

CLOSET COLLECTIBLE

*Where time heals all wounds and makes
the Navion a collector's item*

BY MARC E. COOK



History is rarely kind. We look back through the pages of textbooks and magazines and see past efforts and endeavors, successes and failures, in colors more black and white than gray. Someone looking at the Navion through the pages of a history book might dismiss it as an aeronautical anomaly, an airplane whose life was cut short by the knife of evolution.

The person who came to that conclusion, though, likely never spent much time with a Navion. There's something about the lumbering, outsized airplane that makes you put practical concerns on the back burner. Like enthusiasts who fall for Italian sports cars *etiam atque etiam*, Navion owners freely admit that something about it snaps synapses and makes them love it with wanton disregard for cold, hard practicality.

You could say the Navion has become a cult airplane, one whose continued support comes at the hands of die-hard boosters of the breed. What's more, those boosters are seeing the value of the airplane blossom. The number of clean early models has decreased dramatically, according to some, succumbing to old age and attrition at the hands of those seeking spares.

Not long ago, *Trade-A-Plane* was rife with \$8,000 and \$10,000 Navions in decent (though by no means beautiful) shape; today it's a different story. Though the Navions generally aren't up to the early Bonanza's gold-plated value, it's difficult to find a restorable model for less than \$20,000. Heavily modified Navions, stuffed full of IFR avionics, can bring as much as \$50,000. Seeing that, the Navion aficionados merely smile and say that even the most expensive Navions provide a lot of history for the money.

The friends of the Navion call themselves Navioneers and Navionettes and belong to the American Navion Society (Post Office Box 1175, Banning Municipal Airport, Banning, California 92220). Through the society's efforts, a steady supply of parts, maintenance suggestions, and moral support is available to Navion owners.

Navion history is nothing if not colorful. The airplane was introduced in 1946, the brainchild of North American Aviation managers who saw that, despite the fat production years of the war, the period after would be slim if the company couldn't supply the market with personal airplanes. It's not surprising that North American traded heavily



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on its previous successes—most notably the P-51 Mustang—to help ensure a place in the market for the Navion. A P-51-type sliding canopy, a Mustang-like tail, and a basic structure as overbuilt as the Golden Gate Bridge were all features that helped North American tout the Navion as an unSanforized Mustang.

That the early Navions didn't exactly live up to the vaunted Mustang's top-notch performance isn't surprising in retrospect. With just 185 horsepower to propel a large and none-too-slick airframe, the beefy Navion wasn't startlingly fast, with cruise speeds in the area of 125 knots. By itself, the Navion's cruise performance might not have been a damning trait, but it had serious competition from the Bonanza, which hit the market shortly after the Navion did. The Beech was 23 knots faster using the same horsepower; moreover, the 35 Bonanza's climb rate was superior and its payload similar to the Navion's.

Designed and originally built by North American Aviation in Los Angeles, the initial production run of A-model Navions began in 1946 and lasted through the next year, eventually turning out more than 1,100 airplanes. That second year also marked the debut of the Bonanza. It wasn't long after the Bonanza's introduction that North Am-



erican began to have doubts about the Navion's future against the Beech. Not only was the Bonanza a better performing aircraft, it was reportedly less expensive to build; North American was losing its corporate shorts pricing the Navion competitively.

By the end of 1948, the rights and production tooling were sold to Ryan Aeronautical Corporation in San Diego. Ryan constructed 666 A models and 321 B models from 1948 to 1951 and made numerous detail changes. The 185-hp Continental was replaced with a 205-hp variant (the earlier airplanes' engines were rated at 205 hp for takeoff, 185 hp continuous), and the B model debuted with a geared 260-hp Lycoming GO-435. According to Navion aficionados, this engine was not particularly reliable or fuel efficient and, despite a healthy increase in power, did not provide significant performance improvement.

Both Ryan and North American produced about 250 Navions for the U.S. Air Force. These L-17s served as light personnel transports; part of the reason for the Navion's beefy design was North American's original intention to offer a military version, although it did so only after the civilian versions went to market. More important for a present-day Navion owner, though, is that the mili-

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tary ordered a warehouseful of spares for the L-17, which helps the parts situation for the airplane considerably. Owners report that many parts are readily available and reasonably priced, and the American Navion Society appears to be the best source.

After Ryan discontinued manufacture of the Navion in 1951, the airplane history took more twists and turns than an Agatha Christie mystery. Not much happened until 1958, when the Tubular Steel Corporation (Tusco) entered the picture. Texas-based Tusco began offering retrofits for A- and B-model Navions, replacing the E-185, E-205, and GO-435 engines with either O-470 or IO-470 Continentals; the 240-hp version was the D model, the 250-hp the E, and the 260-hp Navion became the F model. A handful of Navions were retrofitted before Tusco decided that it would try its hand at making new Nav-

ions. A few companies (Riley-Temco was one of them) also reconfigured Navions to twin-engine configuration, with as much as 520 hp total.

Tusco's remake of the Navion included major revisions, and the new model, called the Rangemaster, was introduced in 1961. Three Rangemaster models were produced: The first, the G, was superseded in 1962 by the G-1, which sported a higher gross weight and was made for two years. Tusco (later renamed the Navion Aircraft Company) went under in 1964, and two more attempts to produce the Navion were made. The first, in 1967, by a company made up of American Navion Society members, turned out 52 airplanes through 1970; the second, in 1975, by a company called the Navion Rangemaster Aircraft Corporation, built just five airplanes. Post-Tusco Navions were the H model and were powered by 285-hp IO-520 Continentals.

The Rangemaster was clearly a departure from the original Navion. The sliding canopy was replaced with a single left-side door, and a fifth seat was added to the Navion's capacious cabin. Fuel capacity grew to 108 gallons in two tip tanks of 34 gallons and two interconnected wing tanks holding a total of 40 gallons. Early Navions had only the



wing tanks standard, with a 20-gallon fuselage tank a popular factory option; Brittain tip tanks also were a common modification made to the first airplanes.

Speaking of modifications, few airplanes are blessed with such a wide range of modifications, both cosmetic and functional, as is the Navion. The original Navions' windows were plain sheet stock, held into the canopy with thick rubber molding; several kits are available to convert the small portals into large, panoramic, flush-fitting windows. Those early airplanes also had less-than-efficient updraft cooling, and there are kits available to change that arrangement to downdraft; the large-engine Navions had that from the start.

Perhaps the most popular modification is the Palo Alto tail. As owners progressively cleaned up the airframe and installed more horsepower, they found that the stock Navion required considerable nose-down trim to remain in level flight. The fix was to reset the angle of incidence of the horizontal tail, and virtually all Navions have had this modification performed. Though it benefits cruise speed by a knot or two, the Palo Alto tail reduced elevator power in the flare, impairing somewhat the Navion's short-field landing abilities. Even with the mod, though, the Navion is consid-

ered a pretty savvy short-field airplane, what with its huge flaps and startling power-off sink rate. It can also get out of short fields, especially models with infinitely adjustable flaps—the early airplanes had two flavors, up and down, but most by now have been modified.

If hydraulic systems are your fancy, the Navion ought to provide you hours of entertainment. The landing gear and flaps are powered by a Rube Goldbergesque hydraulic system with an engine-driven pump. Though most owners say the hydraulics have been relatively trouble free, the system is prone to failure if not meticulously maintained. Another Navion oddity: The hydraulic system has a separate On/Off switch on the panel, and it must be turned off when you're not raising or lowering the gear or flaps. Three handles poke from under the instrument panel: the hydraulic hand pump, early-Cherokee-style hand brake, and emergency gear uplock release—a bulldozer operator would feel at home in the Navion's cockpit.

But Navion owners hardly seem to notice the airplane's peculiarities. Dr. Gary Elder, whose highly modified B model is pictured here, says that once a pilot gets used to the airplane's idiosyncrasies they become the norm, and everything else seems unusual. This is Elder's second full-house Navion restoration and includes just about every modification and trick in the Navion book. The engine is a 285-hp Continental, the windshield has an extended forward leading edge (providing slightly better cruise speeds and somewhat lower sound levels, Elder says), and the airplane is outfitted with a host of aerodynamic cleanups. Although Elder makes no claims about his Navion's cruise performance, similarly modified B models typically turn in 75-percent cruise speeds of about 150 knots, burning 12 to 14 gph.

Even with its extensive list of modifications, Elder's Navion still isn't as speedy as a bone-stock 285-hp Bonanza, and he couldn't care less. For him the treetop-tall Navion is just *right*, and he feels no compulsion to justify his owning the airplane. Neither do most Navion owners. As for Elder, something about the big old airplane strikes a chord in them, and every time they hoist themselves onto the chest-high wing walk and step into the Navion's cavernous interior, they quietly remind themselves that nothing like this ever came out of Kansas. □