

An in-flight view of the original single engine No. 1 T2J-1. Some 609 T-2s were built between 1956 and 1977.



Learning in good hands

50 years ago, the Buckeye naval training aircraft took to the air

By ERIK SIMONSEN

It might not look like the flashiest aircraft around. Indeed, its appearance is utilitarian. Yet the Rockwell International T-2C Buckeye, which on Jan. 31 marked the 50th anniversary of its first flight, served proudly for more than 40 years, training more than 11,000 aviators for the U.S. Navy before being retired from active service.

In 1956, North American Aviation responded to a Navy request for information for a multipurpose jet trainer. The Navy sought data for a single aircraft type to cover a wide spectrum of flight training that included basic jet training, high-speed formation, day/night navigation, carrier qualification, gunnery/ordnance delivery and air-to-air combat tactics. The qualify-

ing aircraft would also have to be equipped with under-wing hard points for gun pods and ordnance. There was strong preference for a rugged aircraft, yet one equipped with features for ease of maintenance.

The NAA configuration featured tandem seating, with the rear seat slightly elevated above the front seat. The instructor could operate from either seat. A high T-tail and 100-gallon (380-liter) wingtip tanks made the appearance more unusual. The design also included a refined configuration of the original wing and landing gear of the straight-wing FJ-1 Fury and an enhanced version of the T-28 Trojan flight control system. NAA hoped that proven systems would reduce testing time.

Engineers also incorporated waist-high ease of reach to the electronics bay for ground crews and easy servicing for the single 3,400-pound thrust Westinghouse J34-WE-48 turbojet engine.

Previous military trainer experience with the AT-6/SNJ and T-28 entered the picture, as NAA won the industrywide competition and was awarded a contract

on June 29, 1956. NAA's Columbus, Ohio, Division would be the center of production for the design and production of six YT2J-1 (NA-241) jet trainers. Initial planning progressed so well that by October of that year, the Navy increased its order by 121 aircraft.

First flight of YT2J-1 took place at Columbus on Jan. 31, 1958, followed by evaluation at Naval Air Station Patuxent River, Md., and carrier suitability tests aboard the USS *Antietam* (CVS-36) in May 1959. Shortly afterward, the T2J-1 was approved for introduction to the Training Command, and acquired the name "Buckeye" through a naming contest held by the Navy.

Deliveries to the Navy commenced on July 9, 1959, and the T2J-1 began earning a reputation as an excellent platform with stable flight characteristics—vitaly important for new flight crew training. However, one exception to performance began to emerge: The T2J-1 was underpowered. Originally, the J34 with inherent technology dating back to the late 1940s had been

the only available engine compatible with the YT2J-1 airframe. By the 1960s it was technically obsolete, and newer engines were available.

NAA was awarded a contract in January 1962 to modify two aircraft to a twin-engine design utilizing the Pratt & Whitney J60-P6. Engineering and modifications were not difficult, thanks to the excellent original engine bay design characteristics. The two new engines provided a combined 6,000 pounds of thrust—an 88 percent increase over the single-engine version.

This performance boost was significant—especially for the safety of carrier qualification training when the tail hook misses all the arrestor cables and the pilot must initiate a go-around (bolter) in full power without the benefit of afterburners. In addition, the T2J now used 1,800 feet (550 meters) less runway to take off from land bases.

As the service years ensued, additional performance added to the longevity of the Buckeye. In 1962, the T2J was redesignated T-2, with the new twin-engine version designated T-2B. The Navy continued to order blocks of the T-2B through the early 1960s.

In 1967—the same year NAA became North American Rockwell—the new General Electric J85-GE-4 engine became available at lower cost per unit to the Navy. Although not providing any significant in-



T-2C Buckeyes from VT-4 Naval Air Station Pensacola, Fla., practice formation flying.

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crease in thrust, the newer technology and cost were the driving factors in procuring the GE engine. Thus was born the T-2C. The venerable “C” variant entered service in early 1969.

In addition to the original NAA servicing features, the engines could be self-started without auxiliary ground equipment and changed out in less than three hours.

In 1973, North American Rockwell changed its name to Rockwell International, and from that same year through 1977, 24 T-2Ds were delivered to the Venezuelan

Air Force. And in 1976 and 1977, 40 T-2E variants were delivered to Greece for use by the Hellenic Air Force for training. A total production run of 609 T-2s were built between 1956 and 1977.

Today, naval aviators in training transition from the turboprop T-6A Texan II to the Boeing T-45C Goshawk. The T-45 began to gradually replace the T-2C beginning in the late 1980s, with a T-2C making its final landing, or “trap,” aboard the USS *Harry S. Truman* on July 25, 2003. ■

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In this unusual view, a T-2C sports a gray aggressor paint scheme. The aircraft is taxiing at Naval Station Norfolk, Va.



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