A second engine brings a certain amount of comfort when there's nothing around for hundreds of miles in any direction except Amazon rain forest. Welcome to the Piper Seneca V. South America—and Brazil, in particular—has been a haven for Seneca sales for decades. Piper's strong presence in the region dates back to the days when a little Brazilian company called Embraer assembled Pipers to be sold in the region. Today, of course, Embraer is a global powerhouse, building everything from light jets to airliners and special-mission aircraft. Interestingly, today Embraer assembles Phenom business jets at a new factory just up the coast from Piper's Vero Beach, Florida, headquarters while Piper no longer assembles aircraft in Brazil.

PHOTOGRAPHY BY CHRIS ROSE
Although the global economy has morphed and shifted over the years, so has the Seneca. I earned a multiengine rating in a Seneca I, the only normally aspirated variant of the airplane and one that was wonderfully underpowered—wonderful for teaching multiengine neophytes about the limitations of light twins with only one propeller turning, that is.

The Seneca II and III introduced turbocharging and numerous other upgrades to the airframe. The Seneca IV, which debuted with the 1994 model, brought the most significant cosmetic change—round engine inlets. The Seneca V carried numerous enhancements including a step up to engines that could deliver 220 horsepower continuously (previous versions were limited to five minutes at that power, with 200 horsepower as max continuous); further refined round inlets that, along with a tuned induction system, improved cooling and reduced fuel consumption; much welcomed absolute pressure controllers on the turbo system; and most—visible to the pilot—twin stacks of new engine gauges and a flashy new digital engine monitoring system.

I was at the Piper factory for a glitzy rollout of the Seneca V in early 1997. A Bendix/King KLN-90B GPS and its stick-like monochromatic moving map mesmerized those of us who flew it. In following years, a duo of Garmin GNS 430s, each with its own color moving map, provided both navigation and communications. In later years the 1997’s mechanical six pack on each side was replaced—through the 2012 model—with dual Garmin G1000 primary and multifunction flight displays, all interconnected to the S-Tec Fifty X autopilot system.

With the 2013 model out just this month, the S-Tec autopilot is about all that you will recognize from previous Seneca V panels. With the 2013 model out just this month, the S-Tec autopilot is about all that you will recognize from previous Seneca V panels.
loads of doors and more give the Seneca V lots of stowage. A big door allows access to nose baggage (top left). Dual doors provide convenient access to the cabin and aft baggage. A door atop the left nacelle opens when the air conditioning system is engaged. Typical Piper, the simple hydraulic landing gear free-falls if pressure is lost (above); no need to crank the gear down.

Piper’s engineering staff has done an excellent job of marrying the capabilities of the $50K Fifty-Five X to the G1000. However, starting in 2014, Piper will provide the Seneca V with the popular Garmin GFC 700 flight control system common with other G1000 installations.

According to Piper CEO Simon Caldecott, the decision to install the G1000 in the Seneca V was market driven. Customers wanted it and the company saw an opportunity to take market share away from Beechcraft Corporation’s Baron G58. While Caldecott believes the piston-twin market is flat, he says the Seneca V—with its lower price and better fuel efficiency—can grab some share from the Baron, which has traditionally led the piston twin market outside the training arena, where the Piper Seminole is dominant. Base price for a Seneca V is about $972,000, some $300,000 less than that of a similarly equipped Baron.

Digital data buses shuttle electrons effortlessly across today’s PA–34 panel, mechanically the airframe is as simple as ever. The fuselage is an upgraded version of the PA–32 that debuted with the Cherokee Six in the mid-1960s. Now, however, the four club seats in the back and the cockpit seats are stitched in soft leather. Extra soundproofing quiets the ride. Optional air conditioning cools the cabin. The nose baggage compartment can swallow up to 100 pounds of gear, as can the compartment behind the aft seats.
to the early 1960s. Design roots date thoroughly modern—Seneca V looks engine inlets, the rakish one-piece oxygen system.

With its Pointy nose, 100 lb, 15.3 cu ft
Optional deicing boots allow for flight into known icing conditions. Garmin’s optional weather radar system and an L-3 Avionics Systems Stormscope give pilots additional weather-fighting tools.

Max operating altitude | 25,000 ft
Service ceiling | 25,000 ft
Single-engine service ceiling | 16,500 ft
Landing distance over 50-ft obstacle | 2,180 ft
Landing distance, ground roll | 1,400 ft

LIMITING AND RECOMMENDED AIRSPEEDS
Vne (never exceed) | 204 KiAS
VLO (max gear extended) | 128 KiAS
VSo (stall, clean) | 67 KiAS
VFe (max flap extended) | 139 KiAS
Vr (rotation) | 107 KiAS
VLo (max gear operating) | 128 KiAS
Vt (max operating maneuvering speed) | 113 KiAS
Vc (critical, aileron) | 88 KiAS
Vc (best single-engine rate of climb) | 88 KiAS
Vc (best single-engine rate of climb) | 83 KiAS
Vc (best rate of climb) | 83 KiAS
Vc (best rate of climb) | 85 KiAS
Vc (min intentional one-engine operation) | 66 KiAS
Vc (min control wire engine inoperative) | 61 KiAS

For more information, contact Piper Aircraft, 2926 Piper Drive, Vero Beach, Florida 32960; 772-567-4361. www.piper.com

All specifications are based on manufacturer’s calculations. All performance figures are based on standard day, standard atmosphere, sea level, gross weight conditions unless otherwise noted.

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Tanks, carrying 61 gallons of usable fuel in each wing, feed the respective engines, a crossfeed system located between the pilot seats allows fuel balancing in the case of a failed engine. Engine-outs in Senecas have always been easy to handle, thanks to counterrotating engines. The turbocharged Continental TSO-360 engines have proven reliable, especially thanks to the intercoolers and automatic wastegates.

Earlier models had mechanical wastegates that invited ham-fisted pilots to overboost the engines. Now the pilot simply advances the throttle all the way forward for takeoff, giving the system permission to maintain maximum manifold pressure all the way to the maximum altitude of 25,000 feet. For that, you’ll want the optional built-in oxygen system.

Optional deicing boots allow for flight into known icing conditions. Garmin’s optional weather radar system and an L-3 Avionics Systems Stormscope give pilots additional weather-fighting tools.

Piper claims a maximum speed of 204 KTAS, possible at the maximum altitude of 25,000 feet. In the fall of 2012 I had the chance to fly a 2012 Seneca V with the G600 panel at 7,500 feet where at an intermediate cruise setting we saw 177 KTAS. There, at a turbine inlet temperature of 1,560 degrees F, 30 inches of manifold pressure, and 2,500 rpm the airplane was burning about 12.4 gallons per hour per side. An economy cruise of 27 inches and 2,300 rpm slowed us to 159 KTAS, but reduced fuel burn to 10.3 gph per side.

Sitting in the right seat, Rick Hesson, demo pilot for Piper dealer Skytech, suggested 120 knots on approach and a landing with just two notches of flaps—25 degrees. With that, I tagged the nose up for a nice touchdown. Senecas have always been heavier in pitch than in roll. On landing, that’s helped with a strategically placed suitcase in the aft baggage compartment.

Look for the first G1000-equipped Seneca Vs to show up at your local Piper dealer starting in April. For the past few years, nearly 100 percent of Senecas have been exported, but with the panel upgrade Piper plans to aggressively market the airplane domestically as well. Expect to see one in your neighborhood soon.

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