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# BOB PITTMAN

How MTV's cofounder unearths breakthrough ideas and why he's placing new bets on old media

# READERS TALK BACK

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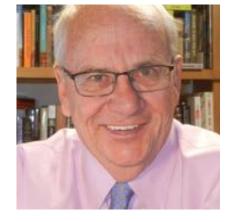
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# FEATURED CONTRIBUTOR

#### **JOE SHARKEY**

Sharkey, who writes **BJT**'s On the Road column, lives in Tucson, where he is an adjunct professor at the University of Arizona's School of Journalism. He covered business travel for *The New York Times* for 16 years and is a former assistant national editor for The *Wall Street Journal*. He has coauthored a novel and published such nonfiction books as *Bedlam: Greed, Profiteering, and Fraud in a Mental Health System Gone Crazy.* 

In 2005, he was on assignment for **BJT** when the business jet he was flying on collided with an airliner, an experience he recounted for a front-page *New York Times* story and a December 2006/January 2007 feature in this magazine *(see bjtonline.com/Brazil)*.





On the Cover: Media mogul Bob Pittman, photographed for Business Jet Traveler at Teterboro [New Jersey] Airport by Michael S. Barr.



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# Up Front

ob Pittman, who runs America's largest radio network. told me during our interview for this issue that he actually demands mistakes in the workplace. I believe him.

He said he learned an



important lesson early in his career from his mentor, Warner Communications founder Steve Ross, who told him, "You will never be fired at this company for making a mistake...we fire for not making mistakes, because mistakes are the byproduct of innovation." Considering the amount of

innovation Pittman has stewarded in the media world, it's obvious that this philosophy has worked for him. It occurs to me, however, that when it comes to the upkeep and flying of his Falcon 900EX, he is a perfectionist. It is a beautiful aircraft, meticulously maintained and managed by the Teterboro, New Jersey-based team at Gama Aviation. As Gama president and CEO Tom Connelly told me, "Bob is very particular about the condition of his aircraft and the status of the maintenance, more so than the

average aircraft owner, because he flies it himself."

Indeed he does. Pittman-who has an Airline Transport Pilot's rating for airplanes and current type ratings for helicopters and three jet variants-expertly flies himself not only around the U.S. but also into some of the most challenging airports in other parts of the world.

I couldn't help but ponder the apparent dichotomy between these two personas: Pittman is a CEO who encourages mistakes in the workplace and also a pilot who clearly seeks to avoid even the slightest misstep in the cockpit.

But maybe it isn't such a dichotomy after all. Pittman understands that mistakes in the office can easily lead to the next quantum-leap and also that error-free operation is essential in the sky. And he's consistent: this is a man who, whether on the ground or in the cockpit, always strives for the best.

Jem

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## EDITOR'S NOTES

# **BJT** brings home the **GOLD**

by Jeff Burger

Reedback from readers provides the most important measure of how well we're doing our jobs here at **Business Jet Trav**eler. However, we also value recognition from our peers via editorial awards competitions, so we're delighted to announce a variety of news:

First, Mark Huber's review of Airbus's ACJ340 (June/July 2014 issue) was a finalist in the Aerospace Media Awards for Best Business Aviation Submission. And Randy Padfield, **BJT**'s first editor-in-chief, was a finalist in the same contest for a Lifetime Achievement Award for his contributions to aerospace publishing.

In addition, we've just had five wins—including three first-place gold awards—in the 2015 Azbees competition from the American Society of Business Publication Editors. In this contest—one of the biggest and toughest in journalism—we've won:

- » A national Silver Award (2nd place) for Editorial Excellence for Best Product Section/Department for Used Aircraft Review (for the aforementioned ACJ340 article plus "Embraer's Lineage 1000," Aug./Sept. 2014, and "Beechjet: Life Begins at 40," Oct./Nov. 2014), a trio of gems from longtime contributor Mark Huber.
- » A Gold Award for Editorial Excellence for Best Product Section/Department (Northeast region) for the aforementioned Used Aircraft Review features.
- » A Gold Award for Design Excellence for Best Opening Page Spread/Photo (Northeast region) for our feature on Sir Richard Branson (April/May 2014), which Mona Brown imaginatively created.
- » A Gold Award for Design Excellence for Best Front Cover Photo (Northeast region) for the same issue's Branson cover, which Mona also produced.

» A Silver Award for Editorial Excellence for Best Regular Column Contributed (Northeast region) for Taxes, Laws and Finance ("Damaged

Goods," June/July 2014; and "Murky Waters for Charter Brokers," Dec. 2014/Jan. 2015), two typically authoritative and cogently written pieces from columnist Jeff Wieand.

We garnered these prizes in a competition where we vied not just with aviation-industry publications but with national periodicals in all fields. We've won awards in many such contests, including six from the Folio: Awards, one from the American Society of Journalists and Authors and 18 (including the aforementioned five) from the American Society of Business Publication Editors' Azbee awards. We're



Graphic designer Mona Brown received two Gold Awards for Design Excellence.

This spread won a Gold Award for Design Excellence, as did the cover shown below.

particularly pleased to have twice been a winner for Best Transportation/Travel Magazine in the Folio: Awards and to have twice been named to the list of best business magazines in the U.S. in the Azbees.

We've also taken home all of the top journalism prizes from within the aviation field, including the National Business Aviation Association's Gold Wing Award (three times), the National Air Transportation Association's Aviation Journalism Award and an Aerospace Journalist of the Year Award.

All of these wins—32 to date, since 2005 resulted from the collaborative efforts of a team of writers, editors, photographers, artists and designers. Every story starts with an assignment editor and a byliner, but delivering the final product requires copy editing, proofreading, fact checking, photography, layout, design and lots of creative input from every member of our small but talented and dedicated staff.

We're pleased when our efforts produce results that our peers applaud, but our greatest hope is always that the magazine will meet with your approval and serve your needs.

Jeff Burger (jburger@bjtonline.com) is the editor of BJT.

LEARJET CHALLENGER GLOBAL

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# OUR SIGHTS ARE SET HIGHER

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## ON THE FLY

# Serious about fitness? These resorts are, too

As interest in endurance events continues to grow among high-end travelers, many resorts are expanding their wellness programs to provide professional coaching in running, swimming, triathlon and other forms of fitness. A few examples:

Gothia Towers, a hotel and conference facility in Gothenburg, Sweden, offers free 45-minute runs on Wednesday mornings with guides from Aktivitus Testklinik and Coaching. *Info: gothiatowers.com*  Sanctuary on Camelback Mountain Resort and Spa in Paradise Valley, Arizona, provides swim coaching for fitness, competitive and triathlon swimmers. Rates for one-on-one sessions with Olympic gold medalist Misty Hyman start at \$150 per hour. *Info: sanctuaryoncamelback.com* 

Four Seasons Resort The Biltmore Santa Barbara offers beach volleyball instruction from Olympic gold medalist Todd Rogers. The fivehour session on East Beach costs \$1,500 for a two-person party and includes a picnic lunch,



#### WALLISER STUBE

Fairmont Lake Louise, 111 Lake Louise Drive, Lake Louise, Alberta, Canada, (403) 522-1601 fairmont.com/lake-louise/dining/walliserstube

Deep within Canada's glorious Banff National Park sits the inimitable Fairmont Chateau Lake Louise. And tucked away in a corner of the grand hotel, lucky visitors will discover the restaurant Walliser Stube.

For cheese fondue lovers, this establishment offers many choices, such as black truffle, roasted garlic, porcini mushroom and, of course, chocolate. However, the real stars are the local meats and Swiss-German specialties.

To begin, try the "Jäger" Forest Mushroom Spätzle Skillet. These little house-made dumplings arrive sautéed with wild mushrooms, arugula and onion in a light cream sauce. The Walliser Stube salad with twee cornichons is another ideal choice.

Memorable mains include the Alberta bison tenderloin, the delicate local lake trout and the amazing Wiener schnitzel. The breaded veal escalope melted in my mouth, along with the complement of parsley potatoes with lingonberry preserve.

Desserts don't disappoint. The apfel strudel with white chocolate and thyme ice cream is intriguing, but I'd return for the Black Forest, which



features chocolate chiffon, chocolate mousse, brandied cherries and cherry sorbet. What a finale!

The large, reasonably priced wine list includes favorites from France and Italy, plus high-quality Canadian options. I enjoyed the difficult-to-find Moët et Chandon Ice Champagne.

Offering great food, top-notch service and stunning views of glistening Lake Louise, Walliser Stube is the perfect place to relax after a day of alpine hiking or skiing. —Bob Ecker



personalized instruction or advanced training, and match play. *Info: fourseasons.com/santabarbara* 

Sands Beach Resort in Lanzarote, Spain, caters to triathlon-training guests with an eightlane lap pool, bike rental center and triathlonspecific gym. You can sign up for private swim lessons with underwater stroke analysis with triathlon coach Victor Gonzalez or receive guidance from 16-time Ironman champion Bella Bayliss. The resort also offers complimentary Biolab DeportClinic medical analysis, bike fitting and technical support, and other triathlonrelated services. *Info: sandsbeach.eu* 

The Claremont Hotel Club and Spa in Berkeley, California, offers a coached swim program for adults and one-on-one swim instruction with rates starting at \$45 per 30-minute session. Hotel guests can also drop in for free on the resort's Adult Streamliners U.S. Masters Swimming organized workouts, which are held twice each weekday and on Saturday afternoons. *Info: claremontresort.com* 

Westin Kierland Resort and Spain Scottsdale, Arizona, is one of approximately a dozen resorts worldwide to offer instruction in flowriding. Combining bodyboarding, snowboarding, surfing and wakeboarding, flowriding allows both novices and skilled surfers to ride "stationary" waves generated from three-inch-thick sheets of water pumped over a wave-shaped surface at approximately 30 miles per hour. With instruction from two wavemasters, most novices can go from no surfing experience to standing on their own in less than an hour. Prices start at \$30 per person for one hour of shared instruction; private lessons and flowrider lane rental are also available. *Info: westin.starwoodhotels.com/kierland* 

-Kim Rosenlof



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## ON THE FLY

# Converting to a convertible

Do you love the wind-in-your-hair ride of convertibles but lust after a car that's sold just as a hardtop? Until lately, your only options were to forget about the convertible or forget about the car.

Not anymore. Two U.S. companies will turn your hardtop into the convertible of your dreams. We're not talking about some hokey bolt-on ragtop that howls in the wind and doesn't keep out the rain. No, these are carefully crafted conversions that retain the look and finish of the original cars.

Turning a hardtop into a convertible isn't easy. Sawing off the top is just the start, because on today's cars, the roof is integral to the entire structure. "If you remove just the hardtop, you might find your car sagging in the middle," says Larry Moran of Florida-based Convertible Builders (droptopcustoms.com).



For Moran's company, which specializes in Chrysler 300s and Dodge Challengers, the first task is to reinforce the chassis and frame to make up for the missing roof. The tops are hydraulically powered and use General Motors-style latches at the windshield line. The roofs are padded and insulated and have a headliner to match the car's upholstery. The rear windows are large, heated and designed specifically for each model. Nearly all the original trunk space is available even with the top down.



Newport Convertible Engineering (newportconvertible.com) specializes in exotic challenges how about a Chevy Tahoe or Range Rover convertible? It also takes on more straightforward projects like the BMW 740, Jaguar XJL and Teslas.

Owner Al Zadeh had planned to be a doctor but "I had a big problem with blood" so, instead of doing reconstructive surgery on people, he does it on cars. His company has grown from one shop in Southern California to include facilities in Dubai and Spain and the business has expanded from converting hardtops to providing falcon-hunting vehicles for sheikhs and armored cars for VIPs.

Manufacturers have apparently taken note of the conversions. Chevrolet has started making Camaro conversions, Moran says. Newport Convertible's conversions on PT Cruisers, meanwhile, ostensibly encouraged Chrysler to offer its own convertible.

What does a convertible project cost? At Convertible Builders, the Challenger starts at \$18,000 and the Chrysler 300 at \$21,000, but final prices depend on the options and accessories you choose. Newport Convertible declines to cite prices, saying each project is individually bid because the cars can range from Ferraris to classic Cadillac DeVilles. At both companies, projects typically take four to six weeks. —*Chris Caswell* 

# QUOTE UN QUOTE

"Ride-sharing, in the old days, was everyone hopping in the VW bus to see [the Grateful Dead's] Jerry [Garcia]. Now it's about getting a seat on a King Air 350i."

> -Kenny Dichter, CEO of private jet company Wheels Up, who lined up airplanes to transport fans to three Grateful Dead farewell shows in Chicago

SOURCE: NEW YORK TIMES

# GIVING BACK

**BJT** readers—who represent one of the highest-net-worth magazine audiences anywhere—clearly have the means to contribute to a better world. To help you do that, we're spotlighting deserving organizations in every issue. All of them have received a four-star overall rating from Charity Navigator (charitynavigator.org), which evaluates philanthropic institutions based on their finances, accountability and transparency.

The widely reported death of Cecil the lion—who was killed in Zimbabwe in July—has left people wondering how they can help to protect rare species from illegal hunting, especially given the shady backgrounds of some wildlife charities. Here are two that we trust and recommend.

#### Wildlife Conservation Network (wildnet.org)

The Wildlife Conservation Network, founded in 2002, works to protect endangered species by preserving and safeguarding their natural habitats. WCN takes a focused approach to individual species (cheetah, snow leopard, etc.) and partners with community-based groups around the world to implement conservation efforts that can be passed down through generations.

#### Wildaid

(wildaid.org)

Wildaid aims to stop the illegal trade of things like shark fin, elephant ivory and rhino horn. The group creates campaigns to educate consumers on subjects such as the dangers of poaching, which harms alreadyendangered species and threatens tourism and jobs in developing countries.—Jennifer Leach English ONE CREW. ONE AIRCRAFT. ONE SEAMLESS, EXCEPTIONAL FLIGHT.

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# Business Jet Traveler's **5th Annual Readers' Choice Survey**





ore than a thousand subscribers responded to **BJT**'s 5th Annual Readers' Choice Survey. Our thanks to all of you for taking the time to participate and helping us report on how well the industry is serving your needs.

As in last year's survey, one of the most interesting results was the response to the question, "How do you expect your private flying to change in the year ahead?" When we asked this last year, nearly 40 percent of you said that you planned to fly a bit or much more over the next 12 months. By comparison, fewer than 10 percent anticipated flying a bit or much less.

In fact, your flying apparently increased, but not as significantly as you predicted it might: 28 percent of you said you did indeed fly a bit or much more over the past year, but 23 percent indicated that you flew a bit or much less.

Be that as it may, readers are again anticipating that their bizav use will rise significantly, with 40 percent again expecting to fly a bit or much more and only 8 percent anticipating a minor or major reduction in flight hours.

Turn the page for the latest data on why **BJT** readers fly privately, what aircraft features matter most to you, how you rate aircraft manufacturers, what models you'd most like to own and more.

You'll find a version of this report that includes demographic information about respondents at bjtonline.com/2015survey. —*Ed.* 

# MAKING THE CONNECTION

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lobal, powerful, integrated: today's technology is enabling a new era of inflight connectivity for business aviation. From large-cabin and executive jets to turboprops, and from manufacturers to retrofit markets, broadband access is now an option in name only.

"More and more, the expectation is that we're connected when we're in the air," said David Loso, chairman of the Aircraft Electronics Association (AEA) and avionics sales manager at Jet Aviation, St. Louis. "I have clients who may have an airworthy airplane, but if the Internet system isn't working, they say it's not mission-ready."

It's not only those onboard who value connectivity. "Lenders, lessors, brokers and dealers recognize how important Wi-Fi is to maintain the marketability of an aircraft," said Rollie Vincent, president of business aviation consultancy Rolland Vincent Associates and director of JetNet iQ.

"Connectivity," of course, involves more than simply what's happening aboard the aircraft. It's the watchword for evolving alliances linking service providers ranging from network operators to hardware manufacturers and system developers, united in their efforts to create seamless access solutions tailored to users' needs, budgets and travel patterns. To be sure, aircraft have been digitally tethered to the ground since the late 1990s, but access devices and connectivity technology have undergone dramatic transformations since then. "For 20 years we have had the connected airplane—now we have the connected passenger," said Peter Lemme, avionics consultant and technical advisor to the SAE and NBAA.

Meanwhile, the next generation of connectivity solutions is about to debut, even as providers advance the capabilities of legacy systems. So fasten your seat belt and prepare to be entertained or productive—it's going to be a very connected flight!

#### Connectivity Challenges and Solutions

"People today live integrated digital lifestyles, and we are focused on letting them do everything they do on the ground in the airplane," said John Wade, executive v-p and general manager of onboard phone and Wi-Fi provider Gogo Business Aviation. But Wade adds that such enablement entails a high degree of customization to satisfy individual demands. "Everybody's lifestyle is different—calling, texting, surfing, watching movies," he said.

Gogo meets the customization challenge by supplementing its U.S. air-to-ground (ATG) mobile phone and data network with global satcom-service packages from Inmarsat and Iridium. Gogo has also developed proprietary hardware to deliver enhanced connectivity and content through its ATG services.

Rockwell Collins' ArincDirect, meanwhile, sees connectivity as "a tool to provide new solutions, services and applications that improve business aviation," said David Stanley, staff v-p, information management services. Purchasing ArincDirect, progenitor of many cabin-communication, flight-data and ancillary solutions, in 2013, put the company in a position to provide that tool as well as address global bandwidth needs. Rockwell Collins supplies connectivity equipment and services to many aircraft manufacturers and maintenance providers, and will be a distribution partner for Inmarsat's Jet ConneX (JX) Ka-band high-speed broadband, set to commence service in late 2015.

For Honeywell Aerospace, "Connectivity needs to satisfy passengers three ways," said Jack Jacobs, v-p of marketing and product management: "It's got to be high speed, so data gets on and off the airplane quickly; it's got to be global, with multiple pipes to serve any geographical position in the world; and it's got to be affordable."

To meet the economy bar for its suite of highspeed global connectivity offerings, including Inmarsat, Iridium and ViaSat satcom solutions, Honeywell maintains seven years of customers' onboard call and data records, allowing them "to forecast their connectivity requirements," Jacobs said. Moreover, as exclusive hardware provider to Inmarsat's coming Global Xpress (GX) Ka-band satellites), Honeywell is at the forefront of delivering lower-cost access to all connectivity customers. "The new systems like GX provide a better per-bit price," Jacobs noted.

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I have clients who may have an airworthy airplane, but if the Internet system isn't working, they say it's not mission-ready.



Indeed, the costs of connectivity services, usually charged by the amount of data received and sent, have dropped significantly in recent years; and ViaSat, the vertically integrated satcom-services company that has the highest-capacity connectivity satellites in the sky, can claim a large share of credit. "Because we have so much capacity, the economics work in our favor, which works in customers' favor," said James Person, ViaSat's director of global business development. "We can spread the costs over many users, so the rates are much lower."

But the connectivity remains first class. ViaSat's new Exede In The Air, a Ku/Ka-band hybrid Internet service, was honored this year with a Crystal Cabin award and named In-Flight Connectivity Innovation winner at the Excellence in Avionics Awards. Exede delivers "four to five times the performance" of ViaSat's trademark Yonder broadband service, at no increase in cost, Person said. Meanwhile, Yonder, which Gulfstream recently credited with helping a company G650 attain a round-the-world speed record, thanks to maintaining communication with flight-ops specialists, is also in the midst of a major performance enhancement.

This expanding world of connectivity solutions creates another challenge that providers are bridging: leaving customers free to enjoy broadband access transparently. "Three or four years ago, an aircraft had one satcom system," said Jim Jensen, founder and CEO of Satcom Direct. "Today there's Ku-band, Ka-band and air-to-ground solutions that are coming up, and all of a sudden having one connection isn't good enough."

As a premier Inmarsat Distribution Partner, Iridium Service Partner and ViaSat Yonder preferred reseller, Satcom Direct is familiar with managing multiple networks simultaneously and has answered the challenge with the introduction of its proprietary SDR (Satcom Direct Router). The SDR automatically switches among networks to maintain optimum connectivity worldwide, and the router enables Satcom Direct's new GlobalVT service for iOS devices (Android compatibility expected soon). "It's the holy grail of what everybody wanted," said Jensen of the Global VT talk-and-text offering. "You walk on the aircraft with your own phone, and when you call somebody, they see your number. And when they call you, your phone rings; there's nobody in the middle."

Meanwhile, a new generation of solutions is in the offing, and today's providers are working to integrate them into the portfolio of connectivity options. Satcom Direct, for example, has partnered with a new entrant, SmartSky Networks, to market the latter's planned U.S. 4G ATG network, which promises data speeds some 20 times faster than comparable current systems offer.

"Our airborne solution will enable two-way, real-time video streaming," said Haynes Griffin, founder and CEO of SmartSky Networks. "If you can meet that



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gold standard, you have the capacity to meet all the other less-demanding customer connectivity needs as well." SmartSky aims to further democratize airborne broadband access by making it available to more aircraft. Griffin noted that the size of antennas currently required for satcom broadband reception confines the services mostly to large-cabin business jets and executive-configured airliners. "So a small proportion of business jets have access, whereas our system will work well on turboprops and very light jets," Griffin said.

SmartSky is scheduled to commence service by the end of 2016, with Textron Aviation as launch manufacturer. Supplemental type certificates (STCs) for retrofits are being pursued through Duncan Aviation, and Jet Aviation and Standard Aero are also approved SmartSky retrofitters.

#### **Connectivity Architecture**

All airborne connectivity solutions use the same basic architecture: an antenna, a modem/transceiver and a router.

The antenna may receive signals from satellites and/or from a ground station, depending on whether it's a satcom or air-to-ground (ATG) solution. Current satcom antenna requirements regarding size, weight and power limit their use primarily to large-cabin-and-up airframes. But a new generation of satellites and antennas will bring connectivity to smaller cabins. "In the next two years you'll see these antennas hit the marketplace," said Lemme, who helped establish the standards for Ku- and Ka-band systems under the SAE-Industries Technology Consortia. "They will open up broadband satellite operations." Honeywell's AMT-700 antenna, among the smallest and lightest mechanically steered antennas, is standard equipment on the in-development Gulfstream G500 and G600, and it will bring improved voice and data quality to SwiftBroadband service. The Phoenix-based company is also creating with Inmarsat and flat-panel-antenna-maker Kymeta a smaller, higher-speed antenna for GX broadband that will extend the service to a wider variety of aircraft.

Gogo has introduced a low-profile, next-generation antenna for its soon-to-debut 2Ku service, which leverages the Intelsat and SES Ku satellites. The dual-antenna system uses one of the pair for the upward (receive-only) link to the aircraft, the other for the downward (return) link to the ground and promises peak speeds of up to 70 Mbps.

Meanwhile, Rockwell Collins has introduced on its Tailwind 550 Direct Broadcast Satellite antenna technology that provides 25 percent greater programming coverage and improved reliability and can be used as a drop-in replacement for current Tailwind 550 installations.

A solution's modem/transceiver manages connectivity, feeding the data that goes outbound through the antenna and processing the data that comes inbound. Providers have been updating this equipment to take advantage of performance enhancements that expanding networks and evolving technology enable. ViaSat's new Global Aero Mobile Terminal 5320, for example, automatically roams between the company's Ka- and Ku-band networks, offering connection speeds of between 70 and 100 Mbps to the aircraft and between 2.5 and 20 Mbps from the aircraft.

SmartSky Networks—which is otherwise pursuing an "open ecosystem" architecture on its 4G ATG network so customers can choose the equipment they want—is nonetheless making its own modem/ transceiver in partnership with the Harris Corp., to take advantage of its knowledge of the patented "software-defined radios" that power the solution, said Griffin. SmartSky will also manufacture the system's two onboard antennas. Satcom Direct and Rockwell Collin's ICG are approved router vendors for the system.

#### ON COURSE FOR CONNECTIVITY

Keeping pace with connectivity innovations and new products calls for a solution all its own. "Everybody's struggling for knowledge," said Jim Jensen, founder and CEO of Satcom Direct. This year the company introduced AeroIT, the first information-technology certification for the aviation industry. The five-day AeroIT training course covers network configurations and satcom systems. Satcom Direct developed a voluminous AeroIT textbook that can be used for selfstudy. The certification examination meets American National Standards Institute and International Organization for Standardization requirements, and AeroIT accreditation must be renewed every three years.

In the cabin, as at home or the office, a router provides the wireless (and/or wired) access to the Internet. A router may be proprietary or be designed to work with only the service provider's system or with any open-architecture hardware. Proprietary routers, like Gogo's UCS 5000 Smart Router and Satcom Direct's SDR, optimize the performance of the provider's system and offer features a generic router may not incorporate. "It's not a product, it's a platform," Jensen said of "intelligent traffic routing" hardware that has been installed on aircraft ranging from a Citation CJ3 and Learjet 45 to BBJs and ACJs.

In addition to handling broadband management, Gogo's UCS 5000 manages the Gogo Vision IFE system, the first to offer wireless, automated uploads of IFE content.

Generic routers typically cost less but still enable value-added services such as data compression, content filtering, VOIP and bandwidth management, while providing the flexibility to switch services without replacing the router.

#### Fresh Connectivity Options

New offerings and system upgrades are delivering higher speeds and lower costs, with more coming soon. The exciting connectivity developments include the following:

#### Jet ConneX (JX)

Satcom provider Inmarsat's Ka-band broadband network, Global Xpress (GX), is scheduled to begin operating in the fourth quarter, with peak data rates of its Jet ConneX (JX) service pegged at more than 60 Mbps. "They're fueling the rocket as we speak, and [the third and final Inmarsat-5 satellite] will reach its operational orbit before the end of the year," said Jacobs of Honeywell, exclusive GX hardware provider, whose JetWave terminal will drive onboard service. GX will constitute the first global broadband network. Bombardier's Global line is the bizav launch platform for the service, which will also be available on new Boeings and the Airbus A350. Gogo and Rockwell Collins are serving as Value Added Resellers of GX Aviation services. In addition to increased speed, GX will deliver "more affordable inflight connectivity, with

simple pricing options that allow operators a greater control of their budget," said Stanley of Rockwell Collins' ArincDirect.

#### Iridium Next

Iridium's second-generation satellite constellation, Iridium Next, will provide the speed and bandwidth to support a host of innovative connectivity applications in addition to greatly enhanced and lower-cost onboard broadband connectivity. Scheduled to be operational by late 2017, it will offer peak high-speed Ka-band rates of 8 Mbps and L-band data rates of 1.5 Mbps. Rockwell Collins will design and manufacture the terminals for Iridium Certus, the voice and data service supported by the Next constellation. "The speed, weight and size [of the system] looks to make this a low-cost solution for small or midsized aircraft, for both flight-deck and cabin connectivity," Stanley said.

#### Gogo 2Ku

Gogo's newest technology, 2Ku, leverages next-generation spot-beam Intelsat and SES Ku satellites. The onboard system uses dual high-efficiency antennas for dual transmission, and delivers peak speeds to the aircraft of more than 70 Mbps. The antennas' low profile (17 cm) radome promises a

#### THE LAUNCH-CABIN QUESTION

Most onboard broadband providers inaugurate services with the airlines before offering them in the business aviation market, but SmartSky is making a course reversal on that model. "The business jet industry has much more distributed decisionmaking," said chairman and CEO Haynes Griffin, explaining why the Charlotte, North Carolina company will offer its 4G ATG service, scheduled to launch by the end of 2016, to the bizav fleet first. "Unlike commercial aviation, which has long lead times and perhaps slower decisionmaking, we know that the business jet customer values his time and efficiency, and we believe will immediately recognize the benefit of having real office-in-the-sky connectivity."



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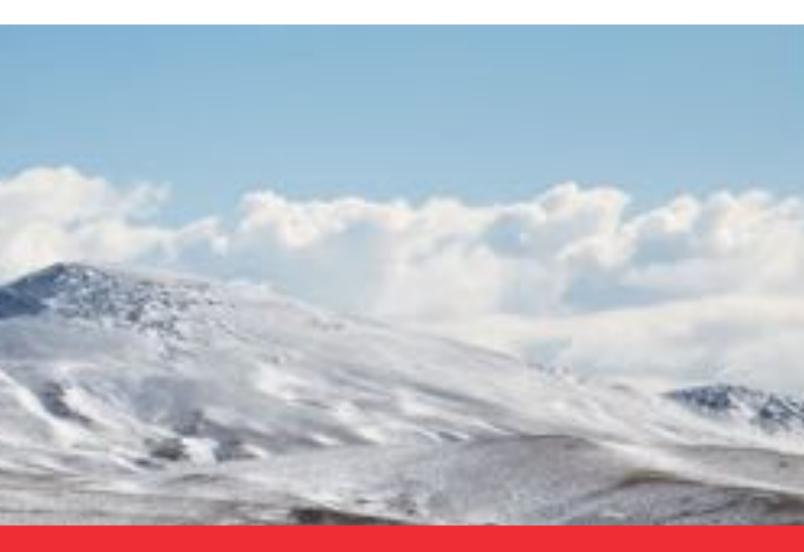


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#### WHERE AIRCRAFT MANUFACTURERS GO FOR SOLUTIONS

While operators look to network service providers for broadband access, aircraft manufacturers (OEMs) turn to a few of them for enabling hardware. California-based ViaSat, primarily known for its satcom services, is also a major hardware provider, working largely "under the radar," behind OEM-branded solutions, said James Person, director, Global General Aviation/VVIP Business Sector. Case in point: Gulfstream's Broadband MultiLink (BBML) high-speed Internet service. ViaSat makes BBML, available on the G650ER, G650, G550 and G450. The equipment continuously searches for optimum satellite data channels, automatically switching from Ku-band to L-band and back to take advantage of the best available bandwidth and connection.

50 percent reduction in fuel-burn penalty compared with traditional gimbaled antennas. Service will first be offered on commercial carriers, though the company expects to make an announcement "soon" about its availability in the business aviation sector, said Tom Myers, marketing director. If installed on an executive-configured airliner outfitted with Gogo's ATG 8000, the system would support up to 75 user devices simultaneously.

#### Exede In The Air

ViaSat's Exede In The Air Ka-band service, which debuted as an airline offering (and won the Avion Award for Best Achievement in Technology at the 2014 Airline Passenger Experience Expo), is now available in the business aviation market. The service automatically switches between ViaSat Ka- and Ku-band satellites and is aimed at largecabin aircraft flying high-density routes over North America, Europe, the Mediterranean and northern Africa. Exede In The Air supports simultaneous use of multiple devices for high-bandwidth applications such as multi-site videoconferencing, social media and live streaming of HDTV and movies. The service will get a boost with the 2016 launch of ViaSat 2, which will enhance capacity in areas including the North Atlantic, which Person calls "the key" to fulfilling market demands. "That's where the vast majority of business jets are flying and where people are using the Internet the most," he said.

#### SmartSky Networks

SmartSky Networks plans to inaugurate its 4G ATG network in the U.S. by the end of 2016, increasing speeds to the cabin so dramatically that it is akin to "the transition from dial-up to broadband," says Griffin. Based on technology the Harris Corp. developed for a U.S. Navy ship-to-jets radio system, and using patented spectrum-reuse technology, the system will employ the current cell-tower infrastructure to host the service. It will use the 60 MHz spectrum and will reportedly offer more than 20 times the speed of current service. "Beam forming will enable us to target each aircraft with its own beam," said Griffin. "That way we can offer 4G, even in congested airspace." Satcom Direct will be the exclusive distributor of the service. Said Ken Banthoff. Satcom Direct's chief technology officer, "We're working directly with [SmartSky], developing tools and technologies to ensure a tight integration and access to all our services."



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#### THAT'S ENTERTAINMENT

Besides controlling cabin connectivity, routers integrate in-flight entertainment (IFE) and cabin management systems (CMS), opening new paths for innovation. The UCS 5000 router from Chicago-based Gogo enables wireless content downloads for its Vision IFE system (licensed for early content release), marking the industry's first wireless IFE content-refreshment solution. Equipped aircraft simply taxi onto the ramp of a participating Signature FBO, and the download is accomplished automatically.

#### SOLUTION SELECTION

Selecting an onboard connectivity solution can be a complex process, but you, and qualified providers, can simplify it. Focus on service and applications, advised Rebecca Siderling, a senior director at Honeywell Aerospace: "How much do you want to spend, how will you use the service, and where will the aircraft operate? Whether you want to talk and text, or video conference, will dictate how much bandwidth you need." Also consider network reliability, customer support and "the age of your fleet and how many tail types," added Jack Jacobs, the company's v-p, marketing and product management. "It's not a simple decision tree. That's why we have good salespeople."

#### The Upgrade Decision

New connectivity options and solutions are coming online, promising faster speeds and lower costs, helping make connectivity "the number-one feature that owners and operators are considering in their next cabin upgrade," said Vincent. But if you already have a connectivity solution onboard, don't feel in a rush to rip out the old and install the new. Providers continually upgrade and update legacy systems for performance boosts.

#### ATG-4

Gogo's ATG-4 service significantly enhances its ATG network and improves data speeds by approximately four times. The ATG 8000 equipment for ATG-4 incorporates a directional antenna and dual modem and software upgrades, and is suitable for large-cabin jets and executive-configured airliners. Existing Gogo ATG systems can be upgraded to ATG-4 through low-cost retrofits.

At the other end of the cabin scale, Gogo introduced its ATG 1000 system this year, a software-upgradeable service that supports high-performance email with attachments, and enables calling and texting with smartphones, connecting up to five personal devices simultaneously. ATG 1000 is particularly suited for light jets, turboprops and owner-flown aircraft.

#### AeroXR

Satcom Direct offers, through its SDR router, AeroXR, a data acceleration and compression service that

increases the speed of Swift 64 up to 200 percent, and Swiftbroadband service up to 400 percent. Replacing the company's previous AeroX service, it's compatible with hardware such as Honeywell's Cabin Gateway (CG-710) terminals, supports up to 30 devices simultaneously, and is a free value-added service for Satcom Direct's Inmarsat customers.

The appropriately located Satellite Beach, Florida company also offers SkyStream for large-cabin, narrow-body and larger aircraft equipped with its SDR router. SkyStream combines multiple streaming channels of Inmarsat's SwiftBroadband service to achieve data speeds enabling communications applications including video conferencing and streaming video or music anywhere in the world. The channel bonding aggregates up to four channels and speeds up to 1.4 Mbps. SkyStream is typically utilized "where cost is less of a concern and [customers] need the most bandwidth." said Banthoff.

#### SwiftBroadband High Data Rate (HDR)

SwiftBroadband remains a popular gateway for light Internet connectivity, delivering peaks of 432 Kbps, and Inmarsat is rolling out an enhanced version, SwiftBroadband High Data Rate (HDR). Honeywell developed the system, which is available through a software upgrade to its onboard HSD-400 and HD-710 hardware. Promising peak rates of 650 kbps, the system allows four channels to be combined to create average data-transfer rates of 2.15 Mbps. Gogo will sell voice and data plans for

HDR, as it does for standard SwiftBroadband. "It's a simple software upgrade in the field to our existing satcom service," said Rebecca Sidelinger, senior director, marketing and product management. "So if our customers have an older satcom system, they can click and almost double the speed."

#### Aspire 200 HDR

In 2014, Honeywell introduced Aspire 200, its smallest Inmarsat SwiftBroadband system, available as a retrofit for all cabin classes, to enhance simultaneous voice and data communication. Now Honeywell is offering an HDR (High Data Rate) software upgrade for Aspire, boosting rates to 650 Kbps per channel from its previous per-channel high of 432 Kbps. Honeywell can also accelerate legacy Inmarsat service with its eNfusion HSD-400 High-speed Data Transceiver, combining four channels of Swift64 Service or two channels of SwiftBroadband for voice and Internet access over the Inmarsat I-4 satellite network.

#### **Controlling Costs and Protecting Data**

The increased bandwidth and improved efficiency of the next-generation solutions will lower per-bit costs, and prices of hardware have dropped dramatically, but operators must still pay for the equipment as well as a data-service plan. Here's what some providers are doing to increase affordability.

Gogo has introduced an all-inclusive plan that covers the hardware, installation and data service for about \$1,500 per month, according to the company. "We provide the financing for some boxes, and in some cases we'll even provide the terminal, and we'll give you the handset, if you make us the [service] provider," said Wade. "Innovation doesn't have to be uniquely about technology." This spring Gogo also introduced a bundled data program for customers using both Gogo Biz and SwiftBroadband, providing a 20 percent discount on the combined services.

With the service launch of JX, Rockwell Collins' ArincDirect will introduce connectivity packages combining JX, SwiftBroadband, Iridium, datalink and voice and other services for one flat fee.

#### DATA RATES AND STREAMING

Connectivity solutions typically promote their peak data speeds, leaving customers to translate the numbers into performance. But many experts advise ignoring peak-speed metrics; instead, simply consider what the solution is supposed to provide. If it offers talk and text, the speed will be sufficient for the application. If video conferencing is one of the supported features, the solution will have the bandwidth to accommodate the service. These experts note that typically, broadband-enabled apps connect to the Internet from airborne solutions just as they do when you're using them on the ground, and are subject to the same vagaries of bandwidth availability, which typically fluctuate. As for streaming, most systems today (unlike many coming solutions) don't have the bandwidth to support the Netflix-type apps that users equate with streaming. On those systems that do, since most access plans charge by the amount of data used, the price of streaming content can be cost prohibitive.

#### Data Usage Examples

The following table contains data-consumption estimates for some common uses. This information is intended only as a guide, as actual usage can vary widely based on several factors (e.g., whether a video is HD or an email contains attachments).

Activity	Data use
Browse web 1 hour	1.5-25 MB
Download 100 emails	1-10 MB
Download 1 photo	1-12 MB
Download 1 MP3	3-8 MB
Download 1 film trailer	7–50 MB
Download 1 software app	70-800 MB
Download 1 film	700-1,500 MB
Stream 1 minute of video	3 MB
Stream 1 hour of audio	50-150 MB
SOURCE: Duncan Aviation	

It's got to be high speed, so data gets on and off the airplane quickly; it's got to be global, with multiple pipes to serve any geographical position in the world; and it's got to be affordable.

13

Better data management can also cut costs and provide a better user experience. Providers offer value-added services that can help "clean up the pipe," as Satcom Direct's Jensen said of Sky-Shield, a user-configurable feature of the company's SDR that can block unnecessary data hogs like iTunes updates, access to streaming services and other high-bandwidth uses. Satcom Direct also developed a patented voice codec for its GlobalVT service to surmount latency problems and deliver superior voice quality. Operators can use Satcom Direct's Plane Simple-a Web-based user interface-to set usage thresholds, monitor usage reports and get alerts. "If they have a \$1,000-per-month budget for connectivity, when it gets to 80 percent [of usage], it sends a message," Jensen said, and the interface also tracks what services are turned on and what are available but turned off.

Meanwhile, for Part 135 operators trying to track who's using data, Satcom Direct's SkyTicket provides tools that allow operators to monitor usage, indicating, for example, whether the crew or passengers used the data and creating a report for each flight that enables operators to bill for usage if they wish.

SmartSky will offer "a customized suite of telecom services" for its network, Griffin said, and has partnered with Satcom Direct to provide customer service. "Describe your mission, requirements and typical geography [range] and they can help you select among the options," he said.





Rockwell Collins' ArincDirect has added a dashboard that includes operator control over content-filtering options, access restrictions and usage alerting. "When we launched the broadband services, we acted primarily as an ISP [Internet Service Provider], giving customers untethered access to the Internet," said Stanley. "[But] with the proliferation of personal devices making their way on board the aircraft, customers began wanting us to find ways to help control rogue usage."

More recently Rockwell Collins' ArincDirect introduced Cabin Connect, allowing unique logins via credit card payments. "The next app you will see come from us is a refresh of our dashboard and a fixed-to-mobile convergence solution—the ability to receive a call on an aircraft using your own mobile number—but we are going to do it with a twist," Stanley said.

But today's connectivity solutions need to be more than just efficient and economical. "Information security is a huge issue," said Satcom Direct's Jensen. The company's data center, operated by subsidiary TerraCom Direct, is "the key to safeguarding connectivity and communications streams, and better securing the missions of our customers," he said. The facility provides enterprise-level security and creates secure solutions designed to meet client specifications and corporate requirements.

As digital devices and apps become more a part of everyday life, cabin connectivity solutions will ensure that business aircraft retain the title of World's Ultimate Productivity Tools. That link is one connection just about everybody in business aviation is making. We can spread the costs over many users, so the rates are much lower.

#### WHAT'S NEXT AFTER NEXTGEN

Connectivity providers are already planning for post-next-gen broadband solutions. Rockwell Collins has signed an MOU to develop and certify satcom terminals for OneWeb, which intends to launch a global constellation of more than 600 Low Earth Orbit satellites delivering low-cost, high-speed Internet access, with service scheduled to commence in 2019. The system will utilize electronically scanned array (ESA) antenna technology developed by Rockwell Collins that reduces the equipment to a fraction of the size and weight of traditional onboard satcom antennas.

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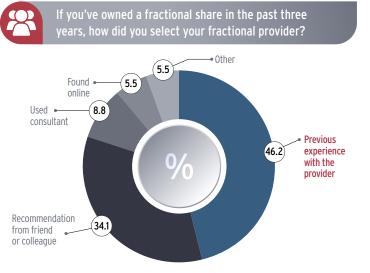
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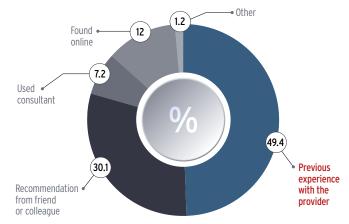
Please rate this fractional aircraft provider on each of these factors from poor (0) to excellent (5).



### **JET CARDS**



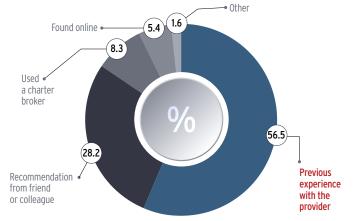
If you've had a jet card within the past three years, how did you select your jet-card provider?



### **CHARTER OPERATORS**

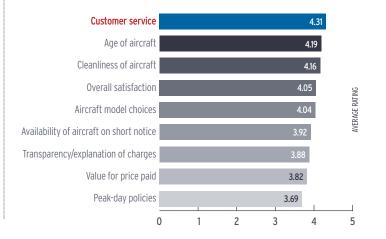


how did you select the operator you used most recently?



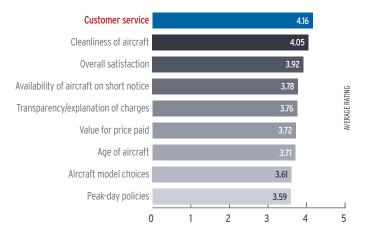


Please rate this jet card provider on each of these factors from poor (0) to excellent (5).





Please rate this charter operator on each of these factors from poor (0) to excellent (5).



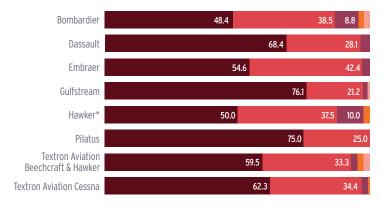
Business Jet Traveler's 5th Annual **Readers' Choice Survey** 

### **OWNED AIRCRAFT**

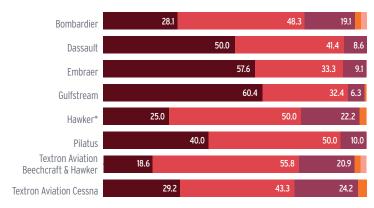


Please rate your business aircraft model on each of these factors.

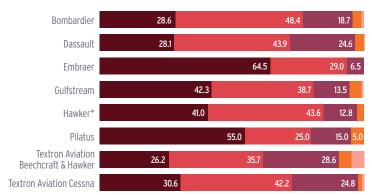
### Aircraft reliability



### Aircraft technology



### Aircraft value for price paid

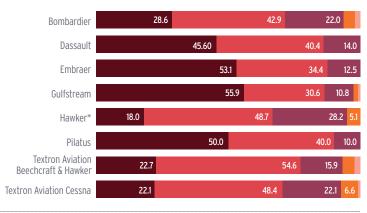




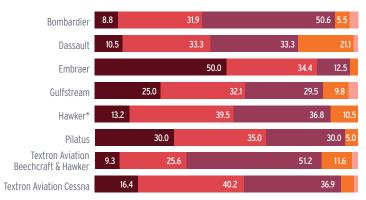
### Cabin amenities

Bombardier	19.5				54	.0		25.3
Dassault			42.1			40.4		17.5
Embraer		35.5			32.3		22.6	9.7
Gulfstream			42.9			43	.8	12.5
Hawker*		28.2		30.8			35	5.9 <mark>5.1</mark>
Pilatus			50.0				40.0	10.0
Textron Aviation Beechcraft & Hawker	18.6		3	4.9			4	1.9
Textron Aviation Cessna	10.9			48.7			3	37.0

### Cockpit technology



### Cost of maintenance

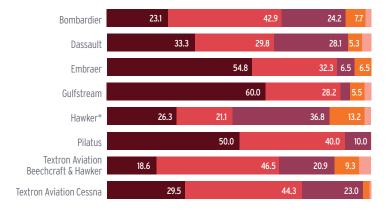


#### OWNED AIRCRAFT



Please rate your business aircraft model on each of these factors.

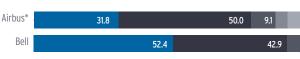
#### Manufacturer's product support



#### **OWNED HELICOPTERS**



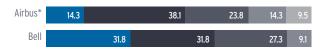
#### Aircraft reliability



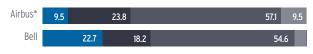
#### Aircraft technology



#### Aircraft value for price paid



#### Cabin amenities

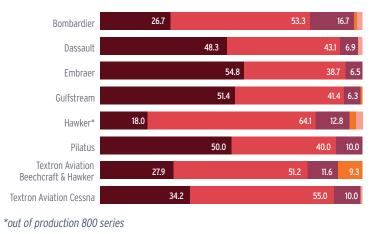


#### Cockpit technology



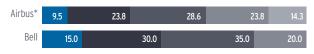


#### **Overall** satisfaction

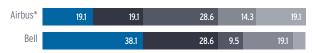




#### Cost of maintenance



#### Manufacturer's product support



#### **Overall** satisfaction



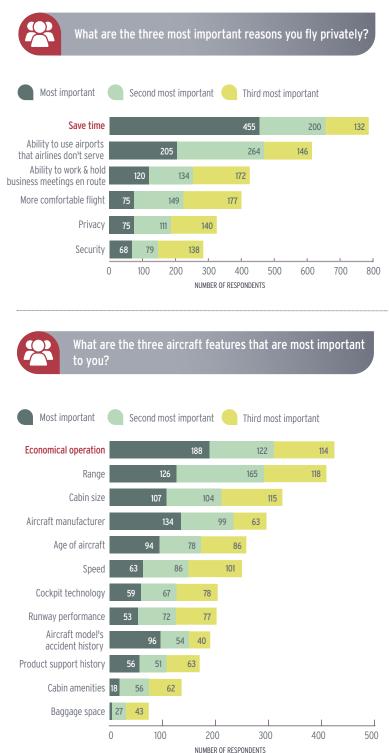
NOTE: Respondents rated airplanes and helicopters that they or their companies owned within the past three years. We received insufficient data to report on manufacturers not listed. Percentages may not total 100 due to rounding and because numerals are not shown for ratings under 5 percent.

\*Airbus Helicopters (formerly Eurocopter)



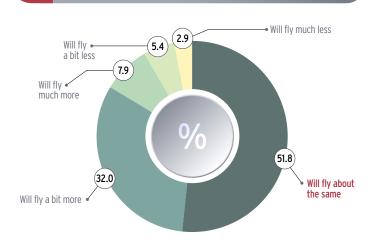
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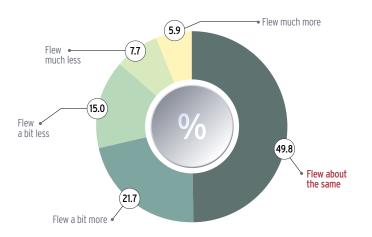


How do you expect your private flying to change in the year ahead?



8

How has your private flying changed in the past year compared with the year before?





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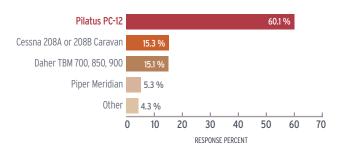
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#### Business Jet Traveler's 5th Annual **Readers' Choice Survey**

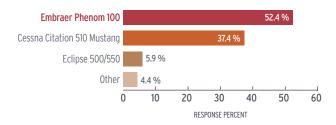
#### WISHED-FOR AIRCRAFT

If you could receive a complimentary year of flying, which aircraft would you choose?

#### Single-engine turboprop airplane



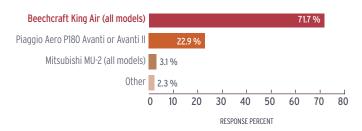
#### Very light jet (VLJ)





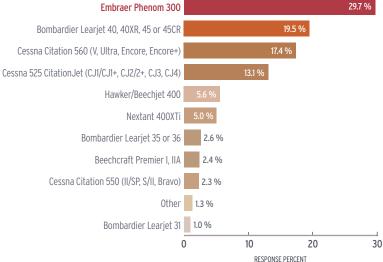


#### Twin-engine turboprop airplane





#### Small-cabin/light jet



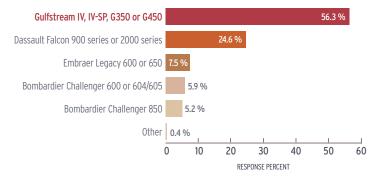
It's easy to see which Falcon owners have long-range plans.

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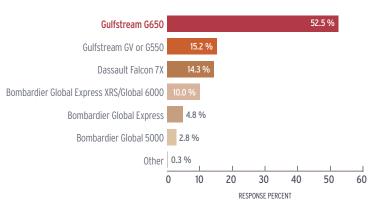
#### Business Jet Traveler's 5th Annual **Readers' Choice Survey**



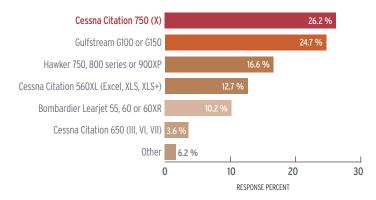
#### Large-cabin jet



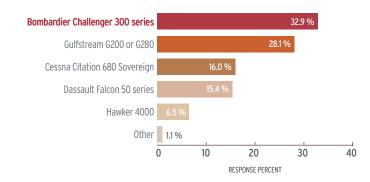
#### Ultra-long-range/heavy jet



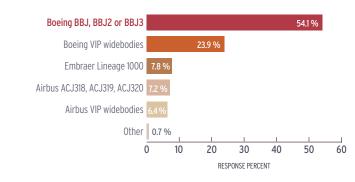
#### Midsize-cabin jet



#### Super-midsize-cabin jet

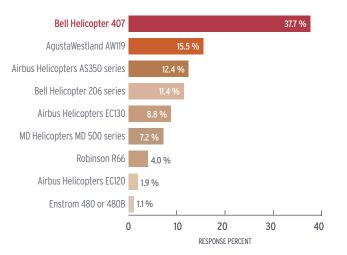


#### Bizliner



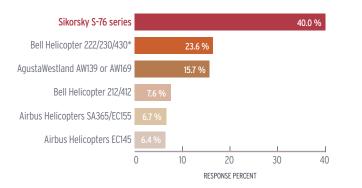


#### Light single-turbine helicopter





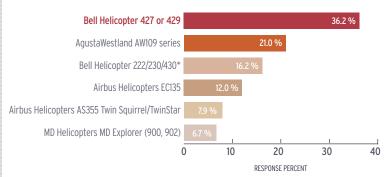
#### Medium twin-turbine helicopter





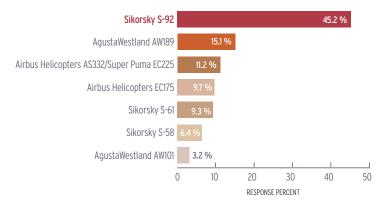


#### Light twin-turbine helicopter





#### Large twin-turbine helicopter



\* Bell 222/230/430 are variously regarded as light and medium; rated here in both categories

## **Investing in startups**

When it comes to angel investing, the devil is in the details.

by Chana R. Schoenberger

ngel investing—buying stakes in newborn companies—can produce substantial returns, but you'll have to take on considerable risk to have a shot at those profits. If you're extremely lucky, you'll bet on a business like Google or Facebook; if you're not, you could lose some or all of your investment.

As the startup scene continues to roar back from the financial crisis that began in 2008, angels are opening their checkbooks, hoping to cash in on the latest trends in tech, healthcare, fashion and even manufacturing. In 2014, angels invested \$24.1 billion in 73,000 entrepreneurial ventures, approaching the 2007 peak of \$26 billion, according to the Center for Venture Research at the University of New Hampshire, which counts 316,000 active angel investors in the U.S.

How risky is angel investing? Some 52 percent of angel deals result in losses because the businesses fail. Of the companies that don't lose money, only 10 percent return angels' investments more than 10 times over, says Marianne Hudson, executive director of the 13,000-member Angel Capital Association, based in Overland Park, Kansas. And as for Facebook-style success: that's a lottery-odds long shot.

You can be an angel in the U.S. if you're an accredited investor, as defined by the Securities and Exchange Commission (*see page 28*). Angels usually put \$10,000 to \$50,000 into an early-stage startup, typically after a friends-and-family round, which provides some comfort, Hudson says: "If they can't get the people who love them to invest, why should you?" (Friends and relatives must also be accredited to participate; the

difference is that they rely on their personal connection to the founders to give them confidence about the company's prospects.)

Tax laws are designed to encourage angel investors to put money into risky ventures. If the business is set up as a limited-liability corporation and has losses, you can claim a portion on your federal tax return. For a C corporation, IRS Section 1244 allows for deduction of up to \$50,000 per year in losses for investors who are part of the first \$1 million in qualified smallbusiness stock, with some other requirements,

Ange ings of st make inv counts w Steve Ca entreprei Laws, ch For a just one after that ment typ venture-or rounds,

Hudson says. In addition, the IRS and a few states exempt from taxes capital gains on qualified small businesses, and just over half the states offer some sort of tax credits to angel investors.

O ne increasingly popular way to make angel investments is through crowdfunding websites, which let you find and fund startups online. The largest of these, AngelList, helped fledgling companies raise \$104 million in 2014. Part social network, part capital-introduction service, these sites allow you to screen many new businesses at

once and create the diversified startup portfolio that experts recommend.

AngelList members—who join for free but pay 20 percent of any profits to the group—can buy shares in a fund that invests in companies the site lists. They can also follow people who list their own investments on the site, paying those lead investors 15 percent of any profits after they make their money back, with another 5 percent going to AngelList. More sophisticated angels can comb through the website's list-

ings of startups, do their own due diligence, and make investments through the site. AngelList counts well-known people like AOL cofounder Steve Case as members; the typical user is an entrepreneur who has sold a company, says Kevin Laws, chief operating officer.

For a startup, the angel-funding round is just one step on the road to growth. Some time after that round closes, the company's management typically takes on larger investments from venture-capital funds, followed by several more rounds, delineated alphabetically. If all goes well, each round carries a higher valuation. In a





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#### MONEY MATTERS

"series A" round, the founders may sell some 25 to 50 percent of the business to the venture capitalists, diluting—but also increasing the value of their own stake and that of their early investors.

"If you owned 1 percent of the company, with new investors coming, you'll own less of a bigger company," says angel investor Alicia Syrett. Investors often have the right to maintain their pro forma percentage ownership by buying more shares in subsequent rounds; angel networks often ask for these rights, she adds.

If you intend to invest a significant amount of time and money in this asset class, you might consider joining a local network or club, such as New York Angels, where Syrett is on the board. The advantage is that the group sees a relatively large number of companies—about 120 a year at Syreet's club. As a member, you might attend a monthly meeting at which startup founders, perhaps 1 percent of those who apply to the group, present their companies.

If you're interested in a startup that presents, you can raise your hand to participate in the group's due diligence research—analyzing the company's financials, speaking with key customers and vendors, and scrutinizing the competitive landscape. If you write checks to four or five of the companies annually for five years, you'll wind up with a diversified angel portfolio, Syrett says. If you have less time to spend on angel investing, consider that some groups, including New York Angels, have their own funds in which members can participate.

A fter a career in hedge funds and private equity, Syrett turned to angel investing fulltime four years ago, setting up a vehicle to hold her own investments called Pantegrion Capital. Her portfolio includes stakes in some 25 startups and she sits on a half-dozen advisory boards.

So far, none of her startups has been sold or gone public, the coveted "exits" that angel investors use to harvest profits. That can take three to 10 years. She has learned to be patient, to do her research, and to offer help to the startups in which she invests, making introductions and providing advice.

"The two big things correlated with investment return are the time you spend [researching] the company before investing and the time you spend with them afterward," Syrett says.

She advises looking carefully at the capital structure of a company—who owns what, and with what rights—before investing. Angels aim to own preferred stock, the most senior type of equity, which comes with the right to receive dividends before holders of common stock. Some startups begin by selling convertible debt, which can convert into preferred stock. Have your lawyer look over the documents to make certain of what rights your stock or convertible debt would carry.

Another lesson from Syrett's experience: make sure to earmark capital for follow-on investment rounds in the startups you've backed. You might need to double or triple the amount you've put into a startup as it grows and takes on additional investments, she says. That's because new investors may need to see existing shareholders put in more money to signal confidence in the startup's path before they inject their own capital. And if the startup has trouble attracting additional investors, it may have nowhere to turn but the current shareholders.

You should also insist on information rights, which allow you to receive regular updates on how a company is doing, says Scott Mollett, an associate at the law firm Baker Botts in Palo Alto, California. Mollett recommends that before investing, you have a frank conversation with the founders about the company's business, how it has raised money and how it plans to finance itself in the next year.

Asking tough questions is important. Remember, most startups never become successful enough to pay dividends or to sell for a significant sum. It's crucial to diversify your angel investments by placing relatively modest bets on a multitude of startups, and to put only a small portion of your net worth into early-stage businesses, Mollett says. "If you invest in only a few companies, you are playing the numbers wrong," he adds.

**Chana Schoenberger** (cschoenberger@bjtonline.com) is a business journalist who has worked for *The Wall Street Journal*, Bloomberg News and *Forbes*.

#### Who's an Accredited Investor?

The U.S. Securities and Exchange Commission permits only accredited investors to buy stakes in privately held startups. You fit the definition if you made \$200,000 or more for each of the last two years (\$300,000 combined for a married couple) and expect to reach this level again this year. Alternatively, you can have a net worth of \$1 million, not counting the value of your primary home.

A trust or another entity can be accredited as well, if it has assets worth more than \$5 million or is owned by accredited investors. The person in charge of an accredited entity has to be "sophisticated," meaning that he or she is qualified to evaluate the entity's investments. —*C.S.* 



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# Bob Pittman

The man who gave us MTV and now heads the largest radio-station company in the U.S. doesn't like to waste a minute. That's one of many reasons why he loves business jets.

#### by Jennifer Leach English

Bob Pittman's resume testifies to his obsession with productivity. Perhaps best known for having led the team that founded MTV, he has also been CEO of AOL, Six Flags Theme Parks, Quantum Media, Century 21 Real Estate and Time Warner Enterprises; and COO of America Online and AOL Time Warner. Since November 2010, he has been chairman and CEO of iHeartMedia (formerly Clear Channel), the largest radio-station operator in the U.S., which owns 858 AM and FM stations in more than 150 markets and claims to reach 245 million listeners every month.

And then there is Bob Pittman, the pilot. He has logged over 6,000 flight hours, flown to every continent except Antarctica and holds an Airline Transport Pilot's rating for airplanes as well as current type ratings for helicopters and three variants of jets. He started flying at 16 and—as he became a more experienced pilot and more successful in business—has traded up over the years from a single-engine prop airplane to a turboprop to a jet and a helicopter. In his MTV days he often would fly himself from New York to Los Angeles in a twin-engine piston-powered aircraft, a trip that took about 12 hours. Today, he primarily employs a Dassault Falcon 900EX. It's safe to say his coast-to-coast trips are now a bit faster.

That undoubtedly pleases the 61-year-old Pittman, who has no tolerance for wasted time. Our interview at New Jersey's Teterboro Airport had been prescheduled to the minute. Pittman personally flew his AgustaWestland AW109E helicopter in exactly on time from New York City and had his copilot stay with it on the tarmac so they would be ready to take off as soon as our photo shoot wrapped.

But don't get the idea that Pittman hurried through our interview. On the contrary, despite his self-described lack of patience, Pittman proved during our conversation to be focused, gracious and filled with Southern charm. And—this is saying a lot—I have never met anyone who exudes more passion about flying. Photos by Michael S. Barr. Our thanks to the folks at Gama Aviation's Teterboro Airport facility for their help with this photo shoot.



#### "The president of the company and I often fly together because we have such a hard time finding enough time in the office. We'll say 'save that for the trip."

## How does flying privately help your business?

The biggest problem we have with the best people in our company is that they run out of time. [A business jet] gets us somewhere and back in half the time. When we travel as a group we sit at the conference table on the airplane and pull out all the papers and have the most confidential conversations. The president of the company and I often fly together because we have such a hard time finding enough time in the office. We'll say "save that for the trip," and we save up all the stuff that we need to work through. It's an incredible productivity enhancer. And in our company, one of our corporate values is urgency. Everything is better done sooner. We even have a 24-hour rule: Can you do it in 24 hours? We push for speed, speed, speed.

## Many people would call this a video or Internet age. Why are you concentrating on radio?

We really focus on sound, [because] most communication is done with audio. With TV there is a lot of talk about the "second screen." In the old days, the second screen was a magazine in your lap. Most people consume a remarkable amount of TV through the audio. They are not looking at the picture; they are listening. And if you really want to experiment, put a horror movie on TV and turn the sound off—it's not the least bit scary. Walk in the next room with *only* the sound and it is still scary. It is the sound that creates the image. When I hear about a new restaurant, I don't see it, I don't taste the food my friend tells me about it. I often hear about movies from a friend telling me about it. Radio is that best friend sitting in the empty seat next to you in the car that you are riding to work with every morning. We talk to you and we share the world with you.

#### You have said that around the office you don't talk about radio stations, you talk about people. Does that focus on the consumer differentiate your approach?

It sort of defines my career because I have been in theme parks, real estate companies, cable TV networks, broadcast TV, cable TV, Internet you name it, I have been there. They are all consumer-facing businesses. And the reason I think I have been able to navigate all these different businesses is because the consumer is the same human being. The behavior of that person is consistent.

If you really break it down, I think at the heart of it I have always been a sociologist. I look at everything through the prism of what does the consumer want and how can we satisfy that need better than anyone else?

## Where did your love for flying come from?

My dad had a friend who took me up in a little two-seater when I was in fifth grade and I just was absolutely taken with flying after that. [Also], my grandfather lived in a small town in Mississippi and he would take me to the airport whenever I visited. I got to crawl all over the airplanes and talk to everybody.

Ironically, my grandfather never flew in an airplane. He ran a lumber company in the 1960s for a very wealthy man in Mississippi who had his own airplane whose pilot happened to be my grandfather's nephew, and my grandfather still would not fly in a plane. He would do anything except get in an airplane. But he fed my passion for it. He took me to the airport, indulged me and let me play around the airplanes.

## Why did you choose a [Dassault] Falcon jet?

I love the Falcons. I guess there is an argument for every plane, but I think as a pilot that the Falcon flies like a sports car. Incredible control, very manageable airplane, has a great feel to it and it's very controllable on the ground. Almost no matter what happens—I have landed in all sorts of weather conditions—crosswinds, high altitude, hot and heavy—it handles beautifully. And having that third engine is great. If I lose an engine on takeoff, I have lost a third of my power, not half. And having gone over the Pacific a couple of times, and over the Atlantic quite a few...when I am out in the middle of the ocean I sure do like having the third engine.

#### Have you ever lost an engine? Never.

## What are your thoughts on the impact of business aviation on the environment?

I can't wait for an electric airplane. [But for now], I try to be conscious of how many



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"Radio is that best friend sitting in the empty seat next to you in the car that you are riding to work with every morning. We talk to you and we share the world with you."

people are in the plane; the more people that are in the plane, the more green it is.

#### What do you think about supersonic?

I think supersonic is fantastic. I miss the Concorde. Once you have had that kind of speed, it is hard to give it up. It sure was nice leaving Paris and landing in New York before you left.

#### The word "hobby" doesn't seem to do justice to your love of flying. It seems like a spiritual pursuit.

It is really a passion of mine. I love airplanes. I love travel. When I work, I work hard, and [flying] is one of the few things that clears my head. When I get in the cockpit it forces me to focus on something else. I get my head into flying and that clears out all the other stuff.



#### **BOB PITTMAN'S AIRCRAFT**

There is something marvelous about flying. Even when I was a young guy and I was flying smaller planes I would just love to look down. I love going over Greenland and seeing the icebergs and flying over interesting terrain. [When flying a helicopter] you fly lower and basically get to observe how everyone else is living and how towns are set up. It is fascinating.

#### A big part of your management philosophy involves encouraging people to voice differing opinions.

We try to set a culture in which we foster dissent. I [often] use the story of John Kennedy putting a man on the moon to illustrate the point. When Kennedy announced in the early 1960s that we were going to put a man on the moon, he had not told NASA that. It was a political announcement because the Russians were winning the space race. NASA people, all the scientists, went crazy, [because] this was not something there was a big plan behind. But what they did next was brilliant. They basically asked, "Why *can't* we?" Then they built teams to solve each one of the problems [standing in the way] and they did it. So dissenters wrote the road map to put a man on the moon. Dissenters often write alternative views.

Breakthrough ideas will never be popular ideas. One person can come up with a wild idea and everybody else can be afraid of it, but that one wild idea may be the breakthrough. If 10 people agree upon an idea, it is probably not a breakthrough idea.

BOB PITIMAN'S AIRCRAFT					
	Falcon 900EX	Citation X	AW109E Power		
Manufacturer	Dassault Cessna/Textron Aviation		AgustaWestland		
Years produced	1996-2004	1996-current	1998-current		
Variable cost/hour for latest model	\$3,935	\$3,881	\$1,146		
Seating (exec/max)	12/19	12/19	5/7		
Range (nm)	4,630	3,092	228		
Maximum cruise speed (kt)	482	525	154		
Maximum takeoff weight (lb)	48,300	35,700	6,614		
Cost new (millions)	N/A	\$23.745	\$6.75		
Cost range used (millions)	\$10.2-\$17.8	\$3.3-\$20	\$1.5-\$6.0		

Note: Citation X is owned by iHeart Media.

Assumptions: Let fuel, \$6.26/gal. Takeoff weight and range for Citation X are for earlier model. Variable costs include fuel plus routine maintenance reserves and miscellaneous expenses. Range base on four pax, NBAA IFR fuel reserve, 200 nm alternate, VFR 30 minutes for helicopters; pax weight, 200 lb each including baggage. Sources: Conklin & de Decker Aircraft Cost Evaluator, Conklin & de Decker Aircraft Value Reference

### **FASTFACTS**

NAME: Robert W. Pittman

#### AGE: 61

**POSITION:** Chairman and CEO since 2010 of iHeart Media, the largest radio-station operator in the U.S.

PAST POSITIONS: CEO, MTV Networks, AOL, Six Flags Theme Parks, Quantum Media, Century 21 Real Estate, Time Warner Enterprises; COO, America Online, AOL Time Warner

**TRANSPORTATION:** Dassault Falcon 900EX, AgustaWestland AW109E. Also, a Cessna Citation X that is owned by iHeart Media

**PERSONAL:** Married since 1997 to environmental activist Veronique Choa. One son and one daughter. Married from 1979 to 1997 to editor and mountaineer Sandy Hill. One son. Hobbies include skiing, hiking, travelling, motorcycling and flying.

#### But aren't people intimidated by you? How do you know you're hearing those ideas and that they're comfortable telling you the truth?

When you are the CEO you have to assume that nobody wants to tell you the truth. They want to sell you on their point of view. We have to work extra hard to get people comfortable telling the truth, and that doesn't mean always being right or always looking good.

The problem in my job is that [there can be] 10 people between me and an idea, so that means there are 10 people that have to agree to push it up to me—and any one person can kill it. So what we have started doing is parallel decision making and communication. If someone has an idea, they send it to all 10 people at once so everybody gets to hear the idea, and I am usually one of the 10. Throw it in there—let's have the discussion.

It's about people comfortable with debate, dissent and discomfort. There is nothing in our corporate values that says you have to be respectful to the CEO. But you are expected to have a sense of urgency—and I expect mistakes. Mistakes are the byproduct of innovation. You are



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not going to get it right all the time. As a matter of fact, you're probably a genius if you get it right half the time. And because we are not going to get it right most of the time, we have a bias towards quick decision-making. We move quickly and decisively and keep our eyes open in case we made the wrong decision.

#### You also have said that if there are 10 ideas you should kill all of them except the best two.

In 10 ideas, a couple are probably clear winners, a couple are clear losers, and the others are in between. [The natural instinct is to] kill only the clear losers. What we should be doing is killing everything except the clear winners because everything else is wasting our resources, wasting our time, and basically breeding mediocrity.

## What was it like growing up as the son of a Methodist minister?

My dad was a very unusual guy—very thoughtful. In the 1940s he went to Emory University and got his graduate degree in theology. My mother was a college graduate as well and in rural Mississippi only about 2 percent of the households had both parents with a college degree. We lived in a household that always valued [education].

I grew up during the civil rights movement in Mississippi and [there was] obviously an enormous amount of turmoil. Folks like my dad really worked to try and get to the right place and bring everybody along. [To my mother], the worst word you could ever say was "hate." I grew up in a household that was incredibly tolerant and listened to ideas, and I actually never heard my parents fight or say a cross word to each other.



By the way, preachers' kids come in two colors. My brother was the nice, wonderful, dideverything-right brother—and I was the other one. But my dad said, "Look. I can't make you do anything. You are going to make your own decisions. All I ask is that you listen to my point of view before you make your decision." And I thought that was pretty fair. At the end of the day it pushed me to be responsible for my actions as opposed to thinking someone else is responsible.

## Will it be hard for your own children to live up to your success?

I don't think my job is more valuable than anybody else's. I happen to have a particular job in a company where I have a little more control over certain things, but it is a team. I want to make sure my kids don't think I think I am the king of the world by any stretch of the imagination. If you take over the CEO job it's a lot of work and sacrifice. If you want a balanced life, don't be the CEO. I think if you look at my kids' view of me, they would think: "Who on earth would want to be a CEO? My dad is traveling, he's crazed all the time, he is up working late and when we are on vacation he is on the phone working." So I think that they are [actually] getting a real view of a CEO, not a caricature.

#### As you became more high profile and everybody was publicly commenting on what you were doing in media, how did you handle the criticism?

There's always criticism. I think that if you don't think about the good press, you won't worry so much about the bad press. To me it is [always] about what does the consumer think, and is the business working? I [also] have plenty of friends that have nothing to do with the business. I have my family. I have [a lot of] other touchpoints that are important to me. I try not to let myself be shaped by who I am in business, because at the end of the day, it is just my job.

Jennifer Leach English (jenglish@bjtonline.com) is BJT's editorial director.



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# Bombardier's Global 7000 and 8000

These forthcoming upgrades to a popular aircraft series promise new levels of efficiency and cabin comfort.

#### by Mark Huber

1111

mbardier announced its Global 7000 and 8000 longrange business jets in 2010, an apparent response to Gulfstream's G650. That model has done well since its 2012 certification, with more than 100 delivered through the end of last year.

Performance figures for the new Globals are comparable to the ones for the G650, which has a top speed of Mach 0.925 versus Mach 0.90 for both Bombardier models. Range for the Global 7000 and slightly shorter Global 8000 will be 7,300 and 7,900 nautical miles, respectively. (For both Bombardier aircraft, the range figures are based on 10 passengers, four crew and a cruising speed of 487 knots/Mach 0.85.) The G650's range, according to Gulfstream, is 7,000 nautical miles; and a variant introduced last year, the \$67 million G650ER, has a range of 7,500 nautical miles.

Both of the forthcoming Bombardier models use the current Global 6000 fuselage but stretch it—the 7000 by about 11 feet and the 8000 by about two. With 2,637 cubic feet of cabin space, the Global 7000 offers substantially more cabin room than the Gulfstream's 2,138. The Global 8000's

#### NEW AIRCRAFT **PREVIEW**

cabin is marginally larger too, at 2,236 cubic feet. However, the G650 cabin is two inches taller and four inches wider than the Globals', which are six feet, three inches tall and eight feet, two inches wide.

The Globals will feature full fly-by-wire flight controls; a new, thin high-speed wing; fuel-efficient GE Passport engines (16,500 pounds of thrust each); and the Bombardier Global Vision flight deck. The latter is based on Rockwell Collins Pro Line Fusion avionics, with side-stick pilot controls and the latest touchscreens and safety features. Pro Line is the first avionics system with synthetic vision on a head-up display—a visor that folds down and presents the pilot with all the necessary aircraft performance, mapping and terrain information—making for excellent situational awareness even in the worst weather. GE reported in May that the new engines concluded flight testing with more than 100 hours and 20 sorties. The engines should deliver new metrics of quiet, low emissions and vibration, reliability and economy. They are based on the guts of the high-efficiency CFM Leap engines being developed for new-generation Airbuses and Boeings. Among the technologies incorporated into the engines are a 52-inch titanium "blisk," a single forging of the fan blades and turbine disk that saves weight and reduces vibration; a lightweight, aerodynamic nacelle—the casing around the engine; and a "super-finish" on the blisks and compressor blades that improves efficiency by smoothing air flow.

Aside from their new engines, wings, flight controls and impressive range and speed, the forthcoming Globals promise increased passenger comfort. Features include a hyper-quiet cabin divided into three- or four-zone layouts; a galley that is 20 percent larger than that on the Global 6000, with double convection/microwave and convection/ steam capabilities; a mid-cabin/self-serve galley; redesigned and larger crew rest areas; panoramic passenger windows that give the cabin an airy feel; improved heating and cooling; redesigned seats; a center lounge/media room with 42- to 50-inch flat-screen monitors; adjustable color LEDs in the ceiling; a conference/dining table that seats six; a private stateroom; an optional stand-up steam shower; a more robust environmental-control system; and a capacious 195-cubic-foot baggage hold.

Tim Fagan, Bombardier's industrial-design manager for the new Globals, says his team immersed itself in structural details to ensure mundane things like even window spacing, maximum flexibility of cabin layouts and retention of popular features from the Global 6000. The forthcoming Globals also feature more comfortable passenger seats that incorporate a forward



#### Want One? You'll Have to Wait

Following a two-year program delay announced by Bombardier in late July, the new Globals are scheduled to enter service in 2018 and 2019, respectively. (Opting for a G650 won't necessarily get you an airplane much sooner, as Gulfstream has a multi-year backlog for that rival aircraft.) Bombardier is believed to have commitments for about 100 Global 7000s and 8000s, with major players such as fractionalownership leader NetJets having placed orders for the aircraft.

The first Global 7000 is just now being assembled, and Bombardier has yet to confirm when it will make its first flight. What remains to be seen is the extent to which the delayed service entry will allow Gulfstream to stretch its market lead in the new-generation, large-cabin, long-range space. —*M.H.* 







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#### Bombardier's Troubles Come to a Head

There has been trouble at Bombardier for a while, most of which has had nothing to do with business jets. The company is developing an airliner called the CSeries, but it is two years behind schedule and hundreds of millions over budget. Meanwhile, Airbus and Boeing are introducing more fuel-efficient versions of their respective A320 and 737 models that Bombardier hoped to compete against. Nevertheless, it is soldiering on with the CSeries, even though the resultng financial strain prompted it to suspend development of its Learjet 85, leaving that storied brand with no genuinely new offerings. The CSeries also has diverted resources from the new Globals.

Over the last several years, Bombardier's business jet division has laid off thousands. In May, the company announced that it would terminate another 1,750 employees and slow production of its Global 5000 and 6000.

Bombardier's share price has dropped almost 70 percent over the past 12 months and, as of mid-July, the entire company had a market capitalization of just \$4.3 billion. That's extraordinary when you consider that Bombardier sold \$7.56 billion worth of bizjets alone last year, second only to Gulfstream, and overall had 2014 revenues of \$20.1 billion.

Bankers exacted a price for the equivalent of a third mortgage: the replacement of the CEO. Alain Bellemare joined Bombardier from engine-maker Pratt & Whitney Canada in February and is the first executive outside the Bombardier family to head the company in its 78-year history. Bellemare has moved quickly to cut costs and is considering the sale of a stake in Bombardier's European-based railcar division later this year. The latest cash injection of \$2.25 billion should be enough to keep things going through the rest of the year.

Regardless of whether the CSeries aircraft ultimately succeeds or fails, Bombardier may need to enlist the help of a substantial risk-sharing partner on it, or the entire company may need to be reorganized. Meanwhile, the Global family continues to generate the lion's share of the profit for its business-jet division, making it all the more critical for Bombardier to get the 7000 and 8000 models to market as soon as possible. —*M.H.* 



#### At a Glance

	Global 7000	Global 8000
Price	\$75 million	\$71 million
Range	7,300 nm	7,900 nm
High speed-cruise	516 kt	516 kt
Typical cruise	487 kt	487 kt
Takeoff distance at max weight	5,950 ft	5,800 ft
Landing distance	2,810 ft	2,810 ft
Crew	2–5	2–5
Passengers	17	13
Cabin	Length: 54 ft, 7 in	Length: 45 ft, 7 in
	Height: 6 ft, 3 in	Height: 6 ft, 3 in
	Width (centerline): 8 ft, 2 in	Width (centerline): 8 ft, 2 in
	Volume: 2,637 cu ft	Volume: 2,236 cu ft
Baggage volume	195 cu ft	195 cu ft

Source: Bombardier

rocking motion "like you have on your recliner at home." An integrated cabin-management and in-flight-entertainment system will allow passengers to control LED lighting and window shades as well as have communication, entertainment and information access and streaming via their personal smart devices "just like they do at home" with the same content providers via new high-speed, Ka-band satellite technology.

The systems will let passengers receive prompts based on their activity on the aircraft.

For example, once you select a movie for viewing, you'll be prompted to set the lighting to "movie mode," automatically lowering cabin illumination and dropping nearby window shades.

"We're building on our success with the Global 6000 by adding a variety of small improvements on the new airplanes," says Fagan. "When you collect all these small improvements together, we think it will have a significant impact on the passengers."

Mark Huber (mhuber@bjtonline.com) is a private pilot with experience in more than 50 aircraft types.



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### ON THE ROAD

# Even Magicians Can't Fix the Airlines

#### "Abracadabra" changes nothing, so entertainers like The Amazing Kreskin opt for bizjets.

by Joe Sharkey

ou don't need a weatherman to know which way the wind blows, and you don't need a mind reader to know how miserable people are on commercial flights these days.

"Oh my God! Please, I don't even want to think about it," says The Amazing Kreskin, a performer who is in fact described as a mind reader, when asked about airline travel.

Kreskin, who has been flying domestically and internationally, often every week, during a busy 60-year career, calls himself an "mentalist" (a fancy word for "magician," if you ask me) and makes no serious claim to psychic abilities, though he doesn't hesitate to suggest otherwise. Atop his website's homepage—beside a photo of him standing under a full moon and staring intently from behind large horn-rimmed glasses—it says, "Even now I know what you are thinking."

Be that as it may, he's not enough of a magician to make the problems that plague today's airline passengers disappear. Go on, pick a card out of the big deck of complaints: delays, endless fees, long lines, missed connections, sharply reduced service to many communities, kneecrunching seats, security hassles and airport terminals that have become the only places I know of aside from yoga classes where you routinely find grown people sitting on the floor.

Top entertainers, of course, can often travel by business jet, whether on their own airplanes or on chartered aircraft. Many others, especially those who work a lot of corporate and private events as Kreskin does, also often start their journeys at Van Nuys or Teterboro, rather than at Los Angeles International Airport or Newark Liberty International Airport.

So The Amazing Kreskin (his legal name, though he was born George J. Kresge) has no problem conjuring up the various ways that flying privately, when he can do it, makes his job easier. "Corporate jets are always on time, and they have never, ever lost my luggage," he says, adding that airlines have often misplaced his bags, including stage props and other vital items. Once, when he was working a cruise ship bound for the Bahamas, the airline that had just lost his luggage hired a boat to ferry it to him. Apparently the carrier feared bad publicity from an entertainer who has been on *The Tonight Show* nearly 100 times and is known for being outspoken.

When you think of Kreskin, you might be reminded of the similarly named Amazing Randi, the magician and Houdini-like escape artist, who has also often traveled on business jets. James Randi, 86, has devoted most of his time in recent decades to debunking charlatans, including allegedly "telekinesis"-endowed spoon-benders, faith healers and psychics claiming supernatural powers.

The magician—the subject of a wonderful new documentary called *An Honest Liar*—traveled with Alice Cooper on the elaborate "Billion Dollar Babies" concert tour in 1973 and 1974. Randi's job was to dress as an executioner and operate a marvelous trick guillotine of his own invention that chopped off the shrieking Alice Cooper's head in a spectacular bit of bloody stagecraft that left audiences gasping.

#### "Flying private in the U.S. reminds me of traveling by train in Europe, where you can work at a table and converse with people," says The Amazing Kreskin.

That was at the start of a time when major rock bands on the road were moving from tour buses to private jets-most notably the fabled lavish Boeing 707 "Starship" employed by Led Zeppelin for their tumultuous 1973 and 1975 North American tours. Rock concerts had by then become giant theatrical extravaganzas. Led Zeppelin's act featured lasers, pyrotechnics, mirror balls and tons of other equipment. Alice Cooper's tour, the stage centerpiece of which was a giant Egyptian statue, likewise traveled with a huge entourage and enormous amounts of equipment. Even back then, there was no question of depending on an airline to deliver the baggage on time for a sold-out concert.

"It was wonderful," Randi recalled a few years ago in an interview in The Gauntlet, a website for heavy-metal fans. "I would ride in the front cabin with the pilot," who would have to explain to other pilots in passing planes that the giant dollar sign emblazoned on the tail signified that the "Billion Dollar Babies" tour was on board.

There's no such flamboyance for the much lower-key Kreskin, a trouper who soldiers away year after year with a still-popular stage act centered on feats of seeming clairvoyance and hypnotic suggestion and glorified card tricks delivered with self-deprecating patter.

Keeping that act fresh requires intense preparation and concentration during long periods on the road, says the 80-year-old entertainer. "On a commercial flight, you can't do any of that, so I just crawl into my window seat and sleep. I go out like a light.

"On a business jet, I'm alert, awake; I'm doing all kinds of things," he adds. "Flying private in the U.S. reminds me of something I love, which is traveling by train in Europe, where you can work at a table with your stuff, converse with the people with you. You just can't do that on a commercial flight anymore. Some of the best business meetings I've ever had have taken place on a corporate jet, and a lot was accomplished even before we got to where we were going."

A workaholic who isn't married, Kreskin says he has never been inclined toward leisure travel, but if he were, he wouldn't take an airline. "You kidding me? On a vacation? I would want to be on a slow boat, one with paddles to keep it BJT going," he insists.

Joe Sharkey (jsharkey@bjtonline.com), the author of six books and a longtime BJT contributor, wrote a weekly business travel column for The New York Times for 16 years.



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# Sailfish Point Golf Club

An island-like Florida property incorporates a compelling, Jack Nicklaus-designed course.

#### by Bradley S. Klein

lorida's Sailfish Point Golf Club combines the remoteness of a barrier island with the proximity of a comfortable neighborhood hangout. All you have to do to get there is leave mainland Florida around Stuart, home of Witham Field Airport (40 miles north of Palm Beach International Airport). Head east along A1A, on two causeways that take you over the St. Lucie River and the Intercoastal Waterway, to the southern end of Hutchinson Island. From there, just keep going south, away from civilization, across a much smaller road until you reach this island-like paradise surrounded by water.

Sailfish Point Golf Club, all of 532 acres, includes a nearly equal number of residences, everything from estate lots down to condominiums. Some of those homesites line a well-protected marina on the north side of the property. The rest of this little paradise is devoted to a Jack Nicklaus-designed course-par-72, 7,088 yards long-that embraces the shoreline and an interior cove and delivers compelling, windswept golf.

A culturally diverse community here makes good use of the recreational amenities. Those include a pristine beach as well as tennis courts, a swimming pool and hiking trails. Plus, there's a well-organized social life that goes beyond sporting events to encompass family-oriented gatherings, book clubs, nature tours and local theatre excursions.

Technically, Sailfish Point is not an island. It's more like the far end of an isthmus at the place where the Saint Lucie Inlet gives way to the Atlantic Ocean. It's easy to get to but, because it offers so much, not so easy to leave. BJT

Brad Klein (bklein@bjtonline.com) is the architecture editor of Golfweek. His latest book is Wide Open Fairways.









#### **COURSE:**

For more information about Sailfish Point Golf Club, call (771) 225-1500 or visit sailfishpoint.com/jack-nicklaus-golf.

**AIRPORT:** Witham Field Airport (SUA) is eight miles west of the course and has a 5,826-foot runway.



#### **INSIDE CHARTERS**

## Insuring your charter income



## A new kind of policy covers jet owners against lost revenue when mechanical issues ground flights.

#### by James Wynbrandt

new insurance policy offers owners and operators of charter aircraft protection from loss of income should mechanical issues cancel or terminate flights. Typically the charter customer gets all the sympathy when these events occur, as the broker and/or operator scramble to find a replacement aircraft. But if you're the owner or operator of the grounded airplane, the cancelled flight could cost you thousands of dollars.

"It takes only one mechanical event and someone to lose \$20,000 in revenue for this product to find a home in their annual insurance budget," says Carl Shephard of SterlingRisk Insurance, in Boca Raton, Florida, the brokerage that created the "aviation business income" policy.

The policy, which is underwritten by Great American Insurance of Cincinnati, pays for loss of net charter income sustained due to necessary suspension of operations while repairs are performed. Basically, direct operating costs are subtracted from the total charter invoice to determine revenue loss. This is an area that aircraft hull and liability insurance doesn't address, and the coverage has been requested "for a long time," says Stuart Hope of Hope Aviation Insurance, a brokerage in Columbia, South Carolina, that's not involved in creating or selling the coverage.

A sampling of operators and consultants bolster Hope's contention. Julian Tonsmeire, vice president for business development at charter operator Mountain Aviation, says he has heard about the insurance and plans to "closely review" it. Greg Petersen, COO of Solairus Aviation, calls the policy an "interesting concept," while Kevin O'Leary, president of consultancy JetAdvisors labels the coverage "intriguing and innovative," though he is unfamiliar with prices.

The insurance pays both the operator's and owner's shares of net revenue loss to the policyholder. It

costs \$1,800 to \$22,500 per aircraft per year, with the rates varying based on airplane type and age, utilization, maintenance history, fleet size and coverage limits, which max out at \$25,000 per day and \$500,000 per occurrence. No inspection of logbooks or aircraft is required to receive coverage. Shephard declines to disclose the number of policies bought thus far, but says purchases have been about evenly split between owners and operators.

On the surface the coverage is straightforward: if your airplane can't make a scheduled trip due to mechanical difficulty, the insurance pays the anticipated profit. But "the devil is in the details," says aviation attorney Paul Lange. "Any insurance that can help smooth out the bumps is a good thing, but you need to be sure you understand what you're buying, so the only surprise is the mechanical type, not the claim type."

Think of the range of your aircraft's missions, the ways mechanicals could impact them, and how they'd be treated under the policy. A breakdown that cancels a oneday charter is relatively simple. But what if a mechanical prevents the aircraft from embarking on a fourday trip, the aircraft is repaired in 48 hours and you pick up a charter for what would have been the last two days of the original trip? In this case the insurance would cover lost income only for the days the aircraft was out of service.

#### A consultant calls the coverage "intriguing." A broker says it has been requested "for a long time."

If mechanical issues rarely ground your aircraft on short notice, or you have sufficient lift to backstop a charter aircraft, the policy will likely be less appealing than if you're one breakdown from missing your monthly nut. But with the squeeze on charter rates of the past few years, "nobody's making a huge amount in charter," says aviation attorney Daniel Herr of FractionalLaw, "so once you take the operating costs out, there won't be a whole lot left."

Policy and payout details aside, the coverage also reflects

the insurance industry's effort to make up for revenue loss in today's highly competitive market, where premium costs for business jets have plunged. Shephard notes that in the mid-1990s, hull and liability insurance for a GIV cost about \$225,000 annually, whereas today, due to improved safety records and greater competition, "that same client is paying less than \$40,000."

By that measure, aviation business income insurance is expensive. That's not surprising, given that it's a new type of policy written without benefit of historical data. In the absence of actuarial tables regarding the risk of a mechanical breakdown for Part 135 aircraft, Shephard developed SterlingRisk's policy using his experience to set premium rates and coverage limits.

Says Hope about new policy types, "The first [insurer] is putting his head in a guillotine," potentially overlooking prudent exclusions or other limitations, "and could get walloped on a big claim." To e." avoid that, insurers typically price new coverage conservatively. If the product makes sense and demand is strong, additional underwriters will step in to offer me-too products, and competition often leads to lower prices.

"I'm sure over the next few years, others will dabble in the market," Shephard says. "That's just the nature of the business." Meanwhile, he adds, SterlingRisk is in discussions with underwriters to "make the product available for use with their own comprehensive aircraft protection policies." Such bundling would likely lower coverage costs, as well.

James Wynbrandt (jwynbrandrt@bjtonline.com), a private pilot, is a regular BJT contributor who has also written for *The New York Times, Forbes* and *Barron's*.

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# Falcon 900B

This timeless aircraft delivers virtually everything you could want in a large-cabin business jet.

by Mark Huber

Big cabin, great short-runway performance and long legs. This has been the winning formula for Dassault's Falcon 900 series for nearly 30 years through multiple upgraded iterations, the latest of which is the \$43.3 million 900LX. The Falcon 900's trijet design lets you get into and out of airports you wouldn't dare try to use in a comparable twinjet, especially on hot days. Its intelligent, strategically applied combination of fuselage materials—including Kevlar, carbon fiber and titanium—yields a strong tube that weighs thousands, in some cases tens of

thousands, of pounds less than other twinjets in its class, thereby delivering superior fuel economy.

Aside from minor changes in engine thrust, newer avionics, digital cabinentertainment systems and a few hundred miles of additional range, the new 900 you can buy today is pretty much the same as the originals that rolled off the production line in the late 1980s. Thanks to advanced computerized design and engineering optimization, the 900 was way ahead of its time then and remains relevant today. Dassault also builds fighter jets and some of the thinking behind those found its way onto the 900. One result is its crisp, precise handling, which is a pilot pleaser. Consequently, Dassault has produced more than 500 of the series 900 Falcons since 1986 and they hold their value well (*see chart on page 54*).

Granted, older aircraft in general require more maintenance and you may spend heavily at first to refurbish them. Unless you're willing to live with mediocre dispatch reliability, some older airplanes simply make no sense. But the Falcon 900 does. You can pick up a 1999 Falcon 900B for \$9 million, fit it

with winglets, new interiors and avionics upgrades, and have a really nice airplane for \$12 million to \$13 million.

Older 900Bs sell for even less. The aircraft valuation service Vref reports that some are going for as little as \$5.75 million, and a few 900As that were given the engine upgrade to a B are priced lower still.

Production of the B model began in 1991 and ended in 1999. Compared with the original 900, it features upgraded Honeywell TFE731-5BR-1C engines that deliver an extra 250 pounds of thrust each, increasing the 900B's range to 4,000 nautical miles. Compared with the 900A, the beefier engines add 5.5 percent more thrust on take-off; cut time to climb to 39,000 feet at maximum takeoff weight from 29 to 26 minutes; and goose the speed an extra 2 percent at cruise altitude.

You can better those metrics with blended winglets from Aviation Partners, which cost approximately \$750,000. The winglets take about four weeks to install but increase range up to 5 percent at high-speed cruise and 7 percent at longrange-cruise speeds. They also facilitate a faster climb to altitude, so you burn less fuel in the process. And winglets have another attribute: they look cool and will turn even an old 900 into major-league ramp candy. Authorized installers include Duncan Aviation, Hawker Pacific Asia, Midcoast Aviation, Standard Aero, TAG Aviation and West Star Aviation.

The 900's 1,264-cubic-foot, 33-footlong, flat-floor cabin is still one of the best ever designed for all-around utility. Though not perfect, it is comfy. It's pressurized to maintain a sea-level cabin to 25,000 feet and that's great for beating back jet lag.



A traditional cabin layout features a galley opposite the main entry, a small forward closet, a forward club-four grouping of larger executive seats bifurcated with folding sidewall tables, then four narrower seats arrayed around a hi-lo conference table across the aisle from a credenza/entertainment center. Aft of that through an optional pocket door is a three-place, side-facing divan with berthing top that converts into a bed across the aisle from an executive workstation. Behind that is the lavatory with another small wardrobe closet and through the lavatory passengers can access the heated 127-cubic-foot baggage compartment in flight. The external baggage door incorporates a step for easy loading.

Natural lighting comes from 24 windows. My only criticisms of the cabin concern the smallish size of those windows and the height of the seat bases, which are a little short for taller folks. Otherwise, it is airy, light and elegant. Depending on the cabin layout you select, you can accommodate 11 to 14 passengers plus three crewmembers. If you plan on using the aft of the aircraft as a private stateroom, make sure the used 900 you select is equipped with the optional second lavatory in the forward fuselage. You'll appreciate the lack of interruptions and your crew and other passengers will value the convenience.

#### Specifications & Performance

Passengers (executive)	12	
Pilots	2	
Range*	3,450 nm	
Max cruise speed	500 kt	
	Height: 6.2 ft	
Cabin dimensions	Width: 7.7 ft	
	Length: 33.2 ft	

\* Four passengers, NBAA IFR 200 nm reserve fuel; passenger weight 200 lb includes baggage; two pilots

#### Economics

Total variable flight cost/hour	\$4,553	
Total fixed cost/year	\$797,381	

Source: Conklin & DeDecker, Orleans, Mass.

Please see the online version of this article for detailed specifications and performance data as well as a report on all hourly and annual fixed and variable expenses.



#### Falcon 900B compared with other aircraft

Model	First year produced	Variable cost/hour	Seats exec/max	Range (nm)	Normal cruise (kt)	Max takeoff weight (lb)
Falcon 900B	1987	\$4,553	12/19	4,000	466	45,500
Challenger 604	1996	\$4,086	10/19	4,033	459	48,200
Gulfstream GIV-SP	1986	\$5,302	13/19	4,136	476	74,600

Assumptions: Aircraft are 1999 models. Jet fuel \$6.56/gal; variable cost: fuel plus maintenance reserves; four passengers; NBAA IFR 200 nm reserve fuel; passenger weight 200 lb includes baggage; two pilots.

Sources: Conklin & de Decker Life Cycle Cost, Conklin & de Decker Aircraft Performance Comparator



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## USED AIRCRAFT REVIEW

Few 900 owners fly them at full passenger capacity. If you don't plan to do so, you can make your aircraft more comfortable with a few basic layout changes. If you opt to gut the interior, consider an enlarged forward self-serve galley followed by eight single executive seats in the main cabin, and an electrically reclining threeplace divan that folds down into a bed opposite an entertainment credenza with large pop-up flat-screen monitor in the stateroom. This layout provides sleeping areas for five.

New single executive seats, available for retrofit, have optional footrests and can be reclined to lie-flat, full-berthing positions. However, if you absolutely must have a conference table and seat grouping, you'll be glad to know that the 900's fuselage is wide enough to accommodate it and the two seats on either side (for a total of four) plus two more seats across the aisle at the end of the table. That effectively gives you table seating for six, a rarity on business jets. This is a popular option on the Falcon 2000, the 900's smaller twinjet cousin, which shares its 92-inch-wide cabin (from centerline).

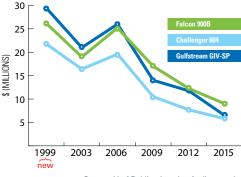
Acoustic-blanket sound dampening also has come a long way since 1989, and installing it will significantly reduce cabin noise, by three to seven decibels in flight. Retrofitting adjustable color/intensity LED lighting is another effective means of cutting passenger fatigue.



Maintaining any Falcon is pretty much a labor of love with generally higher requirements for mundane things like routine lubrications. However, the engines don't have a recommended time between overhauls and can be maintained "on condition," just like the engines on most airliners. This doesn't mean they're maintenance free. Inspections must be performed at regular intervals and you'd be wise to enroll the engines in Honeywell's MSP hourly maintenance plan.

In the past, the downside with Dassault was that while it made great airplanes, it didn't have the product support to match. Those days are over. Dassault noted last year that it had a 98.5 percent parts-availability rate—meaning that customers





Source: Vref Publications (vrefonline.com)



nearly always receive parts on the day they're needed—and that most parts ship within 30 to 60 minutes of order placement. The French manufacturer's customer-support program now uses two company-owned Falcon 900s as rapidresponse aircraft, one based at Teterboro in New Jersey and the other at Le Bourget in France. The Falcons will be used to transport Dassault Go Teams of technicians, parts and tools and, if necessary, transport customers to their destinations, while their aircraft are being serviced.

This first-class product support should help keep the Falcon 900B popular for years to come. If you're looking for a large-cabin jet that does virtually everything well, this could be the airplane for you.

Mark Huber (mhuber@bjtonline.com) is a private pilot with experience in more than 50 aircraft models.

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# When affiliated companies share aircraft

#### Should chargebacks for flights among related businesses be permitted? No simple answer exists.

#### by Jeff Wieand

t's no secret that the FAA and IRS approaches to business aviation differ in important ways. This cleavage is especially evident in their respective treatment of related or affiliated groups of companies.

For the FAA-and its parent, the U.S. Department of Transportation-the issue is whether chargebacks for transportation among related companies should be permitted without a commercial certificate. For the IRS, meanwhile, the issue is whether such chargebacks represent taxable income. (Similar questions arise for states, which must determine whether chartering an aircraft to a related company counts as a commercial flight for sales-tax purposes.) In each case, the answers highlight the agencies' views about what constitutes commercial aviation.

Jets often sit uneasily in complex corporate structures. An entity in the corporate structure has to own or lease the airplane and an entity in the group has to operate it. (In theory, ownership and operation can each be shared among two or more companies in the group, though that rarely occurs.) Once the aircraft is situated in the corporate structure, it's not unusual for other companies to want to use it and for the cost to be allocated to the using company.

The challenges begin with the concept of related or affiliated

companies. The Internal Revenue Code definition of an "affiliated group" involves a relatively clear 80 percent voting-and-value test the same test employed for filing consolidated tax returns. In 2006, the DOT published a rule allowing a company to receive reimbursements for transportation provided in a U.S.-registered foreign civil aircraft to a "subsidiary or parent or with FAA positions on the subject.

In a mind-bendingly complicated regulation, the FAA permits a company to charge for transporting a company's employees and property "on an airplane operated by that company, or the parent or subsidiary of the company or a subsidiary of the parent." Nowhere does the agency define these terms, though glimmers of insight shine dimly from



subsidiary of its parent." The DOT regulation says that aircraft's operator "must hold majority ownership in, be majority owned by, or have a common parent with" the company to which it provides transportation. While not a model of clarity, this standard is crystal clear compared FAA interpretations. The "parent," for example, must be a company, not an individual, though why this should make a difference is unclear. More generally, a 1985 FAA Chief Counsel interpretation observed that "the agency's long-established interpretation of the parent-subsidiary provision...is that it should be strictly construed to apply only to corporate complexes of the parent-subsidiary scheme," whatever that is.

To further elucidate this cryptic standard, the agency rejected the suggestion that ownership of approximately 25 percent of the voting stock of a public company should be sufficient to render that company a "subsidiary." The FAA noted that such an interpretation "would subject the agency to endless inquiries and disputes over whether control exists." Thus, it claimed that "voting stock ownership percentages as low as 5 percent, or even lower, might constitute control, depending on whose viewpoint or standard would be used," a concept not likely to forestall future inquiries and disputes.

A nother problem plaguing both the FAA and DOT approaches to the affiliated group is the inclusion of indirect subsidiaries. If a direct subsidiary of the parent operates the aircraft, the agencies say, the subsidiary can charge the parent for flights. The subsidiary should also be able to charge its own subsidiary for flights.

But what about another direct subsidiary of the parent and its subsidiaries, which are in effect brother/ sister companies of the subsidiary operating the aircraft? In interpreting the law, the FAA, literal-minded as always, seems to think that a subsidiary could charge another direct subsidiary of their common parent company for flights, but not subsidiaries of the subsidiary.

At first blush, it's hard to see why the FAA would have a problem with this. But remember: since the FAA fails to define the ownership percentage required to be a member of the affiliated group, it may be worried (though I'm not aware the FAA has ever said this) that as you go down the chain of companies, the beneficial ownership percentage could become unacceptably attenuated. A parent that owns 50 percent of SubA would own only 25 percent of a 50 percent-owned subsidiary of SubA, and so on.

While not a model of clarity, the DOT standard is crystal clear compared with FAA positions on the subject.

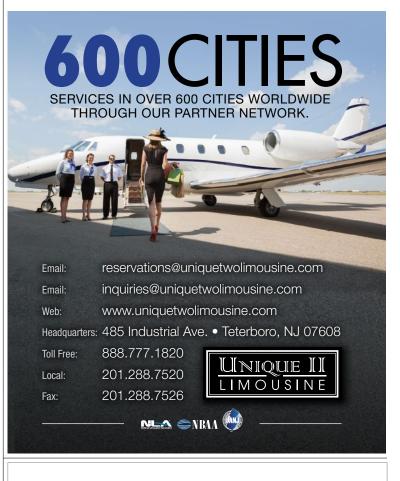
However the agencies define the affiliated group, how do they treat it? The IRS imposes a "transportation excise tax" on flights provided by one party to another. For the last 15 years, the tax has been 7.5 percent of the amount paid for the transportation. Essentially, this is a tax on commercial aviation, where a party having what the IRS calls "possession, command and control of the aircraft" charges another party for transportation.

There is an exemption, however, when the charges are for transportation provided by one company in an affiliated group to another. Initially, the IRS position was that the exemption didn't apply if the aircraft was also used to provide transportation for hire to parties outside the affiliated group. So, if a wholly owned subsidiary provided transportation to its parent company, but chartered the aircraft on one occasion to an unrelated company, the IRS taxed all chargebacks for the intercompany flights as well.

The transportation excise tax isn't exactly well known to begin with, and the IRS's counterintuitive position caught many accountants and finance departments unawares; back taxes, interest and penalties piled up in the meantime. With the help of the National Business Aviation Association, however, the law was changed in 1996 so that the IRS assessed the tax on a flight-by-flight basis. NBAA efforts also helped lead the DOT to permit, as noted earlier, intercompany chargebacks under some circumstances for transportation provided in a U.S.-registered foreign civil aircraft.

Thus, the IRS has a relatively clear definition of what constitutes an affiliated group of companies. The FAA does not. As noted earlier, the issue for the FAA is when to allow intercompany chargebacks for use of the aircraft by other members of an affiliated group. For complex corporate structures and companies with many-tiered subsidiaries, the answer will remain shrouded in mystery until the agency issues clearer rules.

**Jeff Wieand** (jwieand@bjtonline.com) is a senior vice president at Boston JetSearch and a member of the National Business Aviation Association's Tax Committee.



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### HE FLEW THROUGH FOG ALMOST AS THICK AS AN FAA REGULATIONS BOOK.

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### PREOWNED

## Why valuation experts add value

Appraisers' data can useful to buyers, sellers and lenders.

by James Wynbrandt

S hould an aircraft appraiser be on your transaction team? Brokers typically play the role of appraiser, using their knowledge of the marketplace to set or counter an airplane's price. But today, with the collapse of historical pricing models, the dearth of sales and the intensely private nature of the transactions, establishing an aircraft's value is difficult.

An appraiser's appeal is the prospect of receiving objective, rigorously documented value analysis that any financial institution would recognize. Indeed, if your transaction involves financing, the lending institution is certain to engage an appraiser. Therefore, "better to get the information now," says Jim Becker, an appraiser with Elliott Aviation, "because if the appraisal doesn't come out, it could kill the deal or force you [if you're the buyer] to put in more of your own money." Even when financing isn't an issue, a seller might want hard data on value before shopping for a broker, Becker says, while for buyers, "it wouldn't hurt to at least have a discussion with an appraiser" before committing millions to an aircraft whose value hasn't been independently evaluated.

Though "a lot of people have the technical knowledge" needed to value aircraft, says appraiser Rich Newton, "they haven't learned the methodology of arriving at an accurate opinion of values." Unfortunately, that can apply to appraisers, too. "You can call yourself an aircraft appraiser," he adds, "and not know tip from tail."

Newton, director of aircraft appraisals for Axiom Aviation in Cleveland, and Becker, with Elliott's Moline, Illinois facility, are both accredited senior appraisers with the American Society of Appraisers (ASA). Recognized for rigorous standards of conduct and practices,



ASA represents appraisers in more than half a dozen disciplines, from gems and jewelry to business valuation. About 50 members are aircraft appraisal specialists.

Among other traits, an aircraft appraiser should have some form of certification, be expert at reading logbooks, and be experienced in the realm of damage diminution, the inexact science of determining the impact of damage on aircraft value, Becker says.

Newton advises buyers and sellers to ask for samples of an appraiser's reports, understand his valuation methods, and find one with "the ability to communicate his results effectively."

Also, note that the reason an aircraft is being sold affects its value, something a qualified appraiser appreciates. "If the owner wants to sell in 60 days, that really is a different definition of value than fair market value," Newton says. "It might be orderly liquidation value, or forced liquidation value."

An appraisal usually costs \$3,000 to \$8,000. The fee shouldn't be tied to the asset's value, though appraisals for larger aircraft typically cost more because there's more to evaluate. Newer aircraft, with few log entries to examine, should cost less to appraise than comparable older aircraft. An appraiser needn't physically examine the aircraft, as long as sufficient data is provided.

Of course, you're free to ignore an appraiser's advice, though doing so could imperil the deal or your money. The customer "has the final say," Becker says. "But when you've got the valuation all laid out in a grid, it's difficult to argue."

 $\ensuremath{\textbf{James Wynbrandt}}$  (jwynbrandt@bjtonline.com) is a private pilot and longtime  $\ensuremath{\textbf{BJT}}$  contributor.

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No. for Sale	13	18	24	12	30	33	22	9	24	12
Avg. Price 2013 (millions)	\$30.1	\$6.7	\$7.8	\$6.7	\$2.0	\$9.3	\$18.7	\$21.9	\$3.0	\$8.7
Avg. Price 2014 (millions)	\$22.4	\$5.9	\$6.5	\$8.0	\$1.8	\$7.9	\$15.2	\$23.2	\$2.9	\$7.8
Avg. Price 2015 (millions)	\$21.0	\$2.4	\$5.8	\$6.1	\$1.6	\$6.1	\$12.8	\$21.4	\$3.1	\$8.5
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## Deep powder in the Tetons

## Backcountry tours offer a great way to explore one of the world's most spectacular mountain ranges.

by Thomas R. Pero

eading for the Rockies this winter for a deep-powder skiing adventure? Consider the Tetons in Wyoming, with their 500 inches of dry, pristine powder and breathtaking alpenglow sunrises and sunsets.

"There is really no more exciting way to experience our backcountry than actually living out here," says Jeff Jung who, with his wife Diane Verna, has run an outfitting operation called Teton Backcountry Guides since 1986. They host outdoor enthusiasts year-round, helping visitors explore the west slopes of one of the world's most spectacular mountain ranges.

Their wintertime downhill program features a custom hut-to-hut backcountry ski and snowboard tour through wilderness. After an exhilarating day of exploring untracked powder, visitors don't have to cut the experience short and make the arduous trip out; instead, they return to the warmth of one of three strategically placed yurts. The yurts are 20 feet in diameter and sit on wooden platforms. Each has sleeping bunks with pads for eight persons, a woodburning stove and propane lanterns. There's also a kitchen with a two-burner propane stove for cooking, but all meals are provided.

The yurts are approximately four miles into the mountains with elevation gains between 1,800 and 2,200 feet. Skiers can expect three to five hours of easy to moderately strenuous hiking in the approach. The highest yurt at Baldy Knoll is at an elevation of nearly 9,000 feet. Skiers should be in good physical shape and should have a minimum of intermediate ski-touring skills for safety and to fully enjoy the experience.

Jeff Jung's favorite trip involves spending six days skiing the Teton backcountry based out of both Baldy Knoll and Plummer Canyon yurts. "First, you ski in to the Plummer yurt and have two days to explore," he says. "On day three, you travel five and a half miles with 2,200 feet of elevation gain and loss to the Baldy Knoll yurt. Porters carry in your food and supplies—you travel with a light daypack from hut to hut. You then have three days to explore the great terrain at Baldy before the fun ski descent back to the valley floor."

Thomas R. Pero (tpero@bjtonline.com) is publisher of Wild River Press and the author of two books about fly fishing.





The word *yurt*—which means home—is derived from the Turkic language; in Mongolia it's called a *ger*. For thousands of years, nomadic shepherds in the steppes of Central Asia have lived in these portable houses—essentially large, round tents supported by a light, latticework bent wooden-pole frame with a conical roof. Mats of felt woven from sheep's wool are stretched over this frame, making the structure nearly impervious to fierce weather.

2

In 1978 an Oregon company called Pacific Yurts began developing a modern version of this ancient design using a durable fabric covering lattice walls, radial rafters and a central compression ring. Today's yurts, which are much larger than original versions, are typically set up as semi-permanent structures for year-round camping. Some people even live in them full time. —*T.P.* 



PHOTO CREDITS: JACKSON HOLE CHAMBER OF COMMERCE 1, 2, 4; JACKSON HOLE MOUNTAIN RESORT 3, 7; TETON BACKGROUND OUTFITTERS 5, 6

#### WHEN TO GO:

December through April, with February the most popular month. January offers cold nights and crisp days; March and April deliver the deepest powder and best turns.

#### WHAT TO DO:

Yostmark Backcountry Tours (yostmarktours.com, 208-354-2828) provides daily tours and instruction in backcountry skiing for the beginner, as well as advanced avalanche instruction for the experienced skier. Teton Backcountry Guides (tetonbackcountryguides.com, 307-353-2900) offers ski touring with overnight stays in wilderness huts or yurts. To enjoy Jackson Hole, Wyoming's ski lifts, consider a stay at Jackson Hole Mountain Resort (888-333-7766) or Snow King Mountain Resort (307-734-3194).

#### WHERE TO LAND:

Private jets fly into Jackson Hole [Wyoming] Airport (JAC), which has a 6,300-foot runway. Jackson Hole Aviation, LLC (800-487-5387) provides FBO services.

## CARING for your CREW

Keep them happy and they'll keep you happy. Here are seven tips.

by Mark Huber

t my first home airport we had an interesting mix of small private airplanes and corporate jet traffic. We got to know the jet crews fairly well, and it didn't take long to learn who had a considerate aircraft owner and who did not.

The latter category treated their crews like valets, demanding of them a wide variety of demeaning tasks unrelated to aviation. There was an arrogance to these principals that is hard to imagine enduring on a daily basis. And it showed on some of the worn-down crews who were shuttled off to the worst hotels, had the tightest expense accounts and were asked on short notice to do things like get up in the middle of the night and fly to the Bahamas.

Conversely, the good bosses were deferential and supportive. They would no more treat a crewmember like a valet than they would their attorney or doctor. They held their crews in high regard and didn't question their flying or aircraft management decisions. These owners understood that a happy crew, free of anxiety and stress, is a safer one: they can concentrate on flying and flying well.

It really doesn't take much to keep a crew happy. Luxury resort rooms, golf passes and Christmas bonuses—those are all nice. But the bottom line is that your crew wants to know that you take their jobs seriously. Here are seven ways to do that:

**1** Provide a safe working environment. This means the crew flies in a well-maintained aircraft with the latest safety equipment and receives regular recurrent training on that aircraft. It also means that your hangar has the proper security, that you don't fly into marginal places without appropriate security on the ground and that your crews stay in safe hotels when on the road.

**2** Offer fair employment terms. Pay wages and benefits commensurate with the size and complexity of the aircraft your crew flies, their experience and your local market. Keep nonaviation tasks to a minimum. Don't ask your crew to work excessive overtime, even if you're operating under the FAA's Part 91 private aircraft rules where long hours may be legal. Maybe you got to the top by burning the candle at both ends, but a tired flight crew is never a good idea.

Also, don't adopt employment rules that encourage crewmembers to fly when they're "under the weather." In other words, provide paid sick days and sick leave. Finally, don't forget the little things, like offering an allowance for uniforms if your flight department requires them.

**3** Understand the "sterile cockpit" concept. The FAA's sterile-cockpit rule, which has been on the books since 1981, prohibits non-essential activities, including communications, by the crew during all critical phases of flight and below 10,000 feet. While the rule applies only to airlines and charter operators, it's a good practice for everyone. It was imposed following an analysis that showed idle cockpit chitchat to be a distraction that contributed to accidents.

While the rule is for pilots, by inference it means that you don't interrupt them during taxi, takeoff and landing or any time the seatbelt sign is illuminated. It's fine to be sociable and poke your head into the cockpit to chat—just know when, and when not, to do it.

4 Skip the smoke. Smoking anything in the airplane is a nasty business. You're dealing with a small, confined area with limited air circulation. However, smoking some things is worse than smoking others. While marijuana laws have been liberalized in a few states, carrying it or any other illegal drug on an airplane is a really bad idea. It puts your flight crew at risk of an enforcement action, including revocation of pilots' licenses. In some cases, it can also lead to seizure of the aircraft.

**5** Consider the crew when packing. Most flight crews also load the luggage compartment. Resist the temptation to stuff gold bars into the suitcase or pack clothes cases the size of small sedans. Your crew will appreciate smaller suitcases and garment bags, reasonably loaded. Can't lift it? Neither can your flight crew.

**6** Accept bad news. Your trip can be delayed, diverted or canceled for all sorts of valid reasons, including air traffic control issues, equipment failure, necessary unscheduled maintenance and bad weather. No one is likely to be more disappointed by being grounded than your crew. Understand that they weighed all the options and selected the one that optimized your safety. Thank them for doing so.

**7** Smile. The mood you board with sets the tone for everyone else. No matter the day's aggravations, you are traveling in a manner reserved for the select few, and gratitude is the order of the day. Happy boss, happy crew.



## TRAVELER CALENDAR

#### October 13-22

#### THE MOORINGS INTERLINE REGATTA

British Virgin Islands. Ten days of "fast-paced sailing and nonstop parties." Info: moorings.com

#### October 17–18 WELLFLEET OYSTERFEST

Wellfleet, Cape Cod, Massachusetts. The 14th annual shellfish celebration includes a shucking contest, live music and arts and crafts. Info: wellfleetoysterfest.org

#### October 21

#### AMERICAN BALLET THEATER FALL GALA

Lincoln Center, New York City. Tables were still available at press time. Info: abt.org

#### October 23-November 1

#### HILTON HEAD ISLAND MOTORING FESTIVAL

Savannah, Georgia and Hilton Head Island, South Carolina. Several days of automobile excitement for the whole family. Info: hhiconcours.com

October 30-31

#### **BREEDERS' CUP**

Lexington, Kentucky. This event traditionally ends

the thoroughbred racing season and is surrounded by blowout parties and celebrations. **Info**: breederscup.com

#### November 1

#### NEW YORK CITY MARATHON

New York City. Runners are gearing up for one of the Big Apple's most popular annual events. The 26.2-mile course begins in southern Brooklyn and ends at 138th Street in Manhattan. Info: tcsnycmarathon.org

#### November 8–12

#### DUBAI AIRSHOW

Dubai World Central, Dubai, United Arab Emirates. This event will feature exhibits, flying displays and plenty of networking. Find daily coverage at ainonline.com. **Info**: dubaiairshow.aero

November 17–19

#### **NBAA ANNUAL CONVENTION & EXHIBITION**

Las Vegas, Nevada. Business aviation's biggest event offers exhibits, educational sessions and networking opportunities. For daily coverage, visit ainonline.com. **Info**: nbaa.org

#### November 19-22

#### **DP WORLD TOUR GOLF CHAMPIONSHIP**

Jumeirah Golf Estate, Dubai, United Arab Emirates. The

culmination of the European Golf Tour. Info: dpwtc.com

#### November 27–January 1

#### NANTUCKET NOEL AND CHRISTMAS STROLL

Nantucket, Massachusetts. The town pulls out all the stops for a multi-week extravaganza that will cheer up even the biggest Scrooge. Info: nantucketchamber.org

#### December 1

#### **UNICEF SNOWFLAKE BALL**

New York City. One of the most notable black-tie galas in Manhattan with upwards of 700 guests, this event supports UNICEF's work in more than 190 countries and territories. Info: unicefsnowflake.org

#### December 2–January 3

#### **ALVIN AILEY**

New York City. Alvin Ailey will heat up New York with a month of modern dance performances when the dance troupe takes up its annual holiday residence at New York City Center. Info: alvinailey.org

For a long-range events calendar, please visit bjtonline.com/calendar.

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## How high did the Byrds fly?

Turns out the group were just six miles up when three of their members wrote their 1966 hit "Eight Miles High." Here's why the song title lifted them higher.

by Mark Phelps

uite a few years back, I was writing an article for a **BJT** sister publication on how airspace is organized. I recall musing about how altitude "layers" were assigned by aircraft types in the early days of flying. Small personal aircraft usually stayed below 12,000 feet; larger turboprop commuter liners dominated the "teens"; airliners tended to operate between 21,000 and 33,000 feet; and hot-rod business jets worked the heady altitudes above that, as high as 51,000 feet. My point was that all that categorization had since become obsolete, as aircraft of all types had grown more versatile over time.

Because I'm a 1960s-music fan, this retrovision on airspace also got me thinking about the Byrds' 1966 hit "Eight Miles High." Most listeners assumed they were winkingly referring to drugs, at least as a double meaning, and I've no doubt that's at least partially correct. But I did some arithmetic and wondered whether songwriters Gene Clark, David Crosby and Roger McGuinn were also subtly referring to a business jet ride. Eight miles high is 42,240 feet—definitely above airliners of the time and up where the early Lear Jet 23s flew.

I decided to investigate, using a then-fresh innovation called the Internet. Lo and behold, the Byrds had a website, but it contained no reference to the meaning behind the song title, other than disclaimers that it was absolutely *not* about drugs (wink, wink). Then I saw a little section of the site titled "Send Roger a note."

#### OK, why not?

I explained to Roger (or more likely some lackey hired to read all his emails) that I was writing about airspace for a magazine called *Aviation International News* and I thought "Eight Miles High" would make a fun reference if, indeed, the song was about flying in a business jet—most likely a Lear Jet, which by then dominated the market and had become to bizjets what Kleenex is to facial tissue. (In the '60s, the aircraft—named for company founder and colorful innovator Bill Lear—was still written as two words. It wasn't compressed to the current "Learjet" until after subsequent corporate buyouts.)

I didn't really expect a response from McGuinn, but my note must have appealed to him, maybe because I was not one of the many people asking which drugs the song concerned. He wrote me back, explaining that, no, the words were not about a business jet but were instead penned during one of the band's airline flights to London.

Yes, he told me, he and his cowriters knew they were actually closer to six miles high. But, McGuinn said, "The Beatles had a hit at the time named 'Eight Days a Week,' so we decided 'eight miles' sounded better." (This is paraphrased, but pretty close. I foolishly didn't save his email.) McGuinn added, however, that he and the band's other members did have fun memories of flying with Bill Lear's son John above Southern California in Lear Jets. In fact, they released a song titled "2-4-2 Foxtrot (The Lear Jet Song)" on their *Fifth Dimension* album.

John / cuis

That track is not among their most imaginative work. It consists of the sounds of engine startup in a Lear Jet 23 with the N-registration number 242F ("F" is "foxtrot" on the radio) and the voice of John Lear conducting the preflight checks over an intercom—with the overdubbed band playing and singing "Go 'n' ride a Lear Jet, baby, go 'n' ride a Lear Jet" continuously for two minutes, 12 seconds.

After hearing that record recently and recalling McGuinn's comments about riding with John Lear, I thought I'd try reaching Lear himself. It turns out he has evolved into one of the nation's leading conspiracy theorists, and his website (therealjohnlear.com) offers the opportunity to chat with him on the phone...for \$2.99 a minute with a five-minute minimum. I'm not in the habit of compensating sources, but I decided to make an exception and pay for a reservation.

He called back precisely at the appointed hour, confirmed that it is his voice in the background of the "Lear Jet Song" and that he did, indeed, regularly take the Byrds flying back in the late 1960s and early 1970s.

And, yes, on those occasions, the group literally did fly "eight miles high."

Mark Phelps (mphelps@bjtonline.com) is a private pilot and a managing editor at BJT sister publication Aviation International News.



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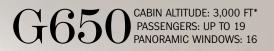






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