

Accidental Classic

From the designers who brought you the P-51 Mustang, an airplane with a complicated

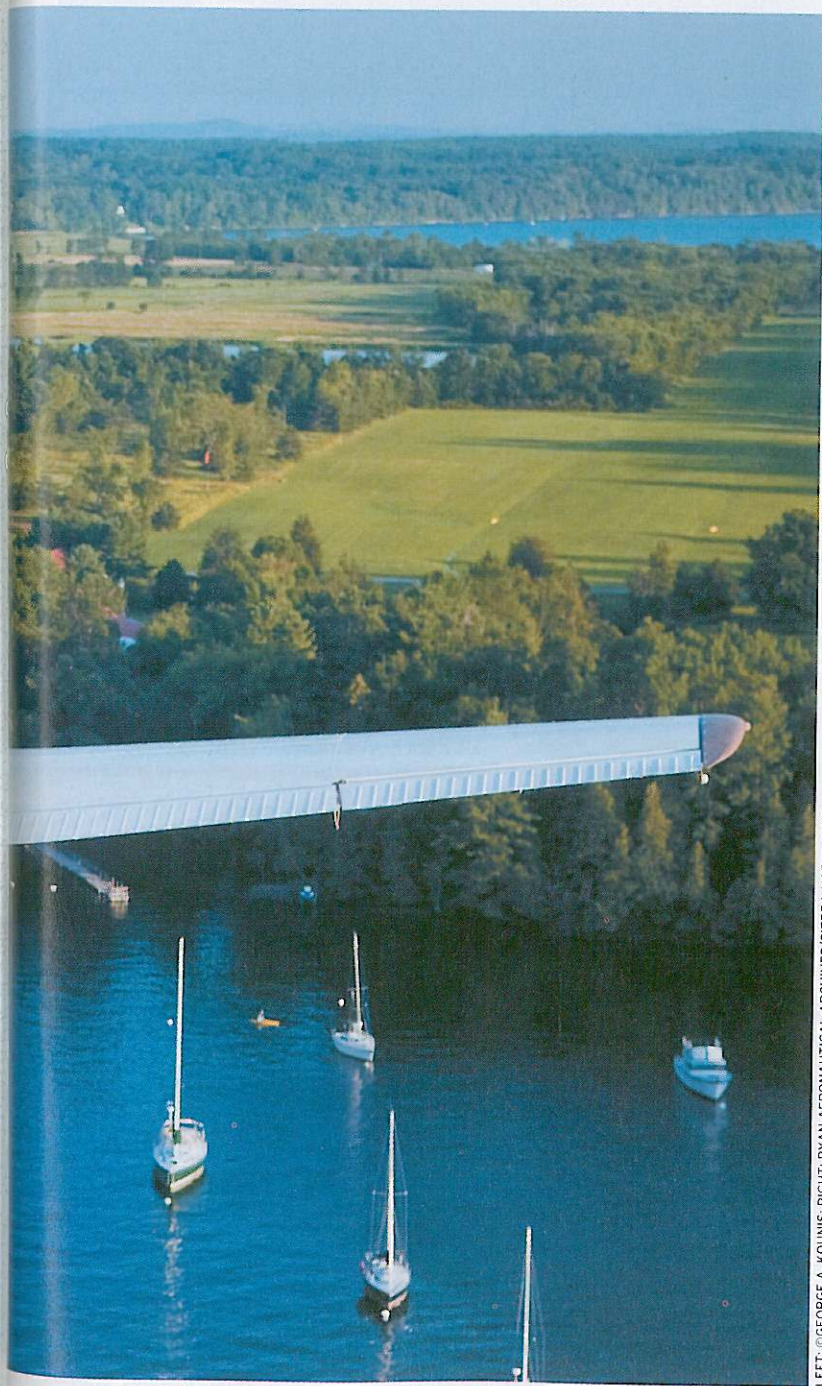


IN THE SUMMER OF 1951, a herd of donkeys charged across the tarmac of Mexico's Acapulco airport, tearing into a row of parked, private airplanes. Most of the aircraft, made of wood and fabric, were severely damaged. When one of the donkeys crashed into the left wing of an all-metal Ryan Navion, the collision was so fast and so violent that a main landing gear was lifted 10 inches off the ground. But though the donkey was badly injured, the Navion's wing suffered only a minor dent.

ast...and a controversial present. *by Mark Huber*

When Salvador Mariscal, Navion's Latin America distributor, recounted the tale to Ryan's Bill Wagner—perhaps the most prolific aviation PR man of the 1940s and 1950s—Wagner quickly issued a press release headlined “Navion Demonstrated As ‘Jackass Proof.’”

Donkey collisions are perhaps the most obscure way the Navion has proved its durability over the past six decades. Between 1946 and 1951, Ryan Aeronautical and North American Aviation built 2,349 of the 2,469 Navions produced. (Several other companies, most notably the Tubular Service and Engineering Company—TUSCO—built variants that account for the other 120.) Today, an estimated 500 to 600 still fly, kept airworthy by members of the American Navion Society and other groups of enthusiasts who appreciate the curious history of this tough little airplane as much as its handling characteristics. “The Navion is an amazing aircraft,” says David Peters, operations manager at Classic Airworks, an aircraft restoration company. “It’s just a really stout beast. That, combined with its warbird lineage, initially attracted me to the aircraft... The same care and thought that went into the design



LEFT: ©GEORGE A. KOUNIS; RIGHT: RYAN AERONAUTICAL ARCHIVES/SIERRA HOTEL AERO

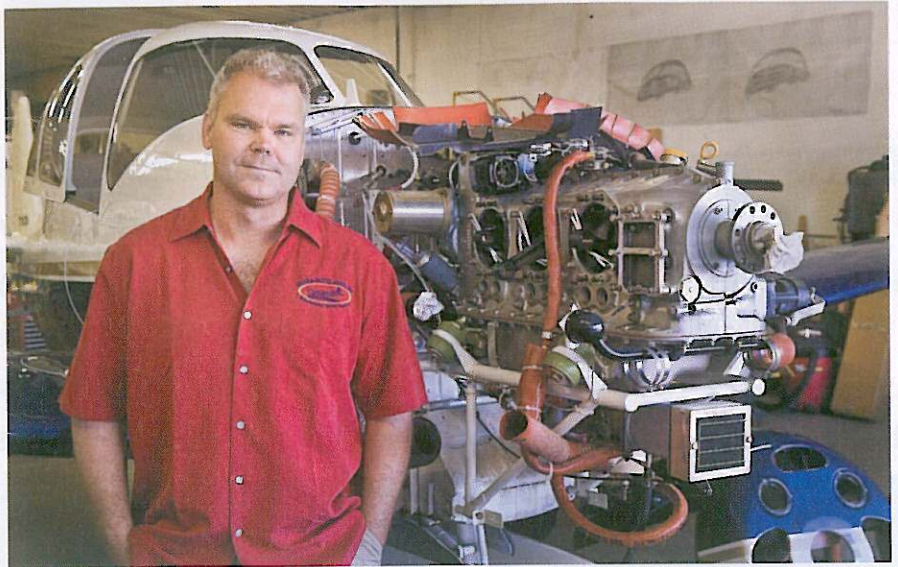


The roomy Navion remains a favorite for a leisurely hop in uncrowded skies (left, an L-17 flies over Vermont's Basin Harbor Airport; above, a satisfied customer, c. 1955).

of the war machines went into the Navion.”

When Ryan failed to sell the Navion as a military trainer, the company shuttered the program and sold the type certificate to TUSCO, which restarted production in Galveston, Texas, in 1958. Three years later, Hurricane Carla slammed into the Gulf Coast. The worst storm to hit Texas in 40 years, it killed 43 people and leveled Galveston. The TUSCO plant was crushed, and the company never recovered.

Over the years, the Navion’s type certificate was held by various dreamers who hoped to restart production but didn’t have the money. In 1995, John Piper, grandson of Piper Aircraft founder William Piper, attempted a revival. Seven years later the effort ended in bankruptcy. When the type certificate came up for auction in 2002, Northwest Airlines crew chief Chris Gardner acquired the rights as well as truckloads of parts, tooling, and documents. Gardner had experience with the airplane; his father, Jon, had owned Navions, and had developed an external baggage door modification for the type. “I was really intrigued with the airplane because of the way it was put together,” says Gardner. “It was built a lot like a Mustang, and you could tell the



same people designed it. When the type certificate became available, I knew that would make things a lot easier in terms of upgrading the airplane, because the airplane itself is a wonderful platform.

“My goal was to support the existing fleet, but my long-term goal is to one day build the airplanes again. That’s still a long-term dream.”

In 2001, the Federal Aviation Administration granted to Chris Gardner “Parts Manufacturing Authority,” a license al-

“It’s the Hummer of airplanes,” says type certificate holder Chris Gardner. “You can land the Navion anywhere. People use them for hunting and camping.”

lowing someone other than the original manufacturer to produce aircraft parts. Gardner soon discovered that certain aspects of the Navion’s design didn’t meet current safety standards, and one of the replacements he devised, an \$800 fuel selector valve, became mandated by an FAA



Airworthiness Directive (AD), issued on April 16, 2008. The FAA estimates that it will cost each Navion owner \$1,800 to inspect the aircraft's fuel system, remove the old valve, and replace it; owners have one year to comply.

The Airworthiness Directive has earned Gardner the enmity of the American Navion Society and many Navion owners, who view him as a profiteer. Sixteen went so far as to formally object to the FAA about the directive on the grounds that Gardner "is using the AD process to make money."

"They hate me," Gardner acknowledges.

THE NAVION HASN'T ALWAYS stirred such strong feelings, much to the disappointment of its manufacturers. As World War II came to a close and warbird production began shutting down, North American Aviation needed a project to sustain its skilled workforce, which had been building P-51 Mustangs, during the 18-month gap before it could begin manufacturing the F-86 Sabre. The Navion program was cobbled together in a mere 30 days when the company decided to market a liaison aircraft to the U.S. military.

Because of the tight 18-month window, the same talent trust that designed the P-51 and the T-28 would design the Navion. The aircraft shares the T-28's seven-degree, 30-minute wing dihedral, and it has many of the Mustang's pleasant handling characteristics and robust design features; its nickname is "the poor man's Mustang."

North American churned out 1,100 Navions in nine months. Those destined for the military were labeled L-17As, while those sold to civilians were called A models. Each airplane cost \$9,000 to build, and sold for \$6,100. With the coming F-86 contract and its profit potential of tens of millions, North American was unconcerned with losses generated by what amounted to a rounding error. There was also a chance that if the Navion were selected as the military's new primary trainer, the program would

Navion fans Steve Whittenberger, Bud Brown, and Dave Carpenter (left to right) stroll past their airplanes at the 2008 Oshkosh, Wisconsin fly-in. Do those tails remind you of P-51s?



Warbird Lineage

DESIGNATED AS THE L-17 for the United States Army Air Forces, the Navion flew from aircraft carriers during the Korean War. With its canopy removed, it hauled oversized truck tires in Alaska. And because it could fly with its canopy off, the airplane was among the

camera platforms used by legendary Hollywood aerial cinematographer and stunt pilot Paul Mantz.

In addition to transporting Korean War brass (including General Douglas MacArthur and Major General Matthew Ridgeway), Navions served notable celebrity-pilots of the 1950s: Radio icon Arthur Godfrey, actors Mickey Rooney and Robert Young, and comedian Red Buttons all owned Navions. Manufacturer Ryan Aeronautical even featured Godfrey in a promotional film entitled *Yours to Fly*. In it, Godfrey can be seen piloting the airplane to altitude, leveling off, and then lighting up one of his trademark Chesterfield cigarettes.

After the Korean War, the L-17 continued to see military service until the late 1950s, when virtually all were transferred to the Civil Air Patrol. Less than a third of the L-17 fleet survives today, according to Bill Lattimer, who runs a Web site dedicated to the type (www.warbird.org/L-17).

eventually make money.

The Army Air Forces bought 83, but shortly after F-86 production began, North American sold the Navion line to Ryan Aeronautical in San Diego, which continued production from 1947 to 1953.

In 1950, Ryan introduced the B model, the Super Navion, which featured a 260-horsepower engine that could increase cruising speed to 170 mph. The bigger engine required a longer, reshaped nose cowl and a larger propeller; with the more powerful engine, the airplane could take off in as little as 400 feet. But Ryan did not adopt North American's "loss leader" pricing, and sold the B for \$14,000.

The Pentagon ordered an additional 163 L-17Bs from Ryan. These aircraft were primarily relegated to liaison duties, flying high-priority personnel and small cargo; some, however, were used in Korea for forward air control missions, providing coordination of air strikes by F-80s, the first U.S. operational jet fighter.

A limited contract for liaison aircraft was not the military grand prize Ryan envisioned. The company was hoping for the U.S. Air Force's lucrative flight trainer

contract. But in 1953, Ryan's entry, a modified Navion B designated the Model 72, lost out to the faster T-34A Mentor, Beech's militarized version of its Bonanza. The following year the Navy also selected the Mentor. The Bonanza proved more popular than the Navion with civilian customers as well. Pilots, mostly male at the time, who wanted their wives along on joy rides, bought the Bonanza, an easier airplane to climb into. "In the 1950s, if you were wearing a peg skirt, there was just no ladylike way to get into a Navion," explains Navion owner Margy Natalie, docent program manager at the National Air and Space Museum's Steven F. Udvar-Hazy Center.

But the orphan airplane that no manufacturer could keep in production remains popular with its owners. "You can find a Navion for \$40,000," says Peters. "You can't even find a worn-out Cessna for that." Today, a non-flying project airplane can be had for under \$10,000, a flyable one with a tired engine or beat-up paint for \$35,000, and a Navion that has been restored to near-mint condition for \$100,000 to \$170,000, depending on engine size and other



Ron Judy (left, with American Navion Society president Gary Rankin) spent six years restoring his airplane, much admired at Oshkosh this year.

modifications. In an age of \$400,000 Cirruses, \$600,000 Cessna 400s (formerly Columbia), and \$700,000 Beechcraft Bonanzas, the Navion looks like a bargain.

In addition to the price, enthusiasts point to the Navion's military lines, sliding canopies, high stance, beefy landing gear, good load capacity, and overall solid construction as reasons for the aircraft's enduring appeal.

"It's one of the best airplanes ever built, one of the most stable, and we think that it would do very well in an international

environment," says Gardner. "Third World-country operators would find this airplane very, very useful because of its payload, its short landing capability, and its stableness."

"It's very easy to see out of," says American Navion Society president Gary Rankin, who has owned four since 1986. "The handling is very docile, and it lands slow. It has big tires and high gear, and can land on rough runways."

In May 1960, Bob Swanzy, a retired road construction engineer from Greenwood, Mississippi, was driving through Memphis when he saw a 1947 Navion for sale. He bought it for \$4,500, and some 5,000 hours and four engines later, he is still flying it. "It just suits me," Swanzy says. "You can load it down with baggage. You just crank [the engine] up. If the tail comes off the ground, you go."

Dick McSpadden, who flies out of Canon, Georgia, and is the former president of the 156-member Southern Navion Air Group, agrees. "Whatever you can put into it, it's going to fly. At 75 miles per hour, it is going to come off the ground."

Ron Judy, who is the American Navion Society's chief technical advisor, says that in cross-country trips, the Navion really shines in "dirty," or turbulent, air: "When I'm flying through moderate turbulence, I barely feel it. Meanwhile, a guy in a Cessna 150 in the same air is getting beat to death." Judy, a Gate, Oklahoma rancher who spent six years restor-

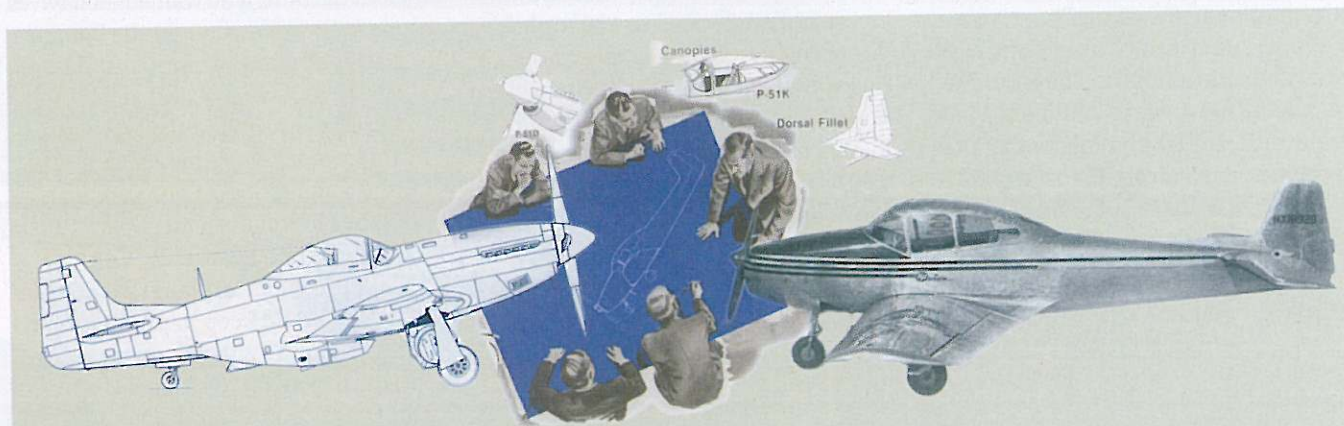
ing his Navion, says the structure and area of the airfoil contribute to the stability. "It's a monocoque wing with no spars, just ribs, stringers, and subspar to hold the [retractable] landing gear. The wing skins and stringers provide the structural strength. The wing is evenly loaded across a large area. The wing design delivers a smooth ride and high lift and makes the airplane very controllable at low speeds."

The Navion's wing consists of two different airfoils that join approximately 50 inches from the wing root. With landing gear and flaps extended, a Navion stalls at just 48 mph, about the same stall speed as the much smaller—and much lighter—Cessna 152.

Ruggedness and stability aside, most owners were initially attracted by the aircraft's distinctive good looks. "It's coming from an era where design for aesthetic purposes was as important as anything else," says David Peters (who provided artwork for this article).

IN ISSUING THE AIRWORTHINESS Directive, the FAA cited nine Navion accidents generally associated with the fuel system, three of which were directly linked to the fuel selector valve. The agency also speculated that many of the existing valves might be reaching the end of their serviceable lives.

Gardner claims that since his company bought the Navion type certificate, 18 fuel-system-related accidents



"The Poor Man's Mustang"

DESIGNED BY THE GENIUSES at North American Aviation, the company responsible for the T-6 Texan trainer and the P-51, the Navion shares many of the Mustang's robust design

features — although no common parts — earning it the nickname "the poor man's Mustang."

Same profile? You decide.



DAVID PETERS

have occurred, and that he issued a service bulletin recommending action to Navion owners as early as 2004. Most of the accidents occurred on takeoff at high engine power settings, when defective or improperly repaired valves allowed the vacuum fuel system to ingest air, causing the engines to stop.

Navion owners who objected to the AD succeeded in getting the FAA to slightly modify it. "The proposed AD, with the references it used for doing the inspection, left much to be desired, safety-wise," said Judy. "The American Navion Society wrote a Service Bulletin and submitted it to the FAA, and the FAA included portions of it in the final version as a means of conducting the inspection." Judy, who had a valve fail 17 years ago, now believes the AD is acceptable, but prefers the Alternate Means of Compliance (AMOC).

According to Gardner, he and the Navion Society are competing parts suppliers. He says that the paperwork-intensive and time-consuming AMOC—a detailed inspection that does not preclude the need for valve replacement and is available only to society members—is actually more expensive than

So popular is the Navion that airplane lovers consider a completed restoration, like David Peters' (above), the proverbial pot of gold at the end of the rainbow.

simply replacing the valve in the first place. Judy points out that the stringent inspection of the fuel valve required under the AD virtually guarantees that the valve will not pass.

Even with the AD and accompanying controversy, McSpadden maintains that Navions are relatively inexpensive to maintain: "Our parts are less expensive than for almost any other airplane." And whether following the AD or pursuing the AMOC, Navion owners are doing whatever it takes so that they can continue to fly their favorite aircraft.

Navion owners are increasingly a graying crowd, and the future support of the airplane will rest with younger enthusiasts, who, like Chris Gardner, were introduced to the craft by their parents. McSpadden notes with pride that his son, Air Force Lieutenant Colonel Richard McSpadden, learned to fly in his L-17 military Navion and in 2002 and 2003 served as team leader for the U.S. Air Force Thunderbirds Flight

Demonstration Team. "He still flies the Navion," McSpadden says. Rankin acknowledges, "About half of our younger members are second-generation Navion owners."

When the American Navion Society gathered for its annual convention in Dayton, Ohio, this past summer, there were the usual speed events, and the presentation of the Flagship Award for best restoration. Members showed off items from their personal collections of Navion memorabilia. Ron Judy has a copy of a Ryan brochure from the early 1950s that shows a crated pig being loaded into the back of a Navion at Hyland Farms in Peoria, Illinois. As he tells the story, Judy glances over at his meticulous Navion, with its shiny red and white paint, polished aluminum spinner, and dove-gray leather interior. This is the airplane he took six years to rebuild, completely disassembling it, stripping out all the wiring, replacing the fuel and hydraulics systems, rebuilding the landing gear, and installing all new instruments and avionics.

"I guess it was a valuable pig," he says. "Breeding stock maybe. But no pigs are getting in my airplane!" —