that time was the longest range of any carrier-based fighter. Its function would be to defend or attack day or night in any kind of weather, using radar to find its target in low-visibility situations.

McDonnell's F4H-1 was designed to meet and exceed the Navy's requirements. It would carry a radar operator and was powered by two GE J-79 turbojet engines. The addition of the radar operator and the fact that the plane was powered by two engines became decisive factors in the final selection of the F4H-1 in December 1958. James S. McDonnell, the founder of McDonnell Aircraft Company, came on the public address system and proclaimed, "This is Mac. Well, this is it! The Navy has just announced in Washington that our F4H has won the competition as the Navy's new all-weather fighter."

On July 3, 1959, at the 20th Anniversary of McDonnell Aircraft, the F4H-1 was christened the Phantom II. The F-4 Phantom II would go on to earn the title of the "Phabulous Phantom." Though it was initially ordered as a Navy and Marine Corps carrier-based fighter, the Air Force also selected the Phantom II for its squadrons.

The Phantom II established several speed, altitude, and time-to-climb records, many of which remained until relinquished to the F-15 Eagle in 1975. The capture of the speed, altitude and time-to-climb records were significant. When the Phantom II established a new speed record of 1,217 miles per hour (1,959 kilometers per hour) in 1960, Vice Admiral Clarence Ekstrom noted that "this speed means more than a record, it means that we now have a weapons system capable of operating from aircraft carriers that can go higher, faster and farther, and thus able to intercept any attacker aircraft." Ekstrom further argued that day that the Phantom's capabilities gave adversaries reason to reassess possible acts of aggression—because of the results of encountering one of McDonnell's Phantoms in combat.

By the time the McDonnell Douglas Company celebrated delivery of the 5,000th Phantom on May 24, 1978, the F-4 Phantom II had established several "firsts." Accord-

ing to the *McDonnell Douglas Spirit Eastern Edition*, in 1978 the Phantom had the largest production run of any supersonic fighter in the free world, surpassed only by the F-86 Sabrejet, which was not capable of supersonic speed in level flight. The Phantom II was the first fighter with Doppler radar having "look-down, shoot-down" capability, and the first operational fighter configured for low drag, or semi-recessed, carriage of medium-range Sparrow III air-to-air missiles in addition to its Sidewinder dogfight missiles and a 20mm rapid-fire gun. Furthermore, it was the first aircraft to make extensive use of both titanium in its primary structure and chemical milling for structural parts. In addition, the Phantom possessed several unique design features. Among them: a bell mouth to control the engine inlet and secondary airflow through an aerodynamic nozzle, and a movable inlet duct ram system used for Mach 2-plus performance.

Ultimately, the Phantom performed every classic mission required by a fighter. It served as a first-line interceptor, fighter-

bomber, escort, reconnaissance and "Wild Weasel" air defense suppression aircraft. It was the only fighter to fly concurrently with the Air Force Thunderbirds and the Navy Blue Angels military-aerobatics flight demonstration teams. The Phantom saw combat in Vietnam and Operation Desert Storm and served in squadrons of 11 other countries. Some 5,057 Phantoms were manufactured in St. Louis and the last one was delivered to the United States in 1979. There are currently between 450 and 550 F-4 and RF-4 aircraft serving nations including Japan, Korea, Turkey, Greece, Germany, Israel and Egypt. ■

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In this 1958 photo, David Lewis (from left), vice president, Project Management; Bob Little, chief test pilot; and Herman Barkley, F4H project engineer, share congratulations following the Phantom's first flight.

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