PROFILE: North American (Rockwell) T-2 Buckeye

(Variants/Other Names: T-2A/B/C/D/E; DT-2B/C)

HISTORY:

When, in 1956, the U.S. Navy requested competitive designs for a new jet trainer capable of taking their student pilots through advanced combat flight categories such as gunnery, fighter tactics, bombing, and carrier qualification, North American Aviation emerged the winner with its design, which used proven features from operational North American aircraft like the FJ-1 Fury and T-28 Trojan. Skipping the prototype phase, North American (purchased by Rockwell, which was later purchased by Boeing) went straight to the preproduction stage, building six *YT2J-1* aircraft for evaluation. Of mid-wing configuration, the aircraft had tandem LS-1 ejection seats for pupil (front) and instructor (rear). The instructor's seat was raised to provide a good view, with full dual controls so the aircraft could be controlled from either seat. The first of the YT2J-1s flew on January 31, 1958.

Built with student pilots in mind, the Buckeye, as it was called, had a strong, wide-based tricycle landing gear, powered controls, large trailing-edge flaps, air brakes on both sides of the fuselage, and a retractable arrester hook, all of which were hydraulically actuated. The YT2-J1 was powered by a single 3400-pound thrust Westinghouse J34-WE-48 fuselage-mounted turbojet, as were the initial *T2J-1* production models (*T2-A* after 1962). 201 of this version were produced, the first entering service in July, 1959.

In August, 1962, the first of two *YT2J-2* test aircraft were converted from T2J-1 configuration by replacing the single turbojet with two 3,000-pound thrust Pratt and Whitney J60-P-6 turbojets. This conversion was chosen to replace the T-2A, and the first of 97 new *T-2B* aircraft flew on May 21, 1965 and entered service in December, 1965 with Training Squadron VT-4 at Pensacola Naval Air Station.

Next, the T-2B was converted to a **YT-2C** for evaluation of the aircraft with two General Electric J85-GE-4 engines. This led to the manufacture of 231 **T-2C**s with the GE powerplants for the U.S. Navy Training Command, with the first production model being flown on December 10, 1968.

A few T-2B and T-2C aircraft were converted for service as drone directors under the designations of **DT-2B** and **DT-2C**, respectively, while two additional variants of the T-2C were procured for the Venezuelan (**T-2D**) and Greek (**T-2E**) air forces. Capable of carrying a wide variety of training weapons packages on two wing mounts, the Buckeye could be upgraded to a six-mount status via an armament accessory kit that made the aircraft an effective light attack aircraft capable of carrying bombs, rockets and gun pods.

The Buckeye was well-designed for field maintenance conditions, with serviceable components installed at waist level or lower. Thus, the need for stands and ladders for most routine maintenance, including fueling, was eliminated.

While training more than 11,000 student pilots to fly 18 different models of

Navy jet aircraft, the Buckeye established an outstanding record of safety and reliability for many years, but as the machine has aged it has developed some problems, being grounded for safety reasons three times in 1997 alone. After 41 years of service, the North American T-2 "Buckeye" jet trainer is now being phased out, in favor of the Boeing/BAE T-45A "Goshawk." At least two T-2s have made their way into civilian ownership. [History by Kevin Murphy]

NICKNAMES: Attack Guppy; Trusty Tubbyjet

SPECIFICATIONS:

Engine: One 2,950-lb thrust General Electric J85-GE-4 turbojet

Weight: Empty 8,115 lbs., Max Takeoff 13,180 lbs.

Wing Span: 38ft. 2in. Length: 38ft. 8in. Height: 14ft. 9.5in. Performance:

Maximum Speed: 521 mph

Ceiling: 44,400 ft. Range: 910 miles Armament: None

NUMBER BUILT: 529

NUMBER STILL AIRWORTHY: At least two are privately-owned and operated as warbirds; numerous examples still in military service as of 1998.