

Sierra Hotel - The Navion People

By Jim Hanson

When people think of aviation manufacturing, they usually think of Boeing in Washington, or Beech/Hawker and Cessna in Wichita. Minnesota has a number of aviation manufacturers. In this series, Jim Hanson explores aviation products manufactured right here in Minnesota. Last month we featured Tanis. This month, we focus on



Navion in the third part of this series.

This is the company that gave me the inspiration for a series on Minnesota aviation manufacturers. It didn't start out well — a few years ago; I was doing a series on aircraft to buy for any given budget. At the time, I advised “staying away from the orphans” — and cited the Navion as an example. I suggested that the aircraft be appreciated — even savored — for the fine flying qualities, but lack of an active Type Certificate holder in older airplanes usually means a lack of product support. That elicited a firm but friendly correction from Sierra Hotel President Chris Gardner, who corrected my example — the Navion is alive and well and living right here in South St. Paul, Minnesota.

As I also mentioned in the article, I'm a fan of Navions — I have hundreds of hours in them — mainly in the “civilianized” military L-17s in U.S. Army flying clubs. I like their control harmony — I appreciate their short-field capability — their solid construction gives me a sense of their durability, and at 6 foot, 4 inches in height and 260 pounds of “rippling muscle” — I appreciate their roominess.

I immediately set out to visit Sierra Hotel and make amends. I met Chris at the offices of Sierra Hotel at Fleming Field. I apologized to Chris for not knowing that the Navion Type Certificate not only was active, but that the company was right here in Minnesota. Chris showed me through the hangars so I could verify that they indeed were able to supply nearly every Navion part needed, and showed me some aircraft being modified. I apologized in print for my oversight.

Fast forward a couple of years — I am finally getting around to making sure that Minnesota pilots know about aircraft industry manufacturers based right here in Minnesota — so they don't make the same error of omission I did. One of the first places I stopped to research the series was at Sierra Hotel. Chris was out back, and while I waited for him in the office, Waldo the cat checked me out.

Over the years, I've found that people that bring their pets to work are usually good people! Either it's the dedication to something they love — or perhaps it is the animal that makes people better. While waiting, I also noted displays for EI electronic instruments, MVP Multi-Functional Displays, Aspen Avionics, Avidyne Multi-Functional Displays, and S-Tec autopilots. The old Navion is obviously going high-tech!

Chris took me out into the shop. The first thing that I noticed

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When it comes time to do engine work, the owner has many options for engines and props—all at substantial savings due to the special prices from manufacturer passed on to owners by Sierra Hotel.



The extensive rework that can be done by Sierra Hotel is apparent in this photo.



The Navion was designed to operate out of short and rough airstrips. Takeoff and landing distances of under 1000 feet over a 50 foot obstacle are the norm. Navions were even operated from aircraft carriers!



The huge cockpit of earlier Navions is entered by stepping into the area between the front and rear seats and walking forward.

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was that the shop was full of airplanes in jigs — obviously going through major modifications or repair. This was obviously a company that actually works on airplanes — not just a parts seller. I asked Chris about that. Chris stepped up to the nearest aircraft.

“This aircraft is going to an Australian owner,” he explained. “He wants a ready-to-go aircraft — not one that he will have to modify piecemeal.” The aircraft he was getting was as close to new-production as you could get — the wings and tail were demated and separated — the panel was new, the wiring was new, the glass was new, the upholstery was removed for replacement — the panel was being refitted with the latest avionics.

“As the Type Certificate holder, we can update an airframe with the latest mods and improvements,” Chris explained. “If any parts need replacing, we can do it right here. We can build up an aircraft for half the cost of a new one, and it will be customized the way you want it.”

I noticed that the wing was in a jig, so I asked Chris if they had all of the factory tooling. “Yes,” he replied, “We have all of the Navion fixtures and drawings, and those ARE the original jigs.” I asked Chris if there were any parts for Navions that were NOT available. His reply — “Not really. There may be some old original parts that are no longer available, but the improved version of those parts ARE available.”

Impressive. I know from personal experience that even Beech, Piper, or Cessna can't make that claim, and I mentioned that to Chris. He laughed and said “We take a personal interest in keeping Navions airworthy. We will find or manufacture any part that it takes to do so. We're supporting the aircraft into the new century.”

The next aircraft we viewed was getting an engine transplant, and I asked Chris about product support for the E-series Continental engines. “Engine conversions are popular in the Navion,” he explained. “Continental doesn't support the E-series engines as well as they used to. Parts are available, but they are getting more and more expensive. Same for the geared Lycoming engines. The old Hartzell props are also getting harder to support. The GOOD news is that for not a lot more money. We can put a modern engine



You CAN have it your way. Custom-made instrument panels--configured as the owner wants them are factory options. and prop into the aircraft.” I asked how that was possible.

“We're an OEM (Original Equipment Manufacturer),” he explained. “As such, we get very good prices on factory engines.”

I asked which conversions were the most popular. “The IO-470's are an easy replacement,” he said. “They come in horsepower ratings up to 260 horsepower, and you get fuel injection in the bargain. The IO-520s and IO-550s are the engines most owners want — they don't cost much more than the 470s, and they make a real tiger out of the airplane. We let the owner decide which engine he/she wants — all of the engines have their propellers. Turbocharging is also available.”

Chris points to an airplane sitting on the ramp. “For example, that TSIO-550 powered aircraft will do 210 knots TAS at 16,000 feet!”

I noticed that the aircraft being modified consisted of both the original Navions with sliding canopies, and the newer Rangemaster aircraft with doors. I asked which aircraft are more popular. Chris replied “There are a lot more of the original airplanes out there, and some people just LIKE the military-like configuration. On the other hand, there are those that like the doors on the Rangemaster — or the ability to carry an extra person — or the extra range. We support 'em all!”

I asked about other popular non-engine modifications. Popular modifications over the years have been additional fuel tanks, flush seals on the canopy, changing the angle of incidence on the horizontal stabilizer, moving the entry step from the military-style front step to the flap, and heater changes (The Navion originally had a gas heater, like most twin-engine airplanes).

“Yes, yes, yes, and yes,” replied Chris. “We do all of those mods if requested. “You can retain the original heater, replace it with a manifold heater, replace it with a modern C&D heater, and even add a rear seat heater.” It is apparent that Chris means what he says about “Having it your way.”

We looked over some of the customer aircraft on the ramp. They varied from “near stock” configuration to everything you could ever want in an aircraft.

“We're the Harley Davidson of airplanes,” Chris said proudly. “We give the owners what they want at a great price!” As I looked

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The seats of the military L-17 Navion were originally designed to accommodate seat-pack parachutes, but now have luxurious upholstery.

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over the aircraft, the North American military heritage was plainly visible — from the military-style front entrance step, to the seats that were configured to accommodate seat-pack parachutes (but now accommodate luxurious upholstery), to the sliding canopy (which can be partially opened in flight), to the P-51-style vertical stabilizer —



The original Navion (foreground) shows its military heritage with a sliding canopy. The later Rangemaster (rear) has doors and a larger cabin for five passengers.

even the L-17 liaison Warbird markings on one aircraft, complete right down to the “rank card holder” fixture that indicated the number of stars a General riding in the aircraft may have had! For all of the photos of the exteriors and the panels of Navions, few people pay attention to what was one of their biggest selling points—the size of the interior. It’s HUGE — as much room a luxury car of the day.

Though I didn’t fly the Navion again for this article, the other things pilots and passengers love about the airplane is the ramp presence — the Navion sits tall on its gear. It’s a big airplane for a single-engine aircraft.

The airplane has that “North American feel” — a solid airplane with smooth and well-harmonized controls — an airplane that is light on the controls but feels as rock-steady as a transport on the approach — an airplane that does precisely what you ask it to do.

It’s a solid airplane. North American didn’t build junk! For all of its height and heft, the Navion is a super short-field performer due to its huge, cambered wing and its big tires and big flaps—the reasons the military selected this airplane for liaison work, where operating from short, unimproved airstrips is required. Those are some of the attributes still prized by people today, as evidenced by the owner of the aircraft that was being shipped to Australia.

Most owners of any kind of aircraft who have attempted to perform modifications to their aircraft have run up against the paperwork obstacle — getting something “field approved” can be daunting and expensive. I asked Chris about that issue.

“One of the advantages of dealing with us is that we are the Type Certificate holder,” he told me. “We are the people that are responsible for FAA conformity. We are the people that have the knowledge of the airplane, the engineering paperwork, and the drawings. We work with the local Flight Standards District Office (FSDO) on repairs, with the local Manufacturing Inspection District Office (MIDO) for manufacturing, and the Aircraft Certification Office (ACO) in Chicago for certification. It’s nice to have two of the branches only minutes away. We’re the factory. We know this aircraft better than anybody else. We do all of that coordination for you.”

I’ve got to say. That is indeed important! It’s nice to see an older airplane so well supported.

Speaking of Type Certificate Holders, on the shop wall at Sierra Hotel are engineering drawings of a good-looking two-place military trainer.

“That’s the Model 72 (side-by-side) and 72 V-004 (tandem)”

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The secret of the Navion's short-field performance is in the huge wing area, the big and effective flaps, and the camber to the wing, as shown by this photo.



This wing was built in original factory jigs, and is ready to be mated to the fuselage.

Some recognize the value of this airplane, a roomy retractable for half the cost of other airplanes. Some prize the ability to safely operate out of short or rough airstrips that other retractable-gear aircraft must avoid. Some just like the handling and ruggedness of the airplane.”

Sierra Hotel has a well-designed web site, filled with information old and new about Navions. Visit it at www.navion.com. There is a lot of interesting information there. If you have a question about Navions, just pick up the telephone and call them at (651) 306-1456.

Author's side note: For some of us, the love for the Navion is imprinted on our aviation DNA. I first rose above the Earth in an airplane in 1950 at age 3. My Dad won an airplane ride in a drawing at the local grocery store, and took me with him. The ride was conducted from a local grass field that was sometimes used as an "airport" and the airplane was a Navion. I have recollections of it still sitting on Dad's lap, looking out at the ground, but even more fascinated by the second "steering wheel" in front of me—how the pilot flew the airplane. My Dad told me many years later "You were a pretty bright kid at first, but after that airplane ride, you didn't talk right for several years!"

Airplanes can have that kind of effect on people.

Jim Hanson is the long-time FBO at Albert Lea. That airplane ride 60 years ago continues to affect him but mostly in a positive way these days. He still doesn't "talk right" but maybe that's why he took up writing. If you'd like to straighten him out, you can call him at his airport office at (507) 373-0608, or jimhanson@deskmedia.com



Though nobody will mistake a Navion for a Mustang, the North American Aviation heritage is apparent in this photo. Both were rugged airplanes designed by a military contractor. I've flown North American T-6s, T-28s, T-39 jets, and the L-17 Navion, and all have that "North American" feel. I've missed the Mustang, but I can only hope it flies as well as the other North American aircraft!

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said Chris. It lost out to the Beechcraft T-34 in the design competition. The specifications called for tandem seating, and

Ryan pitched both the tandem and a side-by-side version to the Navy. There has been some interest expressed in the aircraft again.”

Sierra Hotel has all of the former factory records. With this extensive background, they are the curator of all things Navion.

I asked Chris for a description of the kind of person that owns a Navion.

“There is no ‘average profile,’ he told me. “Everybody has their own needs and desires. Some people like the idea of flying a classic airplane. Others like the military heritage. If painted in authentic military markings, you can park it in the Warbirds section of most airshows. Women seem to like it because it looks big and safe. Some people value the interior room, or the range.

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