



The Vantage engine premieres on this American

BY ALTON K. MARSH

PHOTOGRAPHY BY JON YOUNGBLUT

Flying the High Country

Champion model

Why would an article about the American Champion High Country start off with a Colorado aviation legend? Because Jack Greiner, 86 when this was written, ended up flying the Citabria-based two-seater during the preparation of this article, and he knows a good airplane when he sees one. The 180-horsepower, \$138,000 High Country passed his examination, which included graceful lazy-8 maneuvers and a perfect takeoff and touchdown. Photos with this article showing the High Country on the ground were taken on his grass runway at Colorado Antique Field in Boulder County, Colorado.

Greiner was selling tickets for barnstormers at the age of 14, and flying airshows by 1939. In the act, he was the pilot in the bottom of two Piper Cubs stacked one atop the other, and after takeoff he would pull pins to release the main gear of the airplane above. He also drove a motorcycle through a fake outhouse containing a clown pilot, but his motorcycle exploits are another story. Greiner joined American Airlines at 21 and was a captain by 23. Three times he carried Eleanor Roosevelt from New York to Detroit



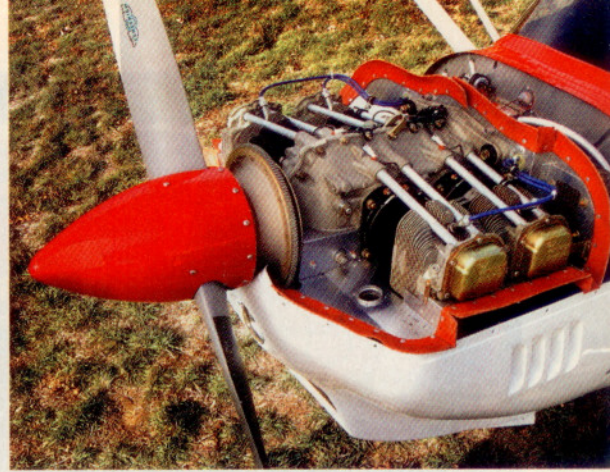
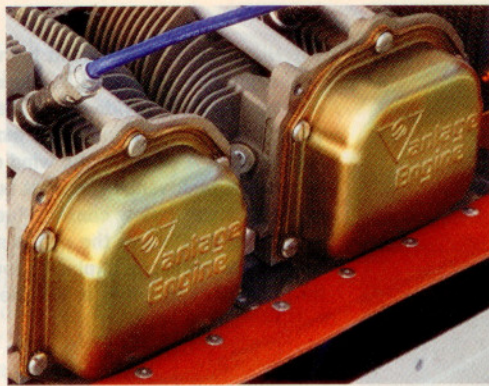
Colorado aviation legend Jack Greiner straps in for a High Country test flight.



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This is the new Vantage engine by Superior Air Parts. The American Champion's High Country and Adventure models are the first to use the smooth-running engine that routinely exceeds 180 horsepower.



and recalls going back in the cabin to chat with her. "Jack," she said, "what are you doing flying? You are a natural born salesman." (As Greiner recalls, he was selling her on the virtues of American Airlines at the time.) Greiner left flying to become a successful real estate agent—she was right.

"The High Country is a tremendous airplane," he said after his flight. What he liked was the power of the engine, and his observation brings up a major feature of the High Country. It and the companion model, the Ultimate Adventure (a flapless version of the High Country), are the first aircraft to use the Vantage engine by Superior Air Parts, the company's first certified engine. Most pilots new to the airplane are impressed by the engine's power, and that may be because testing shows it has more than 180 horsepower; more like 186, but still within FAA-approved limits.

Superior Air Parts has gotten high marks, not only for the careful balanc-

ing of engine components, but for the service the company provided when cylinders, including some on the 50 or 60 Vantage engines now in service, had to be recalled a year ago because of improper hardening. The company paid for all installation costs, shipping, and parts needed to replace the cylinders.

The engine can run on auto fuel, but that's not as big an advantage as when the engine was first offered a few years ago. Then, only 10 states put ethanol in fuel, but now nearly every state has it—and the Vantage isn't certified to run on ethanol. The engine costs \$24,000 to \$28,000, depending on the configuration; it comes in both carbureted and fuel-injected models and can turn either a constant-speed or fixed-pitch propeller.

It also has a tuned induction system (meaning air travels the same distance to all cylinders). Pistons and connecting rods are balanced to within two grams, or the weight of two one-dollar

coins. Superior says the crankshaft is balanced to tighter tolerances than those of competitors. All that balancing means the engine runs smoothly, and customers have noticed. The engine also provides pressurized oil to the interface between the crankshaft and engine case, while some other engine manufacturers count on "oil splash" to keep that area lubricated.

The High Country is marketed as the American Champion Scout's smaller cousin, making potential buyers stereotype it as a bush-country airplane. Some have told dealers, "I never go to the back country." But don't discount that extra power (same as the Decathlon). That is important to pilots living in high country like Denver, where the airplane was flown for this article.

The air-to-air formation flight for photos originated from Fort Collins-Loveland Municipal, shortened by local pilots during radio calls to "Fort Love." The High Country can loop and





The High Country's five-point harness in front and rear keeps passengers in place for that occasional loop or roll (left). Tires are oversized to provide clearance for the propeller. Larger tires than those shown can be mounted, but not smaller ones (below left). A clear plastic wind deflector is mounted in front of the fuel tank vent to prevent bugs and debris from entering it during flight (below center). Fuel quantities are shown in each wing root above the pilot's shoulders (below right). Even with larger tires, the airplane's low stance to the ground makes it easy to get in or out (below).



roll, basically the only aerobatic maneuvers you would want to do in this airplane, but it also cruised during my test flight at a decent 135 mph TAS (117 KTAS).

Because of the Denver elevation, fuel burn came in at less than nine gallons per hour during the test flight, but an American Champion engineer said that sounded low and is normally nine to as high as 14 gallons per hour at high power settings. My measurements showed 8.4 gallons per hour. We could only carry a partial fuel load, and that brings up what was then the aircraft's greatest shortcoming—the low useful load of 511 pounds. However, after this article was prepared the FAA approved a gross weight increase of 150 pounds as long as the aircraft is flown in normal category.

True to its placement in the market as a bush-country airplane, the High Country borrows some of the features found on the Scout. These include cooling vents on the engine cowling, but the airplane also features oversized 8.00 x 6 tires (you can go larger but not smaller, because of the clearance needed for the 76-inch Sensenich propeller). The large tires, while perfect for grass and unimproved runways, also mean no wheelpants are available, even as an option.

After we had flown for the air-to-air photos—regrouping at Longmont Airport for breakfast—Sydney Aviation dealer Ed Nelson asked me what was missing from the panel. I had stared at it for more than an hour and couldn't answer his question without taking a second look: no attitude indicator. The gyro package was not installed, not that it is needed since you have the panorama view out the front window plus two side windows for visual cues to keep you level.

The optional gyro package costs \$6,295 and includes a vacuum-driven directional gyro, attitude indicator, electric turn and bank indicator, a vertical speed indicator, an electric clock, and the vacuum pump itself. Yes, there is even an IFR package costing \$2,795 that includes a heated pitot tube, a marker beacon receiver, and panel lights. Standard equipment does not include radios. The one I flew had a Garmin 496 portable GPSMap with XM weather, a Garmin SL40 nav/comm radio, and a Garmin GTX 327 mode C transponder for a total package price of \$8,775.

SPECSHEET

American Champion High Country Citabria Explorer 7GCBC

Base price: \$123,900

Price as tested: \$138,015

Specifications

Powerplant	180-hp Superior Vantage O-360-A3A2
Recommended TBO	2,000 hr
Propeller	76 in Sensenich 76EM8S8-0-58
Length	22 ft 1 in
Height	7 ft 8 in
Wingspan	34 ft 6 in
Wing area	171.86 sq ft
Wing loading	11.34 lb/sq ft
Power loading	10.83 lb/hp
Seats	2 tandem
Cabin length	8 ft 10 in
Cabin width	2 ft 6 in
Cabin height	3 ft 11 in
Empty weight	1,300 lb
Empty weight, as tested	1,289 lb
Max gross weight	1,950 lb
Useful load	650 lb
Useful load, as tested	661 lb
Payload w/full fuel	440 lb
Payload w/full fuel, as tested	451 lb
Max takeoff weight	1,950 lb
Fuel capacity	36 gal (35 gal usable) 216 lb (210 lb usable)
Oil capacity	8 qt
Baggage capacity	100 lb, 10.4 cu ft

Performance

Aerobatic limit loading (1,800 pounds)	+5, -2 Gs
Takeoff distance, ground roll	370 ft
Takeoff distance over 50-ft obstacle	873 ft
Max demonstrated crosswind component	17 kt

Rate of climb, sea level	1,366 fpm
Max level speed, sea level	142 mph
Cruise speed/endurance w/45-min rsv, 7,500 ft	132 mph/2.45 hr (66 pph/11 gph)
@ 75% power, best economy	15,500 ft
Service ceiling	866 ft
Landing distance over 50-ft obstacle	293 ft
Landing distance, ground roll	

Limiting and Recommended Indicated Airspeeds

V _X (best angle of climb)	58 mph
V _Y (best rate of climb)	86 mph
V _A (design maneuvering)	112 mph
V _{FE} (max flap extended)	90 mph
V _{NO} (max structural cruising)	120 mph
V _{NE} (never exceed)	162 mph
V _R (rotation, 16 deg flaps)	50 mph
V _{S1} (stall, clean)	49 mph
V _{S0} (stall, in landing configuration)	41 mph

For more information, contact American Champion Aircraft Corp., P.O. Box 37, 32032 Washington Ave., Rochester, Wis. 53167; telephone 262-534-6315; or visit the Web site (www.amerchampionaircraft.com); e-mail aca-sales@tds.net.

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.

Standard equipment includes vortex generators on the tops of the leading edges and underneath the horizontal stabilizer for better control near stalling speeds, with an unexpected whistle. Photographer Jon Youngblut could hear the whistle from the nearby Cessna 206 used as the photo aircraft, and he heard it again as I passed more than 800 feet above him as he waited on the ground at Colorado Antique Field. It was noticeable in the cockpit, but not annoyingly so.

Other features include five flap settings from 0 to 35 degrees for those who want to use exactly the right amount, and not a bit more. A manual lift handle stops at 7, 16, 21, 27, and finally 35 degrees. It was a hefty pull against aerodynamic loading during flight for the 27- and 35-degree positions.

Usually the 16-degree setting is used for takeoff. On short final the recommended speed is 65 mph (the aircraft is based on the 7GCBC Citabria Explorer that is certified in miles per hour). Bush pilots will be able to approach at 55

mph for extremely short landings, Nelson said. Takeoffs can routinely be done in 300 feet or less; the factory specifies 370 feet. Nelson said he has done 250-foot takeoffs by momentarily increasing the flap setting.

At the end of a fast-paced day there was time to relax a bit on the way back to "Fort Love" to refuel before sending Nelson on his way back to Nebraska. We altered course toward Estes Park, a city at the gateway to Rocky Mountain National Park, and to accomplish that we climbed easily to nearly 10,000 msl at 500 to 800 feet per minute. Below were the switchback roads at the bottom of three gorges that drivers negotiate to reach Estes Park, home to the historic Stanley Hotel and to elk that walk nonchalantly through the town's shopping district and subdivisions. We had the Rocky Mountains under control in an airplane built especially for just such a place: high country. **AOA**

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