GippsAero’s beefy boxcar of an airplane may look ungainly, but once you climb in and fire up its 320-hp turbocharged Lycoming TIO-540, pull the flaps lever all the way up and push the throttle to 40 inches of manifold pressure, the big single leaps forward and soars into the sky where it belongs.

The GA8 Airvan is a blend of Australian outback strength and a gigantic load-hauling fuselage topped with a forgiving wing fat with lift, and it handles and performs like a much smaller airplane while offering great flexibility. The GA10 stretched turboprop variant of the Airvan is in flight-test and slated for certification this year, and AIN flew the piston-powered model to get a foretaste of the Rolls-Royce 250-powered aircraft now in the works.

The Airvan was designed to meet the needs of pilots flying in remote areas and on unimproved airstrips. For those who wonder why not just use a Cessna 206 for that mission, the answer is that operators wanted an airplane that handles like a 206 and costs about the same to operate but carries a lot more in a much larger cabin. The Airvan designers clearly succeeded: compared with the 206, the GA8 is easier to fly, performs as well as if not better than the Cessna in some respects and costs less than $800,000 (about $200,000 more than a 206) with turbocharging and a Garmin G500 and dual GTN panel. Direct operating costs are about $178 per hour. Skydive, freight and intelligence, surveillance and reconnaissance (ISR) versions are also available.

The 41.5-inch rear door can be opened in flight. Designers put much thought into useful features. The rear door fold-down step handily swings up to become an armrest for the seat next to the door. The crew doors swing 180 degrees against the nose then latch in place, and the pilot can reach the latch without leaving the front seat. Just under the door frame on the pilot’s side is an external power plug, also easily reached by the pilot to make jump-starting much simpler.

The airframe and systems are simple and strong, with spring-steel main gear and a spring-equipped oil-free nose strut. All fuel—92.2 gallons total—is carried in tanks in each wing, mounted one bay outboard of the fuselage to help keep fuel out of the cockpit in case of an accident. The tanks feed a single sump tank mounted below the right-seater’s floor, and there is no fuel selector, just an on-off handle and no worries about tank switching.

The Airvan’s simple slab wing eschews fancy touches; there are no flush rivets, although the wingtips, which appear ordinary, are low-drag tips adapted from a GippsAero agplane design. Also simple are the flaps, hinged at the trailing edge of the wing and actuated mechanically by a Johnson bar between the pilot seats. Because the Airvan was certified relatively recently (in 2003), it had to meet more stringent Part 23 standards. The seats had to be dynamically tested, and GippsAero had to demonstrate to the FAA that the Airvan could be landed following the failure of any primary flight control. The lowest lifetime structural fitting on the Airvan is the aft vertical stabilizer fitting, and it must be replaced at 15,000 hours. The wings are rated for 92,000 hours.

The Airvan’s large side windows are ballooned outwards to improve the downward view