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Jack Nicklaus, photographed by Jim Mandeville/The Nicklaus Companies





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Up Front



ou may not be familiar with Incredible Technologies founder and CEO Elaine Hodgson, but I'll bet someone in your inner circle has heard of Golden Tee,

the wildly successful video golf game her company created in 1989. When I've mentioned Hodgson's name to friends, I've typically gotten a blank stare followed by an expression of incredulousness when I've followed up with "have you heard of Golden Tee?" My cousin told me the question was akin to asking whether he had ever heard of something called beer.

Don't look in these pages for my interview with Hodgson, a fascinating entrepreneur whose background includes a stint at NASA and multiple midlife type ratings that allow her to fly herself around the country to visit casinos via her own Cirrus Vision Jet. My Q&A with her is just

one of the many online-only offerings now available at BJTonline.com. Among other recent articles you'll find exclusively on the website: "Your Flight Operations Might Not Be as Secure as You Think," by Mark Huber; "Be Ready for Medical Emergencies Abroad," by Jerry Siebenmark; "The World's Best FBOs," by Curt Epstein; "Set Sail on a Superyacht," by Narina Exelby; and an interview with Clay Lacy CEO Brian Kirkdoffer by Alexa Rexroth.

In addition, the website includes everything published in our print edition over the past decade, plus such valuable resources as our searchable Aircraft Guide, business aviation company directory, and events calendar. It's a lot of content, and the best way to stay on top of it is to sign up for our free twice-weekly newsletter



Elaine Hodgson (left) flew herself to Teterboro airport to sit down with BJT.

BJT Waypoints (bjtonline.com/subscribe). This is where we debut new material and offer all the latest aviation news. Being subscribed means you won't miss a bizav beat.

Jennifer Leach English **Editorial Director** jenglish@bjtonline.com

Business Jet Traveler recently received seven editorial awards from the American Society of Business Publication Editors: James Wynbrandt (Inside Charters), Jeff Wieand (Taxes, Laws, and Finance), and Joe Sharkey (On the Road) all won for Best Regular Column-Contributed while Mark Phelps (Exit) took a prize for Best Regular Column-Staff Written. Other winners included Margie Goldsmith for Best Q&A ("Ashley Longshore"), graphic designer Greg Rzekos for Best Front Cover (Longshore issue), and Mark Eveleigh for Best Feature Article-General Interest ("Spain's Navarra Province"). Our congratulations to all.

EDITORIAL

Editor-in-Chief Matt Thurber

Editorial Director Jennifer Leach English

Editor Jeff Burger

Group Production Manager Tom Hurley

Production Editor Martha Jercinovich

Art Director John A. Manfredo

Contributors Chris Allsop, Mark Eveleigh, Marion Flanagan, Margie Goldsmith, Mark Huber, Marilyn Jones, Amy Laboda, Debi Lander, Thomas R. Pero, Mark Phelps, Gemma Z. Price, Kim Rosenlof,

Chana R. Schoenberger, Joe Sharkey, Helen Ann Travis, Jeff Wieand, James Wynbrandt

Graphic Designer Grzegorz Rzekos

Lead Developer Michael Giaimo

Developers Nathan Douglas, Ryan Koch

Video Producer Ian Whelan **EDITORIAL CONTACTS**

214 Franklin Ave., Midland Park, NJ 07432 (201) 444-5075 • editor@bjtonline.com

BUSINESS

Managing Director Wilson S. Leach Group Publisher David M. Leach Associate Publisher Nancy O'Brien **Advertising Sales**

Melissa Murphy-Midwestern U.S. (830) 608-9888 Nancy O'Brien-Western U.S./Western Canada/ Asia Pacific (530) 241-3534

Anthony T. Romano-Northeastern U.S./ Eastern Canada/Mexico/Brazil (201) 345-0073 Joe Rosone-Mid-Atlantic U.S./Southeastern U.S./ Caribbean (301) 693-4687

Diana Scogna-Italy/Northern Europe/Middle East (33) 6 62 52 25 47

Victoria Tod-Great Lakes, U.S./United Kingdom (203) 733-4184

Audience Development Manager Jeff Hartford Marketing & Client Services Manager Lisa Valladares

Onsite Logistics Manager Philip Scarano III Sales Coordinator Nadine Timpanaro Sales Administrator Cindy Nesline

Director of Finance & Human Resources Michele Hubert

Accounting Manager Marylou Moravec

Accounts Payable Mary Avella

Accounts Receivable Bobbie Bing

Advertising Inquiries

(201) 345-0085, adsales@bjtonline.com

Circulation/Subscription Inquiries

(201) 345-0085, subscriptions@bjtonline.com

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A Golf Course Maintained by Water Buffaloes

Dedicated greenskeepers use sophisticated machinery to keep golf courses in top condition. But Laguna Golf Lăng Cô in Vietnam's Chan May region—a spectacular Nick Faldo-designed course filled with tropical jungle, ocean sand dunes, and rice paddies also employs a low-tech solution. At this 18-hole, par-71 course, three water buffaloes handle some maintenance work, tending to almost 48,000 square yards of rice fields in the middle of the course.

This isn't quite as unusual as it may sound. At one time, golf courses were mostly on public land and it was common for sheep and cattle to roam

freely across fairways. Today, the wilder links clubs in remote regions of Scotland and Ireland use livestock to trim turf and thin out rough. The water buffaloes at Laguna's course act as bio-mowers by eating excess weeds and crops.

The paddy isn't just for show; it is harvested twice a year and yields up to 20 tons of rice, which is donated to local families and seniors. So besides providing a memorable sight for golfers and reducing the need for machinery and manpower, the water buffaloes offer the course a way of giving back to the community. —Margie Goldsmith

Correction: The article on Robert Herjavec in our last issue listed an erroneous average current sale price for the Gulfstream IV-SP. The used price range, according to Vref, is \$3.3 million to \$6.2 million.



JULY 1-14

Wimbledon, London. BJT cover subject Novak Diokovic will defend his championship title. Info: wimbledon.com

AUGUST 18

Pebble Beach Concours d'Elegance, Pebble Beach, California. Cars and motorcycles are judged for historical accuracy, authenticity, function, and style at this prestigious event. Proceeds go to children's charities chosen by the Pebble Beach Company Foundation. Info: pebblebeachconcours.net

AUGUST 26-SEPTEMBER 8

U.S. Open, Flushing Meadows, New York. Naomi Osaka and Novak Diokovic will defend their titles on hard courts in the fourth and final Grand Slam tournament of the year, but all eves will be on Serena Williams after last year's controversial match. Info: usopen.org

NOVEMBER 1–2

Breeders' Cup, Arcadia, California. Originally created as a year-end championship for North American thoroughbred racing, this two-day extravaganza in Santa Anita Park attracts top competitors from all over the world. Info: breederscup.com



NOVEMBER 3

New York City Marathon, New York. Runners are gearing up for one of the Big Apple's most popular annual events. Entry is still available through NYRR Team for Kids, Official Charity Partners, and International Tour Operators. Info: tcsnycmarathon.org

-Jennifer Leach English



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Psst! Bali's Secrets Revealed

Even if you've been to Bali, it's a good bet that you don't know it as well as BJT contributors Mark Eveleigh and Narina Exelby, who make their home on this popular Indonesian island. In the newly published Secret Bali: An Unusual Guide, Eveleigh and Exelby point readers to the world's best unofficial street-art exhibitions, a village of the deaf, a spectacular traditional fishing craft, Bali's only colonial-era rubber plantation, a mysterious breed of cattle, a tree that is impossible to plant, fantastic street-art exhibitions, a workshop

> where batiks are created with unique natural dyes, and much more.

> Eveleigh, who has written for the New York Times, National Geographic, Esquire, and many other publications, has reported for BJT on such destinations as South Africa and Spain's Navarra Province. The first BJT article from Exelby—a contributor to Fodor's and to periodicals like the Guardian and Marie Claire—is "Set Sail on a Superyacht," which has recently been posted at BJTonline.com. —Jeff Burger





Museum Watch

Dublin Museum Celebrates Irish Authors

The 12,000-square-foot, four-floor Museum of Literature Ireland (MoLI) opens this summer in Dublin. A collaboration between University College Dublin and the National Library of Ireland, MoLI draws inspiration from the work of the country's most renowned writer, James Joyce. (Its initials echo the first name of his best-known female character, Molly Bloom.)

The \$12 million museum, nine years in the making, celebrates Ireland's literary culture and heritage. It includes the first copy of Joyce's *Ulysses* and his handwritten notebooks for various episodes in that novel, as well as William Butler Yeats's Nobel Prize medal. Exhibitions at MoLI will spotlight past and present Irish writers and will be accompanied by immersive multimedia exhibitions, lectures, performances, and cutting-edge children's education programs.

The museum occupies the historic Newman House, originally the Catholic University of Ireland, where Joyce graduated in 1902. Still standing in what is now MoLI's reading garden is the oak tree where his graduation photo was taken. -Margie Goldsmith





What Puppies Learn In Prison

NEADS routinely earns high marks for its work training, matching, and placing service dogs. The organization-formerly known as National Education for Assistance Dog Services and Dogs for Deaf and Disabled Americans—trains over 90 percent of its dogs through the Prison PUP Program in federal correctional facilities in Massachusetts and Rhode Island. Inmates with exceptional records are chosen as handlers, and they maintain regular contact with NEADS for the 12 to 18 months required to fully train an animal. According to the organization, prisoners have a high level of success with service-dog training because they are able to consistently dedicate large amounts of time to the process.

The canines enter the program as puppies after having been identified and evaluated by breeders and NEADS on criteria that include temperament, health, and behavioral and genetic history. The organization has trained over 1,800 service dogs since its founding in 1976. Its programs are variously designed to prepare the dogs to help people with physical disabilities, children with autism, veterans with PTSD, and people who cannot hear. NEADS also trains dogs to assist teachers, therapists, ministers, and courthouse and hospital employees in interacting with patients, clients, and others. —Jennifer Leach English

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 spotlight 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.



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A plague of picturesnapping posers

Selfie-crazed tourists are taking over the world, but pushback has begun.

by Joe Sharkey

am obviously not the first person to have had an uncivil thought inside the Colosseum in Rome, where my view and right-of-way were severely blocked last summer by walls of tourists taking selfies, with their backs turned to the arena. My uncivil thought was this: Where are the Barbary lions and the leopards and panthers now that we need them?

In its heyday in the 2nd century, the Colosseum could accommodate well over 50,000 Romans cheering its spectacles, which at times included the damnatio ad bestias, the condemnation to beasts, in which wretches who'd had the misfortune to get crosswise with the authorities were removed from the arena with, shall we say, extreme prejudice.

Now with the coming of summer in the northern hemisphere, the selfie-crazed tourist onslaught is again at a peak. Those of us who pack our good manners when we travel-you and I, for example—only stand by and shrug, as I did in the Vatican Museums while watching tourists who were not looking at the paintings but instead were taking selfies in front of them.



What is going on here? When did the world's tourist spots get overwhelmed with picture-snapping posers?

Let me provide at least a snapshot of an answer with some statistics. Tourism is growing at staggering rates, internationally and domestically. The United Nations' World Tourism Organization says that in 2017, over 1.3 billion people made international visits, up from a mere 25 million in 1950. There were 76.9 million international travelers to the U.S. in 2017. That same year, according to the U.S. Travel Association, Americans logged 1.8 billion domestic "person trips," defined as one person traveling away from home overnight and staying in paid accommodations.

hat's a lot of people on the road, and all of them pack at least a cellphone if they aren't carrying a traditional camera. Travel and tourism represent the world's largest commercial service industry. And it's the engine driving the selfie phenomenon that's plaguing spots from the fountains of Rome (where selfies were banned after tourists began stripping to their underwear to splash and pose) to Dubrovnik, Croatia (which has been overwhelmed with selfie-mad tourists

at locations where *Game of Thrones* was filmed) to Yosemite National Park (where visitors have been injured trying to take selfies with bison that evidently did not want to be in the picture). Last October, a married couple fell off a cliff to their deaths in Yosemite while taking a selfie for their travel-adventure feed on Instagram.

Media accounts and even academic studies have focused on Instagram and Facebook being largely responsible for the worldwide plague of selfie narcissism. A typical headline: "Linked to Death: Are Instagram and Social Media Ruining Travel?"

Pushback is occurring. Bans on dangerous or intrusive-to-others selfie-taking are being instituted all over the world, and those infernal telescoping selfie sticks are now widely prohibited in museums and at tourist hotspots. Some vacation destinations are setting aside designated selfie areas. In the U.S., the National Park Service is working with researchers from Colorado State University on a campaign to encourage selfie-crazed visitors to keep a safe distance from various kinds of wildlife. Social-media petitions urging limits on selfies are springing up.

But the impulse to take travel selfies is mighty. For example, after this past winter's overabundant rainfall in the desert Southwest created spectacular early springtime "super blooms" of desert wildflowers, the *Los Angeles Times* fretted that masses of selfie-taking visitors had begun pouring into the deserts and tramping on all the splendid wildflowers. "Instagram-hungry crowds are destroying the super bloom," the headline said with alarm.

Of course, the desert wildflowers will be long gone in the blazing heat of summer, but selfie fanatics do have a new—and harmless—venue in Los Angeles, where the Museum of Selfies opened this year on Hollywood Boulevard. For the \$25 admission fee, visitors can wander through interactive exhibits and, the museum's website enthuses, "take a deep dive into the fascinating history and unseen depths of this popular cultural phenomenon."

And yup, selfie sticks are allowed.

BJT

At fountains in Rome, people stripped to their underwear to splash and pose for selfies.



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.

The case for prenups

When fairly and properly drafted, they can provide protections for both members of a couple.

by Chana R. Schoenberger

t's considered unromantic to propose a prenuptial agreement to the person you love and plan to marry. Who wants to think about divorce when they're getting married? But the reality is that many marriages fail. And if yours ever does, a prenup may offer your best chance for preserving your assets.

In prior eras, older couples on second or later marriages, often with children from a prior union whom they wanted to protect financially, were the ones most likely to get prenups. That's still the case, but some younger couples, and couples of any age on their first marriage, are also signing the documents these days, says Arlene Dubin of Moses & Singer in New York. Dubin, a matrimonial lawyer, wrote the book Prenups for Lovers.

"You're seeing a tremendous upswing in prenups over the last 20 years," Dubin says.

A fair prenup takes care of both spouses and recognizes each person's contributions to married life, including working in a family business, entertaining, and raising children. While protecting certain assets at the time of the divorce is certainly a goal, "the less-moneyed spouse shouldn't necessarily leave with nothing," says attorney Jillian Gross of Aronson Mayefsky & Sloan in New York.

usiness owners, or their children, often seek prenups to protect their family company. "If it's divided in a divorce, they may have to liquidate or borrow against the business, which is an unpalatable alternative," Dubin says. Even if you don't have a family business to shield, you may anticipate an inheritance that your parents or grandparents

don't want to end up in the hands of an ex-spouse or stepchildren who aren't related, Dubin adds.

At issue is what you own before you marry, and what remains separate during the marriage. If one spouse is the beneficiary of a trust, it may be legally considered the person's separate property, even without a prenup. But if that person receives distributions from the trust during the marriage, those payments might be deemed community property if they're used to support the couple's lifestyle, Gross says. Some states consider an inheritance to be marital property if it's deposited into a joint bank account.

For a prenup to be fair—and therefore enforceable—it should allocate something of value to both parties, Gross notes. "If you're asking somebody to waive an interest in a business, or if you have all this separate property you're bringing to the marriage, you offer them some kind of deal or payout in the event of a divorce," she says.

Some things don't belong in a prenup. For example, says Gross, a good matrimonial lawyer would avoid writing one with triggers that give one spouse a windfall if the marriage lasts for a certain period of time but little or nothing if it doesn't. Also, any provision for children who are not yet born is unenforceable, she notes. If a divorce happens, you'll have to deal with custody and child support then.

Some attorneys draft prenups with lifestyle clauses—for example, requiring a spouse who has an affair to pay a certain amount to the other spouse or dictating who will manage household chores on which days. Stacy Phillips, a matrimonial lawyer at Blank Rome in Los Angeles, thinks these aren't a good idea, however.

How—and when to bring up a prenup

If you're broaching the subject of a prenup with the person you're planning to marry, says attorney Jillian Gross, it's good to begin by explaining the reasoning behind your request.

If you need to, blame it on your relatives, she says: "It can be, 'I love you, I want to spend the rest of my life with you, but my family has worked for generations to build this company." Other reasons would include parents' insistence that a family business remain with blood relatives, or that the company not get caught up in court proceedings if there were a divorce.

With a topic this sensitive, you may want to enlist a professional to moderate the discussion. "Sometimes it's helpful if a financial adviser—someone neutral—suggests it," says attorney Arlene Dubin. "Then it doesn't feel personal."

One problem is that terms that might seem obvious to one member of a couple may not be as self-evident to the other. "There are also people who are just turned off by the word 'prenup' and need to be educated on why they aren't all that bad," Gross says.

What's crucial is raising the issue of a prenup early, Gross says: "If not before you're engaged, then as soon as you're engaged." What you shouldn't do is wait to discuss a prenup until just before the wedding. A court may later rule that one party was coerced because of the rushed timeline. And it's no fun for the couple

"The worst ones are when you're negotiating it while you're having your hair done for the rehearsal dinner," Gross says.—*C.R.S.*

ou and your future spouse should each have your own lawyers. "It's the best way to protect the enforceability of the prenup," Dubin says. However, it's OK if one member of a couple or that person's family pays for both attorneys.

"The better drafted and clearer the prenup, the more likely it is to be enforced," says Phillips. If one spouse is hiding assets, or is forced to sign the prenup under duress, a court won't uphold it. Even if both spouses agree that they don't want support payments in the event of divorce, a court may require these payments if the judge thinks it is fair to do so, Phillips says.

A prenup doesn't guarantee there won't be a messy divorce. One of Phillips's clients, married for nearly two decades, had a child and two luxurious homes at the time she and her husband split. According to her prenup, she

was entitled to \$1 million and hefty spousal support payments from him for as long as he was alive. But after a lengthy marriage, that didn't feel sufficient to her.

"We went to court for life insurance, because otherwise, she would get nothing if he died," Phillips recalls.

Prenups aren't for everyone. If a couple are young, with no business interests, there's little need for a prenup, Phillips says. "If someone is straight out of school, with no assets, and wants a prenup, I would say, 'Run, this person doesn't have the generosity of spirit," she adds.

A prenup doesn't guarantee that a divorce won't

Sometimes circumstances change during the marriage, and the prenup's arrangements no longer make sense. For instance, one spouse may have created a valuable business, or the spouse who had planned to stay home with the children may have instead embarked on a lucrative career. In such cases, it's common for couples to amend the document or sign a new one, known as a postnup, Dubin says.

At some point in a good and long marriage, on the other hand, you may want to just tear up the original agreement.



Chana R. Schoenberger (cschoenberger@bjtonline.com) has been an

editor at Forbes, a reporter for Dow Jones and the Wall Street Journal, and a news editor at Bloomberg News.







Our roots have been in business aviation since there has been business aviation.

Leading Edge Aviation Solutions Helps Clients Find the Right Business Aircraft

Now more than ever, business jet brokers should take the time to develop relationships with their clients and find the right aircraft solution for them. Back in the late 1960s and throughout the 1970s—before the term "business jet" came into common use—those tasked with selling personal jet aircraft took the time to develop close relationships with their often-famous clients, including stars of film, television, and radio. Those esteemed passengers espoused the speed, efficiency, and other benefits of flying on a jet, and businesspeople took notice.

As the saying goes, that was then, and this is now. Today's business jet market is markedly different from that of a half-century ago, with a staggering variety of aircraft choices and with sales, charter, and leasing agents tasked with handling far greater numbers of aircraft transactions.

The scope of that incredibly competitive market often leaves little time for brokers to build rapport with their customers and fully determine their needs. Instead, aircraft sales sometimes become faceless deals in which brokers push clients towards airplanes that offer the highest commissions.

However, there are still at least a few companies that believe in taking the time to find the right business aviation solution for their customers' needs. One of them is Leading Edge Aviation Solutions (LEAS), which has been working in the aviation marketplace and building relationships with clients for more than half a century.



"From the beginning, it was my goal with the clients we handled that, if we did it right, the referral business would be there for us"





A History of Personalized Service

LEAS chairman emeritus Joseph Carfagna, Sr. began his aviation career with Bendix in 1966, initially working in electrical engineering and avionics. The company soon formed a separate division for general aviation and commercial aircraft, including the nascent personal jet market.

"Around the same time, Bill Lear started Learjet, and [Bendix] was a launch customer for our flight director and autopilot," Carfagna recalls. "I was a technical rep on the project and watched planes moving down the line in Wichita. I also saw the big-name companies like Citibank, Chase, and Mack Truck buying these aircraft, and I recognized that people were needed to buy, sell, fly, and maintain them. In 1968 I had a conversation with Bill Lear and became a salesperson for Learjet with the New York area as a territory."

As a salesperson for Learjet, Carfagna built a client list that soon grew to include such notables as golfer Jack Nicklaus and entertainer Arthur Godfrey. He moved to the first management company in the Northeast, Executive Air Fleet, as a founding member in 1971 and acted as COO and managed the aircraft sales function of the firm until the mid 1980s. He later formed Wings Associates in the late 1980s, which ultimately evolved into LEAS. "From the beginning, it was my goal with the clients we handled that, if we did it right, the referral business would be there for us," he says. "Aviation is very much a referral business and the customer's experience drives the referrals."

Such experience, attention to detail, and personalized care have become even more important as the business jet market has evolved over the years. "Today's clients demand an emphasis on analytical expertise," says Joe Carfagna Jr. who became the president of LEAS in 2010. "We were a pioneer in offering those services, and our clients responded very well to it as the market matured and company executives began to take a larger role in determining aircraft selection.

Joe Sr.'s wife Kay joined the firm in 1990, son Joe, Jr, in 1994 and son Craig in 1996.

"Often, a buyer or seller simply doesn't know what they don't know," he continues. "We've seen the

good, the bad, and the ugly, and we're better able to stay focused on the methodical process of buying and selling aircraft for them to determine the right airplane at the right price, even if it's not necessarily the cheapest."

"LEAS' success for many years has resulted from superior expertise, placing the client's interests first and applying the hands-on touch of a family-owned business."

Exploring Alternatives to Best Suit the Client

Frank Janik, vice president of transactions at LEAS, joined the company in 2006 at the height of a booming global market for business jets. "That was a once-in-a-lifetime market phenomenon before the downturn two years later," he explains. "Everyone in the world was buying corporate jets, and the euphoria made it seem like the high times would last forever. Of course, it wasn't really a normal market."

While the global recession of 2008–09 hit the business jet market hard, it also highlighted the competitive advantage of offering business-focused consulting efforts, in which LEAS helps clients to find the right solution for their needs. Janik notes that customers who've worked with other agents are surprised by the level of service provided by LEAS.

"The market is now far more transactional," he explains. "There's so much information available out there, but a lot of it's more noise than activity. We focus on consulting with our clients to help them with their full package of needs and taking them through the entire process of selecting an aircraft. There's a lot more to that than just trying to sell a plane."

LEAS works exclusively with prospective aircraft buyers, taking them through the entire process and representing their interests. "We conduct a feasibility study with every client to find the right product for each of them, and that may not mean buying an aircraft," Janik says. "Block-charter, jet cards, memberships, or fractional ownership may be far better suited to the buyer's needs than purchasing an entire new or used aircraft.

"It's about offering the solution that best fits their needs," he continues. "We'd love to sell a \$50 million jet, but realistically the client may be best

served at this time with a jet card. The client's needs will likely evolve over time, and our goal is to make every client a lifetime client. I'm very proud of the number of clients who've bought their third, fourth, or fifth aircraft from us."

Continuing to Support the Customer With Unique Offerings in Addition to Brokerage and Acquisition

The high level of service from LEAS continues after the sale, thanks to the company's The Client's Edge program. That's a comprehensive suite of value-added services to assist clients with the ownership experience through partnerships with ARGUS, FlightSafety International, Marsh Insurance, and MedAire in a benefits program exclusively for LEAS clients.

The ARGUS program is an exclusive offering that provides clients who purchase an aircraft with LEAS deep discounts on a custom-tailored package that examines their operating costs and procedures (whether the aircraft is managed or not) for a three year period after the purchase. So not only is a large amount of due diligence done well before the purchase, the due diligence continues for three years afterward. Janik said, "We take the position with clients from the onset of an acquisition that the total cost of an aircraft is really only measured when you quantify the purchase, the cost to operate it, the tax benefit taken if any, and what you sell it for.

Only then can you really determine what the total cost of owning a corporate aircraft will be."

Janik notes that The Client's Edge is a particularly useful resource for first-time buyers. "They're now fully responsible for the costs and responsibilities of that operation," he explains. "We'll match the client with a management company, as well as provide membership with ARGUS to ensure that the management company is the best fit for the customer and that maintenance and operating costs are in line with the fleet. That gives our client the added sense of stability and assurance that things are being done the right way."

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THE CLIENT'S EDGE

Another value-added LEAS service is overseeing quality control of aircraft completions. "We have a highly experienced airframe & powerplant (A&P) technician on staff with 50 years of experience who's involved with the technical aspects of the sale," says Joe Carfagna, Jr. "With him on the shop floor representing the client's interests, it saves the

client time and brings more expertise to the table."

Joe Carfagna, Jr. also points to the company's Inside Edge web portal, which is accessible 24/7 by clients. "The Inside Edge contains all legal and procurement documents pertaining to their transactions, as well as aircraft valuations and market intelligence," he adds. "This transparent portal may be used to disseminate information at any time, and it's the kind of innovative idea that makes doing business with Leading Edge Aviation Solutions even easier."

Such client education goes hand in hand with providing superior customer service—and clients should expect nothing less from their aircraft broker. "Bigger is not always better," concludes Carfagna, Jr. "Better is better, and I'd put the experience of our team and quality of our services as well as the client experience we provide up against anyone in this industry."

"We've been around for a long time, with a 50-year history in the industry. We offer a unique mix of terrific experience, communication, customer service and innovation. We may be an 'old dog' in this business, but one with a lot of new tricks."

To learn more about Leading Edge Aviation Solutions, including the company's complete history, and to review an impressive list of testimonials from clients, please visit the company's website at www.leas.com.





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JACK NICKLAUS

The golf legend retired from competition in 2005 and no longer directs daily operations of his businesses. But he still has a busy schedule—and a Gulfstream jet to help him keep up.

by Adam Schupak

You might have figured that golf great Jack Nicklaus was slowing down when he announced in February 2018 that he was stepping away from day-to-day operations of his companies. His calendar sure doesn't look like that of a man who's taking it easy, however.

Nicklaus struck the opening tee shot at the Masters in April last year, teaming with pal Gary Player in the Legends of Golf; hosted the PGA Tour's Memorial Tournament the month after that; and is opening more golf courses, including one in Russia and his first in Latvia. In addition to leaving his mark as the designer of more than 400 courses around the world, he has attached his name to products ranging from golf balls, wine, beverages, ice cream, and restaurants to lifestyle items such as apparel and footwear.

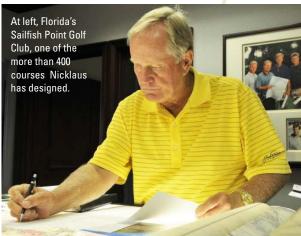
Nicklaus, whose playing career ended in 2005, won 73 PGA Tour titles between 1962 and 1986. It is his 18 major championships that stand unmatched and set him apart, however. By this most objective measure, he is the greatest golfer of all time.

(Tiger Woods, winner of 15 majors, has renewed his pursuit of this claim.)

Now 79, Nicklaus still attacks life with the same vigor that he used to pick apart a golf course. All of his duties, not to mention his charitable initiatives for the Nicklaus Healthcare Foundation, require extensive travel in the U.S. and abroad, and it's why he values flying privately. He says his Gulfstream jet has "paid for itself 10 times over."

Nicklaus has long been a favorite of the press. As *Golf Digest's* Guy Yocom has put it, "If you ask questions that challenge him or tickle his imagination, he will say more in a short period of time than almost anyone in golf." During a lengthy sit-down interview (which turned into a lie-down conversation as Nicklaus did a series of stretches to loosen his back), he touched on a dizzying number of topics, including his decision to turn pro, his rivalry with Arnold Palmer, the discovery that he was color-blind, and the time he landed on a runway that sloped uphill.





"I didn't think much about it at the time, but an eight-foot putt in 1959 was probably the most important putt Lever made." 18 BJTonline.com | Summer 2019

JACK NICKLAUS

When did you first feel that a golf career was in your future?

It never entered my mind until I was about 20. Growing up, I didn't see many guys that got the opportunity to do that. But I played college golf, won the national Amateur in 1959, and almost won the U.S. Open as an amateur in 1960. I thought, I really can compete against these guys.

You made an eight-foot left-to-right breaking putt on the final hole to win the 1959 U.S. Amateur. How critical was that as the launching pad of your career?

I didn't think much about it at the time, but it was probably the most important putt I ever made. It gave me the feeling that I could do this, and winning breeds winning. Holing that putt gave me the confidence that if I get myself into a position where I have to come through, I've done it before, I can do it again.

You had a storied rivalry with Arnold Palmer. How did it begin?

First time I met Arnold, I was 18. We played together [on Sept. 25, 1958] at Dow Finsterwald Day at Athens Country Club in Ohio. We had a driving contest and I won. Of course, I always kidded Arnold about that, and he always kidded me that he shot 63. So that was sort of the start of our rivalry, not that either of us knew that at that time.

You're best known for your major titles, but is there a victory among your PGA Tour titles that meant just as much if not more to you?

Probably what meant more than most of my majors was winning the Memorial in 1977. That was the tournament I started in my hometown of Columbus, Ohio, at the golf club I founded, Muirfield Village. It was our second year of the tournament. I'm picking up trash and cigarette butts and putting them in my caddie's pockets and organizing this, organizing that, and still won the tournament, too. I'm very proud of that.

You have a reputation for being gracious in defeat. What made you that type of person? My dad. He always told me, "That other guy is working just as hard as you are, and if he beats you, he deserves to be congratulated and you ought to do it properly. You'll get your chance the next time."

Do you have a favorite quotation or words you live by?

There's a line from a McDonald's Happy Meal cup. In 1988, I played at the PGA Championship at Oak Tree National near Oklahoma City. I didn't really like the course and didn't prepare for it correctly. Not surprisingly, I didn't play very well, and I missed the cut [on Friday]. The only thing worse than missing the cut is having to stay the weekend to do television commentary. I was working for ABC at the time. We went to dinner at McDonald's Friday night and my wife Barbara saw this cup inscribed with the phrase: "There's no excuse for not being properly prepared." Those words have always stuck with me.

Do you remember when you started flying privately?

Well, Arnold piloted an Aero Commander, and I hopped rides with him, probably in 1962 and '63. With each flight, the urge to get behind the wheel grew and in '64 he introduced me to the people from Aero Commander.

I remember the day I closed on my first plane. The head of sales for Aero Commander picked me up in Columbus for the flying version of a test drive. While we were in the air in this Grand Commander, he decided to show me what the plane could do, and he flew low, buzzing the airport at Ohio State University at about 100 feet off the ground and did a barrel roll.

I ended up buying the airplane. It had a cruising speed of 220 miles an hour and a thousand-mile range, and it could seat seven passengers. I flew that airplane as a student pilot all over the United States. Having started my flying lessons on a little Cessna 150, a training plane with the old push-pull throttle,



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JACK NICKLAUS

I had logged about 800 hours with a teacher in the right seat. It was 1969 when I decided I was going to obtain my private pilot license.

At the time, we were doing some stuff with Gates Learjet, and the president of the company was a fellow by the name of Hig Gould, and Hig and I went to FlightSafety school at LaGuardia together, and we went through the testing. I did my written, and then I had to do a physical and found out I was red-green colorblind—not a good thing when you're trying to find the green beacon at an airport.

You had no idea?

None. The guy tested me and said, "Jack, you are the most colorblind person I've ever tested." So there was no way I could get an instrument certificate. That's when I thought, "OK, I better leave the flying to the professionals."

That said, when I fly in a helicopter, I always ask for two sets of controls, just in case something were to happen to the pilot. That way, I could get us on the ground. Nothing frightens me more than being out of control.

I had a number of pilots over the years, including Dutch Deutschendorf, whose son was the singer John Denver.

For the most part, my flying experiences were wonderful. I had Lears, Cessnas, Sabreliners, and JetStars, and then I started traveling more internationally, and I wanted something bigger. So I bought a used GIIB Gulfstream, and flew it all over the world. Then I bought a GIII, then a GIV, and then a GV.

JACK NICKLAUS'S GULFSTREAM IV-SP

Passengers (typical):	13
Years produced:	1992–2002
Price new:	\$33M
Range:	3,880 nm
Maximum cruise speed:	500 ktas
Total fixed cost/year:	\$872,962
Total variable cost/year:	\$1,806,011

Source: Conklin & de Decker

Aircraft cost figures assume 423 hours and 175,000 nautical miles traveled per year. Range is maximum IFR range at long-range cruise speed with all passenger seats occupied. Figure uses NBAA IFR alternate fuel reserve calculation for a 200-nautical-mile alternate.

You just kept upgrading?

I figured my business was good, so I could. The airplane was by far the best business tool I had. It paid for itself 10 times over every year. That jet got me to be able to travel. If I wanted to, I could go to Japan, Korea, China, Malaysia, and back home in a week or 10 days, whereas it would have taken me three-and-a-half to four weeks commercially to do the same. It would save me two weeks at least two or three times a year. So that's pretty good. That's why I got into airplanes.

Do you still own a Gulfstream?

Yeah, I've got a GIV-SP with tail number N1JN that we call "Air Bear." [Nicklaus's companies also still own a GV, but the bulk of his travel is on the GIV-SP. —Ed.]

When you're in the air, how do you use your time?

I take care of a bunch of business. And they've got movies on the airplane, although I haven't watched a movie in the last five or 10 trips. I usually am so busy doing other stuff, and I like to catch up on sleep.

"I had Lears, Cessnas, Sabreliners, and JetStars. Then I wanted something bigger."





JACK NICKLAUS

It's been well documented that you made a major effort to get home to be with your family and see your kids, and later your grandkids, compete in various sports. How important was it to have the plane for that as well?

Oh, it was unbelievable. I mean, maybe it was a little bit of an extravagance at times, but I felt it was worth it. For instance, their biggest football game of the year usually was the Benjamin School [in North Palm Beach, Florida] versus Glades Day School [in Belle Glade, Florida]. I remember I played in the World Series of Golf in Akron, Ohio, and I flew home on Friday after I played. Then I went back and played Saturday.

Another time, they were in the state championship finals against Florida A&M High School. I was playing the Mexican Open, and I flew home from Mexico City to Tallahassee to watch the game and back the next day to play.

The kids, they thought that was just what Dad did. And now, 20 years later, they say, "My dad did that? Isn't that neat?" I did it because I wanted to be part of their lives, and when something is important in their lives, I wanted to be there. And I've continued to do that with my grandkids.

Where have you flown just for fun?

I love to fish, and I'd take some buddies to Los Cabos, Mexico, to Palmilla, a fishing resort that had its own airstrip. It overlooks the Sea of Cortez. I first visited there in 1964. I was a young pilot and my copilot is beside me and I'm flying in and all of a sudden, I feel a hand atop mine pushing the throttle forward. The runway slopes slightly uphill. So I was lining up and getting be-





low it, which was a little dangerous. But I think that's what you have a copilot for. And you know what? We turned that runway into a golf hole.

Which one of your courses did it become part of?

Palmilla Golf Club. It's the first course I designed in Latin America. In 1986, they decided they wanted to add golf to their offerings. We designed seven courses there, and now my friends kid me that I'm the guy that ruined Cabo. You used to be able to go down to Cabo with a pair of gym shorts and sandals and 20 bucks and spend the week. You can't get out of the airport for that now.

Adam Schupak

(aschupak@bjtonline.com), a former senior writer at Golfweek, has also contributed to such publications as the New York Times and Golf World. This interview has been edited and condensed

FASTFACTS

- **NAME:** Jack Nicklaus
- **BORN:** Jan. 21, 1940 (age 79), in Columbus, Ohio
- OCCUPATION: Golfer, golf-course designer, owner of several golf-related businesses, philanthropist
- ACHIEVEMENTS: Winner of 73 PGA Tour titles, including a record 18 major championships. Elected into the World Golf Hall of Fame in 1974. Recipient of the 2015 Congressional Gold Medal.
- TRANSPORTATION: Gulfstream IV-SP
- EDUCATION: Ohio State University (left a few courses short of graduation but received honorary degree in 1972)
- PERSONAL: Lives in Palm Beach Gardens, Florida with wife Barbara. Five children, 22 grandchildren.

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Watch out for these scams

Bizjet transactions involve plenty of money—enough to tempt some people to act unethically to grab a portion of it.

by Jeff Wieand

usiness aircraft are expensive to own, operate, and maintain, so lots of money changes hands in the corporate jet arena. For some, the opportunity to direct some of that money into their own pockets can be irresistible.

Tim Beverley is a good example. Eleven years ago, a federal grand jury indicted the Tyler Jet CEO and NASCAR owner on charges related to a business jet financing scheme. After a plea bargain, Beverley spent several years in jail; he was eventually sent home on "supervised release," only to be convicted of stealing from his new employer, Majestic Jet. He was back in the news late in 2017, when he was found guilty of several

related charges, including the filing of fraudulent tax returns.

Truly, this is a marketplace where owners, buyers, and sellers—and everybody else, for that matter—must beware. Here are common schemes to watch out for:

Phony loans. Tyler Jet, which Beverley founded in 1986, bought and sold aircraft and operated an FBO at Pounds Regional Airport in Tyler, Texas. Jet dealers often borrow funds not only to acquire aircraft, but also to repair, upgrade, and refurbish them for sale in so-called floor-planning arrangements. Beverley and another officer of Tyler Jet realized that they could borrow funds pursuant to generous repair/refurbishment estimates that they provided







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Aircraft Acquisition & Consignment | Airframe Maintenance | Avionics Installation Emergency Assistance (AOG) | Engine & APU | Engineering & Certification Services Government & Special Programs | Paint & Interior | Parts, Avionics, Instruments & Accessories to their oblivious lenders, and pocket the difference.

Then they ostensibly concluded that they could net even more by not actually doing the repairs. According to BJT sister publication Aviation International News, in one case they borrowed \$300,000 for repairs on a jet that were never made; instead, they transferred \$280,000 of the loan proceeds to Tyler Jet. This was so easy to do that they did it repeatedly, according to a 72-page, 34-count indictment. After digesting the indictment and facing up to 10 years in jail, Beverley and another officer pled guilty to a single wire-fraud count and were sentenced, respectively, to six and three and one-half years in jail.

Diverted escrow funds. Escrow agents hold zillions of dollars in their accounts for aircraft closings. As a closing looms, the parties and their agents provide instructions about who should get paid how much. The list of payees is often an array of sellers, banks, lien holders, brokers, maintenance programs, and the like, so diverting some of these funds for your own benefit is not impossible. According to the U.S. Department of Justice, Beverley was able to steal more than \$1.5 million by directing escrow agents who were paying brokerage commissions to Majestic Jet "to wire funds from the sale of planes to nominee bank accounts that Beverley controlled." Federal prosecutors also presented evidence that he stole money directly from Majestic Jet's bank accounts. Beverley used the ill-gotten gains to pay for personal expenses as well as other aircraft-related schemes, like buying airplanes for resale. After being convicted of federal charges in October 2017, he was sentenced to 90 months in prison.

Shot-down deals. A brokerage can't get paid in a business jet deal unless it is part of it. So when a broker spots a lucrative deal to which it is not a party, the temptation may exist to try to kill the sale and then insert itself into the picture. Aircraft transactions are fragile; buyers can usually cancel them after prebuys, and sellers occasionally threaten to "close up the aircraft and take it home" when the prebuy is costing too much or they get a better offer. Perhaps a broker who's not part of a deal can convince the aircraft owner that it can facilitate a sale at a higher price—or maybe it can convince the buyer that the aircraft isn't worth the price and that it can help arrange a much better purchase. Either way, the broker may be able to get a new deal on the table where it would be owed at least one fee-and maybe more than one.

When a broker spots a lucrative deal to which it is not a party, the temptation may exist to try to insert itself into the picture.

Inside jobs. Aircraft owners and buyers should be on guard when a pilot, maintenance director, or other aviation adviser they employ seems overly enthusiastic about one particular option—buying a certain aircraft or model instead of another or using one service center instead of another. Of course, there are often legitimate reasons for such preferences. A pilot may favor an aircraft model simply because he thinks it's more reliable or a service center because it does good work. But it's not unknown for a pilot or other flight-department employee to advocate, for example, buying airplane X because—under the table, of course—the seller (even an aircraft manufacturer) makes it worth his while. Similarly, it's not unknown for a maintenance facility to make a payment—also under the table, of course—in exchange for being chosen to work on an aircraft. Once again, the big numbers involved can make the payola an attractive option for both parties.

Outside jobs. While employees and agents of business jet owners sometimes look for payola, people on the outside often expect to pay it. I have been approached, for example, by an aircraft seller and an aircraft financial institution willing to "reward me" for convincing a buyer to purchase an aircraft or for using the institution to finance a jet purchase. (I hasten to add that I have never asked for or accepted any such payments.) In some sectors of the corporate jet industry, businesses expect people to have their hand out.

Back-to-back transactions. The essence of the back-to-back is that someone (often a broker or trusted aircraft adviser) inserts himself in the transaction between buyer and seller. [See "Backto-Back Transactions," December 2008/January 2009, available at bjtonline.com.—Ed.] The

middleman then either purchases the jet from the real seller for too little, sells the jet to the real buyer for too much, or both, pocketing the difference. A real master at this game might even collect a broker's or finder's fee from one or both parties on top of pocketing the price difference. Back-toback transactions can net the middleman millions of dollars from unsuspecting (or maybe even suspecting) aircraft transactors.

he foregoing merely scratches the surface of what greed and ingenuity can devise in business jet deals and doings, and there's reason to think the situation has not been improving. In December 2017, a statement signed by the president, chairman, and Business Aviation Management Committee chairman of the National Business Aviation Association proposed policies and best practices designed to avoid "even the appearance of improper behavior when engaging in business transactions." The proposed policies—which the International Aircraft Dealers Association endorsed—include adhering to the highest standards of professional integrity; avoiding conflicts of interest; using company funds only for company purposes; and complying with applicable laws and regulations. [See "A Focus on Ethical Conduct," April/May 2018, available at bjtonline. com.—Ed.]

Let's hope that by drawing attention to this issue, the NBAA will help improve standards of ethical BJT conduct in the business jet industry.



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.







he Quest Kodiak is a niche single-engine turboprop designed to get in and out of tight spots under harsh conditions. Legendary kit-plane designer Tom Hamilton originally envisioned the aircraft during the late 1990s to meet the needs of missionaries flying relief in Africa and Asia. For decades, those organizations had relied on iconic but aging bush planes with piston engines, such as the Cessna 206, de Havilland Beaver, and Helio Courier, but the aviation gasoline those aircraft required was becoming increasingly difficult to obtain outside the U.S. at anything that remotely resembled a reasonable price. Meanwhile, the jet-A fuel used in turbine helicopters, turboprops, and jets is globally ubiquitous.

In Idaho in 2001, Quest began developing the Kodiak, which gained FAA certification in 2007. Since then, more than 265 have been delivered. The company has hit a few financial rough patches along the way and is today owned by Setouchi Holdings of Japan, although the aircraft continues to be manufactured in Sandpoint, Idaho.

An affiliate of Setouchi, Sky Trek, has ordered 20 Kodiaks to provide executive and charter service in Japan. In 2017, India's SpiceJet signed a memorandum of understanding aimed at acquiring 100 Kodiaks on amphibious floats to provide air transport to underserved markets in that country.

Quest has made numerous improvements to the aircraft over the years, such as upgrading the avionics and offering a wider array of interior options—from spartan to executive. But the basic aircraft remains the same: a 45-foot-long high wing mated to a rugged aluminum fuselage with a large 54-by-57-inch rear cargo door, heavy duty and high-riding fixed landing gear, a time-tested Pratt & Whitney Canada PT6A-34 turbine engine stuffed in the nose, and Garmin's G1000-series glass-panel avionics in the cockpit.

The combination produced a go-almost-anywhere aircraft with a really low stall speed of just 60 knots (flaps down), enabling it to use runways as short as 1,200 feet and stop in less than half that distance with reverse thrust. The Kodiak has a maximum cruise speed of 183 knots, seating for nine passengers and one pilot, 248 cubic feet of cargo space without the passengers, and an endurance of close to 10 hours when cruising at 95 knots. At 174 knots, the airplane will get you about 1,000 nautical miles of range. For water operations, it can be mounted on aluminum or fiberglass straight or amphibious floats.

Mission Aviation Fellowship (MAF) has been operating Kodiaks in some of the world's harshest conditions, primarily in Indonesia, since 2009 and will soon take delivery of its 13th. Its fleet has amassed 32,000 hours of



FACTORY-NEW AIRCRAFT

This go-almost-anywhere aircraft can use runways as short as 1,200 feet and can stop in less than half that distance.

on early-serial-number aircraft MAF operated. But Holsten reports that those issues have been addressed over time. He also admits that MAF has a tendency to put the aircraft "more to the test" than other operators.

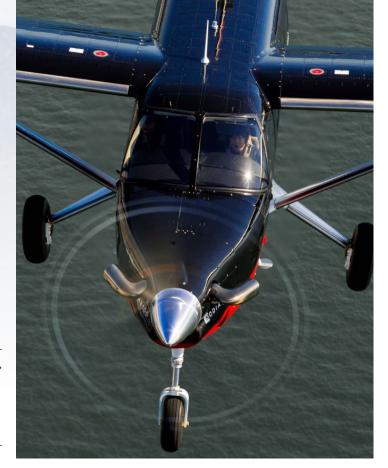
uest unveiled a major block change for the Kodiak in 2018. The \$2.15 million Kodiak II features the updated Garmin G1000 NXi avionics system, a redesigned cockpit, a choice of 18 new paint schemes, an improved cargo door step, better crew-door mechanisms, a quieter cabin, and improved pilot sun visors. The NXi avionics feature faster processors, which speed up data input and display and aircraft startup. Garmin GWX-70 weather radar—which offers more precise storm cell tracking and turbulence detection—is an available option.

You can order Kodiaks with three levels of interiors. The "Summit" features a club-four configuration of four single executive seats bisected by a pair of fold-out cabin sidewall tables as well as cabinets and ice bins. Each seat has its own charging port and overhead lights, gaspers, and oxygen hookups (the

2019 Quest Kodiak II at a Glance

Base Price	\$2.15 million
Crew	1-2
Passengers	4 –9
	Length: 15.8 ft
Interior	Width: 4.8 ft
	Height: 4.5 ft
Maximum Cruise Speed	> 183 kt
Range	▶ 1,132 nm
Service ceiling	25,000 ft
Landing distance	705 ft
Engine	Pratt & Whitney Canada PT6A-34A, 750 shp (takeoff), 4,000-hr time between overhauls
Wingspan:	45 ft
Avionics	Garmin G1000 NXi
Maximum takeoff weight	► 7,255 lb
Useful load	> 3,535 lb
Fuel capacity	> 320 gal

Note: Range is at 135 kt and 12,000 ft. Landing distance is without reverse thrust. Source: Quest Aircraft



Kodiak, like the Caravan, is not pressurized). The seats detach quickly, enabling the aircraft to be converted to a pure cargo hauler in minutes. Comfort-wise, they are on par with what you would find in a \$30,000 family grocery-getter. There is no lav.

The Kodiak will stay in the air 5.8 hours at 174 knots or 8.4 hours at 135 knots (12,000 feet cruise altitude). An optional 63-cubic-foot belly cargo pod can carry 750 pounds of additional baggage and cuts cruise speed by two to three knots. Popular options such as air conditioning, the cargo pod, the Summit interior, anti-icing protection, and extra goodies in the instrument panel can easily tack \$500,000 onto the base price. Bolting on a pair of amphibious floats will add another \$400,000. (Because of the floats' hydraulic system, the TKS "weeping wing" anti-ice system doesn't work with floats attached.)

The Kodiak II offers initial complimentary subscriptions to a variety of vendor product-support programs, including Pratt & Whitney's ESP engine plan. The company also provides a single point of contact for customers with any maintenance issue with the airplane. These are both good things.

That said, this airplane won't win any styling competitions, but that's not why you buy it. With a Kodiak, the recreational user can fly to otherwise inaccessible but amazing places safely and reliably. For an organization like MAF, the mission is more serious. "The Kodiak is a life-saving tool," says David Melton. "It helps people lead better lives. It saves lives."

Mark Huber (mhuber@bjtonline.com), an aviation industry veteran, has reviewed aircraft for **BJT** since 2005.

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Chairman and Founder of a global oil and gas company



Transformative trends roil the brokerage field

Changes will likely impact the way you buy or sell aircraft.

by James Wynbrandt

ransformative trends toward digitization and vertical integration, which are sweeping the bizav charter and access-program sectors, appear likely to next impact aircraft brokerages. How and when this will affect the way you buy and sell business aircraft is unclear, but signs in recent news suggest that change is coming to this bastion of mom-and-pops and other independent horse-traders.

For example, amidst a 2019 market of rising inventory and deflated expectations, Kansas-based brokerage JetAviva reported in April a more than 20 percent increase in year-over-year first-quarter sales and a 25 percent jump in revenues. The company, which did not disclose dollar figures, credits its recently expanded sales team, which now includes four analysts.

"It is impossible for one person to do it all with maximum effectiveness for the client base," says JetAviva CEO Tim White. "With the support from our newly appointed sales advisers, we have the ability to capture and analyze data with unmatched levels of quality and quantity."

The same month that JetAviva reported its first-quarter results, California-based charter and management company Jet Edge-fresh from receiving a \$60 million investment—announced plans to expand aggressively into retail aircraft transactions. Fueled by a separate \$50 million line of credit, Jet Edge is acquiring a yet-to-be-identified aircraft dealer with the goal of creating a network of affiliates on both the acquisitions and sales sides.

"We want to be a resource to the broker community to buy, trade, and sell airplanes by utilizing our operational talents, maintenance talents, and capital," says Jet Edge CEO Bill Papariella.

5	SIX POPU	JLAR E	BUSINES	S JET N	/IODE	LS	
		ON THI	E MARKET		SAL	ES IN LAST SIX	(MONTHS
AIRCRAFT	# IN SERVICE	# ON THE MARKET	AVERAGE DAYS ON MARKET	AVERAGE ASK PRICE	# SOLD	AVERAGE DAYS ON MARKET	AVERAGE SELLING PRICE
CHALLENGER 350	282	8	79	\$16.02M	4	188	\$15.99M
GULFSTREAM G280	164	5	91	\$16.03M	2	126	\$14.75M
FALCON 2000EX/LX	348	19	226	\$15.52M	9	139	\$12.72M
CHALLENGER 300	457	23	86	\$9.82M	12	123	\$9.3M
GULFSTREAM G150	126	12	319	\$5.14M	5	232	\$3.85M
FALCON 2000	231	28	226	\$4.26M	8	192	\$4.32M

Data as of April 23, 2019, Source: AircraftPost.com.

Unlike recent activity in the charter space, where the Vista Group, Directional Aviation Capital, and others have set out to create a new world order of full-service providers, these brokerages don't have a stated goal of reinventing the field. Jet Edge, for instance, says its foray into transactions is simply a way to add more long-term clients: it envisions selling airplanes to buyers who will then sign up for management services. But the field may be transformed anyway, as buyers and sellers seek objective, data-driven assurance that the aircraft they are purchasing or offering is at optimal value in the marketplace, says White.

The trend doesn't automatically spell doom for independent brokers, but in a sign of the times, some smaller firms are reportedly touting their network of experts more than their past successes when pitching first-time clients.

For its part, Jet Edge aims to grow its brokerage by bringing new aircraft owners into business aviation, rather than poaching clients from other firms, according to the company.

Meanwhile, the International Aircraft Dealers Association (formerly NARA) is promoting its in-development Dealer Accreditation Program, for which members are automatically qualified. However, dues for the association—whose members claim to handle 60 percent of all retail transactions—put joining out of reach of many smaller brokerages, according to these firms. That may serve to marginalize them in the future.

While these trends are certain to roil the brokerage community going forward, the view from here is that a greater reliance on analysis, qualified partner networks, and availability of capital to fuel transactions represent wins for you, whether you're a buyer or a seller.



James Wynbrandt (jwynbrandt@bjtonline.com), a multi-engine instrument-rated pilot and regular BJT contributor, has written for the New York Times. Forbes, and Barron's.



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Nextant G90XT

The venerable Beechcraft King Air C90 series has a lot to recommend it. A newly remanufactured version of this twin-engine turboprop is even better.

by Mark Huber

Nextant Aerospace is preparing to open the order book on its G90XT twinengine turboprop. The aircraft completed the FAA certification process last year. It is a rebuilt and thoroughly modernized Beechcraft King Air C90 series, an airplane that has been around, in one form or another, since 1964 and is still being made by Textron Aviation.

The longevity of the 90 series is nothing short of amazing. Thirty years ago, the conventional wisdom was that business turboprops were all but dead, destined to be stripped of their executive interiors and consigned to hauling small packages, dropping skydivers, or spraying bugs before meeting that big smelter in the sky. Surely, the market would opt for a new genera-

tion of fuel-efficient light jets as opposed to something from the aeronautical Stone Age with—gasp—propellers.

That prediction proved wildly wrong. Deliveries of new business jets totaled 703 in 2018 but those of general aviation turboprops were close behind at 601, according to the General Aviation Manufacturers Association. Moreover, deliveries of new Textron Aviation Beechcraft King Air twin-engine turboprops totaled 497 over the last five years; and Kenny Dichter, CEO of charter membership company Wheels Up, says he could see his company having up to 1,000 of them by 2030.

Considering that Wheels Up had 63 King Airs in 2017, that may be slight



2019 Nextant G90XT at a Glance

Engines (2)	GE H75-100
Avionics	Garmin G1000
Crew	1–2
Passengers	8 (3–6 typical)
Maximum takeoff weight	10,500 lb
Top cruise speed	280 kt
Range*	1,240 nm
Cabin	Length: 12 ft, 7 in Height: 4 ft, 10 in Width: 4 ft, 8 in
*four passengers, IFR reserves Source: Nextant	





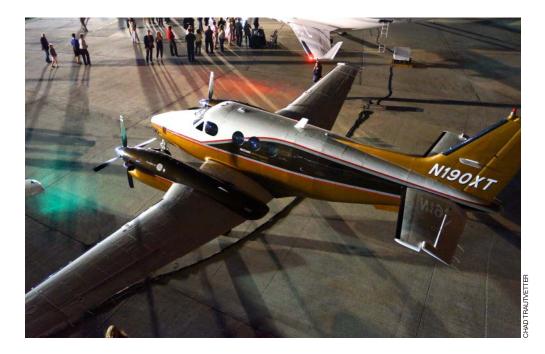


hyperbole, but the influx of new activity and the enduring popularity of turboprops remain undeniable, and the scarcity of good used aircraft has convinced owners to pour money into upgrades and modifications for older turboprops. One firm that specializes in modifying older King Airs reported that business was up 40 percent in 2018 from the previous year.

Nextant clearly thinks this trend will continue. The Cleveland-based company is best known for its Beechjet modernization program, the 400XTi, which has delivered more than 73 of those remanufactured aircraft to date. Now it believes it can bring that business model to Beechcraft's smallest King Air, the 90 series. And with good reason. This series continues to draw attention in the used market, with prices between \$675,000 for a 1997 C90B and \$2.3 million for a 2010 C90GTx. Ten- to 12-year-old GT and GTi models trade for between \$1.3 million and \$1.7 million. Nextant thinks a used but modernized C90 is an economically and mission-viable alternative for those who would otherwise gravitate toward singleengine turboprops or light jets, including buyers who are stepping up from piston-engine aircraft.

USED AIRCRAFT REVIEW

Nextant takes a used King Air C90 and outfits it with new engines, Garmin G1000 avionics, new seats, a new interior, a new digital pressurization system, and new air conditioning.



Tt's not hard to see why. Compared with a very light/entry-level jet like a Cessna Citation Mustang, Cirrus Vision, Eclipse 500, or Embraer Phenom 100, the King Air 90 series gives you a larger airplane with a cabin big enough for six to seven adults to sit in comfortable, generously sized seats and pressurized baggage space that can accommodate several full-size roll-ons, hat bags, and multiple sets of golf clubs. You get a twin that sits high off the ground on beefy landing gear, has a big main cabin door aft of the wing, and is built like an M-1 Abrams tank. King Air construction is about as bulletproof as an airplane gets. This is an airplane you can land on an insanely short and rough grass strip or a gravel bar without having to file an accident report afterward. While not really a long-hauler, a newer 90 can fly from Chicago to Teterboro, New Jersey in about two and a half hours. More than 1,500 C90s have been produced.

Nextant takes a used one and outfits it with a pair of new GE Aviation H75-100 engines with single-lever power control, Garmin G1000 avionics, new seats, a new interior, a new digital pressurization system, and new air conditioning with twin evaporators that deliver 300 percent more cooling capacity. The flight deck of the G90XT is substantially different from a typical Garmin G1000 glasspanel retrofit in a King Air. The instrument panel is trimmed in carbon fiber. It offers a three-screen layout with a backup Mid-Continent Instruments Standby Attitude Module and a Luma Technolo-

gies LED glare shield warning panel. The new avionics also feature the Garmin GFC700 autopilot and synthetic vision; options include TCAS (traffic collision alert system).

The single-lever GE/Unison power controller offers complete exceedance protection and radically simplified pilot workload—a helpful thing, as all King Airs can be flown single pilot. The system eliminates the propeller control levers and automatically manages engine rpms and propeller pitch during normal operations and has inflight torqueand temperature-limit protection, auto-start, and engine-trend monitoring capabilities. The fuel-system controls are now mounted above the power levers, replacing pressurization switches that are no longer needed because the pressurization system is digitally integrated into the G1000 system.

The new GE H75 engines provide 10 to 12 percent better specific fuel consumption than the standard Pratt & Whitney Canada PT6s they replace, offer better high-and-hot performance, and propel the G90XT to a top speed of 280 knots. Range with four passengers and IFR reserves is up to 1,240 nautical miles, and the aircraft can use runways shorter than 2,600 feet in most situations. Overhaul intervals for the H75 engines initially will be 4,000 hours. The H series also requires no pricey mid-life hot-section inspection, uses a fuel slinger instead of fuel nozzles, and employs an axial stage compressor instead of a reverse-flow design. An engine with an axial stage compressor

is more efficient because it produces a continuous flow of compressed gases. Likewise, a fuel slinger is more efficient because it more evenly atomizes fuel prior to combustion and eliminates the need for fuel-injection nozzles. Because there are no fuel nozzles to get clogged, there are no hot spots in the combustion chamber, ensuring even thermal distribution and thereby eliminating the need for a hot-section inspection.

Several standard cabin configurations are available for the G90XT, including special mission/ air ambulance, and executive three- to five-seat layouts that include an aft lav with a solid privacy door. A new cabin shell cuts interior noise levels by 9.5 dB, compared with a stock aircraft. Modern conveniences, such as Gogo Business's air-toground telecom and Wi-Fi systems, are options.

While Nextant hasn't formally announced a price, a G90XT (fully tricked out and with airframe included) is expected to cost less than \$3 million—more than \$500,000 less than a new aircraft from the factory that arguably offers inferior performance and higher operating costs. Customers can save even more by bringing their own aircraft to Nextant for conversion.

The G90XT takes a good airplane and makes it much better.

Mark Huber

(mhuber@bjtonline.com), an aviation industry veteran, has reviewed aircraft for **BJT** since 2005.



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Learning from the JetSmarter saga

The per-seat charter broker's bumpy ride suggests lessons you'd be wise to consider no matter what lift provider you use.

by James Wynbrandt

he good news is that the pure perseat charter market has arrived: via JetSmarter, you can now propose or join flights on many popular routes around the U.S., Europe, and even the Middle East without signing up with a membership club or paying any monthly or annual fees. The bad news is that demand appears weak, and the market breakthrough has been overshadowed by negative attention focused on the provider that calls its future into question.

Last June, as you may have heard, JetSmarter dropped membership requirements and stopped providing free seats on its scheduled shuttle flights, its signature benefit, leading to a spate of lawsuits from members accusing the company of fraud. Then a video of a disturbed and threatening passenger onboard a JetSmarter shuttle flight surfaced in the fall; and in January, a scathing CNBC broadcast reported that the charter brokerage was losing millions of dollars monthly. In April came news that the company would enter a class-action arbitration settlement and that it was being acquired by Vistal Global, parent of luxury charter operator VistaJet.

Whatever the dénouement of the JetSmarter saga, several takeaways are applicable to any lift access you employ:

1. Read the contract. If the plaintiffs are any indication, many JetSmarter members never read their membership agreement—and many others never even received one. The agreement is on JetSmarter's website and says in part, "JetSmarter

reserves the right to change, suspend, or terminate any of the Services or benefits at any time, including, without limitation, changes, suspension, or termination of any routes, types of aircraft used and/or operators that perform flights, and changes to (or imposition of new) fees or other charges for services or benefits."

While plaintiffs say they relied on assurances of free flights from sales personnel, the contract states that in joining, members acknowledge they have "not relied upon any representation, warranty or disclosure made by jetsmarter [sic] or any other person on jetsmarter's [sic] behalf, except as specifically provided in this agreement." JetSmarter cites the agreement in response to complaints about changes in member benefits and added and increased fees.

If you're not sure you'll want to renew a contract with a provider, check its fine print before signing. JetSmarter's says memberships "will be conveniently renewed automatically and you agree to be charged the applicable annual membership fee for the subsequent Membership Term(s) unless you provide JetSmarter a written notice not to renew at least thirty (30) days prior to the expiration."

2. Recognize the limits of redress. If you become unhappy with a membership, jet card, or other deposit-model access program, your options for redress may be limited. The JetSmarter agreement mandates that disputes be resolved individually via binding arbitration, a common clause in such non-negotiable contracts, like those you enter into with financial-services and securities firms. Though the U.S. Supreme Court has generally

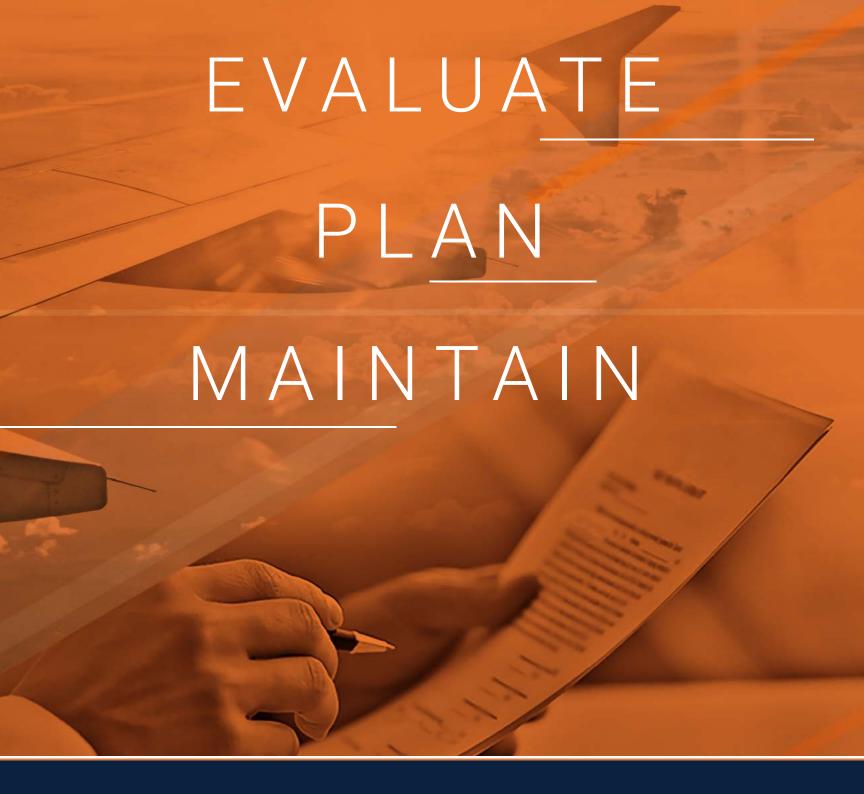
upheld these clauses, lawsuits have been successfully filed in several states, which may be because those courts don't view the JetSmarter contract as valid, suggests aviation attorney James Butler. "If one side has the option to change all the material terms, then arguably there is no agreement."

Among other charges, the suits allege that sales staff misrepresentations constitute fraud, and they ask for damages ranging from \$75,000 to more than \$3.2 million to cover the approximately \$10,000 to \$100,000 the plaintiffs paid. But even if courts found such tactics fraudulent, customers wouldn't be eligible for damages unless they could cite alternate flights they had to book and pay for because of JetSmarter's alleged breach, says Butler, principal of Shaircraft Solutions. "Not being able to take a flight because the rules changed wouldn't suffice."

The possibility of a class-action arbitration has also been raised, but the variance among members—their joining dates, the flights they took, membership levels, and other differences—create impediments to amalgamating the complaints, as does the contract's stipulation that disputes be arbitrated individually.

Ultimately, "while it may be emotionally satisfying [to sue], I imagine some JetSmarter members who think it through may determine there's not enough potential upside to justify the out-of-pocket expenses" of a legal action, concludes Butler.

3. Understand the security risks. JetSmarter and other per-seat programs often tout the networking and hobnobbing opportunities that shared flights provide—you never know who you might



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be sharing a cabin with or what connections you may make. But the frightening downside of that fact became obvious to anyone who saw the widely circulated video of a JetSmarter passenger cursing and threatening fellow flyers on a Las Vegas–New York shuttle. (The aircraft made an emergency landing and the passenger, who was removed from it by police, was later declared mentally incompetent to face charges.) Unlike a commercial airliner, a business jet doesn't have breach-proof flight deck doors or carry dozens of passengers ready to step up to assist in such situations.

Members likely take it on faith that anyone who has thousands of dollars to spend on a jet program is of sound mind, or that the provider is effectively screening fellow travelers. Indeed, a statement on JetSmarter's website highlights its rigorous security protocols: "Tom Ridge, the first Secretary of the U.S. Department of Homeland

The permission "shall continue forever. Member acknowledges and understands that he, she, or it may not enjoin any exploitation of the activities as described above," the agreement reads. The member also "waives the right to receive any payment for granting this release" and "waives any right to inspect or approve" how the material is used.

Many companies today, sensitive to consumer concerns about what happens to collected data and personal information, have explicit policies prohibiting its sale, sharing, or dissemination. It's incumbent on you to ensure that the privacy policies of any company to which you supply personal information are in line with your expectations.

5. Accept that charter isn't cheap. When JetSmarter launched in 2012, it claimed to be able to find discount lift worldwide because its technology exploited inefficiencies that plagued the

programs, infrastructure, and other investments.

hatever JetSmarter's fate, growth at the company hasn't met its optimistic projections, which included having more than 100,000 members and \$2 billion in revenues next year. (In 2016, the company reported having fewer than 6,000 members and \$124 million gross income.) The free seats were seemingly supposed to draw a critical mass of travelers that would create a self-sustaining community, but that has yet to happen. JetSmarter lists more than three dozen U.S. and 15 international origins/ destinations for its flights, and crowdsourced flights currently proposed for each are displayed on its website and app. But most routes have few crowdsourced flights available, and the majority of those displayed show only one seat (the would-be traveler's) sold before their departure



If you become unhappy with a jet card or other deposit-model access program, your options for redress may be limited.

Security, serves as a JetSmarter board member and assisted in the design of a proprietary safety and security infrastructure on the ground—the only one of its kind in the aviation sphere."

But the rigor of JetSmarter's standards aside, operators, not brokers, are responsible for operation and security of all flights, and it's entirely possible for a passenger you might not feel comfortable sharing a cabin with to get on board.

4. Protect your privacy. Privacy is a concern for many business jet travelers, so JetSmarter members may be surprised to learn that their agreement allows the company "to use Member's picture, including photographic, motion picture, and electronic (video) images; and voice, including sound and video recordings created while Member is utilizing the Services of JetSmarter, and grants JetSmarter the rights in perpetuity to use those images and recordings in any way it wishes without approval and without compensation."

industry—shared flights and free seats came later. "Incumbent companies have zero experience in next-generation mobile technologies," JetSmarter said in 2015. But the charter rates offered through its app are comparable to those available through other capable providers.

Of course, you shouldn't shop charter by price alone, but JetSmarter's foundational argument that it provides much better prices than the clueless dinosaurs at traditional providers appears unsupported. Charter is a highly competitive arena, and the prices reflect the real costs of doing business and delivering service commensurate to the charges. Senior executives at some top management companies say charter rates, relentlessly driven down by brokers fixated on selling by cost, are now nearing economically unsustainable levels. Aircraft owners, they say, will conclude that their 15 percent cut isn't worth the wear and tear on the airframe, while management's portion can't support the rising salaries for pilots, safety

date passes. (The proposer gets his or her prepaid fare back in such cases.)

But the per-seat model remains alive. Last November, Florida-based MemberJets, which arranges shuttle flights between Teterboro, New Jersey and Miami, launched Sky380, which it calls "the first B2B private aviation seat marketplace." And in February, New York City-based Wheels Up introduced its Connect Membership, a flight-sharing program.

So there appears to be a future for per-seat charter, but keep the above lessons in mind when shopping.



James Wynbrandt (jwynbrandt@bjtonline.com), a multi-engine instrument-rated pilot and regular **BJT** contributor, has

multi-engine instrument-rated pilot and regular **BJT** contributor, has written for the *New York Times*, *Forbes*, and *Barron's*.



Best Bang for the Buck

Many business aircraft deliver impressive speed, range, and reliability, along with wellequipped cabins. Here are an industry veteran's picks for some that also offer particularly good value, based on the design, utility, and product support you get for your dollar.

bv Mark Huber

PREOWNED MODELS



Bell JetRanger III (helicopter)

Bell discontinued its Model 206 JetRanger light single in 2010. According to the company, more than 8,400 of its helicopters have been produced in a variety of configurations based on the 206. All variants combined, the 206 fleet has flown more than 37 million hours. The highest-time 206 has flown more than 38,000 hours.

Over the years, Bell made numerous improvements to the helicopter, which it began delivering in 1967. The biggest came in 1977 with the advent of the JetRanger III, or Model 206B3, which features a Rolls-Royce engine that boosts maximum takeoff shaft horsepower by almost 25 percent, to 420 shp. Some of these aircraft are equipped with Chelton EFIS glasspanel avionics and Garmin GNS 530 GPS/navcom radios.

By contemporary standards, the five-place cabin is tight-47 inches wide and, aft of the bulkhead behind the pilots, 40 inches long. The aft luggage compartment provides just 16 cubic feet of stowage. The cramped quarters aside, operators praise the 206's forgiving flight qualities, simple design, and rugged construction. Prices for a 206B3 range from \$340,000 for a 1978 model to \$870,000 for a lightly flown 2007 model.

Pilatus PC-12 (single-engine turboprop)

The PC-12 isn't the smallest, cheapest, or simplest singleengine turboprop. But it's the one that does the most. Its capacious cabin is on par, size-wise, with that of a 200-series, twin-engine Beechcraft King Air. It handles rough and short runways with dispatch, and it features an aft cargo door large enough to swallow snowmobiles, dirt bikes, even whole-house generators. Plus, it provides pressurized comfort up to 30,000 feet in stylish interiors that seat six, and it cruises at up to 285 knots. And it can take a pounding: PC-12s have operated more than 1,000 hours per year in the broiling Australian outback and in the Arctic Circle. Prices range from \$4.6 million for a 2017 PC-12 NG down to \$1.9 million for a 1996 PC-12/45.





Beechcraft King Air 350 series (twin-engine turboprop)

Textron Aviation's Beechcraft King Airs continue to dominate their category, and the 350, the largest of the line, is arguably the best. It was built to more robust commuter-category standards than other King Airs; and its wing, known for its ability to carry ice and mitigate the chop from turbulence, was certified for infinite life. If an engine fails, the "auto-feather" system kicks in, turning the propeller edges from the dead engine into the wind to minimize drag and automatically boost the rudder to negate the impact of uneven thrust. The 350 also sports good operating economics: for missions up to 600 miles, it gets you there within minutes of a jet for far fewer dollars. But the aircraft's cabin-almost 20 feet long, five feet tall, and four and a half feet wide—remains the 350's most popular feature for passengers, yielding more shoulder and leg room than most light jets offer. And the price is right: \$1.2 million to \$3.8 million for 350s produced between 1991 and 2007 and \$3.9 million to \$5.3 million for the 350i built from 2010 to 2017.

Beechjet/Hawker 400XP (light jet)

The Beechjet features innovations not typically seen on a light jet design that dates back to the disco era: a supercritical wing with a 20-degree sweep to cut drag and increase speed; roll spoilers, which assist with high-speed turns; anti-skid brakes; and a no-life-limit airframe. The airplane, which requires two pilots, can accommodate seven passengers, offers a range of more than 1,400 nautical miles with four passengers, and has a top cruise speed of 465 knots. It is being remanufactured with many improvements by Nextant Aerospace as the 400XTi and by Textron Aviation as the 400XPR. Refitted with Williams engines by Nextant or Textron, range with four passengers increases to nearly 2,000 nautical miles, cruise speed bumps up 21 knots, and fuel burn reduces about 18 percent on trips of 300 to 1,000 nautical miles. Prices start at \$525,000 for a 1990 Model 400A with 10,000 hours; \$2 million to \$3.35 million for a rebuilt Nextant 400XTi; and around \$2.5 million for a 3.300-hour, 1998 400A retrofitted with Garmin G5000 touchscreen avionics.



N201LS

Hawker 850XP (midsize jet)

Midsize is the category that offers the best value; it's also among the softest spots on the current market. But even on this congested side of the discount ramp, the 800XP model stands out. It isn't the prettiest airplane in its class and, with a maximum cruise speed of 442 knots, it's certainly not the fastest. But it's certified to land on gravel, dirt, and grass, and its ability to take abuse and not break is legendary. This iteration of the venerable HS125 Hawker line was produced from 1995 to 2009, and it's hard to find anything comparably priced that delivers the same range and payload numbers: with eight passengers and full fuel, you can fly 2,500 nautical miles from 5,000-foot runways with comfortable reserves. The typical 850XP cabin features five single executive seats and one threeplace divan. (The 850XP is indistinguishable from the 800, save for the addition of winglets that boost range by 100 nautical miles and an upgrade to Collins Pro Line 21 avionics.) Expect to pay less than \$3 million for a good, 10-year-old 800XP.



Gulfstream GV (large-cabin, long-range jet)

Yes, you usually can get a comparable-year Global for less than you'd pay for a GV, and the Global has a slightly larger cabin. But when you're operating a 6,500-nautical-mile-range airplane in some faraway place—presumably one of the reasons you buy it—and it breaks, you want to know you can get support before the shooting war starts or the cyclone hits. Gulfstream's product support for older business jets is second to none. Other GV plusses include a nearly 50-foot-long cabin with big, oval windows and room for 12 to 14 passengers, and rock-solid Rolls-Royce engines. GVs produced between 1997 and 1999 are selling for about \$8.8 million to \$10.25 million.

FACTORY-NEW MODELS

Leonardo AW169 (helicopter)

Thanks to the strategic use of composites, this \$8.5 million medium twin is lighter than its main competitor, the Sikorsky S-76D; its passenger cabin is longer and wider, and its baggage compartment is almost 25 percent larger. The AW169 bests the S-76D in hover capabilities and ties it by nearly all other performance measures. Maximum speed is 155 knots; range with full fuel and 30-minute reserve is 366 nautical miles; and maximum useful load (passengers, bags, and fuel) is 4,350 pounds. The 222-cubic-foot cabin can accommodate eight to 10 passengers in utility configuration, eight in an executive design, or six to seven in a plush VIP layout. Dampeners inserted between the main rotor blades mitigate vibration and deliver a jet-smooth ride. While the AW169 lacks an auxiliary power unit to run air conditioning and cabin electricals, operating one of its two engines on the ground can provide current without engaging the rotors. The avionics feature three of the latest 10-by-eight-inch Collins displays mated to touch screen controls with modern capabilities, including nightvision-goggle compatibility, a four-axis digital automatic flight-control system and a dual flight-management system, digital maps, weather radar, satcom, traffic and terrain avoidance, dual radar altimeters, ADS-B aircraft-tracking technology, enhanced vision, and a health and usage monitoring system.





Textron Aviation Cessna Grand Caravan EX (turboprop single)

Arguably the airplane Cessna should have been building all along, the \$2.6 million EX is the factory 867-shp version of its venerable Grand Caravan (675 shp). Deliveries began in 2013. The increased power means that, for the first time, amphibious floats can be fitted to the factory-new aircraft.

Changes from the Grand Caravan to the EX include the more powerful Pratt & Whitney Canada engine, a new McCauley propeller with somewhat rounder edges, new air induction intakes (nosegear cooling fairing), different flap settings, engine torque limiter, and new ease-of-maintenance features. The new engine delivers a 40 percent increase in the rate of climb, about 10 knots of additional speed (to a maximum cruising speed of 195 knots), and somewhat better specific fuel consumption from a more efficient compressor.

With more power, the EX is adept at getting in and out of tight spots: it requires a takeoff run of just 2,160 feet and can land in less than 1,900 feet. While the new engine has a standard time between overhauls of 3,600 hours, that can be increased to 6,000 hours or 12 years for specific conditions with charter operators. The basic aircraft seats nine to 13 aft of the flight deck. The unpressurized cabin measures 16 feet, nine inches long; 64 inches wide, and 54 inches tall. Beginning this year, the EX features the new Garmin G1000 NXi glass-panel avionics system. Options include enhanced flight control and satellite data and voice communications.



Textron Aviation Beechcraft King Air 250 (turboprop twin)

Deliveries of the latest 200 series King Air began in 2011. Four years later, Textron Aviation started offering the model with the Collins Pro Line Fusion touchscreen avionics system. The \$6.3 million King Air 250 incorporates Raisbeck Engineering's Ram Air Recovery System, BLR winglets, and lighter and more efficient all-composite Hartzell propellers.

Compared with its predecessors, the six- to eight-passenger, twin-engine 250 gives you more of what you buy a turboprop for: the ability to haul bigger loads out of shorter runways and fly longer distances, albeit at slower speeds, than you could with a similarly sized jet. At maximum weights, the 250 can take off over a 50-foot obstacle in 2,111 feet at sea level; at a 5,000-foot elevation airport, it takes off in just 3,099 feet. Speed increases modestly to 310 knots.

The cabin measures 16 feet, eight inches long; four feet, nine inches tall; and four feet, six inches wide. Entry is through an aft stair door opposite the single-place kibitzer that covers a chemical toilet. To the right you'll find 55 cubic feet of netted cargo area; to the left, the cabin with six comfortable swivel-and-recline single seats.

Pilatus PC-24 (light jet)

Deliveries of the \$8.9 million PC-24 are underway. Like its PC-12 turboprop sibling, it features a big rear door-51 inches wide and 49 inches tall-and is able to be flown single pilot and use short grass and dirt runways. It can take off from runways as short as 2,930 feet (paved) at its maximum weight of 18,300 pounds and can climb to its 45,000-foot maximum altitude in less than 30 minutes. Its maximum cruise speed is 440 knots at 28,000 feet, and range with four passengers is 2,000 nautical miles. Power comes from a pair of Williams International turbofans that have unique features, including automatic thrust reverse, quiet power mode in place of an auxiliary unit to provide ground power, integral precooler to condition bleed air and reduce drag losses, and an anti-ice and noise-suppressing inlet. The customized avionics suite is based on the Honeywell Primus Apex system and features the latest advances. The aircraft's 501-cubic-foot passenger cabin provides more overall space than either the Cessna XLS+ or the Embraer Phenom 300 and has a flat floor. Layout choices include executive, commuter, combi, medevac, special mission, and quick-change configurations; you can also opt for an externally serviced forward or aft lavatory and any of several galley setups. The executive layout features comfortable seating for six to eight and the pressurization system will maintain a sea-level cabin to 23,500 feet.



Cessna Citation Latitude (midsize jet)

The Latitude, which sells for \$16.6 million, has a flexible, flat-floor cabin that's six feet tall, nearly 22 feet long, and about six and a half feet wide. A standard seating arrangement, which can accommodate nine passengers, includes a forward, two-seat, side-facing couch; a club-four grouping of single seats; and two more single seats aft of that. The aft baggage hold provides 127 cubic feet of space.

While incorporating more comfort and new technology, Cessna eschewed adoption of the relatively exotic, such as fly-by-wire actuation for the flight surfaces. The cruciform tail and tweaked airfoil are basically the same as those on the current Cessna XLS+. Cessna also went with the tried and true for engines: a pair of FADEC (full authority digital engine control) Pratt & Whitney Canada turbofans propel it to 43,000 feet in 23 minutes en route to a maximum cruise altitude of 45,000 feet.

Like its predecessors, the Latitude has good short-runway capability: required takeoff distance is 3,580 feet at its maximum weight of 30,800 pounds. Range with four passengers is 2,700 nautical miles, and the Latitude cruises at 446 knots. The Garmin G5000 glass-panel avionics incorporate the latest safety features.



Embraer Praetor 600 (super-midsize jet)

The Praetor 600 is basically an upgraded Legacy 500 with more range (to 3,900 nautical miles) and a new interior. For \$20.995 million, you get greater fuel capacity, new winglets, and engines that are more powerful due to a software upgrade. The Rockwell Collins Pro Line Fusion avionics have enhanced capabilities that include MultiScan radar and the world's first synthetic vision guidance system for autopilot instrument approaches that enable the jet to land with ceilings of just 150 feet and a forward visibility of only 1,300 feet. The Praetor 600 is the only super-midsized jet on the market with full fly-by-wire flight controls. The new interior features restyled and more comfortable seats, more convenient passenger controls, and the Honeywell Ovation cabin-management system. Gogo Vision and Viasat Ka-band satcom are optional.

Gulfstream G500 (large-cabin jet)

The new G500 is wider, smarter, faster, and better than its G450 predecessor. Width and height both gain about half a foot, to 95 and 74 inches, respectively. The 41.5-foot-long cabin can be divided into three zones for seating up to 19, although 12 to 14 is standard. Natural light fills the cabin from 14 oval windows that are 16 percent larger than those on the 450, and the capacious 175-cubicfoot baggage hold can be accessed in flight through the aft lav. The \$44.5 million airplane is packed with innovation. The passenger seats have been redesigned to maximize comfort and the galley can be equipped with cutting-edge appliances. The cabin offers the latest in Wi-Fi and connectivity, and you can order monitors up to 32 inches. The G500 is the first Gulfstream to feature full fly-by-wire flight controls and active sidesticks. Its Pratt & Whitney Canada engines are cleaner, quieter, and 10 percent more efficient than older-generation engines and require 40 percent less scheduled maintenance and 20 percent fewer inspections than other engines in their class. They continuously transmit condition to the ground via a health-and-usage-monitoring system. The G500 has a range of 5,200 nautical miles (with eight passengers and at Mach 0.85) and a blistering top speed of Mach 0.925, and it can take off from runways as short as 5,300 feet fully loaded.



GSOO CISCO

Dassault Falcon 8X (large-cabin, long-range jet)

The \$59.3 million 8X features a 43-inch fuselage stretch and a slightly larger cabin than its 7X predecessor. The extra space translates into 7 percent more volume—enough to allow for a somewhat longer galley, a little more legroom between seats, or an optional steam shower in the aft lav. Thanks to nearly 1,700 cubic feet of space, you can choose from more than 30 layouts in three-zone configurations.

Cabin altitude is just 3,900 feet at a cruising altitude of 41,000 feet. (The service ceiling is 51,000 feet.) The full fly-by-wire flight deck features the new EASy 3 glass-panel digital avionics, which are built around the Honeywell Primus Epic System and the Elbit head-up display, which combines enhanced and synthetic vision. The trio of Pratt & Whitney Canada engines have been optimized to offer 6,725 pounds of thrust each, with a 5 percent thrust increase and lower emissions. The aircraft has a range of 6,450 nautical miles (with eight passengers and three crew, at Mach 0.8), 500 more than the 7X. The reworked wing also keeps the 8X competitive: it needs 6,000 feet to take off fully loaded but can stop in 2,150 feet.

Mark Huber (mhuber@bjtonline.com), an aviation industry veteran, has reviewed aircraft for BJT since 2005.





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Aircraft Broker

Janine K. Iannarelli

Par Avion's founder and president talks about her profession's role, and about what aircraft buyers and sellers need to know about it.

by James Wynbrandt

Janine K. Iannarelli, founder and president of Houstonbased aircraft brokerage Par Avion, was recruited directly out of college in 1983 by then-fledgling business aviation data tracker Amstat. She says she accepted the position "based on advice from a professional in the advertising field, which I thought I was going into." Iannarelli had also had a temp job at an air charter company and felt confident she knew that industry, which she says was "so not true, as I came to discover." But Amstat gave Iannarelli "good exposure to brokers and dealers," and from there she went to work for Texas brokerage AeroSmith Penny. "The rest is history," she says.

When she founded Par Avion in 1997, only a few women were working in business aircraft sales, Iannarelli says, "so certainly the ranks have grown." Now, with the brokerage business, like other aviation fields, facing job vacancies, she'd "like to see more women be the ones to fill them."

Iannarelli admits to a competitive streak. "I grew up with three siblings," she says. "Everything's a competition." That's a trait she brings to her work, along with an unabashedly optimistic viewpoint that she sums up this way: "I don't see problems—I see challenges worth meeting."



How do you see your role as a broker?

I've always been a project manager, marshalling everyone toward the finish line. I've never left any client wondering, "What's the next step?" I will take you from start to finish. Par Avion is small, with a couple of support people. We're not a maintenance company, not a legal consulting entity; we're a sales company with a little bit of knowledge in all those disciplines, and we contract expertise to help you achieve the best results.

Some brokerages tout multiple locations, transaction numbers, and gross sales figures.

I think statistics are smoke and mirrors. I focus on the quality of the transactions. I can't dictate how many deals I'll do in a year; if you're truly applying your time and other resources, one deal could take four or five months. The number-one element, for a discerning buyer or seller, is quality, not quantity.

Where is the demand and where are the values in today's preowned market?

There's a lot of demand now in the super-midsize category—that's where the popularity is. The bulk of activity is still super-midsize and midsize, regardless of age, like the classic Falcon 900s. There's tremendous value for the money. It was a sleepy market at the beginning of last year. That market is sleepy no more.

Big jets enjoyed great activity in 2018. In the fourth quarter, we watched prices for Globals across the spectrum trend downward and saw price reductions in the Global 6000. We see real value in that market—the 5000, the 6000, the XRS.

Some market watchers report a shortage of available quality preowned aircraft.

Look who's doing the talking. It gets back to that "size matters" argument. A boutique [broker] is always better when you talk about inventory and shortages. People accustomed to selling perfect and near-perfect airplanes are at a disadvantage when there's only lessthan-perfect. But with prior experience, you can help clients see their way to a near-perfect airplane. You're not necessarily going to stumble on an airplane that's cosmetically acceptable, between inspections, and equipped like you want. That's when you become a salesperson, and depth of experience becomes really important.

I concluded a classic Falcon 900 transaction last year with a first-time buyer. It was about to be input for a major airframe inspection and avionics upgrade, and it was going to take longer to start flying than he expected. But I saw that as an opportunity. I said, "You would have lived with the interior, but now you can do it the way you want." Meanwhile, he needed lift so I sourced for him a perfect operating lease, and we delivered a heck of a product at the end of the day.

Who are your buyers?

People leaving fractional shares or adding to their lift through whole ownership. They know what they want in terms of comfort, range, and quality. They need help after that. Last year the bulk of my business was first-time buyers. I've always worked with first-time buyers. It remains predominantly private individuals, "solo-preneurs" who come on their own accord. Today maybe they have greater experience flying privately than they used to, but I'm not sure of the level of sophistication of someone new to this whole environment. Experienced buyers have learned a thing or two the hard way, or they find the right guidance along the way.

What should a buyer or seller ask a broker they're thinking about hiring?

A good place to start is finding out whether they've worked with the type aircraft being bought or sold. Check their credentials, ask about their experience, and call their references; I cannot tell you how many people don't call references. You should vet a potential contract worker the same way you'd vet any employee. I've seen RFPs that ask whether someone's ever been involved in litigation. Some ask what sort, and some ask whether you have ever been convicted of a crime. Those are basic questions we want answered when we look for an employee. You should have a face-to-face with someone you're going to hire. The personality fit is also important.

I would not discount someone who's well recommended and has broad knowledge from taking on the project even if the make and model may be new to them. But I'd avoid someone who's new to the marketplace and the players.

Does today's easy access to pricing and inventory data impact the brokerage business?

I haven't found it to be a stumbling block. I quote the American Marketing Association's mantra: If price were the only thing that sold, why would we need salespeople? If we were to work in a closet where no buyer had information, it would be like spearing fish in barrel. Instead, there is empirical data they can reference. The end user calls you and says there are 40 airplanes for sale. But you explain that based on what they're looking for there are really only three.

Do you have a typical day?

Sometimes you're thrown a curveball in the middle of the day, but it's typically pretty routine. I work around the world and do a lot of business in Europe, so I'm trying to knock that out before 7 a.m. and address business-related emails, and by 9 a.m. I focus on my core business. My number-one tool is the phone. I'm on the phone to prospective buyers, other brokers, new business-development contacts, and all the people involved in projects in the works.



industry exists. It's incumbent on us to spread the word that this is a cottage industry that holds great potential. There's a whole commercial side besides pilots and engineers that are in short supply, and we don't promote the rest of the industry at job fairs or universities. We're recruiting technical people but not for all the other roles: marketing, sales, management. I bring in interns every summer, hoping one will take it to heart, and they appreciate the opportunity, but they're ignorant of the industry. If they're studying business, they're planning to go into sales or consumer goods, but not selling business jets.

What do you see ahead?

We are due for a recession. The bankers I talk to don't know how long and how deep it will be. But we have to take into account that since 2008 nothing looks the same—no trend, no pattern. We might just fly right past it, but inevitably we are due. We should be good stewards and understand the consequences of overextending and ramping up. That's what I've been doing with my business: making efficient use of my resources, which include people. The last thing anyone wants in a downturn is to be a casualty.

James Wynbrandt

(jwynbrandt@bjtonline.com)covers the charter, jet card, fractional and preownedaircraft fields for BJT. This interview has been edited and condensed.

RESUME

NAME: Janine K. Iannarelli

BORN: March 15, 1961 (age 58) in Fair Lawn, New Jersey

POSITION: Founder/president, Par Avion Ltd., 1997-present

EDUCATION: B.S., Montclair [New Jersey] State University, 1983

INDUSTRY ROLES: Chair of the European Business Aviation Association's Associate Members Advisory Council Sales & Acquisitions Committee. Chair of the governor of Texas's Aerospace and Aviation Advisory Committee. Fundraiser for Houston's Lone Star Flight Museum

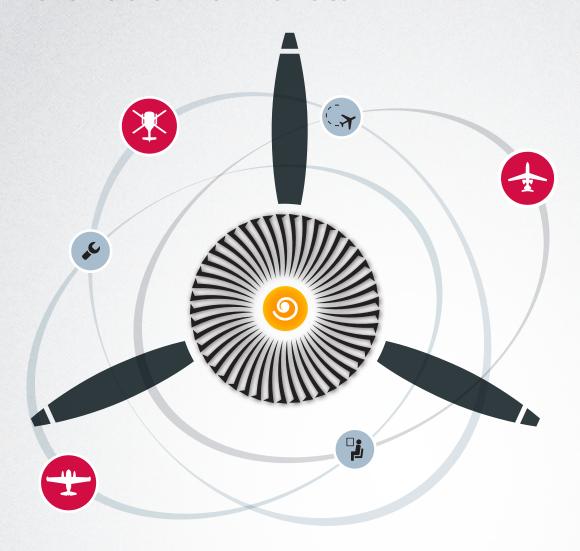
PERSONAL: Lives in Houston. Avid cyclist and accomplished equestrian. Houston PetSet advisory board member. Girlstart Houston council member. Founding member of South Africa-based Peace Parks Foundation.



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AIRCRAFT DIRECTORY

As soon as its first owner departs from the manufacturer's delivery center, a new airplane technically becomes used (or preowned). For various reasons, however, 10 years after an aircraft's final production date is generally considered the milestone separating "newer" used business aircraft from "older" ones.

In deciding which aircraft to cover, we went well past this 10-year mark to provide information on all certified business airplanes and helicopters manufactured since 2000. This means our list includes some models built before that year, as long as they were still being produced as recently as 2000. As a rule, a long production run is indicative of a successful aircraft.

Our thanks to Conklin & de Decker, which provided all of the production, specifications, and performance data for this directory, as well as the cost figures in the "New" column. Thanks also to Vref, which supplied pricing information for used models. Visit bjtonline.com/aircraft for an interactive version of these listings.

PRICING

Cost figures in the "New" column represent the manufacturers' list prices for current or most-recently produced models. N/A=pricing not available.

PASSENGER SEATING

The typical passenger seating on the aircraft is not the maximum certified seats. These numbers may vary for different operations (corporate, commercial, EMS, etc.).

CABIN DIMENSIONS

Cabin volume is the interior volume, with headliner in place, without seats or other furnishings. Cabin width, height, and length are based on a completed interior. Width and height are the maximum within that cabin space. In "cabin-class" aircraft, the length is measured from the cockpit divider to the aft pressure bulkhead (or aft cabin bulkhead, if unpressurized). For small-cabin aircraft, the distance is from the cockpit firewall to the aft bulkhead.

RANGE

For jets and turboprops, it's the maximum IFR range with four passenger seats occupied, using the NBAA IFR alternate fuel reserve calculation for a 200-nautical-mile alternate. For helicopters, it's the VFR range with all passenger seats occupied.

PRODUCTION STARTED/ENDED

Year of the first delivery to the year of the last serial-number delivery.

JETS

		(\$)									
	Pric	e (\$ milli	ons)	Pro	duction			Cabin			
Aircraft	New	Used (min)	Used (max)	Year started	Year ended	Pax (typical)	Volume (cu ft)	Height (ft)	Width (ft)	Length (ft)	Range (nm)
AIRBUS		, ,	, ,			() ,		, ,		, ,	
ACJ318 Elite	\$77.4	\$35.0	\$77.4	2005	In Production	19	5,300	7.3	12.1	70.9	6,360
ACJ319	\$82.0	\$24.0	\$71.5	1998	In Production	19	5,843	7.3	12.1	78.8	6,360
ACJ320	\$85.0	N/A	\$97.0	1989	In Production	19	6,825	7.3	12.1	91.0	6,360
ACJ321	\$115.0	N/A	N/A	1997	In Production	19	8,547	7.3	12.1	113.8	N/A
BEECHCRAFT/T	EXTRON	AVIATIO	N								
Beechjet 400A	\$6.7	\$0.55	\$1.1	1990	2003	7	305	4.8	4.9	15.6	1,318
Hawker 4000	\$22.9	\$3.3	\$4.7	2008	2003	8	746	6.0	6.5	25.0	3,177
Hawker 400XP	\$7.8	\$1.3	\$1.9	2006	2012	8	305	4.8	4.9	15.5	1,318
Hawker 750	\$13.3	\$2.5	\$3.2	2004	2010	8	551	5.8	6.0	21.3	2,081
Hawker 800XP	\$13.2	\$1.2	\$2.3	1995	2005	8	551	5.8	6.0	21.3	2,539
Hawker 800XPi	\$13.2	\$2.5	\$2.5	2005	2005	8	551	5.8	6.0	21.3	2,539
Hawker 800XPR*	N/A	N/A	N/A	2011	In Production	8	551	5.8	6.0	21.3	2,825
Hawker 850XP	\$14.1	\$2.8	\$3.5	2006	2009	8	551	5.8	6.0	21.3	2,615
Hawker 900XP	\$16.1	\$3.6	\$5.1	2007	2012	8	551	5.8	6.0	21.3	2,825
Premier I	\$5.7	\$1.0	\$1.5	2007	2005	6	285	5.4	5.5	13.6	1,072
Premier IA	\$7.1	\$1.7	\$2.4	2006	2012	6	285	5.4	5.5	13.6	1,072
BOEING											
BBJ	\$71.4	\$37.0	\$64.5	1998	In Production	19	5,396	7.0	11.5	79.2	6,230
BBJ 2	\$88.8	\$62.5	\$85.8	2001	In Production	19	6,525	7.0	11.5	98.5	5,722
BBJ 3	\$96.5	\$78.9	\$95.5	2006	In Production	19	7,290	7.0	11.5	107.3	5,722
BOMBARDIER											
Challenger 300	\$21.0	\$7.0	\$13.1	2003	2014	8	930	6.1	7.2	23.7	3,220
Challenger 350	\$26.7	\$16.0	\$20.8	2014	In Production	8	930	6.1	7.2	23.7	3,356
Challenger 604	\$26.8	\$3.4	\$6.5	1996	2007	10	1,146	6.1	8.2	28.4	4,033
Challenger 605	\$21.0	\$8.3	\$15.2	2007	2015	10	1,146	6.1	8.2	28.4	4,063
Challenger 650	\$32.4	\$22.0	\$27.0	2015	In Production	10	1,146	6.1	8.2	28.4	4,000
Challenger 850	\$32.0	\$10.4	\$11.4	2006	2012	15	1,964	6.1	8.2	48.4	2,946
Global 5000	\$50.4	\$11.5	\$42.0	2005	In Production	13	1,889	6.3	8.2	42.5	5,137
Global 6000	\$62.3	\$29.0	\$45.0	2012	In Production	13	2,002	6.3	8.2	48.4	6,390
Global 7500	\$72.8	N/A	N/A	2019	In Production	14	2,637	6.2	8	54.4	7,700
Global Express	\$45.5	\$8.0	\$11.0	1999	2005	13	2,002	6.3	8.2	48.4	6,460
Global Express XRS	\$58.5	\$14.5	\$21.0	2005	2012	13	2,002	6.3	8.2	48.4	6,390
Learjet 31A	\$6.5	\$0.64	\$1.2	1991	2003	6	281	4.4	5.0	12.9	1,251
Learjet 40	\$8.0	\$1.5	\$1.7	2004	2007	6	369	4.9	5.1	17.7	1,631
Learjet 40XR	\$10.8	\$1.8	\$3.7	2005	2012	6	369	4.9	5.1	17.7	1,601
Learjet 45	\$10.3	\$1.4	\$2.7	1998	2007	8	415	4.9	5.1	19.8	1,889
Learjet 45XR	\$13.2	\$2.2	\$4.6	2003	2012	8	415	4.9	5.1	19.8	1,841
Learjet 60	\$12.6	\$1.1	\$2.1	1993	2003	7	447	5.7	5.9	17.7	2,134

*XPR variants are part of a factory remanufactured program. Sources: Conklin & de Decker, Vref



JETS continued



Sources: Conklin & de Decker, Vref

4		(\$)									
	Pric	e (\$ milli	ons)	Pro	duction			Cabin			
Aircraft	New	Used (min)	Used (max)	Year started	Year ended	Pax (typical)	Volume (cu ft)	Height (ft)	Width (ft)	Length (ft)	Range (nm)
CIRRUS											
G2 Vision	\$2.3	N/A	N/A	2016	In Production	4	170	4.1	5.1	11.5	1,200
DASSAULT											
Falcon 2000	\$24.6	\$2.7	\$7.0	1995	2007	10	1,028	6.2	7.7	31.2	3,213
Falcon 2000DX	\$29.5	\$8.8	\$11.2	2008	2007	10	1,028	6.2	7.7	31.2	3,213
Falcon 2000EX EASy	\$30.2	\$9.0	\$12.3	2004	2009	10	1,028	6.2	7.7	31.2	3,878
Falcon 2000LX	\$32.9	\$11.5	\$18.5	2007	2013	8	1,028	6.2	7.7	31.2	4,079
Falcon 2000LXS	\$34.1	\$20.0	\$30.0	2007	In Production	8	1,028	6.2	7.7	31.2	4,079
Falcon 2000S	\$28.9	\$16.5	\$27.0	2013	In Production	10	1,028	6.2	7.7	31.2	3,539
Falcon 50EX	\$21.4	\$2.9	\$5.4	1997	2007	9	569	5.9	6.1	23.5	3,366
Falcon 7X	\$53.8	\$16.0	\$47.5	2007	In Production	12	1,506	6.2	7.7	39.1	5,754
Falcon 8X	\$57.5	\$50.0	\$55.0	2015	In Production	12	1,695	6.2	7.7	42.7	6,450
Falcon 900B	\$26.2	\$2.9	\$6.2	1986	2000	12	1,270	6.2	7.7	33.2	4,000
Falcon 900C	\$31.6	\$6.0	\$9.0	1998	2005	12	1,270	6.2	7.7	33.2	4,000
Falcon 900DX	\$38.0	\$11.2	\$16.8	2005	2010	12	1,270	6.2	7.7	33.2	4,050
Falcon 900EX EASy	\$41.4	\$11.3	\$17.8	2003	2010	12	1,270	6.2	7.7	33.2	4,630
Falcon 900LX	\$43.8	\$19.3	\$36.7	2010	In Production	12	1,270	6.2	7.7	33.2	4,750
EMBRAER Legacy 450	\$16.6	\$14.2	\$15.7	2015	In Production	7	705	6.0	6.8	24.0	2,844
Legacy 500	\$20.0	\$14.1	\$17.9	2014	In Production	8	823	6.0	6.8	27.5	3,095
Legacy 600	\$26.0	\$5.4	\$11.4	2002	2015	13	1,656	6.0	6.9	49.8	3,429
Legacy 650	\$31.6	\$10.1	\$18.0	2010	2017	13	1,656	6.0	6.9	49.8	3,919
Legacy 650E	\$25.9	\$20.0	\$22.0	2017	In Production	N/A	1,656	6.0	6.9	49.8	3,919
Lineage 1000	\$53.0	\$23.0	\$26.0	2009	2013	19	3,914	6.6	8.8	84.3	4,554
Lineage 1000E	\$53.0	\$29.0	\$44.0	2013	In Production	19	3,914	6.6	8.8	84.3	4,600
Phenom 100	\$4.1	\$1.7	\$2.5	2008	2013	5	212	4.9	5.1	11.0	1,045
Phenom 100E	\$4.3	\$2.8	\$3.7	2013	2017	5	212	4.9	5.1	11.0	1,178
Phenom 100EV	\$4.3	\$4.0	\$4.3	2016	In Production	5	212	4.9	5.1	11.0	1,178
Phenom 300	\$9.0	\$5.4	\$8.5	2017	In Production	7	324	4.9	5.1	17.2	1,974
Phenom 300E	\$9.5	\$9.1	\$9.5	2009	2017	N/A	324	4.9	5.1	17.2	1,811
GULFSTREAM											
GIV-SP	\$32.8	\$3.3	\$6.2	1992	2002	13	1,658	6.2	7.3	45.1	4,136
GV	\$43.1	\$8.8	\$11.5	1995	2002	13	1,812	6.2	7.3	50.1	6,500
G100	\$12.1	\$2.1	\$2.8	2001	2006	7	304	5.6	4.8	17.1	2,790
G150	\$15.7	\$4.0	\$10.3	2006	2016	7	521	5.8	5.8	17.7	3,018
G200	\$23.3	\$2.8	\$6.5	1999	2011	8	869	6.3	7.2	24.5	3,394
G280	\$24.5	\$13.0	\$21.0	2012	In Production	8	888	6.3	7.2	32.3	3,400
G300	\$25.5	\$4.0	\$4.8	2003	2004	13	1,658	6.2	7.3	45.1	3,774
G350	\$36.0	\$6.0	\$11.3	2005	2012	14	1,658	6.2	7.3	45.1	3,846
G400	\$32.5	\$6.0	\$7.0	2003	2004	13	1,658	6.2	7.3	45.1	4,136
G450	\$43.2	\$9.0	\$24.9	2005	2016	14	1,658	6.2	7.3	45.1	4,363
G500 (Old Model)	\$50.5	\$10.8	\$13.5	2003	2012	18	1,812	6.2	7.3	50.1	5,910
G500	\$43.5	N/A	N/A	2018	In Production	13	1,715	6.3	7.9	41.5	5,200

Sources: Conklin & de Decker, Vref

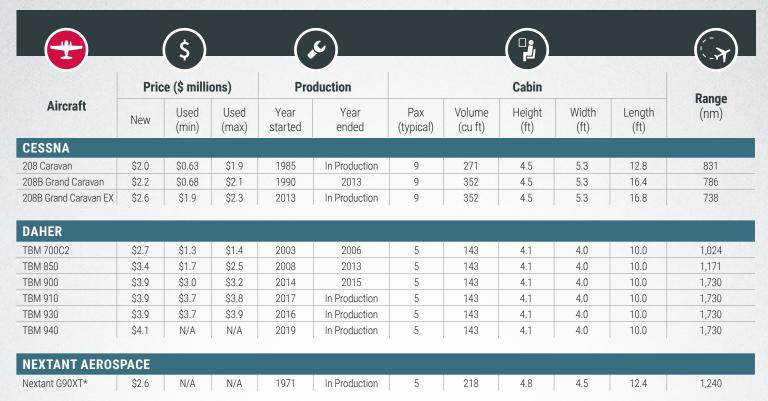


	Pric	e (\$ milli	ons)	Production				Cabin			Danna
Aircraft	New	Used (min)	Used (max)	Year started	Year ended	Pax (typical)	Volume (cu ft)	Height (ft)	Width (ft)	Length (ft)	Range (nm)
Gulfstream (continue	d)										
G550	\$61.5	\$14.5	\$44.0	2003	In Production	18	1,812	6.2	7.3	50.1	6,820
G650	\$64.5	\$45.0	\$62.5	2012	In Production	18	2,421	6.4	8.5	53.6	7,000
G650ER	\$66.5	\$52.5	\$64.5	2014	In Production	18	2,421	6.4	8.5	53.6	7,500
HONDA AIRCRA	\FT										
HA-420 HondaJet	\$4.5	\$4.0	\$4.5	2012	In Production	5	N/A	4.8	5.0	12.1	1,223
HondaJet Elite	\$5.3	N/A	N/A	2018	In Production	5	N/A	4.8	5.0	12.1	1,437
NEXTANT AERO	SPACE										
Nextant 400XT*	N/A	N/A	N/A	1986	2003	7	305	4.8	4.9	15.5	2,005
Nextant 400XTi*	\$5.2	\$2.3	\$2.9	2004	In Production	7	305	4.8	4.9	15.5	2,013
ONE AVIATION											
Eclipse 500	N/A	\$0.75	\$0.85	2006	2008	3	109	4.2	4.7	7.6	574
Eclipse 550	\$2.9	\$1.9	\$2.1	2013	2017	3	109	4.2	4.7	7.6	1,125
PILATUS											
PC-24	\$9.0	N/A	N/A	2017	In Production	N/A	501	5.1	5.6	23	N/A
PC-24 SYBERJET	\$9.0	N/A	N/A	2017	In Production	N/A	501	5.1	5.6	23	
J30	\$7.3	N/A	N/A	2006	2010	5	210	4.3	4.7	12.5	1,876

TURBOPROPS

**		(\$)										
	Pric	e (\$ milli	ons)	Pro	duction			Cabin				
Aircraft	New	Used (min)	Used (max)	Year started	Year ended	Pax (typical)	Volume (cu ft)	Height (ft)	Width (ft)	Length (ft)	Range (nm)	
BEECHCRAFT												
King Air 250	\$6.3	\$3.0	\$5.6	2011	In Production	6	303	4.8	4.5	16.7	1,051	
King Air 350	\$6.4	\$1.4	\$3.2	1990	2009	8	344	4.8	4.5	19.2	1,535	
King Air 350ER	\$7.8	\$4.0	\$4.8	2008	2009	8	344	4.8	4.5	19.2	1,878	
King Air 350i	\$7.4	\$3.4	\$6.4	2010	In Production	8	344	4.8	4.5	19.2	1,535	
King Air 350iER	\$8.4	\$4.2	\$7.5	2010	In Production	8	344	4.8	4.5	19.5	2,238	
King Air B200	\$5.3	\$0.89	\$2.8	1981	2008	6	303	4.8	4.5	16.7	1,164	
King Air B200GT	\$5.9	\$2.5	\$3.0	2008	2013	6	303	4.8	4.5	16.7	1,164	
King Air C90B	\$2.8	\$0.92	\$1.4	1992	2005	5	218	4.8	4.5	12.4	828	
King Air C90GT	\$3.0	\$1.5	\$1.5	2006	2007	5	218	4.8	4.5	12.4	869	
King Air C90GTi	\$3.4	\$1.7	\$1.8	2008	2010	5	218	4.8	4.5	12.4	869	
King Air C90GTx	\$3.8	\$1.9	\$4.2	2010	In Production	5	218	4.8	4.5	12.4	1,061	

*The XT and XTi variants are part of a factory remanufactured program. Sources: Conklin & de Decker, Vref



*The XT variant is part of a factory remanufactured program.

Sources: Conklin & de Decker, Vref



TURBOPROPS continued

	Pric	e (\$ milli	ons)	Pro	duction			Cabin			Range
Aircraft	New	Used (min)	Used (max)	Year started	Year ended	Pax (typical)	Volume (cu ft)	Height (ft)	Width (ft)	Length (ft)	(nm)
PIAGGIO											
Avanti P180	\$6.4	\$1.0	\$1.6	1990	2005	6	393	5.8	6.1	14.9	1,300
Avanti P180 II	\$7.2	\$1.6	\$4.6	2014	2015	6	393	5.8	6.1	17.5	1,410
Avanti Evo	\$7.4	\$5.1	\$6.8	2005	In Production	6	393	5.8	6.1	17.5	1,410
PILATUS											
PC-12	\$3.4	\$1.5	\$3.1	1995	2008	7	356	4.8	5.0	16.9	1,604
PC-12 NG	\$4.9	\$3.1	\$4.5	2008	In Production	7	356	4.8	5.0	16.9	1,638
PIPER											
M500	\$2.2	\$1.7	\$2.1	2015	In Production	5	164	3.9	4.2	12.3	1,000
M600	\$2.9	\$2.5	\$2.9	2016	In Production	5	165	3.9	4.2	12.3	1,812
Meridian PA 46TP	\$2.2	\$0.70	\$1.6	2001	2015	5	106	3.9	4.2	12.3	1,000
QUEST AIRCRAF	T										
Kodiak Series II	\$2.2	\$1.1	\$2.1	2008	In Production	5	248	4.5	4.8	15.5	1,132

ROTORCRAFT

		(\$)			رع.							
	Price (\$ millions)			Pro	duction			Cabin			Dan	
Aircraft	New	Used (min)	Used (max)	Year started	Year ended	Pax (typical)	Volume (cu ft)	Height (ft)	Width (ft)	Length (ft)	Range (nm)	
AIRBUS HELICOP	TERS											
AS332L1 Super Puma	\$21.7	N/A	\$16.2	1986	2011	12	479	5.1	5.9	22.3	406	
AS332L2 Super Puma	\$14.8	N/A	N/A	1993	2007	9	479	5.1	5.9	25.8	392	
AS350B2	\$2.4	\$0.60	\$1.8	1990	In Production	4	61	4.3	5.4	6.6	312	
AS350B3 (2B)	\$1.9	\$1.0	\$1.4	1997	2008	4	61	4.3	5.4	6.6	300	
AS350B3 (2B1)	\$2.1	\$1.4	\$1.7	2008	2011	4	61	4.3	5.4	6.6	300	
AS355N TwinStar	\$2.5	\$0.90	\$1.5	1993	2006	3	106	4.3	5.4	6.6	320	
AS355NP TwinStar	\$3.9	\$1.6	\$3.3	2007	In Production	4	61	4.3	5.4	6.6	315	
AS365N2 Dauphin	\$6.7	\$1.0	\$2.0	1990	2001	6	186	4.6	6.3	7.2	420	
AS365N3 Dauphin	\$8.6	\$3.0	\$5.8	1998	2010	6	186	4.6	6.5	7.2	354	
AS365N3+ Dauphin	\$10.5	\$7.0	\$8.9	2011	In Production	6	186	4.6	6.5	7.2	341	
BK117C1	\$4.1	\$1.2	\$1.8	1992	2003	8	147	4.2	4.9	6.7	221	
EC130B4	\$2.4	\$1.0	\$1.9	2000	2012	5	65	4.2	6.1	7.2	280	

Sources: Conklin & de Decker, Vref



		(\$)			••							
	Pric	e (\$ milli	ions)	Pro	duction			Cabin			Dange	
Aircraft	New	Used (min)	Used (max)	Year started	Year ended	Pax (typical)	Volume (cu ft)	Height (ft)	Width (ft)	Length (ft)	Range (nm)	
EC135P1	\$3.4	\$1.4	\$1.7	1997	2004	5	100	4.2	4.7	5.9	254	
EC135P2	\$4.5	\$1.9	\$4.5	2004	2006	5	100	4.2	4.7	5.9	254	
EC135P2+	\$4.7	N/A	N/A	2006	2011	5	100	4.2	4.7	5.9	254	
EC135P2e	\$5.2	N/A	N/A	2011	In Production	5	100	4.2	4.7	5.9	278	
EC135T1	\$3.5	\$1.0	\$1.7	1997	2004	5	100	4.2	4.7	5.9	262	
EC135T2	\$3.7	\$1.9	\$3.7	2004	2006	5	100	4.2	4.7	5.9	262	
EC135T2+	\$4.7	N/A	N/A	2006	2011	5	100	4.2	4.7	5.9	254	
EC135T2e	\$5.2	N/A	N/A	2011	In Production	5	100	4.2	4.7	5.9	256	
EC145	\$8.7	\$2.6	\$6.8	2001	In Production	8	143	4.2	5.6	7.4	274	
H120	\$2.0	\$0.60	\$1.7	1997	In Production	4	54	4.1	4.4	7.5	240	
H125	\$2.9	\$2.5	\$2.9	2011	In Production	4	61	4.3	5.4	6.6	300	
H130	\$3.3	\$2.1	\$3.3	2012	In Production	5	65	4.2	6.1	7.2	268	
H135 (P3)	\$5.5	\$4.4	\$5.5	2014	In Production	5	100	4.2	4.7	5.9	278	

TURBOPROPS continued

						W. 1. 10 10 10 10 10 10 10 10 10 10 10 10 10					- ('Y
	Pric	e (\$ milli	ions)	Pro	duction			Cabin			
Aircraft	New	Used (min)	Used (max)	Year started	Year ended	Pax (typical)	Volume (cu ft)	Height (ft)	Width (ft)	Length (ft)	Range (nm)
Airbus Helicopters (co	ntinued)										
H135 (T3)	\$5.7	\$4.2	\$4.4	2014	In Production	5	100	4.2	4.7	5.9	256
H145	\$9.7	\$5.3	\$6.8	2013	In Production	8	143	4.2	5.6	7.4	260
H155	\$13.8	\$3.9	\$11.9	2003	In Production	6	225	4.4	6.7	8.4	373
H175	\$16.8	\$8.5	\$8.9	2012	In Production	10	434	4.6	6.8	12.5	390
H215C1	\$18.4	N/A	N/A	2016	In Production	12	N/A	5.1	5.9	19.6	406
H215L1	\$18.4	N/A	N/A	2016	In Production	12	479	5.1	5.9	22.3	406
1225	\$27.9	N/A	N/A	2005	In Production	12	595	4.8	5.9	25.8	354
BELL											
206B3	\$1.4	\$0.34	\$0.87	1977	2010	3	54	4.2	3.9	3.3	270
206L4	\$2.6	\$0.79	\$2.5	1993	2017	5	73	4.2	3.9	5.0	253
107	\$3.1	\$1.1	\$2.9	1996	2011	5	84	4.2	4.8	5.0	293
107GX	\$3.0	\$2.5	\$2.5	2013	2017	5	84	4.2	4.8	5.0	337
107GXi	N/A	N/A	N/A	2018	In Production	5	84	4.2	4.8	5.0	337
107GXP	\$3.5	\$2.5	\$3.5	2013	2018	5	84	4.2	4.8	5.0	337
112EP	\$11.2	\$3.0	\$8.2	1994	In Production	6	208	4.4	8.0	8.6	337
112EPi	\$11.0	\$9.0	\$10.1	2013	In Production	6	208	4.4	8.0	8.6	312
127	\$4.3	\$0.90	\$1.8	1999	2010	5	102	4.2	4.6	5.8	325
129	\$6.4	\$4.1	\$6.2	2009	In Production	5	130	4.1	5.0	9.8	276
130	\$8.0	\$0.80	\$2.0	1996	2008	5	158	4.8	4.8	8.3	276
505 Jet Ranger X	\$1.5	\$1.0	\$1.5	2016	In Production	N/A	61	4.4	4.8	7.2	242
ENSTROM											
280FX	¢0.40	ĊO 11	ĊO 40	100E	In Draduation	1	40	3.9	1.1	4.1	014
180	\$0.48 \$0.46	\$0.11	\$0.48 \$0.35	1985 1994	In Production 2000	3	40 32	4.0	4.4 5.7	4.1 5.0	214 155
180B	\$1.2	\$0.30	\$1.2	2001	In Production	3	32	4.0	5.5	5.0	165
F-28F	\$0.47	\$0.40	\$0.47	1981	In Production	1	40	3.9	4.4	4.1	214
FONADDO											
LEONARDO	400.0	A174	h1/6	1001	la D. I. ii	40	070		0.0	01.0	
AW101	\$28.0	N/A	N/A	1994	In Production	10	970	6.2	8.2	21.3	466
AW109 Grand	\$6.4	\$2.1	\$3.8	2005	2010	5	178	4.2	5.3	7.7	360
AW109 GrandNew	\$5.5	\$4.4	\$6.4	2010	In Production	5	178	4.2	5.3	7.7	357
W109 K2	\$3.8	\$0.77	\$0.99	1993	2003	5	125	4.3	4.7	5.4	75
AW109 Power	\$4.8	\$1.1	\$4.3	1997	In Production	5	125	4.2	5.3	6.9	260
AW109 Trekker	\$5.0	\$2.1	\$5.0	2014	In Production	5	178	4.2	5.3	7.7	357
W119 Ke	\$3.6	\$1.3	\$1.7	2007	2013	5	121	4.2	5.3	6.9	380
W119 Koala	\$3.0	\$0.90	\$1.2	2000	2006	5	121	4.2	5.3	5.8	380
W119 KX	\$3.3	\$1.8	\$3.3	2013	In Production	5	121	4.2	5.3	6.9	380
W139	\$11.0	\$4.1	\$10.5	2004	In Production	8	282	4.7	7.2	8.9	460 460
AW139 Enhanced	\$11.0	N/A	N/A	2016	In Production	8	282	4.7	7.2	8.9	
AW169 AW189	\$8.0 \$15.3	N/A N/A	\$9.3 \$20.0	2014 2015	In Production In Production	6 8	223 396	4.3	6.7	7.1	366 600
WV 109	\$15.5	IN/A	\$20.0	2015	III Floduction	8	390	4./	8	11.41	000
MD HELICOPTER	RS										



	Pric	Price (\$ millions)			duction		Dange				
Aircraft	New	Used (min)	Used (max)	Year started	Year ended	Pax (typical)	Volume (cu ft)	Height (ft)	Width (ft)	Length (ft)	Range (nm)
MD500ER	\$1.9	N/A	N/A	1983	In Production	3	51	4.4	4.5	3.5	174
MD520N	\$2.6	\$0.53	\$2.1	1992	In Production	3	51	4.4	4.5	3.5	138
MD530F	\$2.5	\$0.50	\$2.5	1984	In Production	3	51	4.4	4.5	3.5	206
MD600N	\$2.9	\$0.63	\$2.5	1997	In Production	5	92	4.4	4.5	6.0	235
MD902 Explorer	\$7.2	\$1.5	\$6.4	1998	In Production	4	113	4.1	4.8	6.3	205

ROBINSON											
R22 Beta II	\$0.30	\$0.10	\$0.30	1997	In Production	1	N/A	4.0	3.6	4.3	161
R44 Cadet	\$0.34	N/A	N/A	2016	In Production	1	46	4.1	3.8	5.7	204
R44 Raven I	\$0.42	\$0.20	\$0.42	2003	In Production	3	46	4.1	3.8	5.7	204
R44 Raven II	\$0.53	\$0.22	\$0.53	2003	In Production	3	46	4.1	3.8	5.7	251
R66 Turbine	\$1.0	\$0.60	\$0.99	2010	In Production	3	50	4.3	4.5	6.7	260

SIKORSKY											
S-76C+	\$8.5	\$1.2	\$3.7	1996	2005	6	205	4.5	6.3	8.8	335
S-76C++	\$11.6	\$4.3	\$6.2	2006	2013	6	205	4.5	6.3	8.8	335
S-76D	\$15.0	\$8.8	\$13.3	2013	In Production	6	205	4.5	6.3	8.8	329
S-92	\$27.0	\$11.4	\$25.5	2002	In Production	10	685	6.0	6.4	19.2	439



AIRCRAFT BROKERS

Aerolineas Ejecutivas S.A. de C.V.

(aerolineasejecutivas.com, +52 (55) 42 09 02 00) Mexico City.

AeroSolutions Group

(aerosolutions.com, 703-257-7008)

Manassas, Virginia.

Represents aircraft ranging from piston singles to business jets and helicopters.

Aircraft Marketing

(aircraftmarketing.com, 702-260-3333)

Las Vegas.

Serves buyers and sellers of turbine-powered aircraft in the Americas, Europe, the Far and Middle East, and Asia.

Aircraft Sales Group

(sellajet.com, 630-884-8177)

Chicago. Also Pensacola and Fort Lauderdale, Florida.

Aircraft analytics, acquisition, and resale.

Avjet Global Sales

(avjetglobal.com, 818-480-9964)

Burbank, California. Also Annapolis, Maryland. Specializes in Gulfstreams, Bombardier Globals, and Boeing BBJs.

Avpro

(avprojets.com, 410-573-1515)

Annapolis, Maryland.

Focuses on large-cabin business jets.

Axiom Aviation

(axiomav.com, 216-261-8934)

Cleveland.

Axis Jet

(axisjet.com, 916-391-5000)

Sacramento, California.

Banyan Air Services

(banyanair.com, 954-491-3170)

Fort Lauderdale, Florida.

Handles acquisition and sales of turbine-powered aircraft.

Bloomer deVere Dahlfors

(jettransactions.com, 805-484-6605)

Van Nuys, California. Also Newport Beach, California; West Palm Beach, Florida.

Bombardier Aerospace

(businessaircraft.bombardier.com, 866-538-1247) Richardson, Texas.

Boutsen Aviation

(boutsen.com, +377 93 30 80 02)

Monaco. Also Dubai, United Arab Emirates. Helps with purchase and sale of new and used aircraft.

Business Aircraft Leasing

(baliaircraft.com, 615-361-3781)

Nashville, Tennessee.

Charlie Bravo Aviation

(wepushtin.com, 512-868-9000)

Georgetown, Texas.

Provides market research and handles sale and acquisition of business jets, turboprops, and turbine rotorcraft.

Clay Lacy Aviation

(claylacy.com, 818-989-2900)

Los Angeles.

Dealer for Quest Kodiak in Pacific Northwest and Northeast U.S.

Corporate Fleet Services

(cfsjets.com, 704-359-0007)

Cornelius, North Carolina. Also San Antonio; Atlanta; Chattanooga, Tennessee; Westlake Village, California.

Cutter Aviation

(cutteraviation.com, 602-253-4030)

Phoenix.

Dallas Jet International

(dallasjet.com, 214-459-3303)

Dallas. Also Colleyville, Texas.

Appraisals, evaluations, and acquisition and marketing services. Buys and sells positions in new aircraft; maintains inventory of aircraft for sale.

Dassault Falcon Jet

(dassaultfalcon.com, 201-541-4556)

Little Ferry, New Jersey.

Desert Jet

(desertjet.com, 800-381-5387)

Palm Springs, California.



Dumont Group

(dumontgroup.com/sales, 302-777-1003) New Castle, Delaware. Also Bloomington, Illinois; Burleson, Texas.

Duncan Aviation

(duncanaviation.aero, 402-475-2611) Battle Creek, Michigan. Also Lincoln, Nebraska.

Eagle Aviation

(eagle-aviation.com, 803-822-5520) Columbia, South Carolina.

Eagle Creek Aviation Services

(eagle-creek.com, 317-293-6935) Indianapolis. Also Zionsville, Indiana; Naples, Florida; Frankfort, Indiana.

Deals in piston and turboprop aircraft, business jets, and helicopters.

Elliott Jets

(elliottjets.com, 800-447-6711) Milan, Illinois.

Embraer Executive Jets

(embraerexecutivejets.com, 321-751-5050) Melbourne, Florida.

Exclusive Aircraft Sales

(fargojet.com, 651-450-6200) Eden Prairie, Minnesota.

Flightstar

(flightstar.com, 800-747-4777) Savoy, Illinois.

Freestream Aircraft

(freestream.com, 201-365-6080) Teterboro, New Jersey. Also London, Beijing, Bermuda.

Gantt Aviation

(ganttaviation.com, 512-863-5537) Georgetown, Texas.

General Aviation Services

(genav.com, 847-726-5000) Hawthorn Woods, Illinois. Has handled some \$2.5 billion in business-jet transactions.

Global Wings

(gwjets.com, 561-391-3919) Boca Raton, Florida.



Guardian Iet

(guardianjet.com, 203-453-0800) Guilford, Connecticut. Serves 30 percent of Fortune 100 companies.

Gulfstream Aerospace

(gulfstream.com/preowned, 912-965-4178) Savannah, Georgia.

Hatt & Associates

(hattaviation.com, 303-790-1050) Denver. Also Scottsdale, Arizona; Wichita, Kansas; Calgary, Alberta, Canada.

Hopkinson Aircraft Sales

(hopkinson.aero, 403-291-9027) Calgary, Alberta, Canada. Has handled upwards of 4,000 preowned and factory-new aircraft transactions.

International Jet Traders

(intljettraders.com, 954-491-1941) Fort Lauderdale, Florida. Also Sao Paolo, Brazil.

Jack Prewitt and Associates

(jackprewitt.com, 817-283-2826) Colleyville, Texas.

JBA Aviation

(jba.aero, 713-850-9300) Houston. Also Grand Haven, Michigan; Tulsa, Oklahoma; Argentina. Specializes in turbine-powered business aircraft.

Iet Methods

(jetmethods.com, 877-538-6384) Carlsbad, California.

JetBrokers

(jetbrokers.com, 636-532-6900) St. Louis. Also Chicago; Detroit; Casa Grande, Arizona; Yeovil, England; Geneva. Has handled more than 700 business jet and turboprop transactions over the past 20 years.

Ietcraft

(jetcraft.com, 919-941-8400) Raleigh, North Carolina. Also Minneapolis. Sells 60 or more aircraft annually. Reps throughout U.S. and in Europe, Middle East, Asia, and Africa.

Jeteffect

(jeteffect.com, 562-989-8800) Los Angeles. Also Dallas; Atlanta; Palm Beach, Florida; Virginia Beach, Virginia. Team includes former corporate pilots, aeronautical engineers, and finance experts.

Latitude 33 Aviation

(133jets.com, 800-840-0310) Carlsbad, California.

(leas.com, 201-891-0881)

Leading Edge Aviation Solutions

Parsippany, New Jersey. Family business focuses on midsize and larger business aircraft and has been a party to \$10 billion in transactions.

Luxaviation

(luxaviation.c +352 4252 52) Luxembourg.

Mac Air Group

(macairgroup.com, 888-359-7600) South Portland, Maine.

Meisner Aircraft

(meisneraircraft.com, 262-763-6600) Burlington, Wisconsin.

Mente Group

(mentegroup.com, 214-351-9595) Addison, Texas.

Mesinger Jet Sales

(jetsales.com, 303-444-6766) Boulder, Colorado. Family-owned company, established 1982.

Million Air Dallas

(millionairdallas.com, 972-248-1600) Addison, Texas.

Mountain Aviation

(mountainaviation.com, 877-700-2491) Broomfield, Colorado.

National Airways

(nac.co.za, +27 11 267 5000) Johannesburg, South Africa.

Ogarajets

(ogarajets.com, 770-955-3554) Atlanta.

Formed in 1980. Has presided over \$4 billion in preowned and new business aircraft transactions.

Par Avion

(paravionltd.com, 713-681-0075) Houston. Also Ridgewood, New Jersey. Specializes in preowned Bombardiers, Citations, Falcons, Gulfstreams, Hawkers, and Phenoms.

Piedmont Aircraft

(piedmontaircraft.com, 704-896-8978) Clemmons, North Carolina. Company with roots dating to 1940 spec

Company with roots dating to 1940 specializes in turboprop, high-performance-piston, and light-jet aircraft transactions.

Pollard Aircraft Sales

(pollardaircraft.com, 817-626-7000) Fort Worth. Handles transactions involving piston, turboprop,

Handles transactions involving piston, turboprop, and executive jet aircraft.

QS Partners

(qspartners.com, 877-356-0747) Boulder, Colorado. *NetJets-owned company.*

SC Aviation

(scaviation.net, 866-290-9999) Chicago. Also Milwaukee and Janesville, Wisconsin.

Skyservice

(skyservice.com, 888-759-7591) Toronto. Also Ottawa, Calgary, Alberta, and Montreal, Canada.

Smartjets

(smartjets.com, 954-771-1795) Fort Lauderdale, Florida. Handles preowned and new business jets, executive-configured airliners, and helicopters.

Sojourn Aviation

(sojournaviation.com, 316-733-6500) Cleveland.

Solairus Aviation

(solairusaviation.com, 800-359-7861) Petaluma, California. Also Harrison, New York; Englewood, Colorado.

Southern Cross Aviation

(scross.com/aircraft-sales, 954-377-0320) Fort Lauderdale, Florida. Also Charlotte, North Carolina; Nashville, Tennessee; Uruguay. Founded 1989. Specializes in turboprops and light business jets.

Sunwest Aviation

(sunwestaviation.ca, 888-291-4566) Calgary, Alberta, Canada.

Textron Aviation

(txtav.com, 316-517-8270) Wichita, Kansas.

Beechcraft, Cessna, and Hawker manufacturer also sells preowned aircraft.

The Jet Business

(thejetbusiness.com, +44 845-521-5555) London.

Deals exclusively in long-range, large-cabin jets and executive airliners. Headquartered in hightech, retail-style storefront.



Twinjet Aircraft

(twinjet.co.uk, +44 (0) 1582 733615) Luton, England.

Velocity Jets

(velocityjets.com, 866-575-5387) Fort Lauderdale, Florida.

Voyager Jet Center

(voyagerjet.com, 412-267-8022) West Mifflin, Pennsylvania.

Welsch Aviation

(welschaviation.com, 703-787-8800) Washington. Also Amagansett, New York; Savannah, Georgia; Houston. Established 1949.

Wentworth Aero

(wentworth.aero, 301-869-4600) Potomac, Maryland. Also New York and Boston. Established 1992. Specializes in acquisition and disposition of corporate and private aircraft. Approximately half of business involves international transactions.

Western Aircraft

(westair.com, 800-333-3442) Boise, Idaho.

Western Airways

(flywesternairways.com, 800-373-0896) Houston. Founded 1974.

Wetzel Aviation

(wetzelaviation.com, 303-468-4800) Englewood, Colorado.

Wing Aviation

(wingaviation.com, 866-944-9464) Houston.

AIRCRAFT MANUFACTURERS

Airbus Corporate Helicopters

(airbuscorporatehelicopters.com, +800 55 55 97 97) Marignane, France.

Manufactures full line of light, medium, and heavy helicopters.

Airbus Corporate Jets

(acj.airbus.com, +33 5 61 93 33 33) Toulouse, France. Makes ACJ318, ACJ319, ACJ320, and ACJ321, plus VIP widebodies.



Beechcraft/Textron Aviation

(beechcraft.txtav.com, 316-517-8270) Wichita, Kansas. Makes several King Air models.

Bell

(bellflight.com, 817-280-2011) Fort Worth.

Textron-owned company has delivered more than 35,000 helicopters.

Boeing Business Jets

(boeing.com/commercial/bbj, 206-655-1131) Seattle.

Makes BBJs plus VIP widebodies.

Bombardier Business Aircraft

(us.bombardier.com, 514-861-9481) Montreal.

Makes Learjets, Challengers, Globals.

Cessna Aircraft/Textron Aviation

(cessna.txtav.com, 316-517-8270) Wichita, Kansas. Makes Caravans, Citations, Sovereigns.

Cirrus Aircraft

(cirrusaircraft.com, 800-279-4322) Duluth, Minnesota.

Product line includes piston models and Vision Jet, which is billed as a personal jet that is intended to be owner-flown.

Daher

(daher.com/en, +33 5 62 41 77 88) Tarbes, France. Makes TBM 910/940.

Dassault Falcon

(dassaultfalcon.com, +33 1 47 11 81 24) Saint-Cloud, France. Makes Falcon models.

Diamond Aircraft

(diamondaircraft.com, 888-359-3220) London, Ontario, Canada. Manufactures full line of piston aircraft.

Embraer Executive Jets

(embraerexecutivejets.com, 954-359-3700) Melbourne, Florida. Makes Phenom, Legacy, and Lineage business jets.

Enstrom Helicopter

(enstromhelicopter.com, 906-863-1200) Menominee, Minnesota. Manufactures light, single-engine piston, and turbine helicopters.

Gulfstream Aerospace

(gulfstream.com, 800-810-4853) Savannah, Georgia. Makes G280, G450, G500/600, G550, G650, G650ER.

Honda Aircraft

(hondajet.com, 336-662-0246) Greensboro, North Carolina. Makes HondaJet.

Kopter

(marenco-swisshelicopter.ch, +41 44 552 33 33) Wetzikon, Zurich, Switzerland. Founded in 2007 to develop turbine helicopters.

Leonardo Helicopters

(leonardocompany.com, 215-281-1400) Philadelphia.

Italy-based company manufactures helicopters that were previously branded as Agusta Westland.

MD Helicopters

(mdhelicopters.com, 480-346-6300) Mesa, Arizona. Product line includes MD 500E, MD 530F, MD 520N, MD600N, MD Explorer.

One Aviation

(oneaviation.aero, 877-375-7978) Albuquerque, New Mexico. Eclipse jet and Kestrel turboprop.

Piaggio Aerospace

(piaggioaerospace.it, +39 0182 267911) Italy. Also West Palm Beach, Florida. Makes Avanti EVO.

Pilatus

(pilatus-aircraft.com, +41 41 619 67 00) Stans, Switzerland. Also Broomfield, Colorado;

Makes PC-12 and PC-12NG turboprops and PC-24 twin-engine light jet.

Piper Aircraft

(piper.com, 877-879-0275) Vero Beach, Florida. Makes full line of turboprops and piston models.

Quest Aircraft

(questaircraft.com, 208-263-1111) Sandpoint, Idaho. Known for Kodiak turboprop.

Robinson Helicopter

(robinsonheli.com, 310-539-0508) Torrance, California. Models include R22, R44, R66.

Sikorsky Aircraft

(sikorsky.com, 800-946-4337) Stratford, Connecticut. Lockheed Martin company's products include S-76 and S-92 helicopters, M28 turboprop airplane, light turbine and light piston helicopters.

SyberJet Aircraft

(syberjet.com, 210-764-3500) Cedar City, Utah. Makes SJ30, which it bills as world's fastest and longest-range light business jet.

AIRCRAFT FINANCIAL INSITUTIONS

1st Source Bank

(1stsource.com, 800-513-2360) South Bend, Indiana.

Bank of America Merrill Lynch

(bofaml.com, 469-294-7167) Frisco, Texas.

BB&T Equipment Finance

(bbt.com, 800-226-5228) Towson, Maryland.

BMO Harris Equipment Finance

(bmoharris.com, 866-867-2173) Chicago.

Chase Equipment Finance

(commercial.jpmorganchase.com) Chicago.

CitiPrivate Bank

(privatebank.citibank.com, 800-870-1073) New York.

Citizens Asset Finance

(citizensbank.com, 603-634-7522) Manchester, New Hampshire.

City National Capital Finance

(citynationalcm.com, 305-577-7333) Miami.

Commerce Bank

(commercebank.com, 847-295-4601) Lake Forest, Illinois.

Credit Suisse AG

(credit-suisse.com, +41 (0) 800 88 88 74) Zurich, Switzerland.

Deutsche Bank Private Wealth Management

(deutschewealth.com, 312-537-1926) Chicago.

Export-Import Bank of the United States

(exim.gov, 202-565-3946) Washington.

Fifth Third Equipment Finance Co.

(53.com, 866-475-0729) Boston.

First American Equipment Finance

(faef.com, 800-801-3830) Fairport, New York.

First National Capital Corp.

(firstncc.com, 866-750-3622) Foothill Ranch, California.

First Republic Bank

(firstrepublic.com, 800-392-1400) San Francisco.

Global Jet Capital

(globaljetcapital.com, 844-436-8200) Danbury, Connecticut. Also Boca Raton, Florida.

Key Equipment Finance

(key.com, 216-689-3232) Cleveland.

PNC Aviation Finance

(pncaviationfinance.com, 888-339-2834) Boise, Idaho.

RRML Capital Resources

(rrmlcapital.com, 201-731-4811) Paramus, New Jersey.

Stonebriar Commercial Finance

(stonebriarcf.com, 469-609-8500) Plano, Texas.

Textron Financial Corp.

(textronfinancial.com, 800-551-5787) Wichita, Kansas. Formerly Cessna Finance Corp.

U.S. Bank Equipment Finance

(usbank.com, 800-253-3468) Denver.

UMB Bank

(umb.com, 316-266-6002) Wichita, Kansas.

Wells Fargo Private Bank

(wellsfargo.com/theprivatebank, 312-592-5621)

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2020 Porsche 911 Speedster

Porsche is celebrating its 70th anniversary, and for the occasion it has debuted the 911 Speedster, a nod to the stripped-down 356 Speedster of the 1950s. More than just a trim level with a few tweaks, it's essentially a GT3 sans roof. Like the GT3, it sports a six-speed manual gearbox and 4.0-liter, 502-hp, 346-lb-ft flat six engine with a 9000-rpm redline, good for a 3.2-second 0-60 run. It also runs a similar suspension and carbon ceramic brake setup. Porsche's engineers shed 200 pounds from a standard 911 Cabriolet through extensive use of lightweight body panels in carbon fiber and polyurethane, and by foregoing a few features. (You'll have to manually operate the roof.) The most visually distinctive elements of the Speedster are the chopped windshield and integrated double-hooped fairing over the area where back seats usually reside. Unfortunately, Porsche is limiting production to 1,948 units, and the price is about \$275,000. That's almost twice as much as you'd pay for a GT3—which is ironic because the original 356 Speedster was actually a lower-priced model built for racing. Times have changed.



2019 Bentley Continental GT

As the name suggests, the Continental GT is built for crossing continents in grand touring style. Think supercar performance in ultimate comfort at speeds exceeding 200 mph. This all-new version of the Continental GT benefits from Volkswagen AG sister company Porsche's influence on the eight-speed automatic dual-clutch gearbox and a shared platform with the Porsche Panamera. That new rear-wheel-drive-based platform should benefit handling and allows for more appealing body proportions than the previous front-wheel-drive-based model. Retained from its predecessor is the 6.0-liter, twin-turbocharged, 12-cylinder engine, now producing 626 hp and 664 lb-ft of torque through all four wheels. All that torque helps move this 5,056-pound diamond-quilted-leather-and-wood-clad cruise missile to 60 mph in only 3.3 seconds. Base price is \$219,925.





2020 Toyota GR Supra

Toyota stopped building the cult-classic fourth-generation Supra in 2002, but enthusiasts have eagerly awaited a successor to the twin-turbocharged inline-six-powered grand tourer, which delivered 321 hp—a significant figure for the time. Toyota has teamed up with BMW to resurrect the nameplate, adding the initials GR, which stand for Gazoo Racing—Toyota's new performance division. The sports car will be built in Austria on the same rear-wheel-drive platform as the BMW Z4 and will share a 335-hp, 369-ft-lb torque twin-turbo 3.0-liter inline-six BMW engine. Many interior components come from BMW, too. Let's hope the engineers at Toyota have managed to bake some of the character of the previous-generation car into this very German rerelease. Strangely, an eight-speed automatic is the only gearbox option, but perhaps we'll see a manual later. Base price is \$50,920.



Genesis Mint Concept

Genesis, Hyundai's premium brand, is now exploring the virtually nonexistent luxurious small-car segment with the Mint concept. The automaker is pitching this two-passenger EV concept to city dwellers. The sporty shape suggests a wide and low Mini Cooper influence, but rather than a rear hatch, the designers have developed scissor doors in the rear flanks to access the baggage area. These entry points are meant to be easier to get to when the car is parallel parked. The interior is concept-car futuristic and simple: the dashboard's only instrumentation is a display built into the steering wheel. The drivetrain isn't set in stone but expect a range of about 200 miles and 350 kW fast charging. EVs make a lot of sense in cities, but right now the hurdle is the charging infrastructure, especially for street-parked vehicles. Assuming that changes, we'll see the Mint and other similar cars reach production. Pricing hasn't been announced.

Ian Whelan

(iwhelan@bjtonline.com) is **BJT**'s video producer and a longtime auto enthusiast.





topped only by the Pentagon. The "alabaster albatross," with 3,000 rooms and 2,500 chandeliers, sprawls across nearly four million square feet. An army of workers in the service of the state carved out an entire mountain of marble to adorn halls, meeting and reception rooms, floors, columns, and the

Romania

Left to right: Maramures, the country's least developed region; sunset over Bucharest's Unirii Square; Bucharest's Old Town.





exterior. Interior tours expose only a small portion of the site but provide a glimpse of the pompous show of wealth the small country could little afford. Robert Mircea, a professional guide and resident of the city who lived through the era, claims most Romanians were aghast at the gargantuan construction.

The communist regime also razed the surrounding district, moving churches and communities and costing thousands their homes. The transformed Boulevard Unirii resembles the Champs-Elysees with a tree-lined median, luxury shopping, and elaborate fountains.

To understand more about Ceauşescu and his family, scurry, if traffic permits, to the other side of the city, past parks and an arch resembling the Arc De Triomphe. The 53,000-square-foot Ceauşescu villa feels like a time capsule of the 1970s and '80s. Tours reveal a dazzling mosaic-lined indoor swimming pool, 14-karat gold bath, Flemish



Corvin Castle, a well-preserved fortress built in 1440, features six-foot-thick walls, dungeons, and a moat.

tapestries, and trendy outfits worn by the former first lady. She and her husband eventually paid heavily for their excesses, with their execution at the start of the revolution that brought down the old regime.

The open-air National Village Museum in Bucharest shows the opposite view. The disassembly and rebuilding of regional houses and churches lets today's visitors experience an authentic rural, homespun peasant life.

he best way to see and travel around Romania is to hire a private driver/guide. (I used, and highly recommend, Tours-of-Romania.com, which created a personalized itinerary for me.) Once you leave the small length of the interstate around Bucharest, expect only two-lane winding roads for the rest of the trip. You can conquer both the city and rural Romania in a week.

Head west to Hunedoara (also known as Corvin Castle), a well-preserved, 1440 medieval fortress whose photo could grace a guidebook cover. Standing in the interior courtyard, you'll feel the strength of its six-foot-thick walls. A surrounding moat, dungeons, and an elevated fairytale-like bridge convey the vulnerability of life in those days. The castle's legends tell of the raven and the ring of a young prince who became the beloved Hungarian King Matthias.

Proceeding north brings you to Romania's least-developed region, Maramureş. Here, the whiff of sawdust and manure act as a reminder of bygone centuries. Move over and share the road with hay-filled horse-driven carts or perhaps pick up some homemade fruit brandy from a roadside seller.

Traveler Fast Facts

WHAT IT IS:

Romania, in Eastern Europe, is a former communist country of 20 million, about the size of Michigan. It borders on the Black Sea, Ukraine, Hungary, Serbia, and Bulgaria.

CLIMATE:

Temperate, with hot summers and long, cold winters.

LANGUAGE

Romanian, a Romance language originating from Latin.

MONEY:

Although Romania belongs to the European Union, its currency remains the Romanian leu. Credit cards are widely accepted.

GETTING THERE:

No visa is required. There are no direct flights from the U.S., but air and rail connections from European cities are readily available. Bucharest International Airport maintains two runways, each 11,484 feet. Central Romania's Cluj International Airport offers one 6,693-foot runway.



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Romania





Clockwise from left: The Merry Cemetery in Sapanta; a Romanian woman at the market; the famed wooden churches of Maramures.



The rural region's distinctive architecture centers on wooden churches and unpretentious farmhouses fronted by massive, carved wooden gates. Barn doors double as works of art. Women in babushkas wait as antiquated water-powered mills grind grain. Others wash rugs in a stream.

Needle-nosed steeples on the famed wooden churches of Maramureş spike toward the heavens like rockets on liftoff. Most of these houses of worship date back to the 17th and 18th centuries; the oldest, the Church on the Hill, is from 1364. The tallest-ever remains under construction.

The Merry Cemetery in Sapanta shows the dark humor of a Romanian personality. Brightly painted wooden tomb markers inscribed with witty epitaphs capture both the good and the slightly odd side of the villagers who rest below. Even without the benefit of translation, visitors understand the jokes in the handiwork begun in 1935.

A new cathedral going up at the Merry Cemetery is part of a post-Communist-era church-building boom. Romania remains one of the most religious countries in Europe, and churches stand everywhere—big, small, medieval, brand new, tin-roofed, wooden, painted.

stop in Sighet brings sadness, but also a better understanding of the communists' control in recent times. The Memorial of the Victims of Communism and of the Resistance, referred to as the Anti Communist Memorial, is a former political prison. It housed major figures of the Romanian political and cultural elite, many of whom died while incarcerated there. Each prison cell acts as a poignant museum room, presenting the chronology of the totalitarian regime. Other

Jewish heritage sites such as Grand Synagogues and cemeteries lie scattered across the country and can be seen on customized tours

Moving toward Moldavia and the Ukraine border, you'll see the Painted Monasteries of Bucovina, showstoppers that deservedly earned UNESCO World Heritage status. Biblical scenes, similar to primitive folk art, cover nearly every inch of the exterior and interior of these 15th and 16th century churches. At a time when most people did not read, each scene tells a story. The Ladder of Virtues at Sucevita Monastery features the pathetic-looking sinful falling head over heels into hell. The churches remain in use and lucky visitors who happen upon a mass bask in their colorful, peaceful glow.

You can't go to Romania without seeing Roma (gypsies) in their colorful dress. Guides will point out their heavily adorned houses with tin accents. Prearrange a



The Painted Monasteries of Bucovina deservedly earned UNESCO World Heritage status.

Traveler Report Card

ACCOMMODATIONS (B+):
Bucharest offers the best. Consider the historic **Grand Hotel Continental**, boutique **Hotel Époque**, or the modern, upscale **Radisson Blu**. In Transylvania, stay in **Zalanpatak**, Prince Charles's all-inclusive retreat. In Brasov, **Casa Rozelor**, an upscale boutique hotel, offers five rooms. In Sighisoara, choose historical **Casa Savri**.

CUISINE:

Expect homestyle, hearty meat, sausage, and potato dishes, stuffed cabbage, and fruit brandy. Don't miss Caru' cu Bere (A), the oldest beer house in Bucharest (which, these days, attracts mostly tourists). In Sibiu, Crama Sibiul Vechi (A) serves excellent traditional fare and offers a fun atmosphere, with live music. Other well-regarded restaurants include Bella Muzica and Sergiana, in the Old Town section of Brasov, and Tirolese at Hotel International in Sinaia.

ACTIVITIES:

Many Danube River cruises begin near Bucharest, a modern city with over 20 museums, classical music, and thriving nightlife. Find relaxation, hiking, and skiing in the mountains or follow the Dracula Trail.

stop to meet some Roma artisans at work and peek into their flamboyantly festooned homes.

The road through the forested Carpathian Mountains leads toward Bicaz Gorge, which is cut between thousand-foot-high limestone cliffs. Americans will be reminded of Yosemite, Moab, or some Colorado parks. The Carpathians are home to 60 percent of Europe's brown bear population. An invigorating way to connect with locals is to join hikes or go foraging for mushrooms, both of which are popular Romanian activities. Restaurants in the area feature those buttery fungi and freshly caught trout from the nearby lakes. Soups and stews are menu mainstays as are stuffed cabbage and sausage.

In the 12th century, Saxon settlers founded the city of Sibiu, formerly one of the most powerful and prosperous strongholds in Europe. A stroll past the remains of the medieval walled town and its guild towers hint at its earlier importance. If you feel someone is spying on you, look up. Many homes employ dormers that resemble eyelids. Numerous renovated historic structures intermingle in this highly livable city, which features concerts and arts festivals in an old plaza.

You don't need bat wings to fly in Transylvania. Its Alps draw car enthusiasts gunning to throttle their way through hairpin bends on the white-knuckle Transfāgăraşan. Another of Ceauşescu's overzealous projects, the pass took four and a half years to build during the 1970s and cost the lives of 38 workers. TV's *Top Gear* named the 56-mile "road to the clouds" the best road trip ever. However, read between the lines if you have any sense of caution: the stretch closes from October to May and always at night.

The mere mention of Transylvania conjures images of Dracula and bats darting over a spooky castle hidden





At left: Sibiu architecture Above: Hiking in the Carpathian Mountains. Below: Bran Castle (aka Dracula's Castle) in Transylvania.



Romania

A wood carver at work and a street in Sighisoara, Europe's best-preserved

medieval town



on a dark hill. Author Bram Stoker's vampire may be fictional, but Transylvania is real, a region filled with craggy mountains, bucolic countryside, medieval villages, colorful characters, hearty dining and, yes, castles on hills.

ighisoara sounds like a dinosaur but is instead the best-preserved medieval town in Europe and yet another UNESCO World Heritage Site. The intact 16th century village contains nine towers, pastel-colored burgher houses, narrow cobbled streets, sumptuous churches, and an eerie graveyard. The Clock Tower and its two-sided timepiece dominate. The carved figurines move at certain hours as they have since the Middle Ages. The school children still climb the 175-step Scholar's Staircase, built in 1642, which is reminiscent of scenes from Harry Potter movies.

Sighisoara is the birthplace of Vlad Tepes, ruler of the province of Walachia from 1456 to 1462. He became known as Vlad the Impaler because he skewered captured enemies on sharpened posts.

Dracula fans are not the only ones drawn to Transylvania. Prince Charles visits every year and owns a historic retreat in a remote village that is open to guests. He donates time and many resources to the area. For a taste of Romanian rural life, consider a stay at his farm,



The Royal Peles Castle in Sinaia

Zalanpatak, or in the town of Viscri.

While Romania has profited from promoting the famous bloodsucker, everyone seems to love the myth. Bran Castle near Brasov, often called Dracula's Castle, draws many tourists. It won't disappoint. The fortress rests high above the town on the edge of a rocky precipice with fanciful turrets and towers jabbing at the sky. A throng of souvenir hawkers below the entrance sell Drac the way Disney does Mickey Mouse: you can choose from fanged beer steins, gory t-shirts, and bottles of blood wine.

King Carol I, Romania's first king, commissioned the royal Peleş Castle in Sinaia in the 1880s as the aristocratic family's summer residence. Tours emphasize exquisite examples of European art, Murano crystal chandeliers, German stained-glass windows, heavily carved woodwork, and Cordoba leather-covered walls. You won't see all 160 rooms, but the woodland grounds make an enticing picnic area. Peleş ranks as one of the most stunning of all European castles.

f you fancy medieval architecture, castles, and walled cities, then Romania should be on your shortlist of places to visit. And if it is, you should go soon, before the Old World ways disappear and more tourists discover this gem. Right now, prices are a steal. Maybe I was bitten on the neck, but I have an irresistible urge to return.



Debi Lander (dlander@bjtonline.com) has previously written for **BJT** about such destinations as Iceland, the Galapagos Islands, China's Sichuan Province, India, and Jordan. Her recent trip to Romania was entirely self-funded.

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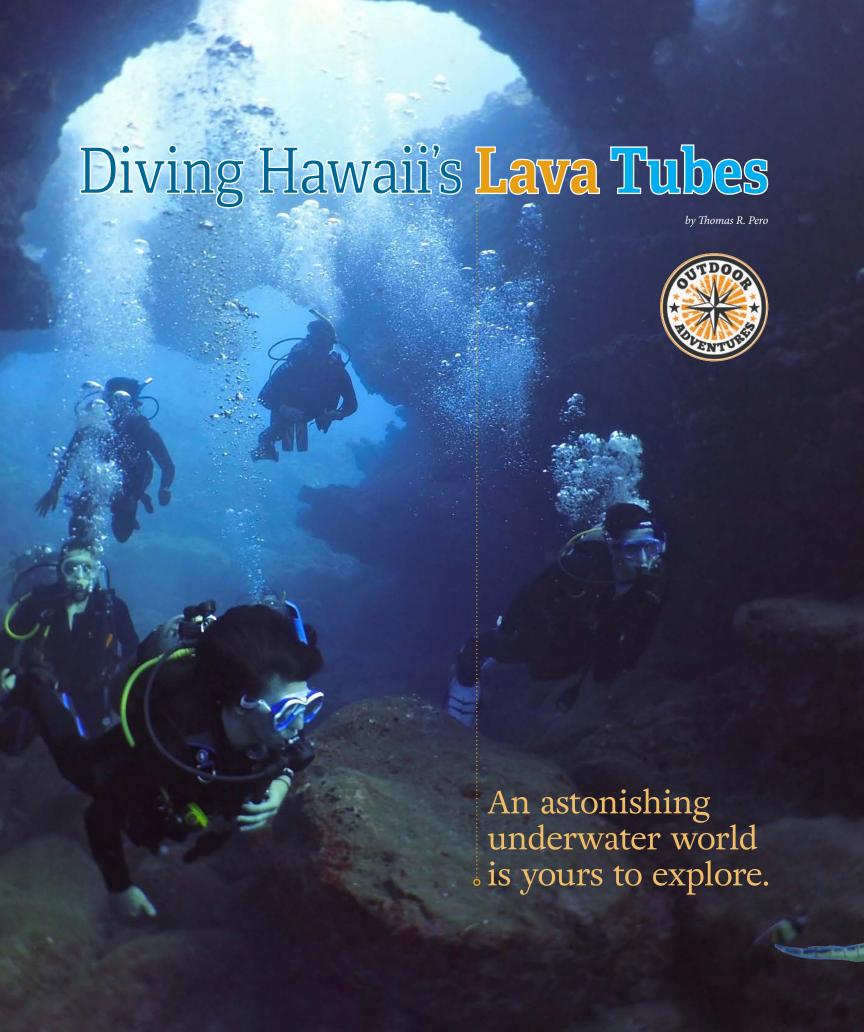
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A decade ago, when then-20-year-old Devin Erickson put on his diving gear and slipped beneath the surface of the Pacific Ocean surrounding Oahu, the third largest in the famous island chain, he knew he had found paradise. Eight years earlier, when he was 12, he was thrilled when his father took him on his first dive trip off Jamaica. Devin and his dad enjoyed annual trips to other Caribbean destinations.

But he had never seen anything like this: beams of skylight illuminating soaring lava towers, trenches, tubes, and overhangs. He swam in and around them, marveling at the sea life and the shifting light. There were magnificent green sea turtles picked clean by endemic saddle wrasse, huge spotted eagle rays serenely passing by, black-tipped reef sharks on patrol.

"It was almost like an entire underwater world lit by stained glass," Erickson says. Everywhere he turned, the unique lava topography off Oahu surprised him with a new discovery.

Devin and his girlfriend Taylor, who came from Kansas, had traveled to Hawaii for fun. They couldn't bring themselves to leave. Now, they are married with four children, and Devin spends his days introducing other divers to his own underwater paradise. He runs an operation called Banzai Divers Hawaii, that specializes in small groups and shows beginners the ropes.

One of his favorite places to share is Nanis Reef. The name means "beautiful."

"It's the perfect description," he says. "Hop between a series of three basin-like formations, each with its own unique marine life. See how many giant titan scorpionfish you can count in the far one. Stop in the middle one to try your luck at spotting the elusive octopus. Finish it off in the last basin, peeking under ledges for slipper lobster and banded coral shrimp."



Devin normally makes three dives each day when the conditions are good, starting at 7 a.m. and wrapping up by mid-afternoon. Children must be at least 10 years of age and accompanied by an adult. The intimate classes start in calm, shallow water, where students learn about the gear and how to use and store it properly. Successful completion of the three-day course culminates in an exciting open-water diving experience to see the wonders of lava tubes (see box). Graduates are certified by the Santa Margarita, California-based Professional Association of Diving Instructors (PADI)—the world's largest such organization—and are allowed to dive here and in other destinations to 60 feet.

Erickson has taught men and women in their 90s to dive. He has led dives for individuals without arms and legs. "They are weightless," he says. "Once you are in the water, anyone can do it."

What Is a Lava Tube?

When red-hot molten lava—pele in Hawaiian—flows beneath the surface of hardened rock and cools, it creates a crust around itself. Over time, erosion results in spectacular but rarely seen underwater tunnels, caverns, arches, pillars, and trenches that are spread throughout the north coast of Oahu.—T.R.P.

Explore on Foot

If breathing bottled air under the sea isn't your thing, you can still explore a lava tube by walking right into one. In honor of the centennial celebration this year of both the National Park Service and Hawaii Volcanoes National Park, park rangers are giving a few visitors the chance to take a guided tour of a pristine tube called Puapo'o. It was discovered in 1991 by workers putting up pig fences deep in the rainforest.

Lava tubes are fragile; most here are closed to the public to protect them. Puapo'o is hidden in the forest, far from the trails in the 520 square miles of the park. The four-mile hike to Puapo'o includes a 500-foot change in elevation. Visitors must wear long-sleeved shirts and pants, and are outfitted with gloves and hard hats—headlamps, too, because it's pitch black inside the cave.—*T.R.P*

Thomas R. Pero

(tpero@bjtonline.com) is publisher of Wild River Press and the author of several books about fishing and hunting.

A return to 'Nam

An idea that germinated at an aviation event led to an unforgettable journey for 52 Wisconsin war veterans.

by Mark Phelps

t's ironic that Vietnam has become an idyllic vacation destination for Americans. There was a time, of course, when, for hundreds of thousands of soldiers, it was hell on earth. From 1965 through 1975, more than 58,000 Americans died there and another 153,000 were wounded. Those who returned came back to a country torn apart by the war and were caught in the crossfire.

For those who served, a visit to Vietnam half a century later can be unsettling but also cathartic. In February, 52 randomly selected veterans from northeast Wisconsin boarded a flight bound for their former battlegrounds. For some, the trip was one of closure. For all, it was unforgettable.

The northeast Wisconsin contingent of the nationwide Old Glory Honor Flight network organized and funded the trip. The usual mission for such contingents is to transport veterans to visit the Vietnam Memorial in Washington, D.C., or attend some other reunion or event. But the Wisconsin group wanted to do more. For the past seven years, it had arranged transportation for veterans to attend the Experimental Aircraft Association's (EAA) annual AirVenture event in Oshkosh, Wisconsin. That's where the idea of going to Vietnam originated.

Diane McDonald, treasurer of Old Glory Honor Flight, says, "People from around the world responded. We raised \$220,000 to help fund the trip."



The veterans flew from Chicago to Shanghai and finally to Ho Chi Minh City (the former Saigon). They visited the Notre Dame Cathedral, the Presidential Palace, the Army Museum, and the site once occupied by the U.S. Embassy, the building shown in the famous April 30, 1975 photo and footage of the last U.S. helicopter leaving from the roof.

The group also toured the Cu Chi Tunnels, about 35 miles north of Ho Chi Minh City. The network consists of some 130 miles of underground passageways and dugouts, the deepest of which are 40 feet below the surface. From the tunnels. Vietcong soldiers would hand-build the mines and booby traps made from unexploded U.S. bombs dropped by B-52s. It was here that the North Vietnamese planned and launched the Tet Offensive in January 1968.

The group visited the Mekong Delta, site of some of the war's deadliest fighting, and flew on to Da Nang, from which they went to China Beach, Hill 34, the Marble Mountains, and the Forbidden City, among other sites.

Along the way, McDonald says, the veterans would revisit memories, often long buried. One common activity was distributing "leave-behind" coins at locations that had specific poignancy. For some, it was a site associated with a particular battle, the loss of a friend, or a story involving a Vietnamese civilian, she says.

"What happened was very close to what we'd hoped would happen," McDonald adds.

In Hue, Quang Tri Province, site of the Demilitarized Zone (DMZ), the group visited Dong Ha, the northernmost city in the former South Vietnam. This is where the 1972 destruction of the Dong Ha Bridge took place. In Hanoi, the veterans saw the "Hanoi Hilton" prison, the John McCain monument, and the Army museum.

Throughout the trip, McDonald says, the veterans experienced "kind, open, and gracious" treatment from the Vietnamese. In many cases, they were meeting with former enemies or their relatives, but there was no animosity on either side. She says, "They agreed with the people they met: 'we had a



job to do, and so did you.' It was cathartic. All of them wanted to shake the hand of a former enemy."

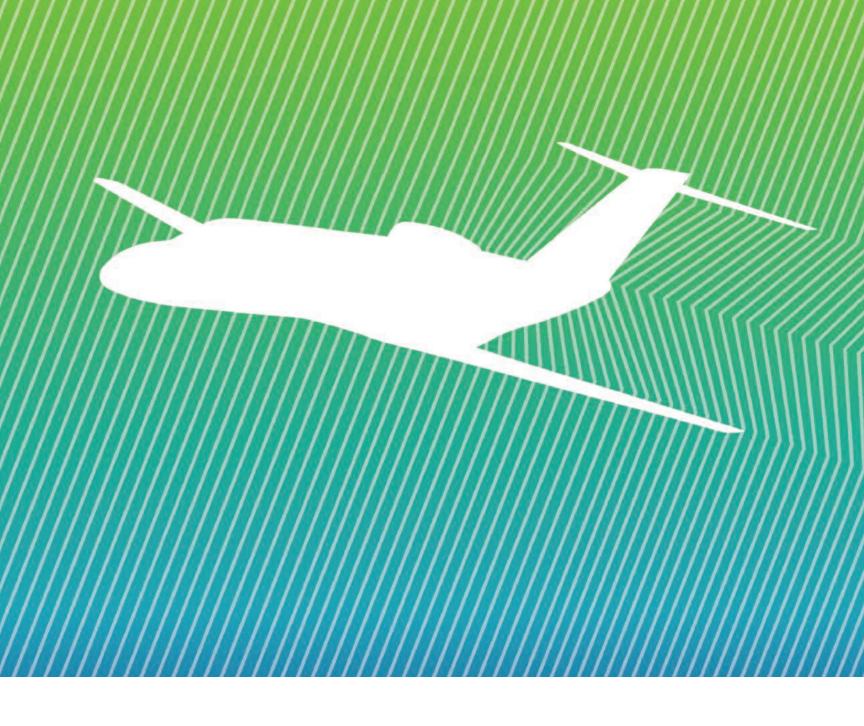
One member of the tour had a particularly special mission. Keith Johnson served in the Mekong Delta in the late 1960s, along with his brother Dwayne. Dwayne had always wanted to return to Vietnam, but he passed away in 2014 before he got the chance. One of his desires was to have some of his ashes scattered in the area where he faced such a pivotal point in his life. Keith was able to grant his brother's wish.

"Keith also arranged to have a Buddhist ceremony as they scattered Dwayne's ashes," says McDonald. "It was very moving."

Longtime EAA photographer Jim Koepnick went along on the tour to shoot pictures of Vietnam and memorialize the experiences of the veterans and their hosts. Old Glory Honor Flight is assembling a book that includes the 52 men's biographies, accompanied by Koepnick's images. "There are pictures of Vietnam and its people, but the biggest thing was the vets," he says. "It was them going back and trying to capture some of their emotions and what they went through and saw."

The book, Return to 'Nam, will be available this fall via the group's website. Meanwhile, you can find a gallery of Koepnick's photos with this story at BJTonline.com.







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