

The 'Texan'

What started as North American's NA-16 became the most popular military trainer ever

By Erik Simonsen



PHOTO ILLUSTRATION: (Above) A pair of restored SNJ-5s in U.S. Marine Corps markings fly with solo pilots. ERIK SIMONSEN/BOEING

PHOTO: (Inset) The first NA-16 trainer (X2080), photographed at North American Aviation's Dundalk, Md., plant. BOEING ARCHIVES

Seventy-six years ago, on April 1, 1935, test pilot Eddie Allen took off from a hard-packed dirt runway in Dundalk, Md., in a newly designed monoplane that would launch North American Aviation as a manufacturer of military training aircraft.

The NA-16 that flew for the first time that day would later be produced in many variants, including the AT-6/SNJ "Texan," arguably the greatest of all military trainers.

Foreseeing the need for a low-cost and rugged training aircraft for the military, James "Dutch" Kindelberger, president and founder of North American Aviation, chief engineer John Leland Atwood, and fellow engineer Harold Raynor had sketched their ideas about a new trainer on a notepad on Dec. 10, 1934. A U.S. Army Air Corps competition was slated for the following year at Wright Field near Dayton, Ohio, and North American Aviation wanted to compete.

The company's engineers and assembly personnel completed a prototype by March 1935. Designated the NA-16, the aircraft's steel tube frame fuselage was partially covered with fabric. But the fully cantilevered wing was all metal. The NA-16 featured an open tandem cockpit for an instructor and student pilot with fixed, non-retractable landing gear.

During the flyoff at Wright Field, the NA-16 competed against aircraft from Curtiss-Wright as well as Seversky, whose

Aviation factory was completed by January 1936 and some 75 employees began work on the new basic trainer, designated the BT-9.

Gradually the BT-9 was improved with all-metal construction and retractable landing gear. In early 1937, North American received its first U.S. Navy order for 40 variants, later designated SNJ. In 1939, the airframe was standardized into the Advanced Trainer-6, or AT-6, for the Army Air Corps, and SNJ-3/6 for the U.S. Navy. Both variants were produced in large numbers that eventually totaled 21,070 aircraft, including foreign sales.

The AT-6 got its nickname after North American, to accommodate demand, decided to take some of the production pressure off its California factory and build a sprawling plant in Dallas. Production of the trainers there began in December 1940.

With a top speed of 205 mph (330 kilometers per hour), the Texan was an agile trainer capable of snap rolls, loops and spins. The Army Air Corps and Navy versions trained more U.S. and Allied pilots than any other aircraft just before and during World War II.

When war broke out on the Korean Peninsula in June 1950, the Texan was once again called into service. More than 90 Air Force T-6s had been converted to the LT-6G configuration and were designated Forward Air Control aircraft. Dubbed

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basic trainer was favored. The NA-16 got the nod from the Army Air Corps, however, and by the end of October North American Aviation had received orders for 82 aircraft worth a record \$1,027,000.

It was at that time that Kindelberger made a historic decision to leave Maryland and the company's Dundalk factory and move operations to Southern California. Kindelberger had previously visited the area and had arranged to lease property at Mines Field, at what today is Los Angeles International Airport.

Construction on the new North American

the "Mosquitoes," these planes formed the 6147th Tactical Control Group, which flew its first mission on July 9, 1950. The Mosquitoes directed Army artillery fire and marked enemy positions with smoke rockets for the P-51D Mustang, F-80 Shooting Star, F-84 Thunderjet and F-86 Sabre Jet.

During the Korean War, the Mosquitoes flew 40,354 missions.

When Kindelberger retired in 1960, Atwood became president and chief executive officer of North American. In a conversation with the author in 1997, Atwood reminisced about the days



Basic training: The NA-16

Crew: Two (instructor and student pilot)

Wingspan: 42 feet (12.8 meters)

Length: 27 feet 7 inches (8.4 meters)

Height: 8 feet 10 inches (2.7 meters)

Weight empty: 3,078 pounds (1,400 kilograms)

Weight maximum: 4,098 pounds (1,858 kilograms)

Speed maximum: 170 mph (274 kilometers per hour)

Service ceiling: 17,100 feet (5,210 meters)

Range: 700 miles (1,130 kilometers)

when airplanes often started out as a simple hand-drawn sketch, and recalled using only a T-square and drawing board to specify the wing layout for the NA-16 in 1934.

Today, more than 75 years after Atwood, Kindelberger and Raynor sketched out a crude design of what became the NA-16, nearly 350 Texans are still flying. ■

erik.simonsen@boeing.com