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The XP-936, the prototype for the P-26 Peashooter, stands at Boeing Field in Seattle. The XP-936 featured a smooth-skinned all-metal monoplane design, an innovation introduced on the Boeing Monomail commercial airplane.

The Peashooter's legacy

How the P-26 brought updated technology to U.S. fighter aircraft

By MICHAEL LOMBARDI

This year's introduction of the revolutionary 787 will be the latest milestone in Boeing's heritage of standard-setting innovative airplanes. A good

example of an earlier pacesetter flew for the first time 75 years ago: the legendary P-26 "Peashooter," the first production all-metal monoplane fighter for the U.S. military.

For more than 70 years, Boeing has been a leader in the design and production of large airplanes. With North American Aviation and McDonnell Douglas being among Boeing's predecessor companies, Boeing is also known for some of the most dominant fighter planes in modern history: the P-51 Mustang, F-86 Sabre, F-4 Phantom, F-15 Eagle and F/A-18 Hornet.

But this isn't the first time Boeing has been associated with leading-edge fighter planes. During the 1920s, the Boeing family of fighters, in particular the U.S. Army P-12 and U.S. Navy/Marine Corps F-4B series, were arguably the best in the world.

While the Boeing Airplane Company was building these biplane fighters, the company was also developing technologically advanced airplanes. Among them: the Boeing Monomail, which introduced for the first time in a commercial airplane innovations such as an all-metal semi-

monocoque (outer skin carrying the stress) fuselage with a smooth skin surface, cantilevered wings and retractable landing gear. Boeing also applied these innovations to a new military plane, the B-9 bomber, which became the first all-metal monoplane bomber in the United States.

The introduction of fast monoplane bombers such as the B-9, which could keep pace with the pursuit planes of the period (“pursuit” was the term used at that time for what we call “fighter” planes today), led some strategists to propose that pursuit planes were becoming obsolete.

In September 1931, Boeing set out to remedy this situation and began development of the Model 248, at the company’s own expense. This new pursuit design incorporated many of the innovations introduced on the Boeing Monomail—especially the smooth-skinned all-metal monoplane design. The Army Air Corps helped Boeing by supplying engines for three prototypes that were given the Air Corps designation XP-936.

The wire bracing on the wings of the P-26 and the fixed landing gear were steps backward from the cantilever wings and retractable landing gear of the Monomail. These design compromises decreased the weight and complexity of the airplane while increasing its performance.

On March 20 (some accounts say March 10), 1932, at Boeing Field in Seattle, the new pursuit plane made its first flight. In June the Army Air Corps bought the prototypes and assigned them the des-

ignation XP-26 (and later Y1P-26) and followed that with an order for 111 airplanes designated P-26A.

The P-26, known as “the Peashooter,” was a small airplane with a wing span slightly less than 28 feet (8.5 meters) and a length of 23 feet 9 inches and a height of 10 feet (7.2 by 3 meters). Powered by a 600hp Pratt & Whitney R-1340 engine, the P-26 had a top speed of 234 mph (377 kilometers per hour) and was nearly 40 mph (64 kilometers per hour) faster than the best U.S. pursuit planes of the day.

The excellent performance of the P-26 led the Army Air Corps to purchase 25 additional P-26s. The first two were delivered with a new fuel-injected engine and were designated P-26B; the rest that followed were designated P-26Cs.

Boeing also built the Model 281, an export version of the P-26. Ten Model 281s were sold to China, and one more was taken to Europe for a sales demonstration by Boeing test pilot Les Tower and Boeing Sales Manager Erik Nelson. When the plane was demonstrated outside of Madrid, it was acquired by the Spanish government and was used in combat during that nation’s civil war.

By the start of World War II, the P-26 had been retired from frontline U.S. service. But a few were stationed at Wheeler Field in Pearl Harbor on Dec. 7, 1941, and a number of others had been transferred to the Philippines and Guatemala. The P-26s flown by the Philippine Army Air Corps did see short but intense combat. Even though these air-

craft were outmatched by the modern Mitsubishi A6M Zero fighters, the Filipino pilots managed to score several victories.

Today, only two original P-26s survive. One is on display at the Smithsonian National Air and Space Museum’s Udvar-Hazy Center near Washington, D.C. The other is part of the Planes of Fame collection at Chino, Calif. A third example can be seen at the National Museum of the U.S. Air Force near Dayton, Ohio. While it’s not an original, it was built using data from Boeing’s archives and was given the next serial number in the Boeing production run.

While the innovations introduced by the Boeing Monomail and P-26 set the pattern for future single-engine monoplane fighters, Boeing did not receive any more production contracts for its designs and eventually bowed out of the fighter business. Boeing had learned from its experience with the B-9 that the technologies of all-metal monoplanes could be applied to larger airplanes with excellent results. This experience, along with a realignment of the company after the breakup of United Aircraft and Transport Corporation, set Boeing into a new direction of specializing in multiengine monoplanes—the “Big Boeings,” as they would be called.

That led to the Model 299, prototype for the B-17 Flying Fortress, followed by the Model 307 Stratoliner—the world’s first pressurized commercial airplane—and the 314 Clipper. These and more airplanes represent the proud lineage of the 787. ■

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The last flyable P-26 in the world takes to the air at last May’s Planes of Fame Air Show in Chino, Calif.

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