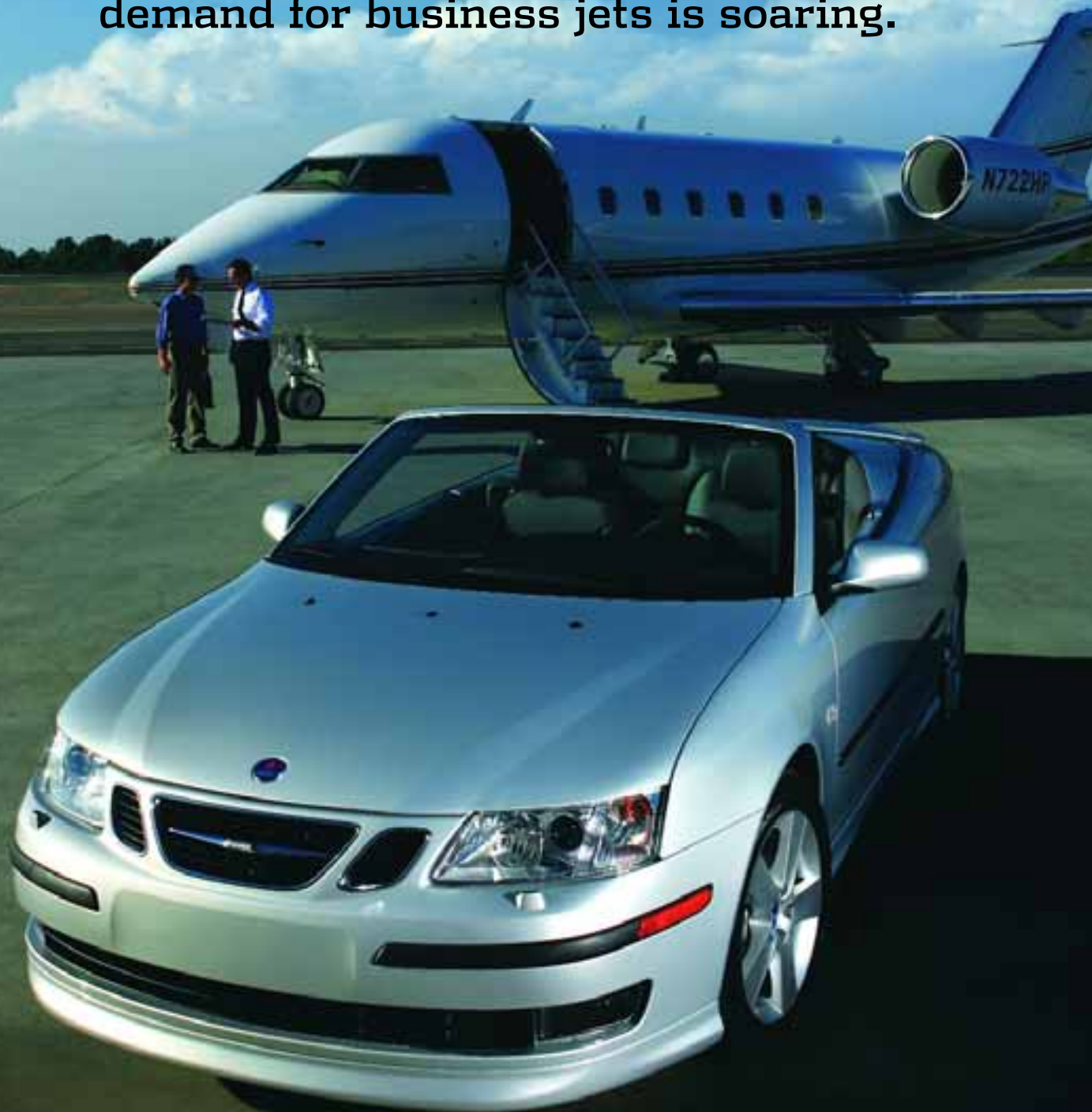


FLYING HIGH

Thanks to creative new user programs, demand for business jets is soaring.





One of the surest signs of success in business is when the competition gets nervous. And the commercial airline industry is getting very nervous indeed. It's not just 9/11, the constant reminders of terrorism, and the fallout: long lines at airport security checkpoints, flight delays, and missed connections that seem to be more the rule than the exception. It's also the success of the private business-aviation industry—a steady nibbling away at market share—that has the major carriers worried.

They have reasons for concern, the most basic being the fact that business jets make sense. The attractions are undeniable: Travelers save time with fewer airport lines and faster security clearance. Private aviation gets you where you want to go, not just where the airlines go; commercial airlines use some 500 airports, while more than 5,000 are available for business aviation customers. Then there is cost: As less-expensive jets and purchase options proliferate—from outright ownership and fractional shares to charter flights and a steady flow of new jet-card programs—the corporate aviation industry keeps pushing the envelope in a direction the market clearly likes.

"It wasn't long ago that you had two kinds of planes and two kinds of options—charter or ownership," says Ed Bolen, CEO of the National Business Air Association (NBAA). "Move ahead ten or 15 years and we have a rich variety of new equipment and a variety of purchase options that include outright ownership, one-time use, fractional ownership, an increasing variety of jet-card programs, interchanges with another company or individual, block charter, and charter. If you need a business jet, there's one that's just right for you."

Better and Better

It's all produced an impressive set of statistics. According to the NBAA, 6,584 companies operated 9,504 aircraft in 1991; in 2003, 10,661 companies operated 15,879 aircraft. Another industry group, the General Aviation Manufacturers

Flight Options flies four types of planes, including the Hawker 800XP.

Association (GAMA), is upbeat about the future. GAMA recorded shipments of 591 new business jets in 2004, a 14% increase over 2003. Last year's shipments of 750 units represented a 26.9% jump over 2004, and the news keeps getting better. For the first half of 2006, business jet shipments totaled 415 new units, up 27.7% from the year-ago pace, and GAMA expects the trend to continue through the remainder of the year.

With extra-light jets moving out of the planning phase into active production, the sales figures are likely to keep climbing, as manufacturers like Cessna, Eclipse, Adam Aircraft, and Excel-Jet Ltd. bring the cost of ownership from \$35 million and more down into the \$2 million range. Even Honda has become a part of the competitive set. Its new HondaJet, a light-weight plane that seats six, is powered by a fuel-efficient turbofan engine.

Growth in fractional-jet sales has slowed in recent years, but the industry is finding new ways to drum up interest. Some of the freshest thinking is coming in jet-card development. To date, the jet-card proposition has been relatively simple: 25-, 50-, and 100-hour jet cards that provide owners with many of the benefits of fractional ownership without the long-term

The industry's goal is to make private aviation more affordable for any business traveler looking for a viable alternative to commercial flight.



The Avanti P.180, the world's fastest turboprop, features an ultra-spacious stand-up cabin, oversized leather seats, and the class of its Ferrari heritage.

commitment. You prepay for the hours, and, as you use them, your card gets debited for the flight time or dollar equivalent. While no two service providers offer identical programs—and each one claims a superior program mix—most give customers the chance to purchase in one of three categories: light, mid-size, and large-cabin jet. Some programs let you switch between different-size planes, with hourly rates increasing with plane size.

The principal card players—among them Bombardier's Skyjet and FlexJet, NetJets and its affiliate Marquis Jet, Flight Options' Jet-PASS card, CitationShares' Vector JetCard, Delta AirElite Fleet Membership, TAG Aviation, and Sentient

Jet—have found a strong, steady customer base. The long-term hope is that once executives start using a jet card, they will become inspired to invest in either a fractional share or a complete airplane.

In the shorter term, charters and jet cards can be economically beneficial because they take advantage of the fact that jets don't usually fly as many hours in the year as they could. Owners assign their aircraft to the fractional companies, which make them available for charter or jet-card flights when the owners are not flying. Charter fees flow back to the owner, defraying some of the costs of the jet. Fractional operators, in turn, use jet-card flights to keep aircraft flying when their owners are not using them. And that's all part of a higher goal: to make private aviation more affordable for any business or individual who wants a viable alternative to commercial flight.

A good example of someone who found private aviation to his liking is a hedge-fund manager from the Greater New York area. He started with a

special need for comfort—at 6'5" he had no desire to make a significant investment in a plane that would cramp his style. In addition to business travel, he wanted to fly with his wife and three young children to visit in-laws in Louisiana and to their vacation home in Colorado. Then there was the issue of check-in. "It's not the prospect of security that I find troublesome, or feeling more secure because I'm flying a private plane. It's the fact of dragging my children through security, of standing in line for so long, and watching the time go by," he says. A final consideration: finance, a natural criterion for a hedge-fund manager. "I was willing to try it for five years and take a *(continued on page S8)*

THE NEXT FRONTIER

Private jets are taking off, both literally and figuratively. Competition among manufacturers and service providers is spurring a fight over established markets and causing all participants to be on the lookout for new opportunities. Over the next ten years, that dynamic could give rise to radically new products and services, from personal jet travel that costs no more than some of today's airline fares, to \$80 million supersonic jets. Here's a look at some of the innovations in the works.

The Mini-Me of Aviation

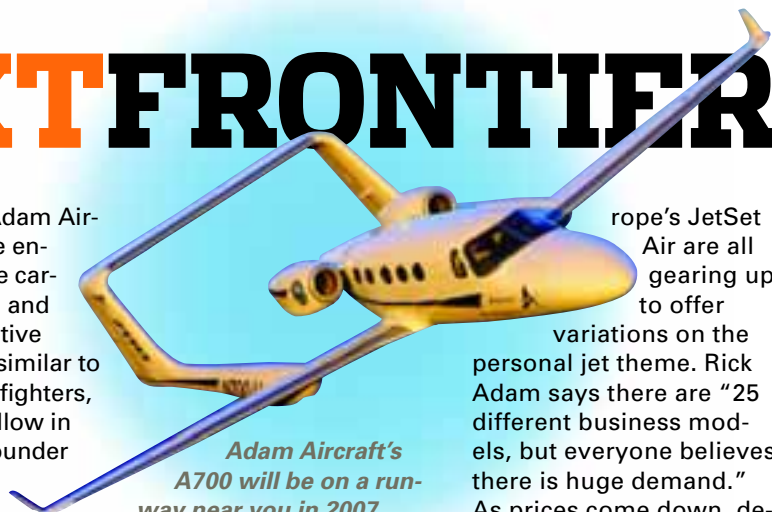
Small jets—seating up to four passengers and costing half as much to buy and run as anything flying today—are on the near-term horizon. The first of these under-\$2 million airplanes, from Eclipse Aviation, has been cleared to fly by the Federal Aviation Administration, marking the first time a new company has successfully developed a jet since the 1960s. By 2008, literally hundreds of them should be taking to the air.

Eclipse, which earned an FAA seal of approval in July, expects to deliver 50 airplanes to customers by

the end of 2006. Adam Aircraft's A700, made entirely of composite carbon-fiber material and featuring a distinctive fork-tailed layout similar to World War II P-38 fighters, is scheduled to follow in 2007. Company founder and CEO Rick Adam says the company has orders for 350 A700s. While only ten will be delivered next year, the company expects a rapid ramp-up. Also on the way is the Phenom 100, a four-passenger jet, representing a move into the light-jet business by Brazil's Embraer.

Early last month Cessna Aircraft received FAA certification of its Citation Mustang, a six-seat plane that has a top speed of nearly 400 miles per hour, a range of 1,150 nautical miles, and a service ceiling of 41,000 feet. Cur-

The A700 is outfitted with a plush, roomy interior.



Adam Aircraft's A700 will be on a runway near you in 2007.

rent orders for the new Mustang will carry production well into 2009.

Arrival of Air Limos

With Eclipse alone claiming more than 2,300 orders for its new jet, and giants like Honda, General Electric, and Subaru getting into the game, it is hardly likely that these projects will be supported on the traditional jet market. A growing number of companies have announced plans for a new transportation system based on the new jets. It's called "air limo," or on-demand personal jet services. Instead of flying when the airline wants to fly, the airplane operates on your schedule. Benefits include no lines, no waiting, access to small airports close to your final destination, and prices that are close to no-restrictions walk-up airline fares—and half the cost of today's jet cards and charters.

DayJet in the southeast, Linear Air and Pogo in the Northeast, Point2Point in the Great Plains, and Eu-

rope's JetSet Air are all gearing up to offer variations on the personal jet theme. Rick Adam says there are "25 different business models, but everyone believes there is huge demand." As prices come down, demand will go up.

DayJet plans to offer a geographically tight service within a small area—its typical flights will cover 200–400 miles and be less than an hour long—and to run airplanes empty only 25% of the time, reducing costs. In June the company announced it would open its first five DayPorts in Florida cities chosen for robust economic activity and poor jet service. The company, which will install a sophisticated computer system that will direct jets where they're needed, is selling to passengers who would otherwise drive.

By contrast, Point2Point is basing its services on a more traditional air taxi

On-demand air travel: the HondaJet





Light jet: the Cessna Citation Mustang

model, but with easy-to-understand per-mile rates. JetSet plans to offer scheduled flights linking business centers such as London, Paris, and Frankfurt with each other and with upscale ski destinations.

Pilotless Technology

Airplanes can get smaller and less expensive to buy and fly, but the cost of paying two pilots stays much the same. The alternatives are a single pilot or flying your own airplane, but what if the pilot is incapacitated or the owner-pilot gets in a situation beyond his or her flying skills?

The leaders of Diamond, Eclipse, and Adam see the answer in the technology that the military already uses in its growing fleet of pilotless combat planes. Many of those aircraft are not “flown.” Instead, an operator on the ground simply commands them to take off, fly to a certain point, and land, and they do the job automatically, guided by GPS and controlled by computers.

The guidance systems for an airplane are affordable and amazingly tiny. Athena Controls, a Virginia high-tech company, makes

a full-function GPS and control system that is no bigger than a cell phone. Founder and CEO David Vos says there is no technical reason why it could not be turned into an emergency button for a passenger aircraft, which would command it to land at the nearest airport. The biggest challenge would be adapting air traffic control systems to handle an unmanned aircraft in an emergency.

Seeing Is Believing

For decades aircraft engineers have spent a great deal of time and effort developing ways to help pilots see in bad weather and at night. Gulfstream and Honeywell have been the first to announce plans to take a new approach, producing a completely artificial outside view.

The synthetic-vision system blends three tech-

nologies that are now in use: laptop-size flat-panel cockpit displays, real-time computer-generated imagery (used today in all flight simulators), and an enhanced ground proximity warning system (EGPWS). The difference between EGPWS and older “ground prox” systems is that it runs off a database that includes both terrain and obstacles. The database creates a picture of the world ahead of the aircraft, regardless of outside conditions.



The all-new Eclipse 500 breaks the price barrier.

Supersonics

Most people who have looked at the case for a business jet with Concorde-like supersonic speed agree on one thing: the market won’t be very big in numbers—perhaps a few hundred aircraft—but it will be big in cash value. The first team to commercialize a good product will capture a

strong foothold, so companies are understandably tight-lipped about their progress. Unlike the Concorde, these jets would feature aerodynamic wizardry that eliminates the sonic boom, so they would not have to slow to regular jet speeds over land. The new jets could be in service before 2015.

The head of Lockheed Martin’s renowned Skunk Works, Frank Cappuccio, said early this summer that the supersonic jet had a “100%” chance of going ahead. Skunk Works is designing a radical, arrow-winged jet, as big as a

150-seat 737 jetliner, for Supersonic Aerospace International Co., which is seeking wealthy individuals to bankroll the first stage of the project. Gulfstream Aerospace, which has been studying a supersonic stablemate for its high-end jets since the late 1990s (and has General Dynamics’ money behind it), has lately beefed up its research and development division. Boeing has been talking to Russia’s Sukhoi Co.

So fasten your seat belts. The future of private aviation is morphing at a rapid pace.

—Bill Sweetman

Lockheed Martin’s futuristic 1,200-mph jet for Supersonic Aerospace International





(continued from page S4) look at the numbers to see what I was spending over and above what I usually would have put into travel."

A pilot himself who used to own a Cessna 182, this potential customer had two other considerations. First, a program that would offer at least \$100 million in insurance per incident, "simply because I know that that kind of certification means good planes, high-quality people, and a quality training program." Second, he wanted a plane that would fly to tower-controlled airports that offered instrument landing. "Sure, I want to save money, but I don't want to land someplace out in the boondocks because it's cheaper."

After he'd added up all the parts—a cabin large enough to accommodate a tall man and his family; a plane that made sense for business as well as personal use; an investment that made at least a nod to the bottom line; and best-in-class maintenance and personnel—the hedge-fund manager took his private-aviation dollars to Avantair, a fractional provider based in St. Petersburg.

"I'm four years into the program and completely satisfied," he says. "Over a five-year period, I will have paid the equivalent of between \$75,000 and \$100,000 over and above what I would have spent on first-class tickets." With his savings in time and reduced wear and tear on his family, he seems pleased with the return on his investment.

Industry Pacesetter

For nearly 60 years, the business aviation community has looked to the National Business Aviation Association (NBAA) as its leader in enhancing safety and security, shaping public policy, providing world-renowned industry events, and advancing the goals of more than 7,000 Member Companies worldwide.



Founded in 1947, NBAA is the leading organization for companies that rely on general aviation aircraft to help make their businesses more efficient, productive, and successful. Our goal is to create an environment that fosters business aviation in the United States and around the world. We pursue that goal by constantly striving to be a world-class organization that enhances safety, security, and professionalism; provides operational assistance to our members; shapes public policy; projects a positive image of our industry; and hosts leading aviation shows and conferences.



For more information about NBAA, call 1-800-394-6222, or to join, visit www.nbaa.org/join/fcb.

Quality and Safety

Avantair's business model is grounded in quality and safety. The fractional provider uses only one kind of plane—the Piaggio Avanti P.180. The world's fastest turboprop with a cruising speed of 450 mph, the P.180 is nearly as fast as most light jets (roundtrip from New York to Palm Beach is 5.6 hours, as compared to 5.2 hours on a Hawker 400XP). But the real savings, says Steven Santo, Avantair's founder and CEO, comes in

fuel, not time. Fuel charges per hour for the P.180's Pratt & Whitney PT6A-66B engines are only 69% less of the comparable cost on light business jets, he says. For the same round-trip journey, that amounts to a savings of just under \$3,000.

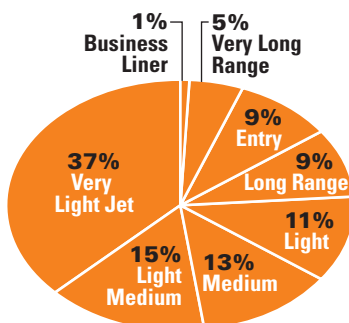
"Our program is a lot less expensive because our planes are more efficient," says Santo. "And when you take a look at the whole package—the original purchase price, monthly management fees, fuel surcharges, and hourly operating fees—we come in at about half the price."

The savings don't come at the expense of comfort. The Piaggio Avanti has an impressive lineage. Its cabin dimensions are 30% to 50% larger than those of its light-jet competitors, Santo says, and the fittings reflect the standards of Ferrari, one of the company's new owners. Ownership options for the Piaggio Avanti range from a 50-hour, one-sixteenth share (\$405,000) to a 400-hour, one-half share (\$3.16 million).

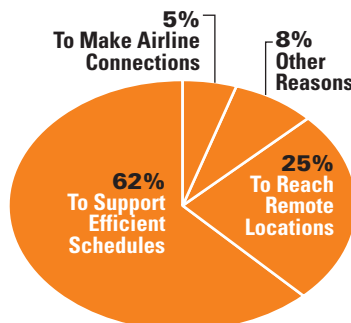
The fractional-ownership sector of the private aviation business—which experienced double-digit growth from the late '90s through

THE PLANE TRUTH

Rolls-Royce Forecast of Business Jet Deliveries 2004-2023



Why executives use business aircraft



Source: NBAA



the first few years of the 21st century—is still expanding by at least 2% a year. Industry estimates report that the charter sector of the business-jet market is growing at a crisp annualized rate of 6% to 8%. For the card/membership side of the business, the sky is seemingly the limit, with one industry expert pegging growth at 150% a year.

Safety and Ease

As the popularity of cards has skyrocketed, their purveyors become more inventive. “Why do people come to private aviation?” asks Michael Scheeringa, CEO of Cleveland-based Flight Options, a Raytheon subsidiary and a fractional-service provider. “The upside includes superior safety, ease, consistent performance, and guaranteed access.” The downside? “Asking a corporation or an individual to guarantee 100% of its travel five years in advance can be a difficult commitment.”

For the jet card side of the business, the sky is seemingly the limit, with one industry expert pegging growth at 150% a year.

With this in mind, Flight Options last month reintroduced its Jet-PASS Ultimate Travel card as an alternative to leasing and fractional ownership. The company also began offering members a new Fractional First program “to bring transparency to the cost of fractional flying,” says Scheeringa. The real time- and money-saving benefits that are the cornerstones of Fractional First include no taxi-time deductions (more air time for members), distance-based pricing (fly longer distances and pay less per

mile), transparent fuel costs (customers pay for just what they use), and an extended service area (if you fly outside Flight Options’ primary area, your only additional charge is for fuel).

Another innovative Fractional First feature is a “bank” that allows Flight Options owners to either deposit or draw hours. A 50-hour shareowner, for instance, probably isn’t going to fly exactly 50 hours over the course of a year. With the Flexible Use option, those who fly 40 hours will not have to pay a management fee on the remaining ten hours. If they need to fly 60 hours, they’ll be able to spread the cost of capital over more flight hours. The bottom line: For the same price, Fractional First and Flexible Use mean that Flight Options owners might fly as many as 36% more hours for the same base cost. “We’re offering our customers the chance to fly what they buy,” Scheeringa says. “It responds to the message we hear from travelers: ‘We need simplicity. We need flexibility.’”

In addition to making it easier to fly privately, the cost of entry is getting lower every year. Delta AirElite’s jet-card program, for example, costs only \$41,900 for ten hours in a light jet. And value is one of the driving forces behind Bombardier FlexJet’s newest offering, the FlexJet 25 card, which makes parent Bombardier Aerospace and its subsidiaries the only providers to offer charter (SkyJet), fractional (FlexJet), as well as jet card options—not to mention outright purchase.

Point of Pride

Among the first-in-industry benefits that FlexJet 25 touts is a guarantee that members will fly on fleet aircraft at least 95% of the time. It’s a promise that mirrors FlexJet’s pledge to fractional-jet owners and it’s an important point of pride. “This guarantee is the only one of its kind and responds to a chief criticism of fractional-jet ownership programs and fractional jets,” says Sylvain Lévesque, FlexJet vice president for marketing and administration. Members can pick between a

Saab Takes Off

The company’s aerodynamic heritage is apparent in every car it makes.

Saab is the title sponsor of this year’s Business Aircraft and Jet Preview show, a series of 12 events throughout the country that will put its sleek, high-performance cars in the company of some of the world’s most innovative aircraft.

Which is where they’ve always been. The name Saab, an acronym of Svenska Aeroplan Aktiebolaget, or Swedish Aircraft Co., reflects the fact that the company was founded by 16 aviation engineers. “That was close to 60 years ago,” says Steven M. Haener, advertising and promotions manager for Saab Automobile USA, “but an insistence on clean, aerodynamic lines, efficiency, and functionality has been part of every car we’ve built since.”

A brief look at the history: At the end of World War II, when demand for military aircraft began to slow, Saab management foresaw an increased need for automotive transportation. They set to work designing a car whose attributes would include precision engineering, concern for safety, and superlative handling. The first product, the Saab 92, offered what is still recognized as one of the most aerodynamically advanced automotive profiles ever designed.

Today the lineage is apparent in the lightweight bodywork, optimum structural stability, ergonomic controls, and world-class performance that are integral parts of innovative jet aircraft design—and every Saab automotive product.



Going forward, the biggest incentive for the private aviation business may well be the uncertainty of travel in an unsettled world.

Bombardier Learjet 45, Learjet 60, or Challenger 604 aircraft. All three are category leaders. All three are manufactured by Bombardier, FlexJet's parent company. Cardholders fly with the confidence that a reservation will be honored—not by a back-up plane but by a top-of-the-line jet that offers best-in-class style, comfort, reliability, and performance.

Much like Flight Option's Flexible Use program, FlexJet 25's Versatility Plus feature allows cardholders to buy and sell unused flight time—a means to realize full value from the membership proposition. And, on the subject of satisfaction, FlexJet 25 offers cardholders a refund of unused hours if they're not completely satisfied with their first flight.

Going forward, the biggest incentive for private aviation may well be the uncertainty of travel in an unsettled world. "Whether there's a correlation between headlines and an increase in business is impossible to



Bombardier's Learjet 45XR (top) and Bombardier Learjet 60XR are part of FlexJet's fractional fleet and FlexJet 25 card program.

judge," says Brandon Greene, director of marketing for Delta AirElite. But after last summer's arrests in London, Delta AirElite call volume rose 70%, and 30% of the calls translated directly into charter bookings. Most of those reservations were new travelers for Delta AirElite. "August was also the best month ever in our fleet-card membership," says Greene. "My suspicion is that the terrorist threat in Britain brought in people who were already considering signing up."

But that, of course, is only part of the story. The NBBA's Ed Bolen sees

lots of room in the sky for different kinds of travel. "Transportation is driving our economy, and our country has a huge demand for air transportation. The market is trying to respond with a number of different options. Commercial planes are flying at record load factors these days. At the same time, general aviation has never been stronger."

—Geoffrey Precourt

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