Running with the big dogs

Cessna's Executive Caravan can handle itself in any adventure

BY JULIE K. BOATMAN

When his father approached then-teenager Bill Vogel about flying lessons, the young man's reaction was definitively not that of a typical 16-year-old: He said no. "Thank you—but being a pilot was a responsibility I didn't think I was personally ready for yet!" recalls Vogel.

Eight years later—after college at the Massachusetts Institute of Technology and the University of Southern California, and a short stint as an engineer for Black & Decker—in the early 1970s, Vogel was working winters on the ski patrol at Mammoth Mountain ski area in California. He was also carving out another niche, building apartments and condominium complexes under the guidance of his father in the sleepy, nearby town of Mammoth Lakes. Vogel recalls that his father had brought the family up to Mammoth, in the eastern shadow of the Sierra Nevada, from Southern California for recreation—and construction—since Vogel's childhood.

"Now the family business and Dad's advice were located a full day's drive distant in the L.A. Basin," remembers Vogel. He was also a frequent commercial flier in pursuit of another family hobby: offshore powerboat racing. (Vogel drove or navigated to one world and three national championships in

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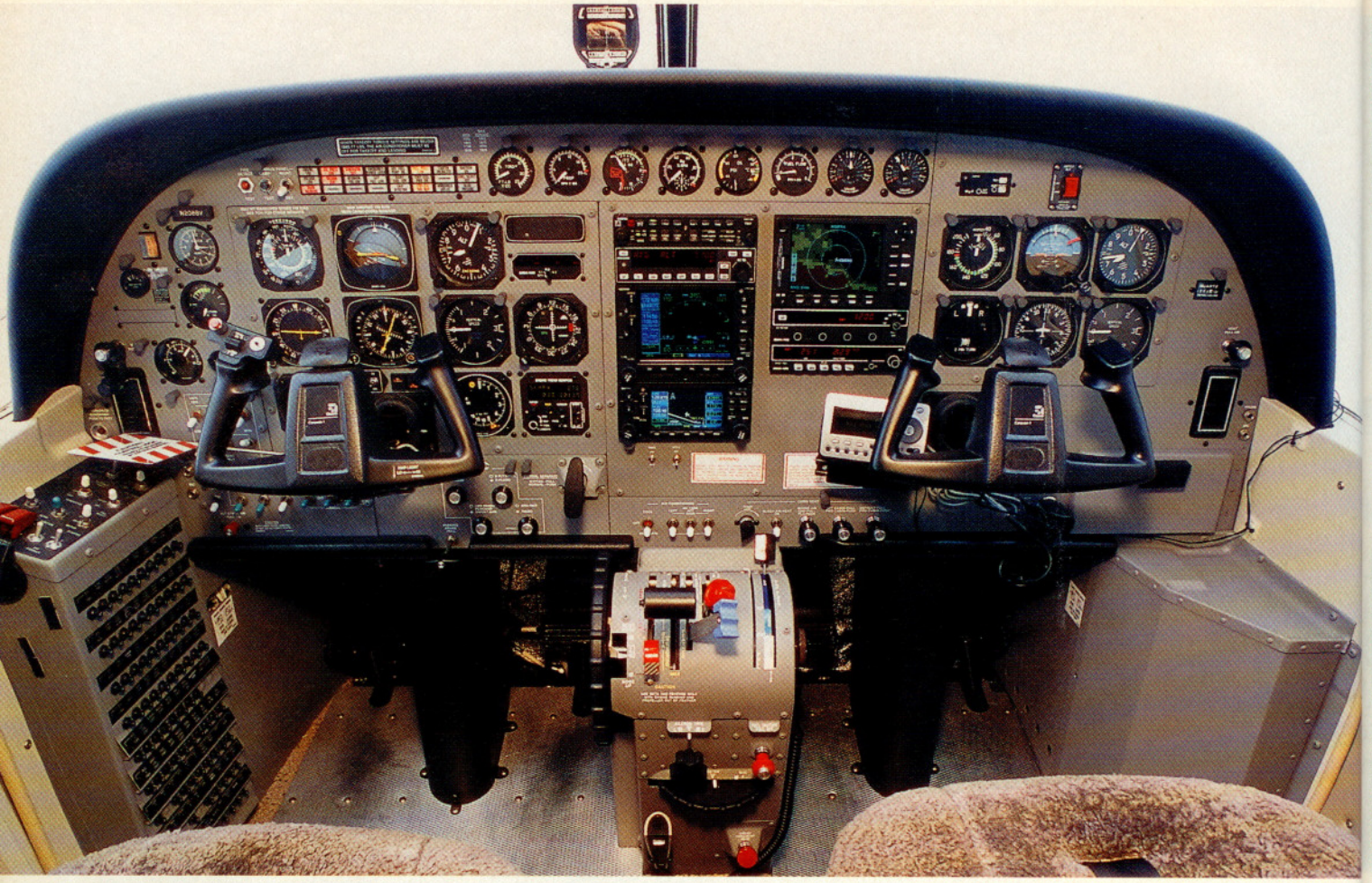

The Bendix/King KMD 880 and Garmin GNS 530 and 430 anchor Vogel's panel (above). Executive seats that articulate to a variety of positions lend an upscale touch to the passenger area (facing page).

the 1970s.) "Flying suddenly made perfect sense," says Vogel. He began lessons in Mammoth in 1978.

In the midst of a construction project one summer, the need for a particular brand of paint sent Vogel to the "other" hardware store in town—even then, Mammoth had two—where a bright young woman "who knew a lot about paint," according to Vogel, helped him find what he needed. He came home that evening talking endlessly about the woman he met, the woman who would become his wife, Maureen.

Twenty-five years and more than 2,100 flight hours later, Vogel and his family are still skiing and summering—and flying—in the Mammoth Lakes/Owens Valley area.

The couple purchased an original homestead in the valley, one built by Hans Lof around 1917, near the wayside station he ran, now known as Tom's Place Resort, down the old Highway 395 southeast of Mammoth. The compact property has several small cabins and a cozy main house, ideal for family and friends to stay. Shaded by bending cottonwood trees, the homestead is a soothing retreat from the bustle of the Los Angeles Basin.

A week before receiving his pilot certificate in 1979, Vogel purchased a used Cessna 182. He flew it for 900 hours over seven years, then sold it a few years after his first child was born, as his young family demanded more of his time. When he returned to flying in 1993, he bought another used airplane, this time a Beechcraft A36TC Bonanza. He enjoyed the airplane, but his family was a little less enthused: "I'd say, 'Hey, kids, there's the Grand Canyon!' but then it was under the wing of the Bonanza," says Vogel. Nevertheless, he put more than 700 hours on the airplane. But he was looking for something with a little more space and capability when he came to AOPA Expo in Long Beach, California, in the fall of 2000.

He had his eye on a twin Cessna, perhaps a 340 or 421. But Maureen urged him out to Expo's static display—she's a willing navigator who knows how to land and enjoys the intricacies of IFR flight—and a sharp Cessna rep offered Vogel a demonstration flight in the Cessna 208B Grand Caravan. He was sold, and so was his family. The broad windows and high wings of the Caravan make it an ideal sightseeing platform, and the airplane's short-field and high-altitude capability fit the family's adventuresome lifestyle.

Vogel has hangars in Chino, California, where his primary business remains, and Mammoth. The trip between the Los Angeles Basin and the airstrip on the flats south of Mammoth takes about an hour and a half, and a little longer if the flight tracks up the west side of the Sierras. But the longer route affords a stunning view, and an escape from the occasional high winds and turbulence on the lee side of the range in the notorious Owens Valley.

The Caravan has other pluses for an active family. With mountain bikes, snowboards, and fishing gear to transport, the Caravan's cavernous interior and cargo pods get a workout. But N208BV's biggest test was not a summer trip to the mountains. It was Vogel's flight to whisk daughter Erin to Massachusetts to begin her studies at Mount Holyoke College. "When we finished, the dorm room was *fully* furnished," laughs Vogel. Taking a young woman to college is so far the only trip where Vogel recalls coming close to maxing out the Caravan's gross weight. "We had the number-three and -four seats out, and a dorm fridge tied down to the floor. I told Erin because we had the Caravan she could take whatever she wanted, but I wasn't expecting *all* the clothes!"

The cargo pod can hold 1,100 lb in its four bays—at a penalty of 7 to 9 knots in cruise. And you can fit a 6-foot ladder in the aft bay. Skis are no problem.

At roughly $1.45 million new, the Grand Caravan isn't a minor investment. But according to price digests such as *Aircraft Bluebook* and *Vref*, the investment is one that, until recently, has proven to hold from 90 to 100 percent of its value over a 10-year span. The latest numbers from *Vref* show that, like used aircraft across the spectrum, the 208B has suffered anywhere from a 3- to 6-percent drop in retail value, with earliest models taking the smallest hit.

Whether the trend continues remains to be seen, but as the economy improves Caravan owners can hope for the best. In any event, the model remains in high demand, according to Cessna, and is popular with a variety of business and governmental agencies both domestically and in the far-flung reaches of the Earth. In fact, international sales account for roughly 50 percent of Caravan sales these days, according to Cessna Caravan Marketing Director Matt Amsden.

Not your average workhorse

While many Caravans earn their keep in the wilds (see "Town and Country Caravan," October 1998 *Pilot*) and have austere interiors best suited to cargo, Vogel opted to go upscale. His executive interior is a custom version designed and installed by Herb and Dixie Radicke at Southstar Aircraft Interiors in Uvalde, Texas, (telephone 909/938-2065). "Creating the interior was really a personalized process," says Vogel. "Herb and I worked the general layout and configuration of the seats and cabinetry by fax, e-mail, and phone, then Maureen and I and the kids flew to Uvalde in the Bonanza and sat down with Dixie in their beautiful design studio to finalize the look and feel of the interior."

The 648-lb upgrade includes all the interior trimmings: sheepskin-covered leather upholstery for the pilot and copilot seats, a pilot's console, leather-covered AMP (Aircraft Modular Products—acquired in 1998 by B/E Aerospace) passenger seats, foldout side tables at each passenger station, a pyramid-shape refreshment cabinet, a rear-seat potty with base cabinet, a cargo net to secure items in the rear baggage compartment, fabric sidewalls, carpet, and forward and aft privacy curtains.

The 43.5-lb AMP seats deserve particular attention: Your passengers aren't locked into one position with these seats. Once airborne, the seats articulate to several angles on their tracks, and can fold down to create a nearly level berth at passenger positions five, six, seven, and eight.

Southstar also installed a customized, full-tilt cabin power system, with 120-volt outlets and 12-volt receptacles near each passenger seat, along with wiring for the cabin intercom, and a special mount and wiring for Vogel's ApproachView (Fujitsu) electronic flight bag. Total cost of the aircraft interior and power system was $133,720.

Vogel also added several avionics and other mods, which were installed by Yingling Aviation (see "Executive Under Glass," page 94). First on the list was the Bendix/King KMD 880 MFD (multifunction display), which added traffic and EGPWS (enhanced ground proximity warning system) capabilities—the ground prox is a particular friend to a pilot flying in the Sierras.

The EGPWS satisfies the requirements for TAWS (terrain avoidance and warning system) that will soon be a requirement on turboprop aircraft with more than six passenger seats. Other additions include a Shadin ETM (engine trend monitor, airdata computer, and fuel computer), standby instrument air, an exhaust deflector (to help keep exhaust detritus from tarnishing the forward cargo pod), Rosen visors, cargo pod locks, and a Pulselite collision avoidance lighting system.

Aircraft Spruce & Specialty topped off 208BV's full plate with a Bendix/King KDR 510 to provide data-linked weather information. These mods and upgrades bumped the airplane's basic empty weight by 37 lb to a total of 5,622 lb. But Vogel still has plenty of useful load to spare: 3,128 lb worth. Certainly enough for a fishing rod or two. Fill nine seats with 170-pounders (who drew the short straw and has to belt in on the potty?) and that leaves 1,328 lb of bags and fuel. The 208B burns about 300 lb an hour (roughly 46 gph) at maximum-range power settings.

Southstar and Yingling are two sources for Cessna's executive interiors, though several other businesses also hold supplemental type certificates for the upgraded interiors. Contact Cessna for a list of providers; at this point, the company does not install any executive interiors in-house.

Cessna estimates that there are roughly 70 Caravans with executive interiors in the field, each typically carrying eight executive seats in the passenger area. While the first Caravan customers were freight operators such as Federal Express, the pendulum has swung to include more and more private owners who want a load-carrying turbine that they can safely fly single-pilot.

Flies like a Cessna—a big one

Vogel is happy with the way the Caravan handles. "It's really a baby-doll airplane to fly." With most of his turboprop hours in the Caravan, the biggest challenge for Vogel's transition was all in procedures: "While there was an initial mental hurdle to the engine, being a turbine, most of the transition training was spent on the switchology and buttonology" needed to operate the new avionics in his stack. After more than 300 hours in the airplane, he truly enjoys flying whenever the opportunity presents itself.

And the Caravan flies, well, like a big Cessna. Taxiing—and using beta in lieu of brakes—offers the largest kinesthetic difference between flying the Caravan and flying a straight-leg Cessna Skylane. While the 208B feels massive on the ramp, especially at first, the pilot feels the airplane shrink to fit, becom-

ing far less intimidating after a couple of hours behind the yoke.

And with the ability to reverse thrust, the Caravan lands in just 30 percent more asphalt (1,750 feet over a 50-foot obstacle) than the Skylane—at a maximum landing weight that's 275 percent heavier than the Skylane's max gross weight. While not marketed as a STOL (short takeoff and landing) aircraft, the fact that one can land on a 2,600-foot runway, come to a stop just short of midfield, and take off in the remaining distance is testament to the airplane's versatility.

i Links to additional information about Cessna Caravans and interiors may be found on AOPA Online (www.aopa.org/pilot/links.shtml).

Safety features for the pilot-owner include a warning system for the fuel selector. A tank in each wing feeds a central reservoir tank (which holds three to five minutes of fuel) and the wing tanks can be selected on or off. Most operations are conducted with both tanks selected on, but since there is no "Both" position, two years into the model run Cessna incorporated a beeper that would sound when the airplane was started with one fuel selector in the Off position.

The Caravan is so straightforward to fly that the biggest concern is pilot complacency. But for a pilot like Vogel who flies regularly—the family visits Mammoth alone up to 15 times a year—and attends recurrent training each year, the Caravan is a hardworking, executive move beyond the family station wagon. AOPA

The Vogel family (facing page) leads an active lifestyle, and the Caravan hauls everything they need.

E-mail the author at julie.boatman@aopa.org

SPECSHEET

2001 Cessna 208B Executive Grand Caravan

Base price: $1,450,000
Price as tested: $1,753,086

Specifications

Powerplant	Pratt & Whitney PT6A-114A, 675 shp @ 1,900 rpm
Recommended TBO	3,500 hr
Propeller	McCauley 3-blade, full feathering, constant speed, 106-in dia
Length	47 ft 7 in
Height	15 ft 5 in
Wingspan	52 ft 1 in
Wing area	279.4 sq ft
Wing loading	31.3 lb/sq ft
Power loading	13 lb/hp
Seats	9 + 1
Cabin length	17 ft 10 in
Cabin width	5 ft 2 in
Cabin height	4 ft 3 in
Empty weight	4,237 lb
Empty weight, as tested	5,622 lb
Max ramp weight	8,785 lb
Useful load	4,513 lb
Useful load, as tested	3,128 lb
Payload w/full fuel	2,298 lb
Payload w/full fuel, as tested	913 lb
Max takeoff weight	8,750 lb
Max landing weight	8,500 lb
Fuel capacity, std	335.6 gal (332 gal usable) 2,215 lb (2,191 lb usable)
Oil capacity	14 qt
Baggage capacity, aft compartment only	325 lb

Performance

Takeoff distance, ground roll	1,365 ft
Takeoff distance over 50-ft obstacle	2,420 ft
Max demonstrated crosswind component	20 kt
Rate of climb, sea level	975 fpm
Max level speed, 10,000 ft	184 kt
Max level speed, 20,000 ft	174 kt
Cruise speed/endurance w/45-min rsv, std fuel (fuel consumption)@ maximum cruise 10,000 ft	184 kt/5.1 hr/907 nm (379 pph)
@ max range 18,000 ft	170 kt/7.5 hr/1,163 nm (294 pph)
Max operating altitude	25,000 ft
Service ceiling	23,700 ft
Landing distance over 50-ft obstacle	1,750 ft
Landing distance, ground roll	950 ft

Limiting and Recommended Airspeeds

V_R (rotation)	70 KIAS
V_X (best angle of climb)	70 KIAS
V_Y (best rate of climb)	104 KIAS
V_A (design maneuvering)	148 KIAS
V_{FE} (max flap extended)	125 KIAS
V_{NO} (max structural cruising)	175 KIAS
V_{NE} (never exceed)	175 KIAS
V_{S1} (stall, clean)	63 KIAS
V_{SO} (stall, in landing configuration)	50 KIAS

For more information, contact Cessna Aircraft Company, Caravan Marketing, Post Office Box 7704, Wichita, Kansas 67277; telephone 800/4-Cessna or 316/517-6081; fax 316/517-7850; or visit the Web site (http://cessna.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.