Cessna Caravan: A 25-Year Logbook.
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As a Federal Express® operator, Baron Aviation Services hauls everything from BMW parts to fresh fish—and just about everything in between—in its five Cessna Caravans.

Baron Aviation was one of the first air freight operations to fly reliable Cessna Caravan Super Cargomasters on its feeder routes for FedEx®.

That variety is the “spice of life” for the pilots who fly the twice-daily missions.

Headquartered in Vichy, Missouri, Baron operates as a Federal Express carrier in Kansas, New Mexico and Texas. In the Lone Star State, the Caravans haul a lot of oil-field-related equipment according to Stephen Summers, Baron’s Chief Pilot—Caravan Operations. “We haul drill bits, radioactive materials, and ‘electric logs’ used in drilling the wells,” he said.

Most of the time the Baron Caravans haul from 1,500 to 2,500 pounds of cargo doing what can best be called “flatland flying.” Most of the elevations in the areas flown in the three states are between 2,500 and 3,500 feet.

Though the terrain may be docile compared with mountain flying, the routes do have their tricky moments Summers noted, “particularly in and around Air Force Military Operating Areas.”

“Tight Approaches.

In Texas, for example, near Lubbock International, there are a lot of Air Force training flights conducting instrument maneuvers, and the Caravan’s flexibility comes in handy when we have to speed up or slow down to sequence in with the military flights. The Caravan also allows us to fly a tight traffic pattern, making steep banked turns to land when necessary.”

The Caravan’s reliable Pratt and Whitney Turbine engine is also an asset for the pilots, Summers commented. “The wind gets pretty strong in western Texas,” he said. “Sometimes we
FedEx planes are named after the children of its employees and in 24 hours travel a distance of 430,000 miles; nearly a trip to the moon and back.

have to shoot an instrument approach because of a dust storm...when visibilities usually drop to less than a mile. We just activate the inertial separator to keep the dirt out of the engine and the approach is a piece of cake.”

The Baron Caravans feed Federal Express 727s in Austin and Lubbock, Texas and Wichita, Kansas at night, according to Summers. “Then our pilots stay over and pick up the next day’s cargo there and fly back to the smaller towns.” This two-flight-a-day routine continues Monday through Friday, he noted.

Baron Aviation Services has been flying Caravans for Federal Express since the Spring of 1985 and has accumulated more than 4,500 hours in the process.

Transition Easy.

According to Summers, all of his Caravan pilots have transitioned to the aircraft from piston or turbine twins. “None have had any problem moving into the Caravan’s single turbine,” he said. “In fact, the common reaction among our pilots has been surprise at the ease of handling and simplicity of the Caravan’s turbine when compared with the piston-powered aircraft they’d been flying before.”

Summers said much of the credit for the ease of transition has to go to Cessna. “We send our guys to the three-day Caravan school in Wichita. They learn the systems and come back for a week of checkout time with me.”

“Yes Problem.”

Summers noted that “the new pilots find the turbine easier to maintain than the piston airplanes they have been flying.” With Cessna’s program, the Caravan and its systems become understandable so quickly that about half the week is able to be utilized to acquaint them with the extensive paperwork required by Federal Express and Baron Aviation for the flights. “On the average, only about six hours of actual checkout time in the airplane is all that’s needed after the Cessna school.”

So what’s it like to switch from pistons to the turbine-powered Caravan? “No problem,” said Summers. “The process is rapid, and our professional pilots love flying the airplane.”
The Brazilian Air Force blazes new trails with Caravan I.

Whoever said there were no new frontiers had obviously not been to the Amazon. But Caravan I turboprops were going there in more and more numbers.

For the past two years, the Brazilian Air Force has operated three Caravan I’s in the world renowned rain forest that encloses its northern border. Four more Caravans have just been delivered, and an eighth Caravan I will arrive sometime in January of 1990. Operating out of airfields in Boa Vista in the north, Sao Luis on the Brazilian coastline, and Manaus and Porto Velho along the Amazon River basin, the aircraft perform a critical dual role.

Protecting Brazil’s borders from the air.

Although they are not presently equipped with surveillance equipment, the Brazilian fleet often flies border patrol missions, tracking drug traffickers and guerilla insurgents. These days, of course, sharing more then 600 miles of border with the drug-war torn nation of Colombia requires Brazil to beef up its military presence. And the clandestine traffic across
Bordered by ten countries, Brazil is the largest country in area and population in South America. Its thick rainforest atmosphere is so damp, a variety of jungle frogs can thrive miles from any streams or rivers.

Brazilian troops keep a watchful eye out for drug smugglers and other illegal activity in the most remote sections of the jungle.

Some areas of Northern Brazil are so dense in vegetation, it’s only possible to traverse them with the aid of a machete, moving just inches at a time.

In this part of the world, pioneers arrive by air.

And given the rugged isolation of the northern territory, the Caravan I has the potential to become as perennial to the effort as the pioneering Conestogas themselves. Larry Cheek, Cessna’s sales manager for the region, explains: “They’re looking to the Air Force to build whole villages at a time and live in them. The airstrips are dirt and short. And they’re planning to log 500 hours a month bringing in people and supplies. They can’t afford anything less than an aircraft that’s absolutely reliable and simple to maintain.”

Caravans routinely fly to places where few dare to go.

The Calha Norte project divides the Amazon region into eight sections. In one section, Surucucu on the Venezuelan border, some 70 soldiers are forming a community 900 meters high on a mountain. “The Caravan I is going into areas where helicopters were the primary mode of transport before. And when you consider the payload capacity, it becomes pretty clear that building a frontier town gets a lot easier with a Caravan.”

The airstrip at Monte Verde has the highest elevation in Brazil and typifies the rough landing conditions found throughout rural areas of the country.

FORCA AEREA BRASILEIRA

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Every year, Bering Air delivers 80,000 passengers, 7 million pounds of cargo to villages and towns in Northwestern Alaska and across the Bering Strait to the Russian village of Provideniya. Bering Air’s co-founders are President James D. Rowe and his Vice President - and wife since November 1974 - Christine Rowe. Together, they operate a 17-aircraft fleet from their headquarters in Nome. Bering Air’s airplanes and crews provide passenger, medivac, mail and cargo service to a quarter of a million square miles of some of the harshest territory on Earth.

“We bought our Caravan in May 1994,” James D. Rowe said. “It looked like the best transportation solution to the weather and terrain conditions we were dealing with in our more remote areas, and we can configure it to carry either people or cargo. We’ve had good experience with our other Cessnas - we have four 207s, and my personal airplane is a Cessna 170. Also, the Caravan’s worldwide, 99-percent dispatch rate means it’s reliable; and that’s critical here.”

Rowe’s ownership experience with Cessnas goes back to 1974. When he graduated from the Aviation Program at Western Michigan University in Kalamazoo, he and two friends took out a $10,000 loan and bought a used Cessna 195.

“We took it down to Mexico and flew it across the Gulf of California,” Rowe said. “Then we landed on the sand at Todos Santos and camped on the beach for a week.”

From there, the trio followed the beach north - a long way north.

“It took us a couple of months - stopping to work from time to time along the way so we could pay for the trip - to fly up to Point Barrow,” Rowe said. “That’s the northernmost point in the United States. Once we got there, all we could do was turn around and fly back. We landed in Nome with 78 cents between us. The airport manager figured that if I could make it all the way up the coast from Mexico, I must be able to fly, so he gave me a job as a pilot. One of my friends had graduated from the Airframe & Power plant program at Western Michigan University, so the manager gave him a job as a mechanic.”

That was July 3, 1974, and it was a beautiful, 75-degree day. “And I’ve been here for 21 years waiting for another one like it,” Rowe said.

Temperatures in Nome range from winter’s -50 degrees Fahrenheit to the balmy mid-60s on good, summer days. Weather like that imposes heavy maintenance requirements on any airplane, as does the company’s busy mission schedule. In addition to running 16 scheduled flights daily to villages throughout Northwestern Alaska, and three or four trips to Provideniya every week, Bering Air operates a 24-hour charter service all year long. Also, it performs special missions as customers need them.

“For example, here in Nome we’re a primary medivac provider,” Rower said. “We make special trips out to Saint Lawrence Island; Gambell and Savoonga both have landing strips. We also fly medivac missions from Maniilaq Medical Center in Kotzebue.”

Kotzebue, an Alaskan fishing town located 20 miles inside the Arctic Circle, has a population nearly as large as Nome’s 3,500.

Isolated at the north end of a slender peninsula in the Kotzebue Sound, the city relies on air transportation for most of its supplies. So Bering Air has established a second hub there, and it is from Kotzebue that Rowe operates his Caravan.

“We fly the Caravan almost exclusively north of the Arctic Circle,” Rowe said. “It usually does two or three round trips per day, either from Kotzebue east to Ambler, Shugnak, Kobuk and return, or north to Noatak, Kivalina, then Point Hope and return. It serves 16 villages, most of which have 1,800 to 2,000-foot, gravel-strip runways. We also carry welders and painters in and out of the Defense Early Warning line and up to Tin City, about four miles east of Prince of Wales.”

Additionally Bering Air is an essential year-round component of the Alaskan high school-athletic program. “Basketball, wrestling, volleyball, cross-country running and skiing are very big here,
and they involve a lot of transportation,” Rowe said. “So every Friday we move the teams from city to city. They compete a couple of times, and then we take them back home on Sunday.”

Both Rowe’s sons compete in basketball and wrestling, so he personally flies them to their “away” events. Seventeen-year-old Ben holds a private-pilot’s license. He soloed on his 16th birthday. And 15-year-old Russell plans to solo on January 24, his birthday - weather permitting of course.

“I soloed on my 16th birthday, and so did my brother,” Rowe said. “It’s a family tradition. But even after the boys get their licenses, I’ll still fly with them to their sporting events.”

That’s because... there just aren’t any roads.

“Actually, neither Western Alaska nor the Russian Far East have year-round ground or water routes,” Rowe said. “Air transportation is absolutely essential to the people here, so we have to mix freight and passengers. We bought the Caravan to fill that niche in our customer service. It can carry more than 3,000 pounds of cargo and passengers into unprepared landing areas. You’d be surprised how often we have to do something like that.”

To do those jobs, Rowe relies on his staff of 20 pilots with an average of 9,000 hours of flight time. To maintain Bering Air’s airplanes, three fourths of his maintenance department works the night shift in the 15,000 square-foot hangar at Nome. Also in Kotzebue, Bering Air owns a 6,000 square-foot maintenance facility with office space and a passenger lounge.

“Alaska’s winter weather can be really nasty,” Rowe said. “We need all that maintenance space in case we have to hangar the fleet. Of course, when the weather gets the worst, that tests our commitment to our mission. We’re here because people need to travel and they need the supplies we deliver, so we don’t stay in the hangar unless we go below IFR minimums. Even then, we’re here watching the weather and ready to go when we get a break in it.”

Winter’s day-to-day operations don’t give Bering Air cold feet.

In addition to its summer schedule, Bering Air runs seasonal service to the Diomede Islands. The Diomedes are a couple of rocky bumps in the Bering Strait. They sit, one on one side, one on the other, astride the International Dateline. And seasonal, in this case, means winter - in some of the most brutal weather on the planet.

“We land on the ice out there,” Rowe said. “In winter, there’s ice all the way to the islands. The temperature then is about 30 to 40 degrees below zero with winds around 40 to 50 knots. That brings the wind chill down to about -110 Fahrenheit. Also, the ground visibility goes down to about 50 feet, but just a couple of hundred feet up, you can see two or three miles. We fly in it. If you don’t fly then, you don’t fly at all during the winter.”

According to Rowe, the Caravan is a customer favorite all the time, but especially during the winter.

“It’s warm,” Rowe said. “A good heater means a lot in winter, but the Caravan’s also quiet and relatively fast. I’m glad I bought it.”

Annually, co-founder and President Jim Rowe’s Bering Air delivers 80,000 passengers, 7-million pounds of mail and 3-million pounds of cargo to villages in northwestern Alaska and Russia.
In 1995, winter travelers in the extremes of northern Quebec had few options for getting to where they were going.

If you want to go anywhere north of the 48th parallel in Quebec between October and June, there are three ways to get there.

The first is walking. The second is by dog sled. And the third is by airplane; specifically, one of the Cessna Caravans operated by Air Wemindji.

If you select the third choice, there are still some options available in the wintertime. You can travel on one of Air Wemindji’s Caravans equipped with wheel skis that will allow you to go to locations on land or virtually anywhere via frozen lakes and waterways. For slightly less remote travel, they also have another Caravan on standard wheels.

Finally, one other option remains. You can travel during the summer months, when Wemindji’s three Caravans are equipped with amphibious floats to transport passengers to and from land or water locations throughout Northern Quebec.
All this versatility is backed up by one very important fact.

If the weather conditions are cloudy, Air Wemindji is the only commercial operator in the area approved to transport passengers by Caravan in any weather conditions, with landing gear that consists of skis, amphibious floats or wheels. In summation, that means going anywhere, any way, at any time, and all this in one of the remotest areas of northern Quebec.

From the Wemindji headquarters in La Grande, Quebec, General Manager Bertrand Biron has a lot to say about counting on the Caravan. “Our passengers are mostly trappers, miners, telephone company personnel and other business related travelers. They have to get where they are going and back again. And, it is usually a long way...most of our flights average over 500 miles”.

To do this job reliably, all year long, only the Cessna Caravan will work.

The amphibious floats are great when the ice is out, and we had the skis designed ourselves for winter travel. With wheels, amphibious floats and skis we can go anywhere, any time, in warmth and comfort for our customers and with plenty of space for all types of cargo.”

Quebec contains more than 3% of the world’s fresh water reserves. Its vast forest covers an area larger than Sweden and Norway combined.
For more than a decade, Zaire’s Mission Aviation Fellowship has operated the 10th Caravan ever built.

Mission Aviation Fellowship flew worldwide in support of Christian ministries. MAF’s fleet of 88 Cessna aircraft included three Caravans. Serial number 10 had logged more than 8,500 hours of flying time over Zaire in support of missionaries, Bible translators and community development projects. Additionally, MAF committed its aircraft whenever and wherever needed in linking Christian agencies through electronic communications and emergency medical response.

Mission Aviation Fellowship has operated a Cessna Caravan in Zaire, a country with hot, rugged landscape and minimal infrastructure, since October 1985.

“Actually, we bought the 10th Caravan that Cessna ever built,” MAF Pilot Jerry Krause said. “We’ve worked it hard over the years. At the end of its first decade with us, number 10 had accumulated 8,150 hours of flying time.”

During its service with MAF, the Zaire-based Caravan has flown literally thousands of missionaries, non-government organization workers, nationals, and tons of cargo over the region’s vast jungles and savannas. Today, number 10 continues to build hours supporting Zaire’s national effort to provide blood transfusions in underdeveloped areas.

“Projet des Unites de Perusions du Zaire has established eight remote centers for transfusions,” Krause said. “Zaire is a frontier. There aren’t many roads, and those that exist usually don’t go anywhere near the places we have to service. As you might imagine, logistics throughout the country are a very real challenge. Our Caravan is the only airplane able to take off and land in remote locations with the cargo loads necessary to establish and adequately support transfusion centers. It does so almost every day, just as it has for more than 10 years. And our maintenance and flight records easily validate worldwide Caravan fleet’s 99-percent dispatch rate.”

The Caravan transports huge loads of bulky equipment to each transfusion site. “You need all sorts of things, and a lot of them, for a transfusion center,” Krause said. “So it’s a good thing for us that you can load a Caravan to the gills. Sterile water is absolutely necessary for producing intravenous solutions, and in Zaire the only way to get sterile water is to distill it. So our payloads include autoclaves, which are strong, pressurized, steam-heated vessels, bottles and other containers for pure water, and solution ingredients such as dextrose and sodium chloride.”

The Caravan also carries tentage, plumbing supplies, and medical technicians. PUP
personnel travel with the cargo to assist in setting up the centers and to train others to use the equipment.

“We have to mix loads and change from personnel to cargo configuration quickly,” Krause said. “The Caravan can carry 2,000 pounds 800 miles from our Nyankunde airfield to our most distant center in Vanga, and it’s our only airplane with that kind of flexibility. Under MAF’s rules for normal operations, all flights require two hours of fuel reserves due to limited weather alternates, so even the Caravan has to make a fuel stop en route at Kisangani. But nothing else we have comes close, and our pilots prefer the Caravan to our other airplanes. The engine is powerful and utterly dependable; and the avionics and flight guidance systems give our crews the edge over nature that they so justifiably desire. As far as MAF is concerned, the Cessna Caravan is the DC-3 of the 1990s.”

Mission Aviation Fellowship, Indonesia.

Tragedy strikes quickly anywhere, and most medical facilities are primitive in MAF’s areas of operations. For that reason, routine flights can turn rapidly into emergency responses.

“As I took off a few days ago, I heard a frantic call for help over the radio,” MAF Pilot Perry Pust in Indonesia said. “It was the missionary at Bolema wanting to know if I could take a load of patients to the hospital in Wamena. An hour before, somebody had accidentally kicked over a small jug of kerosene, and a thatched hut caught fire.”

Pust diverted to assist the villagers. “There’s no way I could have gotten all the patients aboard a smaller aircraft,” Pust said.

MAF’s pilots say the Caravan offers priceless versatility necessary in remote regions and flexibility that isn’t available in any other aircraft.

“I can mix and alternate from cargo to passengers,” Pust said. “The Caravan carries a ton, literally. We put aboard 2,000 pounds of rice at a time, and that huge load greatly cuts our time involvement. Plus, the Caravan is comfortable to ride in all day. I should know; I do a lot of 10-to 12-hour days in it.”

MAF Caravan Pilot Dave Rask echoed Pust’s sentiments. “The dirt landing strip in Karubaga, Irian Jaya is 2,000 feet long with a 10-percent slope, and the Caravan works great there,” Rask said. “Its big cabin is just the ticket for hauling the long pipes we use in our hydro-electric projects. That way, the Caravan makes it possible for us to bring electricity to some very remote locations. In some cases, it’s the first time the villagers have ever seen electric lights. Also for a medical evacuation, you can lay out a standard stretcher inside, and that’s something you just can’t do in a smaller aircraft.”

Zaire, now known as the Democratic Republic of Congo, is Africa’s third-largest country and takes its name from the Congo River, which at over 750 feet is the deepest river in the world.

Whether the operation supports missionaries, Bible translators, community-development projects, or transfusion centers, MAF’s Caravan is the best means of accomplishing it.
LCT’s Vice President of Airborne Geophysics John E. Seibert has done airborne gravitational work his entire professional life, and four years ago he recognized the Caravan as a nearly perfect platform for the job.

“The areas we explore are remote,” Seibert said. “We needed an airplane that could get to a survey area reasonably quickly but with the capability of flying slowly during the survey itself. It needed to be stable and have good endurance, and because most of our base strips are pretty primitive, it needed to be able to operate reliably for long periods of time without intensive maintenance.”

Seibert brought his idea for a Caravan survey platform with him when he joined LCT in 1995, but it was hard to find an operator who was interested in taking on the work.

“Most people who own Caravans keep them busy carrying cargo or passengers,” Seibert said. “I got some mighty strange looks whenever I asked people if I could cut holes in their airplanes and take them to South America. But then, one day in Talkeetna, Alaska, I met Alan Larson, the owner of TransNorthern Aviation, who had just taken over the lease on a Caravan. I told him what I wanted to do, and he said it sounded like a great idea.”

At the time, Larson was using TransNorthern’s Caravan to fly tourists over Mt. McKinley. “So we modified it,” Larson said. “We took out the tourist gear and installed two gravity meters, a sophisticated GPS survey system, and the tail stinger, which houses the cesium magnetometer. Since then, I’ve flown most of the surveys, and we’ve worked in the United States, Colombia, and the Andes of Peru. We’ve just been awarded a huge contract in Cambodia, and we’ll begin operations there just as soon as we’ve worked out the various security agreements.”

Accumulating 700 hours per year for LCT on TransNorthern’s Caravan and with plans to increase the total to 1,200 hours annually in the next couple of years, Larson and his partner, Andrea Armstrong of Talkeetna, have flown the airplane in extreme climates and under spartan conditions.

“We’ve put more than 500 hours on it above the Arctic Circle, and another 500 hours within a few degrees of the equator,” Larson said. “Whether it’s hot or cold outside, it’s comfortable in the Caravan. We fly it hard, sometimes 120 hours per month, and when we get close to that 1,200-hour annual target, it’ll be time to acquire another airplane - one that can work just as hard. While we’d happily consider something better than a Caravan, there’s just not anything out there to consider.”

The normal passenger load for a survey mission is the pilot and one technician. But the Caravan occasionally carries a couple more, and everybody aboard stays comfortable during the trips to the survey sites.

“The cargo pod gives us a big advantage over our competitors,” Seibert said. “A lot of airborne geophysical companies work out of old piston twins, airplanes that put them at a disadvantage when we make the Caravan available. We don’t have to make room for a mechanic, his tool box, and a bunch of spare parts like you have to with the old pistons. We can, and do, carry everything we need for the surveys, and that’s something you just can’t do in any other airplane. We can stow all our computers, a sectioned 30-foot tower antenna for our GPS base station, our manuals, and our personal gear inside the cargo pod. Then, we can transport the technicians in the airplane and still have 1,000 nautical miles range. When we arrive at the survey base, we just unpack the gear, refuel, and take off to begin the survey. We can be in the air and working within a few hours of the first landing.”

Seeking tiny anomalies.

The earth’s gravitational pull is 9.8m/sec² or 32 ft/sec². “But that’s just a high school-physics average,” Seibert said. Actually, the gravitational field varies as much as a few
Many birds, animals and fish navigate using the earth’s magnetic field. Using Google Earth imagery, German scientists in 2008 discovered that even cattle herds align themselves on a North-South axis, directed by the earth’s magnetic fields at the poles.

percent either way according to the kinds of rocks in the area. Dense rocks create more gravitational attraction than less dense rocks, and that phenomenon helps us map geology with the aim of finding oil, gas, and mineral deposits.”

Of course, gravity measurement is a highly sensitive operation.

“In this business, we have to combine the most advanced computer and software technology with the highest quality GPS navigation,” Seibert said. “We’re searching for tiny differences in the Earth’s gravitational pull, so the instruments are highly sensitive.

We have to minimize not only the aircraft’s non-linear motion, but also the non-linear responses of the measuring devices to aircraft motion, both laterally and vertically.”

So, doing much of its work at night or under IFR conditions, LCT flies its route legs as level as possible at altitudes that are typically 500 feet above the highest terrain feature or obstacle in the area.

“The trick is to measure the effects of the geology without flying into any of it,” Siebert said. “Of course, we have to fly a very stable airplane, and that’s where the Caravan helps out a lot.”

LCT’s gravity survey packages.

LCT’s comprehensive, high-tech services range from marine, land and airborne geophysical data acquisition and processing expert interpretation of geophysical and geological information. “We serve a tiny, niche market, but it’s worldwide,” Seibert said. “We contract with the major oil companies, and with the next tier of oil companies, to produce gravitational-anomaly maps. They hire us to save them millions of dollars in exploration money. Today, our gravity maps are higher in resolution than the same types of information the clients could get through satellites.”

The Caravan’s versatility enables LCT to operate wherever the oil companies need to explore.

“The Caravan has a lot of strong points for this kind of work,” Larson said. “For one thing, it uses jet fuel, which is available just about anywhere. We’ve actually had competitors contact us to survey in areas where no AVGAS is available. They couldn’t operate their old pistons there, so they needed us and our Caravan. Another strong point is in Cessna’s Progressive Care maintenance program. Under that program, we replace parts before they wear out.”

So methodical, by-the-book maintenance means that LCT can depend on TransNorthern’s Caravan in any environment.

“For 70 years, the people at Cessna have been thinking about airplanes,” Larson said. “They’ve put everything they know into the Caravan. It only makes sense for us to put everything we know into one, too.”

Technician Rick Hartzog operates LCT’s sophisticated geodetic GPS, gravity and magnetics equipment.

Flying the Caravan 500 feet above the highest obstacle in its survey area, LCT operates day and night, even under IFR conditions.
Kenya’s Flying Doctors serve East Africa more efficiently in AMREF’s Grand Caravan

Originating 53 years ago as a flying doctors service, AMREF of Nairobi, Kenya, found its Caravan effectively replaced three older aircraft in its fleet – and cut costs.

AMREF’S Grand Caravan carries more, more economically.

AMREF takes medical health care to the people of East Africa. These days, thanks to its new Grand Caravan, the company is accomplishing more of its mission at a fraction of the operating costs involved with the older aircraft it has replaced.

“In fuel costs alone, we are experiencing a phenomenal reduction in expenses,” Owner Jim Heather Hayes said. “Part of the reason is that here gasoline costs so much more than Jet-A1, and the other part is in the simple efficiency of the airplane. Also, this year our insurance costs are dropping because our crews have been through FlightSafety® and have a year’s experience flying the Caravan.”

The Caravan now does all missions formerly allocated to older Cessnas, a 206, a 402, and a 404.

“The Caravan’s modern technology, huge cabin, long range, and flexibility all lend themselves to our company’s growth,” Hayes said. “Thanks to the large payload and the number of seats, it’s making the same runs we used to assign to various combinations of two older aircraft, and it does them in one flight. It’ll take out a load of surgeons on Monday and another on Tuesday, then it picks them up for the return trips on Thursday and Friday. By doing two trips in one, we immediately save five hours of flying time, and that’s every time we fly it. It handles the bad airstrips as well as our old 206 did, and it carries so much more. It’s a very good night IFR airplane, and it’s the best plane we’ve ever had for operating at partially lit airstrips, which we sometimes have to do for medical evacuations.”

Multiple missions in harsh environments.

AMREF devotes 30 percent of the Caravan’s time to making medical evacuations, 30 percent to taking doctors to the outlying areas on regularly scheduled flights, and the other 40 percent to environmental health work. Also, the Caravan sometimes does duty as a mobile clinic, staying on site with medical teams for up to five days at a time.

“We move engineers and construction
workers around the country for many different environmental projects,” Hayes said. “And
we’ve just supported a major rehabilitation of a hospital in Somalia. It’s all part of
AMREF’s unique position as the only Kenyan government organization with both long-range
air transportation and trained personnel. We alone in Kenya can conduct these far-ranging
medical health care missions. AMREF still
owns the original business name, the Flying
Doctors Service, and it’s painted on our Caravan.”
As such, the Caravan provides a long-range extension to the hospital.

“Do that through a program called
specialist outreach,” Hayes said. “Various hospitals in our developing region are linked
to us by radios, 110 of them so far. They send in requests for any particular specialists
they want, and they can and do request people other than doctors. They sometimes
ask for engineers, for example. So we take the specialists out, and they train the local people.
Most of the areas we serve are remote, so the Caravan’s ability to land on short, unimproved
strips and to operate for lengthy periods of
time without sophisticated maintenance are
important attributes. It’s just a fantastic, safe and reliable bush airplane.”

In Kenya, safety in the bush means durable dependability.

With just more than a year in service,
AMREF’s Caravan has accumulated more than
800 hours, and it’s still using the original brake pads and tires.

“Actually, just about everything on the airplane is still original,” Hayes said. “It just
goes on and on, and our pilots treat it with
great respect. They love to fly it, and they feel
as comfortable behind that big Pratt & Whitney®
turbine engine as with any twin we’ve ever operated. The Caravan is a big, beautiful,
dependable airplane, and everybody who flies it says that.”

Including Chief Pilot Benoit Wangermez,
who is also impressed with the Caravan’s
economical operation.

“The Caravan burns about 50 gallons of fuel per hour, about the same as the old 206,”
Wangermez said. “But insurance on the Caravan is cheaper, it takes less maintenance to keep it flying, it carries more and goes farther, and it’s
more stable.”

Stability is especially important when AMREF’s Caravan is flying a medivac mission.

“The Caravan is the best medivac airplane we have,” Wangermez said. “It’s large, so that we can carry a doctor, a couple of nurses, and
up to four patients in stretchers. We never
even get close to maximum gross weight on
a medivac, and it’s so stable in the air that the doctors and nurses never complain about
their patients getting bounced around. But the doctors have had to resuscitate heart-attack
patients in flight, and one actually had to do surgery on a critically ill patient in flight. They
don’t like to do that, but it was an emergency, and the surgery was successful. I hand flew
the airplane that time to keep it nice and steady for them.”

Which brings up an interesting point. AMREF’s
Caravan is equipped with an autopilot.

“I fly it some long distances and many
hours,” Wangermez said. “So I love that
autopilot. It reduces my cockpit workload. I can concentrate on all the important things. The panel layout and avionics are excellent as well. The whole package including the seat
helps keep pilot fatigue to a minimum.”

All the pilots and the maintenance staff at AMREF are happy with the Grand Caravan.

“Every pilot we have, including one initial skeptic, says the Caravan is the best airplane we’ve ever bought for our operations,” Hayes
said. “It’s a great bush airplane and it has the technology to ensure safe operations. We use
trend monitoring, and that really extends our TBO. And it just doesn’t require much in the
way of maintenance. Just about everything on our Caravan is original, just the way we bought it. It’s a working airplane, so we work it hard, and that seems to suit it just fine.”

Formerly known as British East Africa, Kenya is
home to some of the oldest known palaeontological records on earth of the history of mankind.

Owner Jim Heather Hayes appreciates the
reliability and spaciousness of his Grand Caravan
when conducting critical medivac missions throughout the wilds of Eastern Africa.
Windway Capital’s Caravan flies to save endangered migratory birds.

Since 1989, Windway Capital’s Chairman Terry Kohler and his wife, Mary, had been active in work to save endangered species of cranes and Trumpeter Swans. The Kohlers often personally piloted their airplanes to support these efforts, and Windway Capital’s Caravan was particularly effective for carrying the birds themselves.

Stewards of the environment.

It’s impossible to see the walls in Chairman Terry Kohler’s Sheboygan, Wisconsin office. They’re heavy with photographs of his wife and his favorite aircraft and sailboats, caricatures of his favorite politician and personal friend, Newt Gingrich, and overloaded book shelves. Kohler’s flight helmet from his days in the Strategic Air Command perches in the same nook as a library of tomes about endangered cranes and swans.

A smile spreads across Kohler’s face. He’s talking about his favorite subject – no, that’s not strong enough – his passion.

“Human beings have all the intelligence on this planet, so it’s our job to be stewards of the environment,” Kohler said. “Migratory birds are the first to offer us visible signs that something may be wrong. They are very fragile. They’re the first to suffer when we pollute or damage their habitats. So it’s important to watch them, learn from them, and use the knowledge we gain from them to correct our environmental mistakes. It’s up to us to make things right again.”

Windway Capital’s Caravan is an ideal aircraft for carrying live birds.

Kohler first became involved in his work with endangered species before he’d purchased his Caravan. In 1988, he had bought a Citation I/SP, in which he made his first deliveries of migratory species’ eggs.
Since then he has replaced his Citation I/SP with a Citation V, and he has added a Caravan to his fleet of six aircraft. Aboard the Caravan, Windway Capital delivers live Whooping Cranes from ICF headquarters in Baraboo and from Patuxent to the Kissimmee Prairie Wildlife Refuge in Florida.

“Live birds are more delicate than eggs, and stress can cause health problems,” Kohler said. “That’s why the Caravan is so important for this work. It’s quiet, and that’s an important consideration for these fragile animals. Also, it’s fast enough and has long enough range for us to time the flight so that the birds arrive just before dark. They go into their release pen just after dark. That way, they roost and sleep for the night, and the next morning, when the sun comes up, they’re gently introduced to their new surroundings.”

Before Kohler purchased his Caravan and made it available to ICF, the cranes were at the mercy of the airline schedules and handling. Several Sandhill Cranes lost their lives during the preliminary phase of the project because of that. “But now, we control everything,” Kohler said. “We can do all the things that assure the cranes’ welfare. And though we originally transported them aboard the Citation, the Caravan is better. Cranes are big birds, about five feet tall, and they were pretty cramped in the crates we had to use in the Citation. But the Caravan’s cargo bay is large enough for 11 birds, each in an individual crate that gives it nearly 12 cubic feet of space. That lets them stand erect during the journey. We fit them with wing harnesses called brails, which prevent them from injuring themselves during the trip and during the first phase of their release. Now we use the Caravan for the live birds and the Citation for the long-distance trips with eggs.”

“The Caravan is a business aircraft first.”

Of course, between missions to support endangered migratory birds, Windway Capital’s Caravan stays busy handling regional airline chores for Windway Capital Corporation.

“Sheboygan is a highly industrialized town of some 50,000, and we have another 50,000 people living in the county,” Kohler said. “The Kohler family is one of five that built the industries up here. This isn’t really a service

“One of the responsibilities the good Lord gave us is to take care of His creation.”

– Chairman Terry Kohler
industry town. We make things and sell them to people, and the Caravan plays a big role in our business operations. Five of Windway Capital’s local companies in Michigan and Chicago own shares in the Caravan, and we all use it for trips to Port Huron, Mackinaw Island, Miegs and O’Hare in Chicago, and to Minneapolis, not to mention the numerous crane trips to Baraboo.”

Windway Capital acquired its Caravan when Kohler, a seaplane enthusiast, decided to replace his Cessna 210 and two float-equipped Cessna 206s. The Windway Caravan spends part of the year on floats and the rest on wheels.

“The floats are particularly useful when we go to Alaska to help collect Trumpeter Swan eggs,” Kohler said. “I always enjoy taking leisure trips around the Great Lakes in it. But I’d say we get more business utility out of it when it’s on wheels. We transport executives in it, of course. But we also use it to haul a lot of cargo for two of our companies, K.W. Muth and Masland Industries, which make mirrors for the automotive industry.”

Four of the six aircraft in Windway’s fleet are Cessnas, including Mary Kohler’s personal aircraft, a Cessna 172 bearing the name Swamp Eagle.

“The two non-Cessnas in our fleet are special interest airplanes, a classic Grumman goose refitted with turbine engines and a Stemme powered glider,” General Manager and Chief Pilot Paul Jumes said.

Jumes has operated Windway Capital for six years. In his estimation, the Cessna Caravan and the Cessna Citation V are the company’s two most useful airplanes.

“We just passed the 3,000-hour mark on our Caravan,” Jumes said. “We usually total out around 1,000 hours per year on our fleet. We split 90 percent of that figure between our Citation and Caravan. Those are our workhorses. Of course, Terry is in the cockpit a good deal of the time, even when we’re transporting his political friends. And Mary is an accomplished pilot herself. It really helps to have a boss and his wife who understand aviation and stay involved in it.”

Jume’s flight department handles most of the maintenance. “We have two full-time and two part-time pilots and a pair of mechanics,” Jumes said. “We do most of the maintenance ourselves. But if we can’t handle something, say a major phase, we take the Caravan to either Kal-Aero or JA, which has now been authorized as a Caravan Service Center. But mostly, it flies. We keep up with the scheduled maintenance, and we’ve never had to deal with any unscheduled maintenance on either the Caravan or the Citation.”

Saving the cranes takes hard work, money, and a world-class expert.

With the hard work of the International Crane Foundation and the generosity of people like the Kohlers, the Whooping Crane story has become a model for success. “Those of us who are in the game are happy to see the Whooping Cranes recovering,” Chairman and Pilot Terry Kohler said. “Where there used to be less than 20, now we have 332, only 100 of which live in captivity. The future for the Whooping Cranes is looking brighter, and we owe much of our success to
George Archibald, who is the world’s foremost expert on endangered species of cranes. The biggest break the cranes got was in 1989, when the U.S. Fish and Wildlife Service decided to split its captive flock and give half of the birds to George and later sent another 20 birds to the Calgary Zoo. Close cooperation between ICF and the Patuxent Wildlife Research Center in Maryland has greatly increased captive breeding rates and release success.”

Under Director George W. Archibald, Ph.D.’s leadership, a skilled team of aviculturists nurtures captive flocks of the 15 species of cranes at ICF headquarters in Baraboo, 100 miles west of Sheboygan. Currently, the director considers restoration of the Siberian Crane flock to be his most important project.

“The good news is that now we have a very viable, flourishing flock of Siberian Cranes,” Archibald said. “The challenge is to introduce members of that population into the wilds of Asia. We get a lot of help from the Bonn Convention of Migratory species, the Institute of Soviet-American Relations, the U.S. Fish and Wildlife Service, and the Amoco Corporation. But we surely couldn’t do this work without the Kohlers and their airplanes. Also, Terry and Mary financially support the work of Bill Lishman and Kent Clegg, pilots who use their ultralight aircraft to teach endangered-species of birds safe migration routes. “We hope to try that technique with Siberian Cranes. The training flights would take a couple of months. We’ll have to fly across Asia into Iran, and it will involve changing behaviors of indigenous populations along the migration routes.”

The Whooping Crane is North America’s tallest bird, standing at nearly 5 feet tall. Named for its whooping sound and call, their lifespan is estimated to be 24 years in the wild. Still considered an endangered species, the numbers of rare Whooping Cranes have increased slightly due to determined conservation efforts.
Except for those in Kathmandu, there were almost no roads in Nepal. The rugged terrain meant air transportation was the only reliable infrastructure. Necon Air kept its two Caravans busy helping to develop the country.

“Remote” is a good adjective to describe the developing nation of Nepal.

“Our Caravans are helping to improve the country’s economy,” Managing Director Deep Mani Rajbhandari said. “We’ve been in business since September 14, 1992, and our Caravans are the most dependable, economical transportation system in Nepal. We run a regular schedule, and we have enough assets to pick up contract work and commercial operations. We’ve even used the Caravan in some search-and-rescue work finding lost mountaineers, sometimes up as high as 26,000 feet around Mount Everest. We have a diverse operation, and the Caravan gives us the flexibility to fill a number of needs. That’s why our business and our fleet continue to grow. We plan to have an 82-percent share of Nepal’s air traffic by 1999, and by the year 2000, we expect to have six Caravans.”

Rajbhandari was in Wichita to pick up Necon Air’s second Caravan.

“The Caravan we bought a couple of years ago has been doing an outstanding job,”
Rajbhandari said. “It carries food grains, infrastructure-development supplies, and passengers to remote areas. On the cargo flights, it’s always loaded to maximum gross weight, and we fill all the seats on our charter passenger runs.”

High altitudes, short strips, no go-arounds.

Though Necon Air operates from the well developed airport at Kathmandu, all its outlying destinations are less modern.

“Necon Air runs a domestic trunk route through Nepal, which is 500 miles north to south and 200 miles east to west,” Rajbhandari said. “Our landing areas are small, tight, and present difficult landing problems, sometimes due to terrain and almost always due to altitude. Most of our runways are less than 2,500 feet long and between 6,200 and 9,000 feet above sea level. Usually, we land on gravel or dirt strips around 2,400 feet long. Of course, the Caravans work perfectly in those environments, better than any other aircraft.”

Necon Air succeeds in Nepal thanks to its committed management team, dedicated employees, and supportive customers.

“We are a regular airline, and we do something that sets us apart from our competitors,” Rajbhandari said. “We pride ourselves on keeping our flight schedule. We have the highest reliability and punctuality rates in the kingdom.”

So customer service is Necon Air’s primary concern. It’s a formula born of generations of business experience.

“Our has always been a business family, but I became a commercial pilot,” Rajbhandari said. “When the government created a liberal air policy, a group of my friends and I combined our resources and started Necon Air. We have grown the business to become the number-one domestic airline in Nepal, and the Caravan has played a key role in that process.”

Rajbhandari attributes much of Necon Air’s success with its Caravans to the big Cessnas’ economic efficiency.

Caravans are taking over in Nepal.

“Caravans are rapidly replacing all the Twin Otters in Nepal,” Rajbhandari said. “They’re more economical to operate, cost less to buy, and carry more cargo or people - far more comfortably. We plan to accumulate more than 1,800 hours per year on each successive Caravan as we acquire it, and we have more than 4,500 hours on our first one. They are very easy to maintain. We use the Phase Card system, which helps us manage our maintenance costs. When it’s time for an engine overhaul, we’ll just rent a replacement engine from Pratt & Whitney. We’ll continue operations without interruption. And our maintenance people are well trained and highly experienced. We take care of all our own maintenance.” Necon Air is one of Nepal’s most important assets for the national journey into the future.

Consider Rajbhandari’s good-natured response to a request for a picture of a forklift loading his Caravan: “We don’t use forklifts. We use people. Nepal is a developing nation, and the Caravan is helping develop it.”

Managing director Deep Mani Rajbhandari says Necon Air will own six Caravans and have an 82-percent market share of Nepal’s air traffic by the year 2000.
Aeroteam Aviation GmbH’s Caravan trio handles three missions on two continents.

Aeroteam Aviation GmbH of Mengen, Germany, opened its skydiving business in 1996 with a single Grand Caravan. In addition, it conducted passenger and cargo flights in Africa with two more Grand Caravans.

Aeroteam Aviation GmbH is the first company to obtain a license to carry 18 jumpers in its Mengen-based Grand Caravan, which is available for charter with passenger debarkations 15,000 feet above most any European drop zone.

“Its 18-jumper capacity makes the Grand Caravan the best thing ever to happen in our business,” Flight Operations Manager Joachim Wirths said. “It carries only three less jumpers than the old Twin Otter, but the Caravan does it on one engine. Also, with the Caravan we can average nearly three cycles per hour up to 15,000 feet.”

Wirths knows what he’s talking about. In addition to his experience in the Grand Caravan and Twin Otter, he’s also tried to make a living flying his parachutist customers in a Pilatus Porter and a Shorts Skyvan.

“You can’t make a profit flying anything but the Caravan,” Wirths said. “With a minimum of eight skydivers, we pay the Caravan’s load cost; the ninth jumper pays the landing fee; the 10th pays the cost of the pilot. Every jumper beyond the 10th through the 18th is profit revenue.”

Wirths offered some comparisons: “The Twin Otter is out of production, so it’s hard to maintain and expensive to operate; and you don’t break even until you load your 16th jumper. The Shorts carries a lot of jumpers, but it’s outlandishly expensive to buy and fly for this kind of work. At the other end of the spectrum, the 10-passenger Pilatus Porter uses nearly as much fuel and costs at least as much to maintain as the Caravan, so with a
maximum load it carries only enough jumpers
to break even.” Better yet, Aeroteam Aviation’s
loyal customers like the Caravan.
“The door is broad and tall, and there’s
plenty of room in the cabin,” Wirths said. “That
means our customers can make gang exits
and competition-formation exits. Also with
the oxygen system, we can do high altitude
work up to 20,000 feet. My skydivers think the
Caravan is an ideal jump aircraft – so do I.”
But Germany’s winter is cold, and skydiving
is a summer sport. So in the winter, Wirth’s
jump Caravan joins its two sister Grand
Caravans in Africa.

Caravans are Africa’s
“trucks of the air.”

“And what great trucks of the air they are,”
Wirths said. “They carry more weight and more
outsized loads than anything else capable
of landing on small airfields here. And our
pilots have no hesitation about flying in the
sometimes-stormy weather. The instrument
package is sophisticated enough to keep
things safe, and we feel good about having
that dependable Pratt & Whitney® engine under
the cowling. The Central African aviation
authorities are convinced as well that with
both aircraft fully laden, the Caravan’s
emergency power lever makes the aircraft
safer than any twin.”

Aeroteam Aviation’s African operations
include cargo transportation, special
operations for large-scale aid organizations
such as the United Nations, and both
scheduled passenger flights and charters.
“The passengers love our Caravans,”
Wirths said. They’re quiet airplanes, and
they’re comfortable and roomy in passenger
configuration. Caravans are legendary in
Africa, and we’re proud to be a part of that
legend. It’s the airplane you can depend on
here, and Aeroteam Aviation is the dependable
airline that flies them.”

DaVinci sketched the design
for the first parachute in 1485.
On June 26, 2000 – over 500
years later, American skydiver
Adrian Nicholas successfully
jumped with an exact replica of it.
The chute was built of wood,
canvas and rope.
It weighed 187 pounds.
**1999**

Federal Air’s Caravans handle everything from cargo to passengers, some of whom won’t eat the pilots.

*Federal Air had operated in South Africa since 1989 when Chief Executive Officer Greg McCurrach started hiring and flying light aircraft to service charter needs around the Durban area. Shortly, McCurrach realized only the Cessna Caravan could handle most of his range and payload requirements while operating from rugged airfields. Soon he was employing nine Caravans in a range of missions that would stretch a military air force’s capabilities.*

**Lions need comfortable transportation.**

South Africa as a nation is proud of its conservation efforts. National efforts have brought back the rhinoceros from the brink of extinction. South Africa has reintroduced elephants into areas from which they had long since been chased, and it is well on its way to restoring still a third species, the lion, to areas from which it has long been absent.

“It surprised us when we learned our Caravans were transporting lions,” Federal Air’s Chief Executive Officer Greg McCurrach said. “Conservation Corporation Africa leased our Caravan short term, and we presumed they’d transport safari passengers as usual. But Phinda Game Preserve’s veterinary surgeon needed to transport four grown lions, and the Caravan was the perfect vehicle for the job.”

*Lions, it seems, are fragile.*

“They’re not very resilient when it comes to drugs and relocation,” McCurrach said. “The conservationists have learned to avoid losing specimens through careful planning and intense preparation, and they avoid transporting lions in ground vehicles. It’s all highly professional—a quick operation when it comes to the actual flight, but the veterinarians work for weeks to prepare a pride for a move.”

To avoid having one lion endure prolonged anesthesia or captivity while vets track and

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*Working on contract with Conservation Corporation, S.A., Federal Air’s Caravans transport lions from Phinda Game Preserve for redistribution into another wilderness area.*
dart the others, the relocation team begins darting and capturing selected individuals some weeks prior to the move. Captured lions go into a highly controlled environment called a boma, in which they have no discernable contact with humans, a requirement which keeps the animals’ fear of humans high and enhances their chances of post-release survival. In the boma they develop a hierarchy of rank in the newly forming pride, and their dependency upon the pride grows.

On transfer day, crews prepare all the vehicles including the Caravan. Then the vet darts all the lions within seconds of one another. The lions go immediately onto a mat, which the crews load onto each transfer vehicle successively: the truck to the Caravan, the Caravan itself, and upon landing, the truck from the Caravan to the release site’s boma. The mat prevents humans from touching the lions, thereby avoiding the lions’ agitation upon discovering human scent on themselves.

The release site’s boma is as similar as possible to the capture area’s boma. There, the vets monitor the lions for a period to ensure none of the cats have suffered ill effects in the transfer. When the vets are satisfied, they release the lions into the natural environment.

In the bush, the artificially created pride almost always remains together and establishes a territory for itself. After the members are settled, they develop confidence for the necessary territorial fights, and the pride integrates into the existing lion population. “The existing stock in the wild is small, depleted by years of hunting and human encroachment,” McCurrach said. “There’s too much inbreeding, so the conservationists have to intervene like this and provide new gene pools. Also as a result of this kind of work, our game preserves are thriving. For example, ConsCorp has restored the Phinda Game Preserve to a 100-percent replica of its pre-human fauna and flora diversity.”

The first lion relocation by Caravan went perfectly.

“The whole process went so well, we’re going to do it some more,” Marketing Manager Steve McCurrach, Greg’s brother, said. “There are difficulties to overcome. The lions are heavy, and we have to transport the vet as well. The flight is more than 850 miles without refueling, so there’s only a small fuel margin. But this is Africa, after all, and we do things here because they’re difficult. Wouldn’t be fun if it were easy.”

Caravans are the pickup trucks of the African skies. Federal Air’s pilots are passionate about the “Vans.” So is the boss. So are the customers.

“Early on, it became essential for us to start working with Caravans,” Greg said. “We needed aircraft with long range and heavy payload, something that wouldn’t break under a full load when we planted the gear on short, rugged airstrips. There’s only one airplane fitting that description on the market, and that’s the Cessna Caravan. I bought our first one in 1993, and now we have nine. They’re the pickup trucks of the African skies. With them we can accomplish just about any task our customers require. And speaking of customers, when most of our clients call for charters, they ask for Caravans.”

A recent charter points out just how important Caravan capabilities can be.

“The South African government needed to take the newly appointed minister of forestry and water affairs and his entourage on a fact-finding tour of the Kwa Zulu-Natal wetlands,” Steve said. “A National Heritage Site, the wetlands are among the largest unspolied wilderness areas in the world. The flight requirement was specifically for an aircraft that: ‘could carry the entire group, make three stops at genuine bush strips, and have a top/high-wing for observation purposes during the flight.’ The only aircraft in Durban adequately fitting that description is the Caravan.”
Operation Leo: Federal Air delivers six lions 375 miles.

Conservation Corporation, S.A.’s first lion relocation with Federal Air went so well, a second one was inevitable. It took place on July 28, 1999. Here's how they did it.

The King of Beasts is no pussycat. Lions are Africa’s most renowned predators. Adults weigh 450 pounds apiece, and every ounce is nasty, evil tempered, unimaginably fast, strong enough to clobber a full-grown African buffalo, stinks to high heaven—and really wants to eat you.

“On the other hand, they’re very fragile creatures to relocate,” Kwa Zulu-Natal Nature Conservation Department Veterinary Surgeon Dave Cooper said. “So we give them just enough sedative to keep them quiet, and we monitor them very carefully.”

The transfer begins. The story starts at Pilanesberg Airport near the Lost City Hotel Complex and Sun City, at which South Africa hosts its annual Million Dollar Golf Challenge.

“Our timing was critical,” Pilot in Command Tony Robinson said. “We’re limited to operating during daylight hours, and there are severe limitations on sedative levels for the lions. At sunup, we had taken off from Durban’s Virginia Airport, so we arrived early and Pilanesburg’s trucks took us to the boma.”

The veterinarians had darted all six of the day’s leonine passengers three weeks earlier in their own territories. Now the lions lived together in a 10-acre enclosure, captives in alien territory with unfamiliar lions.
They were also hungry because they hadn’t eaten the day before, so they were extremely aggressive,” Hluhluwe Game Reserve Deputy Section Ranger Jos Ackerman said. The lions would be part of Ackerman’s stock after the transfer, so he was along to help. “They charged snarling, hissing, spitting, and flailing their claws when we dropped off a sedative-spiked carcass for them to breakfast on. After they tucked into their meal, we sent in a pickup truck with the veterinarian, a darting marksman, and a man with a rifle - just in case things went badly. Within minutes, the team sedated them all with no noticeable stress or trauma.”

To illustrate the thinness of the sedative veneer, several lions began to show signs of waking even before loading. Cooper administered additional small charges of sedative before the handling began. Also, he covered one lion’s eyes with his jumper to shade them from the sun.

“Its eyes were open, and the pupils were dilated,” Cooper said. “The shade eliminated the risk the sun would burn its retinas, something akin to ‘arc eyes’ we get if we watch welding without protection. While we were in transit, that particular lion woke further than anyone realized. I presume it remained calm initially because the fabric restricted its vision. But then it realized it had something on its head, and it went bananas. It slashed my jumper to bits. It was in the lead bakkie of the three-truck convoy, and I was in the last one with my sedatives. When that thing woke up, the whole convoy stopped in the middle of the highway, all the doors opened, and people with syringes were running everywhere. ‘Pandemonium, I’ll tell you!’

Kitty takes a plane ride.

After things calmed down, our dauntless adventurers continued the short drive to the airfield, perhaps with a bit more vigilance. There, they went quickly and directly to the transport-prepped Caravan, which had mattresses on the floor, plastic sheeting, and a drip hangar.

“The sedative causes all the lions’ muscles to relax, including those around their excretory orifices,” Ackerman said. “Lions smell bad anyway, but imagine putting a half-dozen in that condition inside a Caravan - and these had been on diets of red meat their whole lives. It was like working on a cat’s bladder while standing inside its colon.”

The load-up took only minutes, and Robinson blasted off as soon as the last one was aboard. “The very use of the Caravan and all the timings involved in this operation were critical and designed to minimize the period of anesthesia and reduce the stress on the animals as much as possible,” McMurrach said. “Of course, our stress levels remained very high throughout the transfer - as they should have.”

Ranger Jos Ackerman listens intently to his handheld radio for response to an update on the whereabouts of his reserve stocks of anesthetics. He anticipates a critical need for them once the Caravan arrives at the airfield.
The normally lighthearted pilot in command agrees. "When I found out I was going to fly this mission, I made many a joke about ‘taking kitty for a ride,’” Robinson said. “In the bakkie, I even patted one anesthetized lion on the head and told her, ‘Nice kitty. If you promise to be good, you can go for a ride in Uncle Tony’s plane,’ and so forth. But by the time I was in the Caravan’s cockpit, my attitude had changed. The truck ride had convinced me if one of those beasts awakened properly in flight, we’d all be goners. I became very serious, and I stayed that way. All business.”

The takeoff airfield was 5,000 feet above sea level, and it was a hot day. “We used the whole runway,” Robinson said. “We had a very heavy load, and I was flying carefully and gently to avoid stressing our sleeping passengers. No airplane but the Caravan could have done this job. We could have taken off in a larger transport, say a C-130, but the destination airfield would have been impossible for such a ship.”

The vet stays alert, so the cats stay asleep.

Throughout the flight, Cooper moved tirelessly among his charges monitoring them and administering precisely allocated doses of sedatives. The only rest he took was two to three minutes when he lay down with his cats in the Caravan. Then he was up again and hard at work.

“The day’s activities took longer than I expected,” Cooper said. “I was running dangerously low on anesthetic, so I went to the cockpit and asked Tony how much longer we would be in the air. The global positioning system showed we had just less than an hour before we landed, and I became genuinely concerned my stocks might not last.”

Veterinarian Dave Cooper sedates a lion which has shown disturbing signs of awakening during takeoff. He spent the entire flight worrying over his charges.

On distant final approach, Pilot Tony Robinson begins a carefully planned descent from 9,000 feet designed to get the most speed out of the Caravan – and get it and his four-legged, fanged and clawed passengers on the ground before they wake up.

Just prior to takeoff, veterinarian Dave Cooper and ranger Jos Ackerman wave to the departure field relocation crew. The entire trip was documented by National Geographic Magazine.
Robinson did his part to minimize the flight time to the final destination. “By then we were 11 hours into the working day, and I had already realized we wouldn’t have enough fuel to make it home after dispatching our load,” Robinson said. “I’d firewalled the throttle the whole way from Pilansberg into a bloomin’ headwind, and we were at 9,000 feet when Dave informed me of this new challenge. I believe my sense of humor failed. This was serious. I called ATC and informed them I was at the top of my descent and beginning my letdown into Hluhluwe. Kept the throttle all the way forward and nosed down for a 300 to 400 foot-per-minute descent. Then I called the airfield and told them, rather pointedly as I recall, to have plenty of serum ready for us when we touched down.”

Robinson then executed a notably long straight-in approach to land on Hluhluwe’s bush strip. As soon as Robinson shut down the engine, an army of amateur and professional photographers besieged the cargo doorway. Cooper and Ackerman asked them to make way for an assistant bearing anesthetic, which they did.

“We popped doses into all those lions,” Cooper said. “After they settled back into their naps, I authorized the off loading.”

And then they were gone.

When the lion-bearing truck pulled away from the airfield, everybody went with it. Cooper and Ackerman were gone. All the spectators and officials followed the truck.

“They left Steve and me there with the Caravan,” Robinson said. “After all the excitement of the transfer, the stress of the flight, and the wild scene at the airfield, it was just the two of us standing alone at the airstrip and wondering what to do next.”

The answer came when they went back to the Caravan. “It smelled like emptying the world’s biggest, filthiest litter box and then rubbing some of the contents into your mustache,” McCurrach said. “We prevailed upon our friends at Phinda to top off the fuel tanks, and we made the short flight home chasing the fading light. The next day, our maintenance crew blasted out the Caravan with a fire hose and swabbed it thoroughly with strong cleanser, but we still had to let it air for a week before we dared take a passenger near it.”

The rewards of Federal Air’s efforts have far outweighed any discomforts or drawbacks.

“The lions are doing very well,” Cooper said. “They’re behaving normally and are very aggressive. We released them into the Hluhluwe Game Preserve just three weeks after the transfer. It was great working with Federal Air on this project, and the Caravan was just perfect for the job.”

In fact, Kwa Zulu-Natal Nature Conservation and Federal Air will team up for more transports in the near future.

“We’ve got a four-lion move coming up in a few weeks,” McCurrach said. “Now we know more about what’s involved, so we’re ready and very excited about doing it again. This is Africa, so it’s the only place in the world to do things like this. It’s so unusual, so much fun, I just can’t imagine why so many pilots make such efforts to get major airline jobs when they could do this - and do it in one of the most fun airplanes in the world to fly, the Cessna Caravan.”

Lions cannot roar until the age of two. An adult lion’s roar averages around 110 decibels, and can be heard up to five miles away. Lions feed once every three to four days and live an average of 15 years in the wild.
Caravans rule the friendly skies.

A pair of Cessna Caravans, in cooperation with a host of other aircraft, helped to patrol the airspace above the 2000 Olympic Games in Sydney, Australia. Billed as the “friendly Olympics,” the Caravan’s unassuming presence in the skies above helped to keep order without calling undue attention to themselves.

While considerably less imposing than an A-10 Warthog or even a Blackhawk helicopter, a couple of Caravans nonetheless maintained law and order within the designated airspace overlying the Olympics at Sydney, Australia.

Flying their sorties in formation with a Model 500 Cessna Citation, the Caravans with “POLICE” painted on their sides were a quiet and relatively unassuming enforcement platform, in keeping with what was being billed as the “friendly Olympics.”

A low-fatigue work environment.

The no-nonsense stability of the Caravans, combined with a reduced noise factor, provided a low-fatigue work environment for police pilots and observers, according to Olympic Air Fleet Commander Sergeant Rob Coppock. The Caravans proved to be ideal for the task of enforcing Olympic airspace restrictions and preventing infringements of two flight security zones around the main Olympic venues, said Sgt. Coppock, who headed up a Police Air Wing consisting of nine pilots. The all-Cessna squadron flew a combined 250 hours during the course of the Olympic games.

Local and visiting pilots were cautioned prior to the Olympics of special restrictions and procedures for flying in the Sydney area during the Olympics, and Australia Airservices issued a special Olympic Terminal Chart Sydney 2000 as well as a Sydney Olympic Flight Guide. The published policy provided for fines of up to $250,000 for any airspace violations. Such severe precautions were necessary, noted Sgt. Coppock, because even in Australia the threat of terrorism cannot be taken lightly.
Caravans could have called for back-up.

Enforcement of such air security, however, posed a tremendous challenge for the police force, he added. Use of the Caravans together with the Citation enabled police to meet the challenge in the most efficient manner possible, Sgt. Coppock said. Even so, he pointed out, Blackhawk helicopters as well as three C-130 Hercules were on call as a back-up in case things got out of hand.

Fortunately enough, though, the Olympics remained relatively uneventful from above. Sgt. Coppock reported that there were some 30 breaches of the flight security zones; however, these weren’t considered offenses since the zones were a buffer for the restricted areas. All but one of the intruding aircraft had their transponders on and were identified by Sydney radar, so air traffic controllers could safely steer them away. The single aircraft that didn’t have an operating transponder was picked up on a “primary paint” by the local radar. Nevertheless, there were three documented cases of infringement on the restricted zone, he said. However, the violators were later determined to not be terrorists, Sgt. Coppock pointed out, and the intrusions were deemed unintentional. In each case, he added, the pilots were counseled and thus escaped having to pay the $250,000 fine.

Air control to remain an Olympic tradition.

The Sydney Olympics weren’t the first time that fixed-wing aircraft had been used to enforce airspace security. The concept had been successfully utilized before in Atlanta, Barcelona and Los Angeles, although the numbers of aircraft used at these previous Olympic sites was much higher due to greater perceived threats and larger population bases. Sgt. Coppock predicted that this method of airspace control would remain standard for future Olympics.

The logo of the 2000 Olympic Games in Sydney appeared on the tails of all aircraft officially involved in patrolling the airspace above the city.

Nine pilots of the all-Cessna Police Air Wing flew a combined 250 hours during the course of the Olympic Games.

Three continents - Africa, South America and Antarctica - have never hosted an Olympics. The last Olympic gold metals made entirely out of gold were awarded in 1912.
After glacier touch and go’s, Dick Smith heads for the South Pole in his ski-equipped Caravan.

During winter in the southern hemisphere, Australian entrepreneur/adventurer Dick Smith fitted his Grand Caravan with wheel skis and conducted a series of touch and go’s on Tasman Glacier in New Zealand’s Mount Cook National Park. More than a stunt, the successful mountain-top operation of a Caravan on skis paved the way for Smith’s next adventure - an expedition to the South Pole using a solar-powered vehicle. After testing the Caravan on the New Zealand glacier, Smith was confident of a smooth landing in Antarctica for a final assault on the pole.

Caravan handles skis with ease.

“I’ve learned the Caravan is capable of most any task,” Dick Smith said. “It performed beautifully on skis, just as I knew it would.”

Smith, who founded Australian Geographic Magazine after selling a successful retail electronics enterprise, uses his Grand Caravan like a helicopter. After all, he used helicopters to achieve notoriety for his around-the-globe flight - from pole to pole and from east to west in a Sikorsky S-76, and from west to east in a Bell Jet Ranger.

“When I first saw the Caravan while on a trip to Nepal, I realized just how comparatively expensive and complex to maintain the Sikorsky really is,” Smith said. “That big Caravan offers just about the same advantages as a helicopter, but in a long-range package of reliable simplicity.”

“The electrical and hydraulic systems worked flawlessly,” Smith said. “We conducted a series of eight touch and go’s before the weather closed in on us. This all attracted quite a lot of attention there on the South Island and seems to have opened an entirely new business for tour operators.”

On the way back from New Zealand to his home near Sydney, Smith flew across the Tasman Sea, bringing to mind another of his adventures. Years ago, he made the first balloon flight from New Zealand to Australia against the prevailing winds.
“Now it’s on to the South Pole, with my solar dog,” Smith said. “Actually, it’s a solar-powered vehicle, but I like to call it my dog, since previous expeditions to the South Pole went by dog teams. Now, for environmental reasons, dogs aren’t allowed. I set a world record for operation of a solar-powered vehicle going 2,035 statute miles from Perth to Sydney in eight and a half days.”

Toward the end of this year, after the Antarctic summer sets in, Smith will fly his Grand Caravan across the Pacific via Easter Island. The Caravan’s abundant cargo space will carry the solar dog, and the wheel skis will allow a landing within striking distance of the South Pole.

Smith has taken his Grand Caravan to plenty of remote locations. Despite the aircraft’s proven reliability, this adventurer takes no chances.

“The PT6-A turbine is the most reliable turboprop engine ever installed on an airplane, and I am absolutely confident in its dependability,” Smith said. “But I don’t necessarily rely on the search and rescue systems in all the countries I fly through. I believe in taking care of things myself, so I’ve installed a special INMARSAT-C station transmitter in the Caravan. It uses satellites to transmit automatic position reports every 30 minutes to my office in Sydney. That way, I can be anywhere in the world, and my staff knows exactly where I am, my latitude and longitude, along with my ground speed and direction of flight.”
Caravan is capable of going the distance way “Down Under.”

And the Caravan is the ideal aircraft for flying “Down Under” as well as way down under to the South Pole.

“We have lots of remote-bush strips, gravel and dirt which get graded maybe once every five years,” Smith said. “We fly long distances, and maintenance facilities are few and far between in the outback. Utter dependability is a minimum requirement for any aircraft here. The Caravan is beautifully simple and functional, so you see Caravans all over Australia.”

Smith’s wife, Pip, is a professional photographer, and the Caravan is a useful tool to chronicle their adventures.

“The Grand Caravan is a beautiful photographic platform,” Smith said. “The wing is so far back, visibility from the cockpit is as good as from a helicopter, so that makes my flying job easier. We’ve installed special opening photographic windows, so Pip can shoot through them without distortion of the images.”

And then there’s another Cessna for flying higher and faster.

Though he has attracted considerable acclaim as an adventurer, Smith considers himself a businessman, author, public servant, and key to it all, an aviator. When he needs more range and speed than his Grand Caravan can provide, he relies on his Citation Bravo, which is equipped with a nose wheel spin-up system for operations on gravel runways.

“To this day, I remember my first solo,” Smith said. “It was just incredibly exciting to look over to where the instructor should have been and see no one there.”

Smith began his life of adventure with the profits earned from selling Dick Smith Electronics, and started flying to Antarctica some 25 years ago.

He attributes much of his business success and more of his enjoyment of life to flying his own airplanes.

“At first, I didn’t expect to have enough money to own my own aircraft,” Smith said. “But after selling the business, I decided I’d be able to make some of the dreams and adventures I’d thought so fantastic come true.”

So he’s taking this new life of adventure to the South Pole.

Besides adventure, Smith’s passions drive him toward environmental concerns.

“That’s really the reason I started Australian Geographic Magazine,” Smith said. “It seemed the perfect opportunity to go on these wonderful adventures, and at the same time, show Australians the extraordinary beauty of their country.”
New Zealand’s Mount Cook National Park is also known as the Southern Alps. Winter occurs in July, so that’s when Smith made his practice run in his ski-equipped Grand Caravan.

The Geographic South Pole is marked by a small sign and stake, which are repositioned each year on New Year’s Day to compensate for the movement of the ice pack it’s located on.

New Zealand is 12 hours ahead of Greenwich Mean Time, so it is the first country in the world to greet the dawn of each new day.
2002

With a SQUID hanging from its tail, this is a special Caravan.

Caravan operators adapt their aircraft to almost any task, and some conversions were elaborate. The blue and yellow Caravan of Sky Research, Inc., based at Ashland, Oregon, was a high-tech airplane with its 16-foot boom extending from its tail.

The Sky Research Caravan carried sophisticated remote sensing equipment for a variety of special missions – from sniffing out unexploded bombs to tracking runway incursions and wake turbulence.

At the end of the boom is the SQUID.

“The Caravan serves us well in the highly specialized type of work we do,” Sky Research Vice President Sky said. (Sky is the vice president’s sole legal name.) “It’s our aircraft of choice. In addition to being able to haul a ton of equipment and fly low and slow, the Caravan is extremely adaptable to any add-ons, like a 16-foot boom on the tail.”

The boom removes sophisticated remote sensing equipment from the aircraft’s magnetic field. Trailing the Caravan at the end of the boom is a high-temperature magnetometer scientists call a SQUID, which stands for super-conducting quantum interference device.

“It’s a unique modification which attracts a lot of attention,” Sky said. “The Caravan is the workhorse of our business. This airplane stays busy year-round providing remote detection, data collection, and mapping services. Our only regret is we didn’t buy a Caravan years ago when we started the business.”

Sky Research and its teaming company, Environmental Mapping Services, LLC, have used the specially modified Caravan as a platform for a variety of sensors. The aircraft features a compact airborne spectrographic imager, long-wave infrared, forward-looking infrared sensors, and digital cameras.

Skilled at sniffing out unexploded ordnance.

Most of the time the Sky Research Caravan sniffs out unexploded ordnance, a common hazard at former military operations areas. On contract with the U.S. Army Corps of Engineers, the Caravan’s first assignment was to search out unexploded ordnance on 60,000 acres of the former Lowry Bombing and Gunnery Range in Arapahoe County, Colorado.

The SQUID provides the capability of locating underground unexploded ordnance. Together with infrared and other sensors, the SQUID might even enable the Caravan to conduct similar searches at former battlefields in such places as Afghanistan.

“The technology is maturing rapidly for eventual use in humanitarian demining operations,” Sky said. “The equipment could be ready within a year or two.”

Sky Research’s Stanford University projects promote aviation safety.

Besides being good at finding bombs, the Caravan is promoting general aviation safety through research contracts with Stanford University. One Stanford project involves testing special sensors on the Caravan to create what researchers call synthetic vision.

“The goal is to measure how well synthetic vision can alert pilots about runway incursion,” Chief Pilot Ben Hovelman said. “An intruding vehicle, usually a van, shows up as a target on the Caravan’s synthetic vision display, which shows local terrain, flight path, runways, and local air traffic in real time. The color coded runways indicate the start and severity of an incursion. Yellow means caution and red means warning.”

Another Stanford University study is investigating the dangers of surface wake turbulence behind landing and departing aircraft. Smoke generators on a lead aircraft make existing wake vortices visible and verify the accuracy of software estimating the location of the wake.
Synthetic vision displays wake vortices.

“While flying in chase of another aircraft, the synthetic vision display depicts wake vortices,” Hovelman said. “A video camera on the Caravan’s wing shows a direct relationship between the wake on the display and the smoke. The synthetic vision display gives pilots increased situational awareness without detracting from their ability to fly and navigate.”

“The Caravan is an amazing aircraft,” Sky said. “It’s a perfect platform for a wide range of remote sensing projects.”

**Caravan is helping NASA’s robot aircraft soar to 100,000 feet.**

In still another special mission, the Sky Research Caravan is working for the National Aeronautics and Space Administration on getting the Helios robot aircraft up to 100,000 feet. Running on solar-generated power, the Helios prototype uninhabited aerial vehicle could spawn a new generation of “atmospheric satellites.”

The Sky Research Caravan is flight testing sensor equipment mounted in the payload pod of the Helios aircraft. In the NASA-Clark University project, the Sky Research Caravan’s aerial imaging equipment is analyzing wireless ethernet communications technology and the commercial capabilities of the Helios.

One of Helios’ initial assignments will be monitoring coffee plantations from high altitudes. The robot aircraft will download photographic data continuously to computers, which will indicate to coffee growers which parts of the plantation are ready for harvesting.

**NASA wants the Helios prototype to reach 100,000 feet on a single-day flight with a small payload. Last year, Helios came close when it reached a record altitude of 96,863 feet.**

There are a number of potential applications for atmospheric satellites such as the Helios prototype. These aircraft may be able to do work such as telecommunications more efficiently and at much lower cost than existing space-based satellites. Ultimately, the robot aircraft might even take off from Mars, since flight at 100,000 feet is similar to the perceived Martian atmosphere.

UXO - An abbreviation for unexploded ordnance, poses a threat to populations worldwide. Much of the hazard comes from unexploded munitions used in past conflicts, some of which dates back to the American Civil War.
In treating a heart attack, response time is critical. A 45-minute hop in an aircraft or a five-hour ground ambulance ride could mean a difference of life or death. And when the nearest intensive care hospital is 150 miles away, a helicopter just won’t do. That is why Oklahoma Cardiovascular Associates of Oklahoma City owns and operates a specially equipped Cessna Caravan as its Cardiac Air Transport (CAT).

“Our CAT Caravan flies from hospital to hospital and has the equipment to allow us to fly in stronger winds and rougher skies than medical helicopters,” CAT Medical Director and Interventional Cardiologist Dwayne Schmidt M.D. said.

Fixed-wing aircraft are more flexible.

CAT is the only fixed-wing emergency air transport service in central Oklahoma. Fixed-wing aircraft are particularly useful for long-distance transports of 150 miles or more. Weather is nearly as critical as time. The ability to fly in instrument conditions is a huge advantage of fixed-wing aircraft over rotary aircraft.

“Our average passenger is typically a cardiac patient or a person with acute coronary symptoms who requires urgent transport to a tertiary care hospital, usually the Oklahoma Heart Hospital in Oklahoma City,” Dr. Schmidt said. “Most of our referring physicians call us for heart patients with chest pain, respiratory failure, unstable angina, dangerous heart rhythm abnormalities or a patient acutely ill from the consequences of previous heart attacks or coronary disease. However, we have staff and equipment for all kinds of medical emergencies.”

Caravan shrinks network of rural clinics.

Oklahoma Cardiovascular Associates has 38 physicians in 40 clinics across Oklahoma. Physicians log more than 2,600 air miles a month to distant cities like Guymon, Woodward, Ponca City and Elk City, in addition to thousands of ground miles traveling to rural clinics to bring specialized care to areas of the state that don’t have easy access to cardiovascular care. Besides transporting heart patients within Oklahoma, the CAT Caravan has traveled to and from northern Texas and southwestern Kansas, as well as Louisiana.

These mobile rural teams perform nuclear imaging and advanced cardiology stress testing along with a variety of adjunctive imaging techniques for diagnosing heart disease. Select Oklahoma communities that are particularly far from the urban centers also get mobile heart catheterization lab services from OCA so that patients can have an invasive diagnostic angiographic procedure in their communities.
When we first began flying the Caravan to these rural clinics, we found a large percentage of patients who were suffering the end stages of heart disease with heart failure and the long-term effects of multiple heart attacks because they didn’t have access to specialized care,” Dr. Schmidt said. “There are many capable physicians in these areas who recognize the importance of their patients getting specialized cardiovascular care, but continually meet resistance from some patients who are simply unwilling to travel to a large city. The Caravan provides access to care for all of Oklahoma.”

Since Oklahoma Cardiovascular Services has added the services of its Caravan, Dr. Schmidt has observed a pronounced shift in the type of patients he sees.

Air transport promotes early treatment.

“Now we are able to catch many more patients with heart disease in the early stages when their disease is much easier to manage with much greater success,” Dr. Schmidt said. “We expect the Caravan will allow us to multiply this positive effect.”

CAT can treat patients who are on such sophisticated medical equipment as a ventilator or an aortic pump. These are very bulky devices for most medical aircraft, but they allow the medical team to stabilize and maintain blood pressure and cardiac output for someone who is in an acute state of cardiac compromise. It is very difficult to get that kind of patient into the fuselage of a rotary wing transport service, such as a helicopter.

Also, the CAT Caravan carries another life-saving feature - air conditioning. Climate control is a very important health issue for critical cardiac patients during summer transfers.

“High temperatures add a lot of unnecessary stress and stimulation to the heart,” Dr. Schmidt said.

The CAT Caravan carries a flight crew of two medical personnel, several hundred pounds of equipment, and still has 600 pounds of useful load left for the patient. Since very few patients weigh even half of this remainder, the airplane has the added capability to take a family member along.

CAT Caravan is a complete ICU.

“Our CAT Caravan essentially is a flying intensive care unit (ICU),” CAT Lead Flight Nurse Lynn Priest said. “We can handle very critical patients in this aircraft because we have all the equipment we need. We have the same equipment as an ICU,” Priest said.

The Caravan routinely operates as an air taxi for transporting physicians to rural clinics. Priest emphasizes, though, the airplane’s primary function is emergency response.

“We will fly out to a rural clinic with the physicians and the medical crew, but if we get a call, we leave immediately,” Priest said. “We leave the doctors here and fly to a different community and pick up the patient there.”

Oklahoma Cardiovascular Associates physicians are on call 24 hours a day, seven days a week to fly with the team as needed.

“We have satellite phone communication with Oklahoma Heart Hospital and our on-call physicians at all times,” Priest said. “We are able to communicate continuously if necessary for higher level orders to the critical care nurses taking care of the patients.”

As early as 1784, after the balloon flight demonstrations of the Montgolfier brothers, physicians began to consider the benefits their patients might gain from flight.
Indonesia’s first Caravans leave fishing to fly relief for tsunami victims.

PT ASI Pudjiastuti, an Indonesian fishing/seafood operation owned by Susi Pudjiastuti, took delivery of Indonesia’s first two privately operated Grand Caravans in 2004. Susi (it’s a common custom in Indonesia for people to identify themselves by a single name) and her German husband, Marketing Director/Pilot Christian von Strombeck, were hauling lobster and shrimp from Java to Singapore when the tsunami disaster hit the Indonesian coast on December 26, 2004.

In the face of this sudden and overwhelming need, Pudjiastuti’s Caravans switched from hauling fresh fish to flying round-the-clock relief flights, bringing needed supplies and medevac personnel to remote areas of Indonesia.

While making daily relief flights to backcountry villages, Susi Pudjiastuti (holding white hat) and her husband and pilot Christian von Strombeck (to Susi’s left) remained in strict compliance with the Indonesian military.

Helping tsunami victims becomes first priority.

“With our Caravans, we are able to do a lot for the people,” Susi said. “We are helping the people, and that is what we need to do.”

Pudjiastuti’s two Grand Caravans, delivered within months of each other, are an essential piece of an ambitious plan to revolutionize
Indonesia’s fishing industry. From a string of remote airstrips, the Caravans take the day’s catch of thousands of fishermen along Java’s southern coast to Jakarta. From there, the fresh lobster and shrimp reach dinner tables in Singapore that same evening, and markets in Hong Kong, Taiwan, and Japan by the next morning.

The fish processing network was up and running when the tsunami hit last Dec. 26. In an instant, the company’s business plan was temporarily placed on hold and changed to one of disaster relief.

Caravans are the right aircraft, at the right spot and right time.

“Our Caravans are very well suited to come to the aid of tsunami victims,” von Strombeck said. “We were in the right spot at the right time. We could not afford to turn our backs to the need and to not use our airplanes.”

In making the first flight into Meulaboh, von Strombeck was faced with landing the Grand Caravan on a surfaced airstrip where aftershocks from the earthquake that triggered the waves had created cracks from one to two feet wide.

“What normally is a 5,000-foot runway was reduced to only 1,500 feet by barely 30 feet wide,” von Strombeck said. “But the Caravan made our landings and takeoffs look easy.”

In the days that followed, the Indonesian Caravans continued to make up to four flights a day into Meulaboh. On one of these flights, von Strombeck and Susi transported former Indonesian president Megawati Soekarnoputri to view the damage and to lift the morale of local residents. Together with Cessna ferry pilot Mike Boyd, von Strombeck continued making daily relief flights for months after the tsunami.

“Of the Aceh province’s 5,600 towns and villages alone, 1,500 were wiped out,” von Strombeck said. “So you see the scope of the problem.”

**Cargo-to-people-hauling flexibility shines.**

As the days went by, the Indonesian Caravans switched from carrying cargo - medical supplies and food - to transporting personnel. The change didn’t occur overnight, and the Caravan’s ability to rapidly change from hauling cargo to people, and back to cargo again, really shined.

“We will continue relief flights, off and on, for up to a year,” von Strombeck said. “And we’ll gradually get back to hauling fish. It’s important that the local commerce gets up and running. While many fishermen were lost in the tsunami, at least as many survived. Most of the fishing boats that remain were out on the water when the disaster hit, and the fishermen didn’t even realize there was a tsunami until they came back home.”

The tsunami disaster, while mind-boggling in terms of loss of life and property, is only a temporary setback to the business of PT ASI Pudjiastuti. Susi is no stranger to adversity. In 1997, she had to sell everything she owned to raise enough money to ship a business-saving container of seafood to Japan. She’s committed to doing business with traditional fishermen, as opposed to entering a joint venture with a foreign trawling company.
Susi is devoted to fishermen, and she likes her Caravans.

“I have to like what I do,” Susi said. “If I don’t like it, I discard it.” And Susi likes her Grand Caravans so much that she plans to add a third Caravan to the operation later this year.

With financing from the Indonesian state-owned Bank Mandiri, PT ASI Pudjiastuti became the first Caravan owner in Indonesia by taking delivery of its first Grand Caravan a year ago at the Singapore Air Show. Just three months later, PT ASI Pudjiastuti added its second Grand Caravan.

Air shipments mean fresh fish, not frozen.

The first Caravan was deployed in Java to carry fish from remote coastal areas to Jakarta, where the cargo can be transferred to international flights. Before purchasing its Caravans, the company dealt only in frozen fish.

The venture into air-freight distribution changed its whole operation and created the opportunity of transporting seafood from Java to Singapore in 12 hours. The second Caravan is based in Indonesia’s eastern islands from where it can easily reach Darwin, northern Australia.

Susi’s Caravans were much sought after by the major relief organizations operating throughout Indonesia. Initially, the Caravans carried in medical supplies and transported the injured.
“We use both aircraft daily,” von Strombeck said. “Each can transport between 1.5 tons to 3 tons of fish at a time. Our goal is to have fresh fish to Europe or Japan within 36 hours. It means we can move our business into the higher value fresh fish market.”

While the Caravan will continue to fly relief missions for another year or so, they are gradually returning to their business-as-usual role of hauling fresh fish to major Eastern markets.

Flying in Caravan comfort, former Indonesian President Megawati Soekarnoputri is accompanied by Susi to survey tsunami damage.

Many people in Indonesia reported seeing animals fleeing for higher ground several minutes before the December 26, 2004, Indian Ocean tsunami slammed ashore. Very few animal bodies were found in the devastation.

Indonesia is a major player in the world fish market.

Indonesia is endowed with vast marine and fishing resources. With virtually unlimited potential, the island country is one of the dominant players in the world seafood market. Indonesia’s marine waters cover approximately 2.2 million square miles, which afford an estimated 6.26 million tons of sustainable fish resource potential.
At Hampton Island on the Georgia coast, buying a home means owning a share of an amphibious Caravan.

You wouldn’t find Hampton Island on any map. Located halfway between Savannah and Sea Island, the 4,000-acre development was one of the country’s most private and tucked-away communities.

For a small group of residents at the exclusive real estate development of Hampton Island near Riceboro, Georgia, owning a “piece of paradise” has its privileges, most notable the private use of an amphibious Caravan. Among the amenities at Hampton Island, a conservation-centered community where homesites sell for $850,000 and up, are a spa facility, equestrian center, fishing and hunting expedition, a community dock that can accommodate up to 150-foot yachts, 24-hour concierge service and the Caravan on floats.

Hands down, the most popular of the island’s amenities is the amphibious Caravan. Developer Wade Shealy loves showing off Hampton Island’s amphibious Caravan about as much as introducing potential homeowners to all the features of the island development.

Let’s just fly out to the boat and go fishing.

“I took a friend with me deep-sea fishing the other day, 79 miles offshore with the Caravan and our 31-foot Contender,” Shealy said. “It was just a 20-minute hop in the airplane to where the Contender crew had located the best fishing. After landing next to the boat, my friend said, ‘I’ve been all over the world and thought I had seen and done everything, but never anything as impressive as this!’”

Hampton Island’s “boat” is a 31-foot Contender. Instead of having to take the time to boat some 79 miles out to the Gulf Stream, residents and guests can take a short ride in the Caravan and land behind the boat as it smooths out the waves.

The Caravan allows our members and owners to bypass a 2 1/2-hour boat trip each way and be deep-sea fishing in 20 minutes,” Shealy said. “We also can use it to pick up our owners in Atlanta at a private FBO and have them on the island having a glass of wine in a little over an hour, with no airport hassle and security lines.”

Surrounded by 12 linear miles of rivers and marshes, Hampton Island is a waterfront paradise. Everything on the island is first-class. The 18-hole golf course is a Davis Love III design, and among the select few Hampton Island homeowners is actor Ben Affleck, who owns two homes on the island. Since this low-impact development will preserve more than 80 percent of the island in conservation easements, prospective residents must go through an interview process to determine whether or not they share the conservation values and commitment to preserving the island’s integrity.
Caravan is the island’s No. 1 perk. “We recently had a party for about 175 people on the island and the Caravan was the number-one amenity that everyone wanted to use,” Shealy said. “We use the Caravan to access the barrier islands for beach trips - picnics, watching the sun rise, nature hikes, etc. - as well as using it to meet our boat.”

Island’s lighted waterway is the only one of its kind.

The Hampton Island Caravan takes off and lands at a 2,300-foot illuminated waterway, the only one of its kind in the United States. A concrete ramp connects the waterway to the “plane house.”

“When our illuminated waterway we’re not limited to daytime landings and takeoffs,” Shealy said. “We recently brought Georgia Governor Sonny Perdue and his wife in for the weekend and landed on our lake at night using our underwater lights and runway.”

The developers designed and built the lighted waterway for the unique capabilities of the amphibious Caravan. Located on one of the island’s freshwater lakes, the waterway keeps the airplane out of salt water as much as possible, and protects it from the wind and waves of the Atlantic Ocean.

Amphibious floats easily taxi to the ramp.

“The waterway and the Caravan just seemed to make sense,” Shealy said. “It’s fresh water instead of salt water, we can control the water level, and then there’s the ease of getting on and off the airplane. We also have our own fuel truck, so we can pull the plane up on the ramp for refueling and service without fear of contaminating the lake or river. We taxi out of the water on a concrete ramp for passenger transfer and fuel uploading.”

The pilot of Hampton Island’s Caravan is Todd Wilson, who has logged over 2,500 hours in amphibious Caravans, mostly in the New York City area as well as during a summer spent flying Caravans in Europe. When not on call at Hampton Island, Wilson enjoys his own brand of country life on his ranch near Telluride, Colorado.

Great plane, accomplished pilot - no problems.

“No one has opted not to fly in our Caravan or land and take off in our lake,” Shealy said. “This is due to the fact we have a great plane and a great pilot. Also, most people are familiar with the Caravan, and the reliability of it’s PT6 turboprop. Right now the airplane is flying about 30 hours a month, but we see the flight hours increasing as we get more owners and members on the island.”

Hampton Island Preservation, LLC purchased the island in 2003 with the sole intent of preserving the land by establishing a preservation trust and limited planned low-density community. The principals of Hampton Island Preservation have over 70 years of experience in resort development and coastal village and community development. Their mission is to combine the sensitivity of the environment with limited development into a unique combination of “intelligent development.”

Hampton Island Preservation has sold 30 home sites toward the planned development of 112 home sites on the island. The next phase of home sites will be offered in June, and infrastructure on the island will be complete by January 2007. In addition to selling home sites, the development company will offer a one-time membership fee, known as a Stewardship, which currently is priced at $250,000. This fee allows members to stay in any of the 13 guest homes enjoying the amenities without having to purchase a home site. One of the guest homes, The Rice House, is a $12 million home with 30,000 square feet and 15 bedrooms. Another guest home, The Hampton House, has eight bedrooms and a private wine cellar designed by member Robert Mondavi.

Development builds around open spaces.

“It’s not just about selling property and making money,” Kulp said. “It’s really about selling property and encouraging property owners to put some of their property into a land trust and land easement. We are trying to build around things instead of knocking things down.”

The Georgia coast has the longest contiguous undeveloped tract of land on the U.S. Eastern Seaboard. There are 14 barrier islands that make up nearly 100 miles of coastline. Only four of these islands have access by car. Most of the islands have been protected from development by the federal or state government or have been placed into a land trust or conservation easement.

“We have about 10 islands off our coast with miles and miles of white sandy beaches without a soul on them,” Kulp said. “You can walk the beach for miles and not see another single person. We decided if we had a Cessna Caravan we could be within minutes to all of these beautiful Barrier Islands. We could land behind the islands on the river and in many cases, simply walk over a beach dune and be on the Atlantic Ocean with miles of white sandy beaches.”
Thailand’s Caravans are attacking clouds to make desperately needed rain.

In Thailand, which, at the time, was suffering the effects of the worst drought in recent history, eight Caravans flew daily cloud-seeding sorties in the “Royal Rainmaking Project.”

In 2005, Thailand spent more than $25-million on the cloud-seeding initiative of King Bhumibol Adulyadej, who developed a patented rain-making technique. Utilizing two aircraft to seed warm and cold clouds at high and low altitudes, King Adulyadej’s “Super Sandwich Technique” was successful in making rain.

Caravans are attack aircraft in Thailand’s Royal Rainmaking Project. With all the strategic planning of a military campaign, the southeast Asia nation’s Caravans fly daily sorties to release formula chemicals into blossoming cloud formations.

Pilots can hardly wait their turn. “Our pilots are excited about the Caravans and look forward to their turn to fly,” Royal Rainmaking Project Chief Pilot Wichian Vorachat said. “This is an around-the-clock job. Pilots come in for the morning briefing and stay until late in the evening. During the morning briefing, we access the previous day’s developments and discuss the weather forecasts. We use this information to determine what type of chemical formulas will be used in the day ahead.”

Hua Hin, in Thailand’s Prachuap Khiri Khan province south of Bangkok, is the home base of the Royal Rainmaking Operation. At least three times daily, aircraft are packed with up to seven people including the pilot, scientists and technicians, all seated around large containers of chemicals ranging from silver iodine to ordinary salt and dry ice.

For the past three years, Thailand has been going through one of its worst droughts ever. The extended dry spell has sharply cut the output of farms and food-processing factories. Thailand’s economy shrunk for the first time in four years in the first quarter of 2005, and the ongoing drought has caused the world’s largest rice exporter to cut foreign shipments by 15 percent.
On target and on cue, the rain is falling.

“Our technique tries to help distribute rain for the whole season,” Wichian said. “The results are convincing. It has started raining in the target areas.”

After more than 2,000 cloud seeding flights this year, enough rain had fallen to ease the drought in at least 80 percent of affected areas, according to Thailand’s Ministry of Agriculture.

Cloud seeding also eliminates hailstorms.

“The same cloud seeding technique is used to reduce the possibilities of hail falling from these super cells, creating rain instead,” Wichian said. “This is possible when S-Band Doppler radar spots the strong cell and we send up standby aircraft to join in the attack. Sometimes, we even shovel out the chemicals from the Caravan’s big cargo doors.”

Led by King Bhumibol, Thailand has used cloud seeding for almost 30 years. Throughout this time, the process has evolved into the precise procedures being used today. Thailand’s Air Force, Police and Navy loaned the Agricultural Ministry additional planes, giving scientists a total of 45 aircraft for cloud seeding. A Caravan first flew in the Thailand rainmaking project in 1992, and since then seven additional Caravans have been added to the fleet.

The program continues throughout most of year.

Like much of the rest of the region, Thailand receives lots of rain -- more than 47 inches a year in most areas and exceeding 100 inches a year in some coastal provinces. But the rain doesn’t fall evenly across the year, causing a cycle of droughts and floods, made worse this year by the exceptionally harsh dry season ahead of the rains that normally begin in mid-May.

“We start cloud seeding in the dry season and continue into the rainy season,” Wichian said. “By the time we stop flying in October, we’re seeing significant rainfall in the driest areas affected by the drought.”

In 1969 at the Woodstock Festival, various people claimed to have witnessed clouds being seeded by the U.S. military. Although never officially confirmed, this was rumored to be the cause of the rain that lasted throughout most of the festival.
Easton Aviation is a special Cessna Pilot Center, with a head-turning Grand Caravan.

"I consider this Caravan with the Oasis interior as the ultimate airplane of my piloting career," Anstatt said. "Sometimes, I almost have to pinch myself, it’s just such a dream to fly. We’ve always enjoyed flying Cessnas, but never imagined there would be a Caravan in our future. Short trips, long trips, heavy trips - the Grand Caravan is the best airplane for the charters we do."

So, how could a couple of professional pilots with thousands and thousands of hours in flying time be so content with a turboprop airplane, lacking twin fanjets?

"Step up into the cabin and you’ll see why we love this airplane," Baer said. "Except for speed - which really isn’t much of a factor in the trips we charter - our Caravan, with the Oasis interior, offers a jet-like experience to our customers. And besides, they enjoy the fact that they also can get up and move around, while getting a better view of the outside."

While flying along at 160 knots, the best view from the Easton Air Grand Caravan is the typical gridlock of traffic on interstate highways below. From Dulles International Airport just west of Washington, D.C., it takes at least a couple of hours to drive to or from Easton, provided the traffic isn’t snarled too badly from the Beltway to Annapolis, Maryland. The same trip is barely 30 minutes in the Caravan.

"We’ve had a lot of interest in charter flights to New York," Anstatt said. "We can be at Teterboro (New Jersey) in about 50 minutes. The same trip by car could take up to five hours."

Some of the more popular charter trips that the Easton Air Caravan flies are to Baltimore/ Washington International Airport, Philadelphia International, Atlantic City International and Richmond International. All of these destinations are within an hour’s flying time in the Caravan. Outside of an hour, the Easton Air Caravan has flown charter passengers to Florida, upstate New York and Hyannis/Barnstable, Massachusetts.

Like other Caravans equipped with the Oasis interior, the Easton Air Grand Caravan features four-place club seating with executive side tables, two video screens on each side of the cabin, refreshment center and an aft divan seating for two that incorporates a standard flushing toilet approved for occupancy during takeoff and landing.

"The privacy of the flushing toilet has
brought us at least one steady charter customer,” Anstatt said. “This couple has flown with us several times, even all the way to Florida, and each time the wife says our Caravan is the only plane she’ll fly in, because it has a toilet.”

**This Caravan has the state of Maryland on its tail.**

On the ramp, the Easton Air Caravan gets a lot of attention, due to its highly recognizable paint scheme. Those savvy enough to know state flags will recognize at a glance that the airplane is from Maryland. The Caravan’s vertical stabilizer is patterned after the Maryland flag, which features family crests of the state’s founders, one a red and white design and the other black and gold.

“There’s some confusion that we’re a state-owned airplane, but the paint scheme really is all about maintaining our identity with the eastern shore of Maryland,” Anstatt said. “Eddie Hostetter, our owner, is from the area, and we’ve used the same black and gold colors throughout all his business. For the Caravan, we just sent a drawing to Cessna and they got it right the first time.”

Hostetter, a successful entrepreneur, became a student pilot at Easton Aviation in 2001. After earning his private certificate, he bought a new Cessna Skyhawk. Hostetter regularly flies the Grand Caravan whenever he’s back in Maryland.

**Not every student pilot ends up buying a Caravan.**

Besides the Oasis interior and its Maryland colors, even the N-number of the Easton Aviation Caravan is a bit special. “Mike Delta,” of course, is the abbreviation for Maryland, while the “732” is the same numerical designation of the first passenger aircraft to operate at Easton/Newnam Field. The airport at Easton is named after William S.D. Newnam, a World War II Marine Corps aviator who later founded Maryland Airlines. In the early 1960s, Newnam’s airline flew a Commander with an N-number of 732.

“We put the Mike Delta together with 732, checked the FAA registry and were thrilled to learn that the number was available,” Anstatt said. **Oasis interior is fit for executives – and stranded hunters.**

The Easton Aviation Caravan’s Oasis interior still smelled of brand-new leather last November when a call came in for the Caravan’s first charter, under somewhat unusual circumstances. A group of waterfowl hunters were stranded on Tangier Island just off the Virginia shore in Chesapeake Bay. The hunters had taken a ferryboat to the island for a late season foray after Canada geese, when an early freeze set in and the ferry schedule closed for the season.

“They’d been out on the island for a week, and were more than ready to get back home,” Baer said. “Now this wasn’t a high-risk, rescue sort of flight, since there’s a 3,000-foot paved runway on the island. In fact, Bob’s five-year-old daughter, Lauren, came along for the ride. But when we landed, there were eight hunters out on the ramp, and they had a pile of gear that weighed about 1,200 pounds. It took two trips, filling the cargo pod each time. Once again, the Grand Caravan was the perfect plane for the job.”

The state flag of Maryland was officially adopted in 1904. It’s the only U.S. state flag based on British heraldry (the coats of arms of noble families). The flag’s design was based on the coat of arms adopted by George Calvert, the first Lord Baltimore.
West Virginia’s Caravan gets to the grass roots, sometimes with Governor Joe Manchin at the controls.

Shortly after West Virginia Governor Joe Manchin took office, the state’s Aviation Division ordered a brand-new Cessna Grand Caravan with an Oasis executive interior. The West Virginia division made its choice after the state’s Aviation Advisory Board learned of the efficiencies and wide capabilities of the Caravan. The West Virginia Grand Caravan served the state’s every air transport need. The Caravan was the aircraft of choice among West Virginia officials, since it could land at 42 airfields in the state, including short, unpaved runways. West Virginia’s Caravan also transported the State Police’s remote-controlled bomb squad robot and hauled fish for the state’s Division of Natural Resources. Gov. Manchin was one of only a very few U.S. governors who were active pilots. With more than 3,000 hours of experience, mostly piloting his personal airplane, he trained at FlightSafety International.

Typical gubernatorial trip goes from Town Car to Caravan.

Late in the morning on the ramp of Yeager Airport in Charleston, West Virginia, Governor Joe Manchin jumped from his Lincoln Town Car after a short drive up the hill from the state Capitol. Cell phone to his ear, the Governor took just a few long steps into the cabin of the Cessna Grand Caravan with the West Virginia state flag on its tail and the state seal on the front door. The afternoon’s schedule was quite full: a 120-nautical mile flight to a speaking engagement in Wheeling, West Virginia, at 1:30 p.m., then back to Charleston in time for a late afternoon meeting.

As the champion of West Virginia’s economic development, Gov. Manchin couldn’t be late for the Wheeling appearance. The Grand Caravan with the Oasis interior was the ideal aircraft to get him there on time. A jet couldn’t cover the relatively short hop of 120 miles much faster, while a helicopter is considerably slower. The Governor spread out in the Oasis cabin to make a few last-minute notes to the remarks he planned to make.

The Governor’s rousing speech was a hit with a crowd of local dignitaries, and he spent a few minutes too long shaking hands and catching up with his Wheeling friends. The Grand Caravan and its two pilots were ready
and waiting, but it was a slow three-mile drive through stop-and-go traffic back to Wheeling’s Ohio County Airport. Gov. Manchin was on his cell phone again, while State Police Sergeant Mark Swecker calmly kept an eye out with one of his young troopers at the wheel.

Thanks to the convenience of cell phones and electronic scheduling, the Governor rescheduled the meeting back in Charleston for the following morning.

Okay, now let ME fly the Caravan home.

Back at the Wheeling airport ramp, the Governor tossed his jacket into the cabin, and rolled up the sleeves of his white shirt as he climbed into the co-pilot’s seat. His face had the same look of excitement as when he was a kid racing go-karts back at his hometown of Farmington, West Virginia. A private pilot since a knee injury kept him from fulfilling a football scholarship at the University of West Virginia in the late 1960s, Gov. Manchin has logged more than 3,000 hours, mostly in his personal “little plane,” a Piper Saratoga.

“Piloting is a welcomed diversion for me,” Gov. Manchin said. “It’s a great stress-reliever. I get all caught up with flying, and it takes my mind off other things for awhile.”

Despite the fact that being a pilot is a passion for the West Virginia Governor, the announcement of his intention to take Caravan training at FlightSafety® International in Wichita last fall stirred up just a little political dust in the state capital of Charleston.

“They’ll never let me fly as much as I want to,” Gov. Manchin said. “But that’s okay. Getting the Caravan training and qualification was just part of increasing my proficiency as a pilot and added another safety element to the flights that I am on.”

The Caravan’s high rate of dispatch reliability makes it a perfect choice for the state and the demanding use of its aircraft.
Being a pilot is part of Gov. Manchin's popularity.

Gov. Manchin takes great pride in being close to the grassroots of West Virginia. Whether it means planes, motorcycles, ATVs or NASCAR racing, it’s all about revving engines (a turbine, in the case of the Caravan). This style fits well with the Governor’s popularity for taking a pro-active stance on solving West Virginia’s economic problems and bringing a much-needed influx of new business into the state.

“I like anything that has an engine and makes noise,” Gov. Manchin said. “Besides being a pilot, I ride motorcycles, and I’ve gone to the Richard Petty Driving School down in Orlando. It really all started back in 1958 racing go karts in Farmington. My goodness, we went clear to the ‘Nationals’ in Dayton, Ohio.”

And flying the state’s Grand Caravan is an even bigger thrill for the energetic West Virginia Governor.

The Caravan makes nearly all of West Virginia accessible.

“This airplane opens up the entire state, and takes the place of a helicopter for a lot of our trips.” Gov. Manchin said. “Getting to the grassroots in the Caravan means being able to land on a two thousand-foot grass strip. We could never have even dreamed of doing that in the King Air.”

It’s not every state that has a Caravan and a Governor trained to fly it, and on very rare occasions, this could benefit West Virginia taxpayers.

“Like all state flight departments, we never fly single-pilot,” West Virginia Director of Aviation Keith Wood said. “We have four pilots on our staff with a combined 28,000 flight hours and 130 years of experience, but there could be an instance when we might need the Governor to fly. Since he’s trained and qualified, technically he’s one of our pilots. Really, though, the Caravan is such a joy to fly, I can’t blame him for wanting to fly it often. As pilots, we enjoy what we do.”

It was Wood’s advice to the state’s Aviation Advisory Board that led to West Virginia acquiring the new Grand Caravan. An Army veteran of Desert Storm, Wood is dual-rated in both fixed and rotary wing aircraft and as such, he pilots all of West Virginia’s state aircraft.

A poll of state agencies points to a need for the Caravan.

“We recognized that the Aviation Division was disjointed,” Wood said. “Before Gov. Manchin took office, we had multiple aircraft owned by different agencies going in different directions. So after the Governor’s executive order, we polled state agencies about their aviation needs. The agencies told us they wanted more economical service with cargo capability.”

This led to the reorganization of the division into a lean operation of two Bell helicopters, a Beech King Air 350 and the brand-new Cessna Caravan. Working within the state legislature’s appropriation of $5.2 million to buy new aircraft, the Aviation Advisory Board determined that the state could buy the Caravan and a single-engine helicopter and still have
$600,000 left. This May, the state will take delivery of a new Bell helicopter.

State got two aircraft for the price of one, with some change.

“We could have spent the $5.2 million on one aircraft but we didn’t,” Wood aid. “We saved the state money in the long run, got two aircraft instead of one and, as a result, we will serve more locations and individuals.”

Due to the practical mix of aircraft, Wood also was able to negotiate a better fuel contract, saving an additional $50,000 last year.

“The Caravan is the real workhorse of the fleet,” Wood said. “Everyone loves the aircraft. They can see out of the big windows, and spread their work out while traveling. We carry eight passengers and a crew of two, or up to 3,000 pounds of cargo. Yingling Aviation designed our Oasis™ interior so we can switch from passenger to cargo configuration in 30 minutes or less.”

Besides fish, this Caravan even hauls a robot.

Taking out just two seats from the passenger configuration gives the West Virginia State Police enough room to transport its bomb squad robot. The $150,000 remote-controlled robot is the only one in the state.

With the Caravan, the state’s Office of Emergency Services can reach remote locations quickly with disaster relief supplies. In the past, the state had to rely on National Guard helicopters. In addition, the West Virginia Division of Natural Resources hauls fish in the Caravan.

“The Aviation Division’s mission is to increase the efficiency and effectiveness of state government by providing safe, secure, on demand, and professional transportation to the Governor and his administration,” Wood said. “And the Caravan does all that.”

Tourism is West Virginia’s leading industry. For many years, coal was the leading industry. The first brick street in the world was laid in Charleston, West Virginia, on October 23, 1870, on Summers Street, between Kanawha and Virginia Streets.
2006

It’s just a short hop in a Grand Caravan to a golfer’s heaven – in the Sandhills of Nebraska.

The Dismal River Club was - and still is - a unique destination golf resort situated on what previously was a cattle ranch in the vast, rolling spaces of Nebraska’s Sandhills region. Even before the club’s 18-hole, Jack Nicklaus-designed golf course was completed, the club owners took delivery of a new Grand Caravan, which featured a very distinctive paint scheme and Oasis™ executive interior. The club’s Caravan regularly transported members and guests from airports in Denver, Omaha, Kansas City and North Platte, Nebraska, to a grass airstrip located just minutes from the first tee.

The Dismal River Club is a “Field of Dreams” effort to build a unique, championship golf course in the middle of what most people would consider nowhere...“and they will come.” With the added bonus of having exclusive access to a Grand Caravan that shortens the trip by several hours, the club is attracting more new arrivals every day. Sight unseen, some members are sold on the Caravan itself.

“We’ve added a number of memberships just on the basis of having a Caravan,” General manager Dick Burtness said. “Some have joined before even coming out and seeing the club. The Caravan is just a fantastic amenity; we really love the job it’s doing as we build our member base.”

Burtness shares the vision of the Dismal River Club owners – attorneys Bill Martin, Stephen Ismert and Tim Kratz; restauranteur Tony Pasquini, and brothers Timber and Tyler Notestine, who work in real estate and...
investments, as well as Al Erickson, a prominent Nebraska business and real estate investor. It was Burtness, a veteran developer who led efforts at the acclaimed The Wilds Golf Club outside Minneapolis, who also happens to be a hunting partner of Jack Nicklaus, who alone recognized the value of getting the club’s very own Caravan.

“I knew all about Caravans, their dependability and wide capabilities,” Burtness said. “We looked at other aircraft, but the Caravan best suits our needs at this point in our development. Besides, the airplane fits the wide open, Great Plains image we’re creating here. Members and guests really do enjoy riding in it. They appreciate being able to sit back in the comfort of an executive interior and to look from the windows to the wide expanse of the plains. This all creates a very positive first impression and that’s very important to our success.”

Without the Caravan, the Dismal River Club owners recognize they’d have an uphill climb attracting new members past the obstacle of having to make an extended road trip into the remote Sandhills.

The Caravan pays for more time on the course.

“The Caravan’s role in our operation can be stated quite simply,” Burtness said. “It all comes down to whether a member wants to work a few more hours or play a few more holes of golf. A typical member here makes at least $200 an hour, and when you compare that to the low hourly, per-seat cost of flying the Caravan, the airplane creates many more recreational hours for enjoying the club.”

When it came time to managing and flying its Caravan, the Dismal River Club wanted the best. The club’s Caravan pilot is Jeff Staggs, a corporate pilot with Trego/Dugan Aviation, the fixed base operator at North Platte Regional Airport Lee Bird Field (LBF), which is just a 20-minute Caravan ride to the south of the club. Before even ordering the Caravan, the club’s owners recognized having Trego/Dugan Aviation so close by as a real asset.

The FBO, which has been owned and managed by Gary Trego the past 35 years, manages another Caravan as well as maintaining Super Cargomasters for Federal Express. Trego/Dugan Aviation also manages privately-owned Cessna Citations.

“Part of my job is to keep the excitement level up for members and prospects as they look forward to getting away from it all at the club,” Staggs said. “Everybody enjoys the ride in the Caravan, so keeping them excited is really very easy.”

Staggs knows the Cessna Caravan backward and forward, after 16 years of flying Super Cargomasters for Federal Express. After thousands of hours, he still loves to fly the airplane.

Boxes don’t talk, but the Caravan’s ride speaks volumes.

“It’s a joke among FedEx pilots that boxes really don’t say very much at all,” Staggs said. “So when I took this job, I had to start making use of my people skills. Whether flying cargo for FedEx or being a charter pilot, I’ve always approached piloting Caravans in a professional manner. I enjoy the talking almost as much as the flying, and the comfort and fun the Caravan provides just adds all the more pleasure.”

Flying from North Platte and back, it’s very evident this freight hauler turned corporate pilot loves the pilot friendliness of the Caravan. Staggs has been flying throughout the region for 23 years, knows the Sandhills like the back of his hand, and never hesitates to make a quick 360-degree turn just to show his riders a herd of antelope or some hidden ruins of a long-abandoned pioneer homestead.

The “19th fairway” at the Dismal River Club is a 4,500-foot grass airstrip.

The Dismal River Club worked out a lease with a nearby rancher to build an airstrip on a patch of level land located just minutes from the first tee. This isn’t a typical backcountry airstrip, though; the turf is a well-watered carpet of grass fit for a fairway on many golf courses, and the Caravan lands either northwest or southeast depending on which
way the windmill is turned at midfield. On the other side of a stout, barbed-wire fence, cattle munch on a typical sandhills pasture, not even raising their heads as the Caravan executes a low pass to check on the direction of the windmill.

The airstrip is the pride and joy of the club’s Development Coordinator Mark Stencel, who takes as much care of the landing surface as he does in keeping up the golf course.

“It’s a mixture of bluegrass and ryegrass,” Stencel said. “Fescue would be harder, but its tough to grow in this sandy soil. We keep it mowed to three inches, which has worked out pretty well, Now, if we could just get rid of a few gophers...”

Wherever it lands, the Dismal River Club’s Grand Caravan attracts attention with its very distinctive paint scheme. For starters, aside from special missions applications, it’s the only Caravan that Cessna has painted in flat colors. Even the spinner is flat black. Together with a leather interior that is reminiscent of rawhide, the club’s Caravan gives a earthy-sort of feel for the wide-opened West. In addition, the Oasis™ interior has the unique arrangement of two seats just aft of the cockpit, with club seating forward of the backseat. With one passenger seated in the right seat of the cockpit, the Grand Caravan typically transports nine passengers to and from the club.

And what’s with the Caravan’s barbed wire motif? Actually, barbed wire is a single element of the club’s logo.
It’s so simple, barbed wire won the West.

“We contracted for design reviews from five firms, and we didn’t like a single one of them,” Burtness said. “We knew the image we wanted had to be simple, but it seemed the designers just couldn’t get a handle on it. Finally, word of our frustration got out, and a free lance artist from Denver asked if she could give it a shot. She showed up with a box load of file folders she’d been working on. Taking one look, I told her ‘just show me your best one.’ I really didn’t have time to go through all that again. When she brought out the barbed wire design, I knew immediately that’s what we’d been looking for. It was just

putting greens, and even a par-three course are on the list of spare time activities.

Carrying the Old West theme a bit further, golf clubs are fitted and regripped in the Blacksmith Shop; and a fleet of “prairie camo” carts – the primary means of transportation around the campus – will roll out of the Livery; and the Bathhouse features a spa and workout facility. There are rustically appointed cottages for 52 overnight guests, and there are lots for sale for members to build private cabins.

When the club reaches its membership goal, the owners will make a decision on the next stage of development, including the possibility of building a second 18, for which Nicklaus has already done preliminary routing.

Covering one-quarter of the State of Nebraska, the Sandhills region is the largest and most intricate wetland ecosystem in the United States.
A Caravan means peace of mind for Nor-Alta Aviation in Alberta’s far-north Peace River country.

*Nor-Alta is short for northern Alberta, and Nor-Alta Aviation served the vast and thriving northernmost region of the Canadian province. With its growing fleet of Cessna Caravans, Nor-Alta Aviation provided essential flight services to the communities of northern Alberta, including air ambulance and executive corporate charters.*

The Grand Caravan is uniquely suited to the wide variety of missions that Nor-Alta Aviation flies across a vast area that’s still Canada’s northern frontier. From scheduled passenger operations to gravel airstrips at native reserves to providing emergency medical transport services, Nor-Alta’s Caravans routinely answer the call.

“There are just so many, many things that a Caravan can do,” Nor-Alta General Manager Jake Fehr said. “It’s almost unimaginable what duties this aircraft can accomplish. There’s a variety of reasons why we love our Caravans.”

From hauling freight to being an air ambulance, Nor-Alta does it all under a management agreement between two separate corporate entities, Little Red Air Service and Nor-Alta Aviation Leasing. Little Red Air Service, a native-owned enterprise, was founded in 1986 and has served the communities of Fox Lake, John D’or Prairie, Garden River, High Level, and Fort Vermillion with chartered flights and air ambulance service since its inception. Nor-Alta Aviation Leasing began in 2004 with aircraft that were being leased to Little Red Air Service, augmenting their air ambulance fleet and adding executive corporate charters to their list of services.

“As a result of this partnership and history, these two companies have merged seamlessly.
and become Nor-Alta Aviation, providing Northern Alberta with corporate charter, air ambulance, and general chartered flying services without interruption,” Fehr said.

It’s easy work when you love airplanes.

As Nor-Alta’s general manager and owner, Fehr is actively pursuing a personal passion for aviation, after his previous business successes in farming, logging and farm implement sales. A recently-licensed Transport Canada Commercial pilot, his strong work ethic is a by-product of Fehr’s Mennonite upbringing. His parents were among a group of Mennonite immigrants from the U.S. who settled in the nearby area of LaCrete, Alberta, during the Great Depression of the 1930s.

“I grew up in a family of 12,” Fehr said. “And the boys sat on one side of the supper table, while our sisters were on the other. We always had to mind our manners, except for me, that is, when at certain times we’d be eating supper and I’d hear the drone of an airplane flying over. I’d always have to dive down and scamper under that long table to run out the door and have a look. Even though this got me into a bit of trouble as a kid, I never learned the lesson. I still have to look up whenever I hear an aircraft.”

Emergency medical care is a priority.

On assuming the operations of the former Little Red Air Service, Fehr’s primary interest was to maintain the air ambulance service. Under a contract with the provincial government, Nor-Alta provides air ambulance services to communities within its northern Alberta region.

“I see our medivac service as an obligation to the people we serve,” Fehr said. “Like any remote area, people are always needing emergency medical services in the north, and our Caravans are uniquely equipped to diminish suffering and to actually save lives.”

Nor-Alta Caravans have a Supplemental Type Certificate for installation of the AeroSled™ family of stretchers by LifePort, Inc. of Woodland, Washington. The AeroSled™ stretchers feature a unique sliding ramp that facilitates loading the patient into the Caravan’s wide cargo door. The load ramp is bi-folding for storage and transports with the aircraft. By extending out of the aircraft door, the loading system eliminates any lifting or tilting of the patient while on the stretcher. Once inside, the AeroSled™ locks into the seat rails on the aircraft’s floor.

“The AeroSled™ goes into the Caravan at the end of every day, so it’s ready whenever we get an emergency call,” Fehr said.

“Previously, medical emergencies were flown by twin-engine aircraft, but the Caravan gets us to the remote, short airstrips where people need help the most.”

Nor-Alta conducts its own Caravan maintenance program at Fort Vermillion, where its maintenance base is a Transport Canada-approved Aircraft Maintenance Organization (AMO). In addition,
the company has a satellite maintenance facility 75 miles to the south at High Level, Alberta.

“We also have a Parts Department at our Fort Vermillion hangar facility,” Fehr said. “We carry a wide range of spare parts and are authorized to undertake third party maintenance work by Transport Canada.”

Caravan pilots are bush pilots.

Fehr is particularly proud of his pilots, who come from diverse backgrounds throughout Canada. Quite a number of pilots come from eastern Canadian provinces, eager to experience the western regions of the country.

“Our crews are highly trained and equally capable of operating from remote gravel airstrips or large international airports,” Fehr said. “Nor-Alta Aviation maintains an excellent safety record and stringently follows Transport Canada and Alberta Health standards. Our pilot training is done on location by Nor-Alta Aviation’s training team following our Transport Canada-approved curriculum.”

And, there’s an oil boom going on.

The Peace River country where Nor-Alta makes its home is located on the fringes of Alberta’s booming oil sands region. While the region was previously known for its rich farmland and extensive forests, many of the world’s largest oil companies are actively exploring and producing from the oil sand deposits. While in many ways these are boom times in northern Alberta, Nor-Alta is planning on steady growth in doing the essential aviation services it does best.

“We take particular pride in the fact that Nor-Alta Aviation is 100-percent northern Albertan-owned,” Fehr said. “While no doubt this area is experiencing some explosive growth, we plan on providing the best aeronautical experience possible in regards to safety, reliability, and service.”

Where buffalo still roam, there’s a diverse culture.

Despite common perceptions that northern Alberta is just oil sands on which caribou roam, the “Peace Country” that Nor-Alta Aviation actually serves is diverse and varied - in terms of its landscape and the people who live there.

Flowing through the region from the Rocky Mountains in the southwest to the Arctic Ocean to the northeast is the Peace River, a behemoth of a waterway that provides more than half of Alberta’s total water supply. Within the river valley lies native reserves, vast forests and farming communities that resemble any farm town in America’s Midwest.

“We really run sort of an eclectic operation,” Nor-Alta Aviation Director of Flight Operations Al Hoggan said. “Our Caravans operate on average about 800 hours a year, largely made up of flights lasting only half an hour or so.”

At the John D’or Prairie airstrip in Northern Alberta, it’s common practice for Nor-Alta pilots to make a low pass over the airfield before landing to chase away the buffalo grazing alongside the landing strip.
Caravans easily cover ‘the patch’.

Nor-Alta’s principal service area is what locals call “the patch” - the native reserves of Fox Lake, John D’or Prairie, and Garden River. Each reserve has an airstrip, none exceedingly short, but all surfaced in gravel, and every one an interesting takeoff and landing.

“At John D’or Prairie, it’s not uncommon for our Caravan pilots to make a low pass before landing, to chase away buffalo grazing around the airstrip,” Hoggan said.

South by about 50 miles from Nor-Alta’s main base at Fort Vermillion is the bustling town of La Crete, which is located within the Municipal District of Mackenzie No. 23, the largest rural municipality in Alberta that covers an area of 30,500 square miles. La Crete is a Mennonite Community with a population of more than 2,000 that serves a trading area population of approximately 7,000. More than half of La Crete residents are under the age of 25, and a majority of the people speak “Plautdietsch” or “Low German” even though all businesses serve their customers in English.

This is a mixed populace of natives, besides French and German Mennonites.

The name La Crete came from what the early settlers described the ridge of land as resembling a rooster’s comb (which in French is la crete). The original settlers of the area came from Quebec during World War I, and Mennonite farmers followed in the 1930s.

The hamlet of Fort Vermillion is the oldest settlement in Alberta and was established in 1788 as a post for the North West Company located on the banks of the Peace River.

Today, Fort Vermillion serves an urban and rural population of about 2,500 and has a population of 871. Cree and Beaver Indians were the first to inhabit the area and was a meeting place for northern natives. The fur traders came shortly after.

The town of High Level is located at mile 180 of the Mackenzie Highway 35, midway between Edmonton, Alberta, and Yellowknife, Northwest Territories. The Northwestern Regional Health Center is located there, next to landing facilities for emergency medical flights. One of Alberta’s newest communities, High Level is situated at the edge of the Footner Lake Forest, the largest in the province, covering 29,694 square miles.

Alberta has the youngest overall population in Canada. Cows outnumber people 2 to 1, and only 18.5% of the roads are paved.
Conair’s Bird Dog Caravans point the way to fighting wildfires.

Across western Canada and Alaska, Canadian company Conair Group, Inc. specialize in aerial attack of wildfires. In 2008, Conair was the worldwide leader in this highly specialized area of aviation. Conair conducted a critically structured, safety-centered regimen of aerial fire fighting under contract with western Canadian provinces and the State of Alaska. The company utilized three Cessna Grand Caravans as “Bird Dog” aircraft which took the point position in every fire attack, whether in practice or in actual emergency situations.

About 20 minutes flying time west of Springbank Airport near Calgary, Alberta, the late-afternoon sun was just starting to sink toward the Rocky Mountains when the air-to-air radio frequency began crackling with calls sounding very similar to the script of some World War II air combat movie.

“Three-two-one-Bombs away,” came the call from the pilot of “Bird Dog” Cessna Caravan C-FAFC. “Target elevation is 5,000 feet. All exits cleared.”

The “Bird Dog” Caravan makes a climbing right turn to orbit the target while a squadron of amphibious AT-802F Air Tractors makes continual water-bombing runs, scooping up water from a nearby lake on each circuit. After a series of strafing runs, the Air Tractors regroup in a holding pattern, awaiting further instructions from the Bird Dog Caravan.

These guys are good.

“Bulls-eyes all the way around - It’s a great day for Springbank,” announces Conair Caravan Pilot Randy Ross.

Since six days have elapsed without a call for an actual fire, the team was making its requisite practice run. But in operational terms, the exercise could just as easily been the real thing.
During the fire season, Conair’s three Grand Caravans work under contract as “Bird Dog” aircraft. The term refers to the fact that fixed-wing Bird Dog airplanes act as the spotter, and lead water bombers safely into the bombing pattern. On a fire call, the Bird Dog is airborne within minutes and determines the fire location, size and nature. Once the site has been assessed by the air attack officer, who rides right seat in the Caravan cockpit, the pilot directs the entire land and air fire fighting operation.

It’s sort of like sitting in a firehouse.

“Our Bird Dog aircraft, including the three Caravans, are always on alert to answer ‘911’ type of calls,” Conair Vice President and General Manager Rick Pedersen said. “It’s just like sitting in a firehouse. And when a call comes in, the Bird Dog aircraft is the first in the air, and acts as an airborne mission control.”

While en route to the fire, the water bomber or tanker receives instructions from the Bird Dog aircraft as to circuit altitude, drop height, and exit plan. The Bird Dog leads each loaded water bomber directly over the fire site for its drop and may continue for as many drops as it takes to quench the flames.

The Bird Dog commands the ‘air show’.

By flying dummy runs, the Grand Caravan makes sure the air tankers are capable of a safe entry and exit, even during engine-out procedures for multi-engine air tankers. They set up fire fighting runs downhill and identify any hazards. Because of the Bird Dog team’s (pilot and air attack officer) efforts, when the air tanker pilot enters the fire zone, he knows exactly what to expect.

Why would a Bird Dog pilot want to do anything else?

“Bird-dogging is fun flying,” Conair Caravan Pilot Ross said. “It’s exciting work - particularly when you can get on a fire quick and snuff it out. After this type of flying, I really don’t know why anyone would want to fly for the airlines.”

The air attack officer, typically Forest Service personnel, works the right seat of the Bird Dog Caravan, teaming up with the pilot. As the air attack officer coordinates the plan of action to fight the fire, the Bird Dog pilot directs air operations.
“We work as a team,” Ross said. “We split the work 50-50, and my main responsibility is to call out instructions to the water bombers. Our job is to coordinate the air part of the attack. It’s not unlike air traffic control, except I’m flying the airplane, making right turns so my air attack officer can observe. The other main part of our job is to determine the best routes in and out of the fire area for the water bombers. This is done by flying the routes we want at about 25 to 50 feet lower than the tankers will, while thinking of the different safety and turning and flying capability concerns of the various large tankers.”

Bird Dog Caravans head up half of Conair’s teams.

During the fire season across the Canadian Rockies and Alaska, Conair operates six aerial fire fighting teams, including the three teams led by Grand Caravan Bird Dogs. Throughout the season, the teams are on constant call, with alert status designated by the fire danger on any particular day. Red alerts (days) are when the teams must be on base and available for immediate dispatch and departure. Yellow alerts are when teams must be available for dispatch and departure within 30 minutes. Blue alerts are when the teams are on-call, but can be off-site.
Most of the time, the Bird Dog Grand Caravans are teamed up with single-engine AT-802F Air Tractors or twin-engine CL-215 tankers. Conair has five Air Tractors, each powered by a Pratt & Whitney PT6A-67 turbine developing 1,350 shaft horsepower and capable of carrying 820 gallons with the Air Tractor fire bombing gate. Designated as Single Engine Air Tankers (SEAT) for fire fighting, the Air Tractors are capable of flying loaded at 155 knots.

The 43,000-pound CL-215s, owned by the Provincial Government of Alberta and operated and maintained by Conair, can load 1,400 U.S. gallons of water in 12 seconds while skimming over a body of water.

Conair aircraft use tracking devices to give position reports. When using terrain-based units, modems send position reports every 30 seconds through the Internet for monitoring.

Satellite phone modems give position reports every two minutes. Within 30 seconds, a call-in for a fire is interfaced with an initial fire report. Within another 30 seconds, a decision is made whether to assign an air tanker and to dispatch it. Depending on the alert level and location of the call-in, the arrival time to the fire is five to 30 minutes.

At Conair, perfection means safety.

In such high-risk air operations as fighting wildfires, Conair remains committed to a constant goal of zero accidents and incidents. The company takes particular pride in purposely setting high standards for safety, and making directives the responsibility of every employee.

“At Conair, safety is our Number One priority,” Check Pilot Eric Scott said. “Safety is everyone’s responsibility, whether in the maintenance hangar or at the fire zone. With so many aircraft and personnel, it’s vital we have and implement an effective safety program. Conair and its employee group have worked hard to provide a safe work environment and manage risks for customers and employees alike. Conair’s safety record provides for no lost aircraft in over nine years and 70,000 flight hours.”

At the beginning of each year, every pilot must go through re-current training that includes ground school (with an IFR simulator) and flight training followed by a flight check. New pilots are required to attend about three weeks of training, depending on the type of aircraft he/she will fly, and 10 hours of flight training, followed by a thorough check ride with a
Conair pilot as delegated on behalf of Transport Canada or by Transport Canada. Half of Conair’s pilots have been with the company longer than 10 years.

In order to spread the safety responsibility around to each of its more than 130 employees, Conair maintains a “safety fund” throughout the year, which actually amounts to a cash bonus at year end. For each day of no accidents or incidents, the fund builds a cash value which is equally distributed to every employee every December. In the event of an incident or accident, the fund for the year reverts back to zero. Most years, individual employees receive in excess of $1,000 Canadian from the safety fund distribution.

Company maintains fleet at Abbotsford, British Columbia.

Founded in 1969 by a half-dozen pilots from Skyway Aviation, an agricultural spraying operation, Conair (the name is a derivative of “contract aircraft”) is headquartered at Abbotsford International Airport in Abbotsford, British Columbia. Conair has grown to be one of the largest, if not the largest, privately-owned aerial fire fighting companies in the world. Headed by one of the original six founders, President and Chief Executive Officer Barry Marsden, the company maintains a fleet of 52 aircraft dedicated to aerial firefighting. With more than 150,000 square feet of hangar and shop space, Conair’s facilities have been designed to service and maintain its fleet in every possible manner, from painting to avionics, major repairs and other required modifications.

All three Cessna Grand Caravans that Conair operates are equipped with forward looking infrared (FLIR™) units installed in the cargo pods. Conair owns one of the Caravans, and leases two others. When the fire season is over, the FLIR™ units are removed and the aircraft work such traditional duties as moving passengers and cargo.

Infrared technology detects heat.

The FLIR™ scanning system consists of a camera mounted beneath the cargo pod, a viewing screen mounted in the instrument panel and video recording equipment.

FLIR™ units are much like sophisticated video cameras specially designed to detect and record infrared energy instead of visible light. In effect this gives these cameras the ability to detect heat. The FLIR™ technology is capable of determining temperature differences of as minute as 0.20 Celsius.

As thermal energy is able to pass through smoke, the FLIR™ units are effectively able to “see” through smoke - providing information that greatly assists fire fighting operations.
Air attack officer monitors FLIR™ screen.

In Conair aerial fire fighting operations, the FLIR™ output is displayed on a video monitor inside the aircraft cabin, and is also recorded on conventional VHS videotape. The aircraft’s position, determined by satellite navigation, is also displayed on the monitor and recorded on tape. The information is useful for mapping fire edges, directing fire fighting crews to trouble spots, directing firebombing aircraft and assessing the effectiveness of their drops, and detecting fire “hot spots” during mopping-up operations.

Conair Aviation is based in Abbotsford, British Columbia, and operates three Grand Caravans in its fleet. It has grown to become one of the largest privately-owned aerial fire fighting companies in the world.

All three Conair Grand Caravans operate with a FLIR™ scanning system to detect heat, even in low visibility conditions. With the aid of this system, fire fighting crews can be directed to trouble spots that might otherwise escape detection.

An uncontrolled forest fire can move at a rate of up to 14.29 miles per hour and will move faster uphill than downhill. The steeper the slope, the faster the fire will travel.
Great aviation photographs can be enchanting.

Airplanes appearing to fly right out of glossy magazine covers.
Airplanes banking into golden sunsets.
Airplanes skimming rugged mountain ridges.
It’s hard to take your eyes off the images.

Many of these images are taken by Cessna Aircraft Company’s talented Marketing Communications and Visual Media employees.

There’s also one more very important part of these photo missions: an aircraft that is not seen in the final photo, but is equally as impressive as the one that is – a Cessna Grand Caravan.

The Process

A great amount of planning occurs before anyone loads into the Grand Caravan. The first step is aligning several key players, from photographers, artistic directors, videographers and ground personnel, to the actual airplanes and pilots. “There are so many things that need to come together, the most challenging of which is sometimes the one we don’t have control over: the weather. But when everything lines up, it’s perfection,” said Lori Lucion, director of Marketing Communications at Cessna Aircraft Company.

Next, a shot list is developed of the photos that need to be taken. Then, based on the desired images, the pilots and cameramen identify the ideal locations for the photo mission, given seasonal conditions and aircraft performance.

The Performers

The shooters often come from Cessna’s own Visual Media Group (VMG) – a team of highly experienced staff photographers, videographers and designers. In addition to being a brilliant photographer, you can’t be afraid of flying extremely close to other airplanes to be chosen for an air-to-air photo mission. You also have to be immune to motion sickness as you’re hanging out the window of one moving object looking through a lens that’s pointed at another moving object. But the excitement is worth the challenge.

“The biggest thrill really is just nailing it – when all of the elements come together, and you get dynamic, beautiful footage of the aircraft,” said Steven Ludlow, photographer/videographer at VMG. “When you find the right light, the right backdrop and smooth air to work with to get the shot you want, it’s a real rush.”
The formation pilots are also key to a successful photo mission. The pilots of both the photographed airplane and the photo platform must have the skills to position the aircraft in the optimal location for photos with an emphasis on safety. Many hours of closely supervised training must be successfully accomplished before heading up a photo platform on an actual shoot.

The Photo Platform

Of course, great photographers can’t get that perfect in-air shot without an aircraft to get them there. A successful air-to-air photo mission requires machine and man to be functioning together, so the photo platform—the aircraft carrying the photographer—is a critical part of the mission. Photo mission travelers became intimately familiar with N6542U, a 1986 Cessna Turbo Centurion that served dutifully as Cessna’s photo platform for almost 20 years. The middle seats in Four-Two-Uniform were removed to accommodate the pilot, art director, two shooters and all the gear they needed to complete their tasks. But, as the product line grew, the Turbo Centurion appeared to shrink. With an increasing number of jets to shoot, its speed capability simply became inadequate for the task. This became apparent in some of the photos shot from the Turbo Centurion as the subject aircraft had to fly with a high angle of attack to keep its speed down.

Cessna resolved this dilemma by adding a Cessna Grand Caravan to the photo ship fleet. The faster and much more spacious Grand Caravan became the new photo platform. The Grand Caravan photo ship is a nice ride, equipped with the Oasis™ interior and customized for air-to-air photography. At the rear of the aircraft, there are windows on both sides that open in flight, so the photographers can hang their lenses outside to improve shooting angles. The shooters can also rotate their seats 180 degrees and find the ideal perch from which to record the excitement of formation flight.

Depending on what’s needed for the photo mission, there may be a still photographer and a videographer onboard the aircraft at the same time. “Most times we’re shooting, there’s only one prime open-window position. So whereas we’d often love to shoot both the still and video shots at the same time, we have to trade back and forth,” Ludlow said. “When you’re flying by that perfectly lit mountain pass, there is no second flyby. Those moments are truly fleeting.”

The Results

Creating spectacular air-to-air photography requires a great deal of skill from all the team members involved. Between the Marketing Department’s vision, the photographers’ skills, the performance of the aircraft and the capability of the pilots, Cessna’s team has brought about an untold number of iconic images. While it is a beautiful and thrilling sight to see another airplane tucked up against your wing, the proverbial statement “Do not try this at home” definitely applies.

In 1860, James Wallace Black successfully photographed Boston from a hot-air balloon. This is the oldest aerial photograph known to still exist.
The Royal Flying Doctor Service of Australia (RFDS) is one of the largest and most comprehensive aero-medical organizations in the world. Using the latest in aviation, medical and communications technology, it delivers extensive primary health care and 24-hour emergency service to those who live, work and travel throughout Australia.

On February 5, 2010, RFDS proudly added two new Cessna Caravans into their fleet of 53 aircraft – enhancing important mission flexibilities in what was already Australia’s fourth largest fleet. The delivery ceremony was attended by 50 invited guests, including the honorable Federal Minster Warren Snowden, 20 RFDS Cairns, Queensland, staff and numerous members of the local media.

The aircraft of choice for reaching the remote wilderness of far North Queensland.

With cameras rolling and guests looking on, the first Caravan departed at 7:20 a.m. Then the ceremony was opened by Chief Executive Officer, RFDS Queensland Section, Nino DiMarco. During his remarks, he covered detailed reasons for choosing the Caravan as their newest aircraft, specifically mentioning its mission capabilities and direct operating costs. “The Caravan has a reputation as a tough, versatile and reliable aircraft and is ideally suited to our requirements in far North Queensland. Adding such a cost effective aircraft to our fleet means that we can transport more staff and their equipment to under-served communities and deliver much needed health services to people living in remote corners of the far north,” he said.
A sensible investment in community health.

During his remarks, Russell Ousley, RFDS General Manager of Marketing and Fund Raising, explained that since the company is a not-for-profit organization, the Caravans were purchased with public and community donations. He stressed the importance of sensibly investing all community funds, and noted that the Caravans were indeed very sound investments.

The ceremony was closed with the prompt departure of the second Caravan at 8.45 a.m.

Connecting rural Australia with vital medical care.

Steve Padgett of Aeromil Pacific, Cessna’s Authorized Sales Representative in Australia, was present for the event. “The Royal Flying Doctor Service plays an important role in Australian life outside our capital cities, and with the introduction of the Cessna Caravan into service, we hope to develop the relationship and provide further support for the vital work of the RFDS,” Steve said.

RFDS was started by Rev. John Flynn in 1928 in Cloncurry, Queensland, when he saw there were only two doctors to provide medical care for an area of almost two million square kilometers. The service expanded across Australia over the next few years.

The two new Cessna Caravan aircraft will operate from the Cairns Airport, the largest RFDS base in Australia and provide service to isolated towns and villages dotting the tropical, Aboriginal wilderness of North Queensland and the communities of the Cape York peninsula in far North Queensland. The Caravans will provide essential transport for primary health care staff and allied health services including: Child and Maternal Health, General Practice Clinics, Indigenous Health, Women’s Health and Chronic Disease Prevention.

With the recent addition of two new aircraft to its fleet, the Royal Flying Doctor’s Service of Australia will write new chapters in the storied legacy of Cessna Caravan service.

English is the common language spoken by Australians. Here are certain terms and their meanings:

- Aussie - Australian
- Arvo - afternoon
- Billabong - pond
- Blue - mistake
- Bodgy - poor quality
- Bottler - something great
- Chewie - chewing gum
- Clobber - clothing
- Deadset - the truth
- Dinki-di - genuine
- Drongo - inept person
- Fair go - a chance
- Give it a burl - just try it
- Good oil - good idea
- Hit the turps - drink alcohol
- I’ll be stuffed - surprised
- Knock back - refuse
- Lollies - Candy
- Mate’s rate - cheap
- Onya - well done
- Rack off - leave immediately
- Sunnies - sunglasses
Cessna launches the Caravan program.

1981

First flight of the Caravan 208 prototype.

1982

Caravan 208 receives FAA type certification.

1984

First delivery of production Caravan 208.

1985

Caravan 208 approved for amphibious floats.

1985

Introduction of Caravan 208B Super Cargomaster.

1986

First flight of Caravan 208B prototype.

1986

Caravan 208B receives FAA type certification.

1986

First delivery of production 208B Grand Caravan.

1990

° Currently four versions of the Caravan are in production: the 208 Caravan 675, 208 Caravan Amphibian, 208B Grand Caravan, 208B Caravan Super Cargomaster.

° The Caravan fleet has accumulated more than 12.5 million flight hours and is certified in 100 countries.

° The largest fleet of Caravans currently operating belongs to Federal Express® with more than 250 aircraft. Federal Express took delivery of its first Caravan in 1985.
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<tr>
<th>Year</th>
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<tr>
<td>1997</td>
<td>Introduction of model 208 Caravan 675.</td>
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<td>1998</td>
<td>First delivery of production 208 Caravan 675.</td>
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<tr>
<td>1998</td>
<td>Delivery of 1000th production Caravan 208.</td>
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<tr>
<td>2002</td>
<td>Delivery of 1000th production 208B Grand Caravan.</td>
</tr>
<tr>
<td>2003</td>
<td>Oasis™ executive interior option becomes available.</td>
</tr>
<tr>
<td>2005</td>
<td>Delivery of 1500th production Caravan 208.</td>
</tr>
<tr>
<td>2008</td>
<td>Garmin G1000® introduced as standard equipment.</td>
</tr>
<tr>
<td>2008</td>
<td>TKS ice protection offered as optional equipment.</td>
</tr>
</tbody>
</table>

For 25 years, Cessna Caravans around the world have been doing the work that must be done. In that same time-honored tradition, they’ll continue on and carry us all into the future.