BUSINESS JET

- GLOBAL 5000 REVIEW
- HOLIDAY GIFT GUIDE
- JET-LAG REMEDIES

Ernie Boch, Jr.

He owns a 30,000-square-foot mansion, 80 guitars, 60 cars...and one luxuriously appointed Cessna Citation Sovereign



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FEATURED CONTRIBUTOR

MARK PHELPS

Phelps, who writes BJT's Exit column, serves as executive editor of AIN Publications, which he first joined in 1991. In that role, he gets to dip a toe into a wide range of aviation topics. From business aviation to air transport to defense, he's never sure what will cross his computer screen next. And with AIN's coverage of trade shows around the world, he has found himself in some exotic (and not-so-exotic) places over the years.

Phelps is an instrument-rated pilot and a member of the National Business Aviation Association (NBAA), the Aircraft Owners and Pilots Association, the Experimental Aircraft Association, and the Flying Musicians Association. He won NBAA's Gold Wing Award for journalism in 2005 and again in 2015.

Phelps, who lives in New Jersey with his wife and twin 17-year-old sons, plays guitar and beer-league hockey in his free time. He has been writing our Exit column since 2005. As its name suggests, it appears on the magazine's last page, ensuring he always gets the last word.

In September, Phelps rode 110 miles in two days with Dassault Aviation's Team Falcon in the Bike MS: Country Challenge. He has participated in the event, which raises funds for multiple sclerosis research, for the past 10 years.







INTRODUCING THE NEW

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Up Front

t BJT, we pride ourselves on never standing still. We have constantly evolved over the past 15 years by modernizing our pages, adding features and columns, and continually upgrading our website—always with the goal of maximizing your investment in private air travel.

We have particularly big plans for 2019. For the first time, we'll be offering a large amount of exclusive web content. We'll also be increasing the frequency of our online newsletter, BJT Waypoints, which will be published twice per week, on Tuesdays and Thursdays, starting in January. (To receive it for free, visit bitonline.com/subscribe.)

The print magazine, meanwhile, will deliver more pages and features per issue and will be published quarterly, with a special must-read section in each edition: charter, jet cards, fractional shares, and membership clubs (spring), buyers' guide (summer), cabin interiors and electronics (fall), and new aircraft (winter). Of course, we'll also continue to offer such annual specials as the BJT Book of Lists and Readers' Choice Survey, as well as all of our award-winning aircraft reviews and columnists.



Speaking of award winning, we are proud to announce that for the first time, we have a winner in the prestigious Folio: Ozzies design competition, for Best Feature Design in a Consumer Magazine, for art director John Manfredo's layout of "Paul Stanley" (April/ May 2018). In Folio:'s companion Eddies editorial competition, we received honorable mentions for Best Full Issue of a Consumer Travel



Magazine (for April/May 2018) and Best Single Article in a Consumer Travel Magazine (for Lauren Fitzpatrick's "On Top of the World in Tasmania," August/September 2017).

This year's Folio: contests attracted more than 2,500 entries, which a panel of more than 300 judges narrowed to about 800 finalists, from which the winners and honorable mentions were selected. Note that for the featuredesign award, we competed with all consumer magazines in our circulation category, not just travel magazines.

These latest honors bring the total number of editorial awards won by Business Jet Traveler to 71.

Best wishes from all of us at **BJT** for the holiday season and the year ahead. We look forward to serving you in 2019, with bjtonline.com, BJT Waypoints, and—coming to your mailbox around the beginning of March—the first expanded quarterly edition of this print publication.

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

FDITORIAL

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, Debi Lander, Thomas R. Pero, Mark Phelps, 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**

Georges France-Western Europe, +33 6 80 21 17 93 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

THE CONVENTION NEWS COMPANY, INC. - AIN PUBLICATIONS



Business Jet Traveler (ISSN #1554-1339) is published by The Convention News Co Inc., 214 Franklin Ave., Midland Park, NJ 07432, (201) 444-5075. Copyright © 2018.
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Room Service by Robot

Forgot your toothbrush? Want room service? At Chicago's Hotel EMC2, just text the "phonecierge" and Leo or Cleo—a pair of four-foottall robots—will deliver what you need. The robot announces its arrival by calling the phone in your room, waits until you open your door and take the item, and then turns, rolls down the hallway, enters the elevator, and returns to the lobby.

EMC2 isn't the only hotel trying this sort of technology to improve efficiency. There are currently at least 50 hotel robot butlers in the world, including eight at the Sheraton Los Angeles San Gabriel, delivering luggage, towels, and room service, and offering directions. Since the Sheraton introduced robots, room-service



sales have doubled, according to the hotel; plus, the robotic deliveries free up the staff to give guests more personalized attention.

For about \$2,000 a month, the Fairfield Inn & Suites in San Diego leases a robot called Hubert that delivers anything that fits in its storage compartment. A robot called Alina, meanwhile, holds court at the Luma Hotel Times Square in New York, traveling at a human walking pace and independently moving between floors. Its 3D cameras and multiple sensors allow it to safely navigate hotel hallways.

Robot Pepper, at the Mandarin Oriental in Las Vegas, provides personalized communication by detecting facial, body, and voice cues. Pepper gives directions, tells stories, dances, and poses for selfies.

This winter, Yotel Boston introduced a 36-inch robot called Y02D2 that greets guests with clever messages on its touchscreen interface, mingles with guests at the two lounges, and even shimmies to music. "Not all of our guests know that a robot butler will be delivering their items," says general manager Trish Berry, "so we frequently receive requests asking us to send YO2D2 back for a second delivery. They want to video it for social media because they missed doing so the first time."

—Margie Goldsmith







Action Against Hunger

The Bill & Melinda Gates Foundation has curated a list of organizations committed to providing resources and education to people suffering from malnutrition, making hunger the focus of an international conversation, and preventing the deaths of over one million children a year. On this list is Action Against Hunger (AAH), a global humanitarian group with a staff of about 8,000.

For almost 40 years, AAH has served over 45 countries and 20 million people. Its mission is to ensure that everyone can access clean water, food, training, and healthcare. The organization addresses this goal through community-based programs that deal with underlying causes, improve infrastructure, and educate communities so they may become self-sustaining. AAH's emergency response efforts are central to its mandate and focus on populations affected by natural disasters or armed conflicts.

Highly rated by a venerable list of charity watchdogs, AAH spends an impressive 93 cents of every donated dollar directly on its field programs.

—Lysbeth McAleer

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.

Correction: "Bizav's Flight Path," in our previous issue, should have referred to the rules governing aviation noise standards as Part 36 regulations, not Part 136 regulations.



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Snap Judgments:

Advice from an **Award-Winning** Photographer



Seattle-based Aaron Huev has photographed sharks underwater; scenes of poverty in America; the Afghan drug war; and the people and landscapes in such places as Haiti, Mali, Siberia, Yemen, and French Polynesia. He is a contributing photographer at National Geographic and a contributing editor at Harper's and also provides images to the New Yorker and the New York Times. We asked him to share a few tips.

What's the best camera for taking travel photos?

The best camera isn't [as important as] understanding what to put in the frame. I think the best photographs tell stories.

How do you tell a story with a photo?

By having a lot of layers and making viewers feel they're in that picture. Sometimes, that means using a wide-angle lens and being right in the middle of a scene so that the person who sees that picture feels like they're in it—not as if the photo was stolen from far away, like with a zoom lens.

How do you photograph people?

Whether it's down the block from your house or in Yemen, the best way is to get to know them—sit down and have a cup of tea and take pictures after they know who you are as opposed to taking that image without any personal connection. As for equipment, there are lenses that give a nice portrait look or you can use a portrait setting on your iPhone that makes the background blur so the person is the focal point.

Is a smartphone sufficient for travel photography?

It depends. One of my friends shot a whole story for National Geographic with an iPhone. If you want to do star photography or underwater photography, most cameras can do that but not an iPhone.

How do you make landscape photos interesting?

I think some photographers tend to wait for a landscape to be clear of people. I like to have people or buildings in the frame because it adds another layer of complexity to the story and gives a sense of scale.

-Margie Goldsmith



Old Jerusalem's **New Attraction**



The Terra Sancta Museum, which opened in 2015 on the Via Dolorosa in the Old City of Jerusalem, has unveiled an archaeological wing. It displays the collections of the Department of Biblical Sciences and Archaeology of the Pontificia Universitas Antonianum in Rome.

The wing's first exhibition is "The House of Herods: Life and Power in the Age of the New Testament and Monastic Movement." It showcases more than 300 artifacts from the millennium that began around the fourth century B.C. and that includes the time when Herod the Great ruled Judea. Visitors will discover the daily life of Jerusalem's inhabitants of 2,000 years ago and view ancient rescued and restored structures, including more than 800 bronze coins dating back to the second century, a Byzantine cistern, Crusader rooms, and a courtyard surrounded by Mameluke structures.

Terra Sancta's mission is to foster inter-cultural and interreligious dialogue by telling the story and history of Jerusalem, home to the three major monotheistic faiths: Judaism, Christianity, and Islam. The museum will add a historical wing in 2019, and a multimedia wing after that.

-Margie Goldsmith

QUOTE **UN**QUOTE

" Just to not have to fly on commercial planes is really cool."

— actor/director/producer Tyler Perry, after The Daily Show's Trevor Noah asked, "Is there one thing that money has changed in your life that you would never want to let go of? [Something where you think], 'This is the one thing I want to stay rich for'?"

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What goes up must come down

Stock markets, which recently flirted with all-time highs, have become more volatile. What should you do?

by Chana R. Schoenberger

en years have passed since Lehman Brothers collapsed, precipitating the global financial crisis that swept Wall Street and sparked a recession. Once the markets recovered from the shock, stocks began creeping back up and were recently trading at record levels.

Lately though, the markets have become more volatile, and some experts have begun to worry about the possibility of a prolonged slump. Does that mean it's time to sell some holdings and realize profits? And if so, where should you put that cash?

First, understand that any sell-off in stocks may be short-lived. Analysts point to a range of data to show that the economy is strong. "Corporate earnings are so powerful, and the [government's spending on] fiscal stimulus has created so much momentum, that the economy...is showing a lot of broad-based health," says Michael Tiedemann of Tiedemann Advisors.

While newspaper headlines can look scary, it's important to make a distinction between events that can impact the price of stocks temporarily and those that pose risks to companies' fundamentals, which can hurt valuations for the long term, says Scott Clemons, chief investment strategist for private wealth management at Brown Brothers Harriman. And just because a market has been rising for a long time does not necessarily mean it's due for a crash.

"Bull markets don't die of old age," says Kate Warne, an investment strategist at brokerage house Edward Jones. What kills them are rapidly increasing interest rates, among other economic death knells. Because the Fed is raising rates slowly, a market crash appears unlikely in the short term, she believes. Clemons agrees, noting that while the world seems to be heading for trouble, with the prospect of a trade war with China, turmoil in emerging markets, and Brexit, those issues won't have a major impact on corporate profits. At the same time, the U.S. is seeing strong job growth, increasing wages, higher

profits, and rising economic activity overall. "Those are all related: more money in people's pockets is good for consumer sentiment and good for the market," he says.

What will eventually lead to a bear market, Clemons believes, is "some kind of crash in one of those things."

What's certain is that a falling market will arrive sooner or later and that when it does, those who have let their portfolios become overly weighted with stocks will lose the most. "We suggest the first action people take right now—because stocks have risen so much in relation to bonds—is sell some stocks and add bonds to get back to the mix of equities and fixed income that fits your long-term objectives," Warne says.

If you started off the bull market with 65 percent stocks and 35 percent bonds, and your stocks rose in sync with the overall market, you could have more than 80 percent of your portfolio in stocks now, Warne notes. It's nearly impossible to time the market, so you and your financial adviser should decide what percentage of your portfolio should be in stocks, bonds, real estate, and cash—and stick with your allocation no matter what the market does.

"It goes against human instinct to sell something that's rising in price to rebalance, but rebalancing is an important part of an investment approach, which is borne out in academic literature and my own experience as an investment adviser," Clemons says. If you anticipate needing cash soon for a major purchase like a home or college tuition, you may want to leave that money on the sidelines so you won't have to sell if a bear market coincides with your real estate closing or your child's high school graduation. You should also think about how comfortable you will be if your investments lose value. If you'd have trouble handling a down market psychologically, bail out now.

Ask yourself, "What will you do when stocks drop 20 percent?" Warne suggests.

> continues on page 17



Signs of the times

A series of highway billboards lured our columnist to a bizarre tourist trap.

Another beckoned him to call a bald attorney.

by Joe Sharkey

f you drive along the barren stretches on Interstate 10 between El Paso, Texas, and Tucson, Arizona, you can't miss the roughly 250 billboards that rise up every dozen or so miles and insist you stop at *The Thing?* Some of these billboards call it the "Mystery of the Desert" while others inquire anxiously, "What is it?"

The Thing? Travel Center and Dairy Queen, as it is formally known, is a roadside attraction near Texas Canyon, about 40 miles east of Tucson. It's a rest stop, souvenir shop, gas station, fireworks store, and Dairy Queen built around big corrugated metal sheds that house an eclectic—ok, let's call it what it is: bizarre—collection of artifacts.

How bizarre? Well, a 1937 Rolls-Royce said to have been used by Winston Churchill has a mannequin of him in the back seat and a figure of an outer-space alien behind the wheel. Other exhibits, arranged around baffling themes, feature other aliens interacting with dinosaurs. The main attraction is a big

glass case housing *The Thing?*, which (spoiler alert here) appears to be the mummified remains of an adult and child but which has been debunked as the work of Homer Tate, an entrepreneur known for using paper, mud, and animal bones to craft faux mummies, mermaids, and other macabre figures. Tate, who died in 1975, sold the figures to sideshows and roadside attractions. *The Thing?* is said to be his masterwork.

I would not have known any of this, or felt an urge to pass it on, were I not an inveterate reader of billboards. The ones hawking *The Thing?* on I-10—with words in the kind of garish, shaky font once familiar on horror-movie posters—bombarded me on a recent drive home from Santa Fe. So I turned off at Exit 322, filled up on gas, paid my \$5, and wandered wide-eyed through the clamoring kitsch to the lure of *The Thing?* Hey, I've spent five bucks in more ridiculous ways.

hile I can't resist the urge to read roadside advertising, I support the efforts of the nonprofit organization Scenic America to combat "billboard blight." More than 700 municipalities in the U.S. have adopted laws prohibiting construction of new billboards, but they have been hard to ignore since the dawn of the automobile age, and the revenues they generate are significant. Advertisers spent \$4.97 billion on them last year, according to the Outdoor Advertising Association of America, and the figure has been rising steadily.

The billboard barrage is never more insistent, it seems to me, than when you're driving into an urban area and are suddenly surrounded by signs touting personal-injury, divorce, and other lawyers. "Call 855-CAR-HIT-U," one attorney's billboard yelps into the streaming traffic. Another, with a photo of a female personal-injury lawyer, asks, "EVER TRY ARGUING WITH A WOMAN?" And consider this one, by a criminal-defense law firm in North Carolina: "JUST BECAUSE YOU DID IT DOESN'T MEAN YOU'RE GUILTY." Or this one, near Atlanta, which features a bald man in an expensive suit: "INJURED? DONT PULL YOUR HAIR OUT! MYBALD-LAWYER.COM."

That last one made me think of the Burma-Shave highway campaign that lasted from 1925 till 1963, advertising what in its early years was an innovative concept: a brushless shaving cream. The oblong signs were arranged roadside all over the country with lines of jingles displayed on posts in succession about 25 yards apart. There were hundreds of Burma-Shave jingles, as Frank Rowsome Jr. notes in his 1965 book, *The Verse By the Side of the Road*. Here are two:

"Within this vale/Of toil and sin/Your head grows bald/But not your chin/Burma-Shave"

And:

"Altho insured/Remember, kiddo/They don't pay you/They pay your widow/Burma-Shave"

Bald-lawyer guy, meet 855-CAR-HIT-U guy.

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 Fund an Angel Cocktail Reception was an invaluable networking opportunity at this year's NBAA Business Aviation Convention & Exhibition. The reception was a memorable experience as it featured an exciting live and silent auction. Proceeds benefited Corporate Angel Network, which organizes free flights for cancer patients to treatment centers that help bring them closer to a cure.

Thank you to all those who attended this year!



"Corporate Angel Network has helped to open up trials and treatments for Ava that we otherwise could not afford. We are so blessed to have them on her team. They help to make sure that she gets the medical care that she needs."

-Ava's Parents

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Who's on board?

Demographics about charter passengers are in short supply, but industry observers sense trends that could benefit future customers.

by James Wynbrandt

are you, Mr. Ms. Charter Consumer? That's a question that industry insiders are increasingly asking.

"I would love to see better demographics," says Mike Moore, a vice president at charter operator Meridian, who bemoans the dearth of data to aid his marketing efforts.

Luis Barros, CEO of broker/ operator Leviate, echoes Moore's comment. "Who do you target?" says Barros. "White males over 45. But if it's changed in the last 10 years to more women, younger entrepreneurs, and people in their early 30s, how would you know?"

You wouldn't.

"We ask those questions a lot [about demographic data] in talking with large brokers and charter operators," says Joe Moeggenberg, president and CEO of bizav data service Argus International. "Frankly, no one wants to share that type of information."

Tere's the issue with the lack Lof data: a generational shift in charter passenger demographics may be occurring; and if it is, that portends major changes for your future charter experience likely almost all for the good. We'll get to the potential benefits, but first, let's see what we do and don't know about who's riding in chartered business jets, because that affects the industry's ability to respond to your needs



and desires—even if you don't use charter today.

"We know the demographics of folks chartering aircraft are getting younger," Moeggenberg says, "but we can't pinpoint" the average age.

Nor do we know the gender ratio, average frequency of charter use, or average net worth of charter passengers. The reams of data covering virtually every other consumer category are unavailable to the marketers and media planners who want to explain why their charter service is best for you, or to change it so it will be.

A few providers are now opening their data banks, however. U.K.based online charter broker PrivateFly began releasing semiannual Private Jet Charter Trends reports in 2016, based on inquiries and bookings

through its site and Internet search data. The reports have found the average charter passenger age fluctuating between 39 and 41-well below the standard industry estimate of 50-plus—which may reflect younger clientele more at ease with digital technology and without an established charter source. The reports have also found that adult males comprise 63 to 73 percent of passengers and children under age 16 represent 12 to 14 percent. Pets were onboard 2 to 6 percent of flights over the span of the surveys.

In 2018, high-end provider VistaJet teamed with private wealth data specialist Wealth-X to produce the Jet Traveler Report, a profile of ultra-high-net-worth individuals (UHNWIs) and their charter patterns. The report says the average principal flier is 61—the same age as the average jet-card-program member, according to the research. The average age of VistaJet passengers in 2017 declined from 40 to 38, and 90 percent of them were male. About one in four flights carried children age 16 or younger. As for any insights on UHNWI behaviors and preferences, the VistaJet report says customers expect "above all, ease of access through bespoke technology."

eanwhile, many charter professionals are sure a shift is coming over the next five years, driven by that very ease of access customers are coming to expect and generational changes in attitudes (more interest in experiences than possessions; in sync with the



reowned business iet retail transactions continue their multi-year growth streak, with 2018 on track to surpass last year's 2,668 total, according to JetNet. But after a decade of free-falling residual values and an excess of available aircraft, the market is rapidly shifting, with the percentage of business jets for sale dropping to their lowest level since 2005: 9.3 percent of the fleet, according to the data service.

"Inventories are drastically down, and prices are beginning to rise," said Marc Foulkrod, CEO of large-cabin jet brokerage Avjet Global Sales, which has more than \$8 billion in transactions under its belt.

"There's definitely a reset going on," agreed Chad Anderson, president of Jetcraft, whose 20 offices worldwide have brokered more than 500 transactions in the last decade. "There's no such thing as a cheap airplane right now, but there are still plenty of good value plays for buyers thinking long-term."

The change has caught many shoppers by surprise. "Everybody wants yesterday's airplanes at yesterday's prices," said David Coleman, a member of the Aircraft Sales & Acquisitions team at Duncan Aviation, whose MRO services

grew from the company's sales operation, established more than 60 years ago. "Getting them to understand that's not possible is difficult."

Brokers themselves may have trouble keeping up, said Jay Mesinger, president of Mesinger Jet Sales: "If you haven't been in the business for more than 10 vears, vou don't have a playbook for finding the right aircraft [for a client] in a tight market like this." With more than five decades and two generations of experience, Mesinger Jet Sales is among the brokerages at the top of their game in a challenging environment like today's.

To succeed in this market, brokers need reliable data-whether for establishing real-time valuations, to have confidence in the spec sheet of a forsale aircraft, or to learn which iets are coming to market months before they do. We spoke with four major brokerages about the impact of the shift and the information resources they're using to navigate the turning tide.

Today's market: The brokers' perspective

Later-model and larger-category aircraft are leading today's market correction, according to the brokers. "Any current-



"If you haven't

been in the business for more than 10 years, you don't have a playbook for finding the right aircraft for a client] in a tight market like this."

- Jay Mesinger,

DTO COURTESY OF JETCRAFT JETCRAFT

Jetcraft hosted viewings on board three large aircraft from its inventory during the European Business Aviation Convention and Exhibition (EBACE) in Geneva, May 2018.

generation turbine [aircraft] and one generation behind are seeing a tremendous amount of activity," said Duncan Aviation's Coleman. "The geriatric jets are not moving and their prices are still falling."

Meanwhile, midsize, super-mids and large-cabin jets "have seen inventories drop anywhere from 50 to 80 percent in the past few months," said Foulkrod, and prices for some models have risen accordingly. "We sold a G550 last year in the \$17 million range and also purchased one for a client of ours in the \$15 million range," Foulkrod said. "Both those aircraft would trade well above \$20 million in today's market."

Not all clients have bought into the change. "We're still finding buyers disregarding the intelligence of an acquisition specialist and asking for concessions that might have been reasonable a year ago but are outside the boundaries of what's acceptable today," said Mesinger.

Such shoppers pay the price in a different way. "Some [buyers] have to miss a few deals to realize the message [of the market shift] is honest," said Anderson. "There's often more than one buyer for a properly marketed, properly priced airplane, and [buyers] who out-wager the negotiation often miss the plane they really want to buy. It's painful and it's awkward, even when we're the seller."

For brokers, success means finding inventory, and even those that do have a playbook may be out of shape for the new game. "I think brokers became complacent and lazy when inventory levels were high, and they have had a hard time adjusting," said Foulkrod.

Adding to the squeeze, OEM production cuts of the past decade mean fewer recent-vintage than legacy aircraft exist, and what may appear to be an abundant supply of an in-demand model is often illusory. "We look at the universe of any category of aircraft for sale," said Mesinger. "Then we dissect how many are N-registered, how many have no damage history, the equipment, the pedigree, maintenance history, con-

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figuration, and all of a sudden out of a list of what might be 30 airplanes for sale, [only] two or three check all the boxes."

Moreover, today, "Most of the quality, appropriately priced aircraft are selling prior to being marketed," said Coleman. That's because hard-working, well-connected brokerages relentlessly comb fleets and talk to OEMs, flight-department heads, management companies, and many others to learn about their sales or acquisition plans well before they happen, and arrange for a private sale.

"It comes down to being in the market 24/7 and touching each owner/ operator on an almost monthly basis," said Foulkrod. "The last thing you want to have happen is that you buy your client an aircraft and a week later he sees one he likes better and you, the broker, weren't aware of it."

At Jetcraft, "Having one airplane create two deals is how we're sourcing quality aircraft and creating resale inventory," said Anderson. He cited pending transactions, including ones for a Challenger 300, G450, G550, and a Global Express in which the company is buying the customer's current aircraft to facilitate a more seamless transition into the purchase of a larger, later-model one. "The common theme in all of [these deals] is the word 'trade,'" said Anderson. "Trade fell out of vogue when the market was in Never Never Land. Dealers couldn't pinpoint a value on the inbound aircraft for trade in. Now that the market is stable enough to predict values, trades are becoming very common again. We have the financial strength to take in a wide range of models in trade, and that is proving to be very beneficial for our clients in today's market."

In an environment that challenges seasoned brokerages, finding a quality aircraft "isn't a job for your flight crew or maintenance manager," summed up Coleman. "If you're not working with a trusted industry professional with a broad network of contacts, you're going

to be too late to the party, or you're going to get a lesser-quality aircraft, and you're going to pay too much."

The role of reliable data: A dynamic transactional environment

Today, information about available aircraft, prices, and market metrics is more bountiful than ever, often just a click away, but industry professionals do not rely on such reports and caution against using the data for transaction decisions.

"The credibility and reliability of data is a real challenge for our industry," said Anderson. "The most actionable intelligence we have, frankly, is our own experience. When we're handling 80 to 100 transactions per year, we find our own real-time information is best."

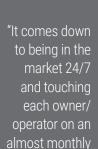
That research approach is exemplified by Jetcraft's annual 10-Year Business Aviation Forecast, a comprehensive view of expected transaction activity over the coming decade. "A lot of our clients are institutional, and they demand and deserve a very global, forward-looking perspective," said Anderson.

A reliance on in-house research and proprietary resources is standard at major brokerages. "We do our own analysis in real time based on our market data gathered through contacts involved di-

rectly in each deal," said Foulkrod. "To gain an edge in this industry, you need better information—not the same information that everyone else has access to." As for publicly available data, "Much of it is inaccurate, biased, or doesn't represent the transaction in detail," Foulkrod added. "Manipulation and inaccuracy are rampant in our industry, either through sheer incompetence or through biased self-serving representation."

Information about any aircraft listed for sale also bears close scrutiny, noted Mesinger. "Often, nobody is checking the accuracy of the foundation of that [aircraft's] spec sheet, and it might not have been checked in the last two or three transactions. Ask for the spec sheet and the marketing materials to be audited by an inspection facility" that has had access to the aircraft, Mesinger advises.

Buyers need to consider ownership costs as well as purchase price, requiring detailed information on maintenance requirements, lifecycle event schedules, and operational history. Duncan Aviation, among the world's largest business aircraft MRO providers, "touches about 80 percent of the [business aviation] fleet each year, said Coleman. "That allows us to provide a very accurate picture in predicting what clients should expect to pay in maintenance if they buy an aircraft in one condition compared with another



– Marc Foulkrod, CEO of Avjet Global Sales

basis.'



How do you verify the bona fides of the aircraft you represent?

Chad Anderson, Jetcraft: If we don't see it in black and white on the airplane, it doesn't go on the spec sheet. We have offices around the world, so we don't have to operate remotely. We have our own set of eyes on every airplane we're selling. It allows us to know its strengths and weaknesses.

David Coleman, Duncan Aviation: We start with an inspection of the airplanes we're considering representing or buying for inventory. We recently got a spec sheet that talked about exceptional maintenance, perfect records, and no damage history and so forth. We sent one of our tech guys to inspect the airplane and lo and behold, the reality was quite different.

Jay Mesinger, Mesinger Jet Sales: We put together a report based on an on-site inspection by our in-house technical director. It's not just a clean-sheet spec package; it's a narrative on our logbooks and records review that deals with continuity, completeness, and items that would be critical to the buyer's assessment of valuation.

Marc Foulkrod, Avjet Global: This is an area where inexperienced brokers and consultants create disastrous financial and safety consequences for buyers and sellers. We do everything short of a pre-buy inspection when listing an aircraft, including bringing our own technical people to review log books and review the aircraft.

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Avjet Global serves its clients as strategic aviation asset consultants—experts with key contacts around the globe and solid relationships with all major aircraft OEMs. Over the years, Avjet Global has earned a reputation for its uncompromising negotiating skills, setting pricing benchmarks and redefining the broker-client relationship through value-added transactions.



condition. We put that into our figures when performing aircraft evaluations, providing a high degree of confidence in a particular aircraft's life-cycle cost."

Recalibrating expectations and standards: Adjusting to the new market realities

For serious prospective buyers in this market, the rules are simple, said Coleman. "They need to invest an appropriate amount of time with an experienced, knowledgeable broker; drill down into the needs and wants; settle on a budget; design a box [of suitable aircraft] to play in; and then hunt for aircraft that fit that box." Otherwise, he said, "Indecisiveness will cost them several potentially really nice airplanes."

On the other side of the deal, though the current market can't support big price hikes, "Most sellers today want a hard transaction—not a soft transaction—where the buyer's deposit becomes non-refundable at contract signing," said Mesinger. "If the seller can deliver on a very, very balanced set of delivery conditions, the buyer has to buy."

For his acquisition clients, Mesinger's company developed a purchasing strategy for new and pre owned aircraft that is constantly being adapted to an ever fluid marketplace. We have bought some of the finest planes available—7Xs, G550s, Falcon 2000s—understanding how to go

PHOTO COURTESY OF DUNCAN AVIATI

into a crowded market and get the attention of the seller," said Mesinger. "We're offering a smart price, and smart custom terms, as well as the usual and customary terms."

Keeping clients in the loop is a critical part of a well-managed transaction, and today brokerages must utilize a variety of channels to serve their customers. "It's imperative to understand how to maximize all the communication tools," said Foulkrod. "What works for one client may not work for another. Our clients need clear, concise communication to make decisions quickly, but more importantly, accurately and with full information at their disposal. Being able to use all the tools available makes the difference between success and failure in our industry."

Buyers slow to accept this new market will ultimately align expectations with reality, if they want an aircraft. "We had a client who missed two Challengers," said Anderson. "Now we have one inbound on trade, and we've said, 'If you want it, this is the number,' and they get it. Because the buyers we're working with are now knowledgeable enough to know the value of the deal."

Amidst the market shift, the brokerage community faces issues that could reshape the field, including calls for regulating brokers and allegations of unethical brokerage activity. A push for higher standards can be seen in "Most of the quality, appropriately priced aircraft are selling prior to being marketed."

> David Coleman, aircraft sales & acquisitions at Duncan Aviation



"The credibility and reliability of data is a real challenge for our industry."

– Chad Anderson, president of Jetcraft

ooos—understanding how to go for higher standards can be seen in

Prepurchase evaluation slots are getting harder to schedule as capacity at MROs tightens. the International Aircraft Dealers Association's (formerly NARA) initiatives to develop a broker accreditation program, and a uniform sales contract based on the yacht industry's model; and the NBAA's statement on ethical business aviation transactions issued one year ago.

While opinions on increasing regulation vary, agreement appears universal that buyers and sellers must recognize, as Mesinger noted, that "there is no barrier to entry to be an aircraft broker, no educational standard, no accreditation required.

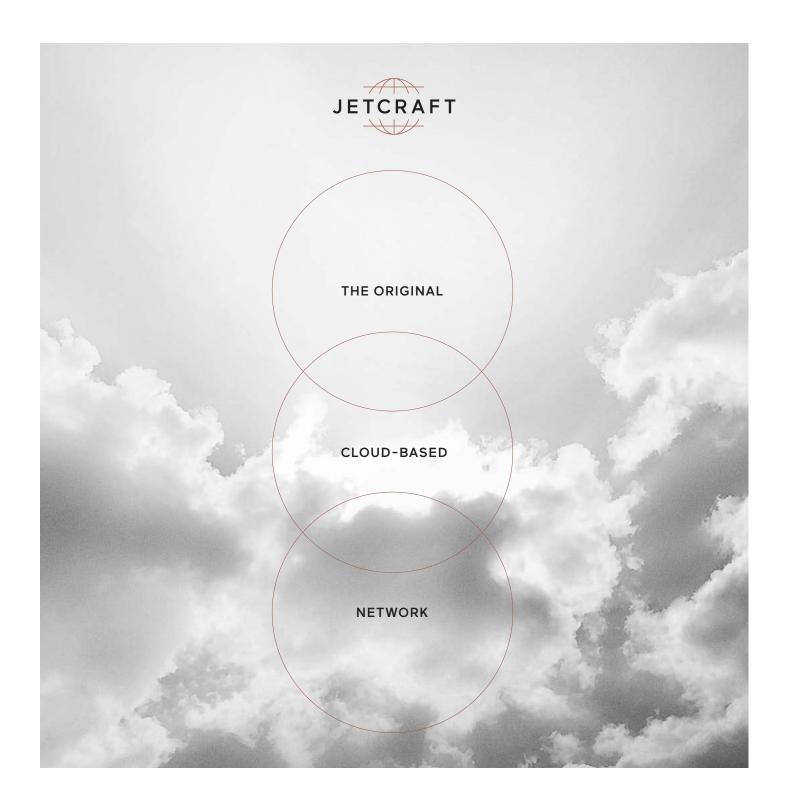
"I used to say anybody with a stack of quarters and a business card could be a broker," Mesinger continued. "Today you don't need a stack of quarters."

One area of concern is so-called "back-to-back" transactions, where a deal is funneled through an intermediary. "Sometimes back-to-backs can be extremely useful, especially in international transactions," said Coleman. "But when the parties involved don't know someone is in the middle with a finger in the pie, it becomes a real ethical issue and needs to be addressed in the industry."

Meanwhile, some buyers and sellers, in an apparent attempt to save on fees or commissions, still shop for representation by price, and engage inexperienced and incapable brokers less likely to observe proper standards. "The people who don't do many deals are the wild cards," said Anderson. "In the end, low fees often cost the client a longer time on the market, less worldwide exposure, and lower resale values. The client got a lower fee, but at a very high price."

Despite efforts to counter such conduct, some believe that if the market shift intensifies, the problem will get worse. "Any asset markets where there is a huge imbalance of supply and demand lend themselves to improper and unethical behavior," Foulkrod said. "Such imbalances create huge profit opportunities at the expense of the client, so therefore a negative by-product is a rise in this type of behavior."





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shared-economy ethos) that spill over into charter consumption. More than 70 percent of aviation professionals believe that whatever the average age is today, it will drop below 50 by 2023, with 59 percent predicting the age will be between 40 and 50, and 11 percent thinking it will be younger than 40. That's according to a 2018 survey commissioned by Revolution.aero, a bizav platform championing disruptive access solutions that seek to "democratize" private aviation. (Twenty percent of the 115 survey participants predict the average age will still be over 50 in 2023.) But this is based on intuition.

"There really is a shortage of data about [charter] buyers—who they are and what they want," agrees Alasdair Whyte, cofounder of Revolution.aero and Corporate Jet Investor

But intuitive or not, the assumptions appear realistic, at least for the long term. Millennials in Europe, for example, have a far more positive attitude toward business aviation than Continentals have traditionally displayed. Within this cohort, 59 percent believe new forms of private air transport will drastically change their lives, according to a European Business Aviation Association report, How Millennials See the Future of Business Aviation, released in 2018. Moreover, 62 percent of the generation's men and 58 percent of its women reported they are willing to travel on shared charter flights.

But how to get from here to there efficiently by chartered aircraft? In the last two decades, we've seen access options expand from either ownership or charter to fractionals, and more recently jet cards, membership programs, empty-leg bookings, and per-seat charter. All have been introduced without the benefit of detailed consumer information, and that could account for the relatively little impact they've had in the overall travel marketplace. Getting that demographic data is vital to fine-tuning access models and letting the right consumers know about them. So while we move toward a shared economy, perhaps the industry will see fit to share more information about you, accelerating the expansion of these win-win charter solutions.

Revolution.aero staged its

A dearth of demographic data may be impeding a generational shift in access demand.

first gathering in San Francisco in October, the two-day conference drawing some 300 would-be disruptors from the worlds of technology and aviation, with keynote presentations from figures including Wheels Up's Kenny Dichter and JetSmarter's Sergey Petrossov, founders and CEOs of their respective membership enterprises. Presenters limned a future with a wealth of access options ranging from autonomous urban transport to supersonic flight, all available at one's fingertips—literally.

"People wanted high-touch [relationships with charter providers]," Whyte says, as if the current generation of customers has already disappeared. "I think the younger generation wants to click."

James Wynbrandt (jwynbrandt@bjtonline.com), a multi-engine instrumentrated pilot and regular BJT contributor, has written for the *New York Times*, *Forbes*, and *Barron's*. > Money Matters continued from pg. 12

Once you've sold your excess stock investments and portioned off any cash you think you'll need soon, you'll have to reinvest the remaining dollars.

Start with rebuilding your bonds, either with individual issues or with bond funds. If you assemble a bond ladder with a waterfall of maturity dates, you'll have cash flow that saves you from having to sell stocks if the equities market falls.

"While bonds haven't performed as well as stocks, they're still attractive," Warne says, in particular short- and medium-term bonds.

When buying bonds now, Clemons advises, focus on short maturity and high quality to avoid the risks of inflation. The bond portion of your portfolio is there for stability, not as a generator of income, he says.

You may also want to rejigger your stock holdings, taking money off the table if you've earned profits and putting it back into stocks trading at bargain prices. What's cheap now—or, at least, not too expensive—is energy infrastructure, such as natural gas pipeline stocks, Tiedemann says. Now recovered from a low point in 2015 when the energy market punished infrastructure stocks, these companies have earnings that are growing 6 to 7 percent annually, he notes.

U.S. companies with market capitalizations between \$5 billion and \$10 billion are also a buy, Tiedemann says. He anticipates that many of these companies will acquire or be acquired by rivals, and will bring home overseas cash in the wake of last year's federal tax changes.

"Mid-cap domestic equities received the benefit of all the organic economic activity and the repatriation of capital and will likely be the beneficiaries of M&A activity," he says.

Warne also likes small and midcap U.S. stocks now, because they are likely to benefit more than larger companies will from the tax cuts, and they are mainly insulated from rising tariffs.

Overseas, Warne prefers largecap companies in developed markets, like Europe. Those are attractive because the strong dollar has made their shares less expensive for U.S. investors.

Clemons recommends seeking out "boring parts of the market," such as consumer staple manufacturers that pay decent dividend yields of around 3 percent. For instance, in an economic downturn, consumers won't cut their purchases of Listerine, Visine, or Tylenol, so the maker of these brands, Johnson & Johnson, is a safe bet, he says.

Another area that investors should examine is emerging markets. While Venezuela, Turkey, and Argentina are each experiencing a crisis right now, many other developing countries—most notably India and China—are ripe for investment, Clemons says.

"The contrarian idea that we put into client portfolios is that if you're a long-term, patient investor, emerging markets are really interesting right now," Clemons

At this point in the market's rise, he adds, his firm is advising clients to stay away from tech giants like Facebook, Google, and Netflix, because those stocks are relatively expensive.

Chana R. Schoenberger (cschoenberger@bjtonline.com) has been an editor at *Forbes*, an online editor at the *Wall Street Journal*, and a news editor at Bloomberg News.



Emie Boch, Jr.

He owns a 30,000-square-foot mansion, 80 guitars, 60 cars... and one newly revamped Cessna Citation Sovereign.

by Margie Goldsmith

Ernie Boch, Jr. grew up in the car business. His grandfather bought a Nash dealership in 1945 that his father built into America's No. 1 Rambler franchise before adding sales outlets for Toyotas, Mitsubishis, Kias, and Hondas. Boch was just 13 when he began doing odd jobs for these businesses, such as emptying trash, fixing roofs, and painting walls.

He has worked in the dealerships on and off ever since, but it has been many decades since his job description included trash disposal. Taking over the business after his father died in 2003, he grew it substantially over the next dozen years. In 2015, he sold off some of his franchises, but he retains Subaru of New England as well as Ferrari and Maserati dealerships, all of which are based in Norwood, Massachusetts, the Boston suburb that Boch calls home.

His net worth has been estimated at \$500 million, and whether or not the figure is accurate, a stroll around his nine-bedroom, 30,000-square-foot mansion leaves no doubt that he has been highly successful. Two carriage houses on the property contain eight collector cars; and in the warehouse of his 160,500-square-foot distributorship building he keeps another 52 pristine vintage autos, including a 1965 Ferrari 330, a 1972 Alpha Romeo Montreal, and a 1969 Iso Rivolta.

Boch, who played rhythm guitar and sang backup in a blues-rock band called Ernie and the Automatics for about seven years, gave that up in 2011. He does, however, still love music. He owns 80 guitars, including many older Martins and instruments signed by the Eagles, the Rolling Stones, Slash, Billy Ray Cyrus, Pink Floyd, and even the so-called Million-Dollar Quartet (Elvis Presley, Jerry Lee Lewis, Carl Perkins, and Johnny Cash).

Adorning the walls at Subaru of New England's corporate office are unpublished portraits of musicians, many of whom have played in Boch's home or office. They include Joe Perry, Belinda Carlisle and the Go-Go's, Gregg Allman, Graham Nash, Alanis Morissette, Megadeth, and Leon Russell. Fine art purchased during Boch's yearly trips to Asia decorates his home and office. He also owns a rare set of the 14 lithographs in John Lennon's Bag One Collection and the original negative for the Apple Records logo.

Boch, who mainly dresses in black, is tall and lean. He does not walk; he lopes, bounding from step to step, his shoulder-length hair swinging side to side. Now 60 and divorced, he lives alone and says he enjoys practicing guitar, driving his cars, traveling, and spending time at a house he owns on Martha's Vineyard. What he likes most, though, is being with his three children, who visit often.

He arranged for our reporter and camera crew to fly in his newly renovated nine-passenger Cessna Citation Sovereign from New Jersey's Teterboro Airport to his hangar in Norwood, where he greeted the **BJT** team on the tarmac. He drove everyone to his dealership and mansion for tours and then sat for this interview.



ALL PHOTOS: BILL BERNSTEIN EXCEPT WHERE NOTED

Ernie Boch, Jr.

Did your father expect you to go into the business?

I think deep down he did, but he never pushed me.

You graduated from Berklee College of Music. Were you planning to be a musician?

I quickly realized that I wasn't going to make a lot of money playing music. And then it hit me: you can play music and try to be successful or you can be successful and also play music, and that's what I chose. As a working musician, I made \$150 a week. It was horrible. When I worked at one of my father's dealerships, I went from \$150 to \$1,500 in a week.

Why was your father so successful?

He was a pioneer in many ways. He was one of the first people to go on TV and promote his own product. He could see trends before they happened, and he had incredible instincts.

What did you learn from him?

Everything about business. I learned that a ship needs a captain, and I learned that making a decision on a timely basis is as important as the decision. If you are wrong, admit it and make another decision.



Your father fired you twice. What did you do to deserve that?

The first time was because of the stock market crash of 1987. The business went down. The other time was because of some wholesale problems.

But you were his son. How did being fired make you feel?

Anytime you are fired, it doesn't feel good. But it was a learning experience. The environment that I grew up in was, you performed or you moved on.





At left, Boch with his father. Above, Boch watches his dad deliver a car commercial.

What interests you about the automotive business?

To me it's not the automotive business. It's the transportation business. People need to get around, and we are fortunate to be in the United States with this incredible road system. It was different when I was growing up than it is today. An automobile meant freedom. You wanted a license the day you were eligible, and you wanted to move out of your house. Going home was not an option; we'd rather sleep on the street than go home.

Why don't more women sell cars?

In the 50s and 60s, there were zero women selling cars. They were answering the phone. It's still predominantly male-dominated, but there are more and more women in the business. If I had my choice, it'd be all women because they are amazing—they have more empathy and they're more dedicated. But why aren't there more women? Because they don't ask for the job.

What are your employees like?

There are two types—the employees who want to work hard and earn a fair wage and be part of the growth of the company and then there are those I call missionaries. All they want to do is make as much money as possible, maybe skirt the policies and procedures. They're just in it for themselves. You don't want employees like that. And what kills you is they are usually the most talented.

What's your future with the company?

I have a little bit more to grow and hopefully my son will take over.

Why not your daughter who is two years older?

Because she doesn't really show interest.

Why do you fly privately?

First of all, it's safer. Time is extremely important to me, and it absolutely saves time, saves stress, and ultimately I think it saves money, because you can do business at a faster pace.

What year is your Citation Sovereign, and why did you choose it?

It's a 2005, and it was the eighth one produced. We had started with a [piston-powered Piper] Cherokee and then we went to a Citation I, then to a Citation II, and when rumors of the newly developed Sovereign started, we said, "Wow, it's almost the perfect plane for the Northeast." The runway at the airport I go out of is about 4,000 feet so it can easily get in and out.

You recently repainted the exterior and did a complete interior redo?

It was up for its 10-year inspection, so they had to rip out the whole interior. I decided not to put it back, just do a whole new interior. The industry is changing, and the colors are changing. My plane used to be beige-and-brown-based, and now it's black and grey. Even at my Ferrari store, I notice people aren't getting the brown interior anymore; they're going to colder colors: black, grey, blue, ice blue. And because it's a custom interior, I had them mimic the interior of a Bentley. That's how I got the idea.



Boch's Cessna Citation Sovereign at a Glance

Cost range used	\$5—\$15 million	
Model years produced	2004–	
Variable cost/hour for latest model	\$2,463	
Passengers (typical)	9	
NRAA IFR range	3 095 nm	

Range is the maximum IFR range of the aircraft traveling at long-range cruise speed with four passengers seats occupied. Range figures use the NBAA IFR alternate fuel reserve calculation for a 200-nautical-mile alternate.

Source: Conklin & de Decker Aircraft Cost Evaluator, Conklin & de Decker Aircraft Performance Comparator

How many hours a year do you charter it out?

Probably 300.

And what percentage of your costs does that cover?

Almost all of them.

How much do you fly yourself?

When I first got my plane, I was doing over 400 hours a year. I was running wild. I had just gotten divorced. Now I probably do about 100 hours.

Boch spent seven years playing guitar and singing in a blues-rock band called Ernie and the Automatics.

Always on the Sovereign?

Once a year, I visit Subaru headquarters [in Japan], and I end up leasing a jet like a Gulfstream GV or G550 or a [Bombardier] Global. But if I am within North America, Central America, the Caribbean, or very western Europe, I'll take my Sovereign. Next month I'm going to Italy for Ferrari.

You have your own hangar in Norwood.

I built it to house the Sovereign. I've also had some nice events there, because the acoustics are great. I have had [Aerosmith guitarist] Joe Perry playing there. New Kids [on the Block] and Godsmack were rehearsing there, and I threw a fundraiser for Mitt Romney there.

You were a supporter of Donald Trump's campaign, and you hosted a big fundraising party for him as well.

I threw him his first fundraising party ever.





Since he became president, he has said and done many things that have drawn widespread criticism. Has this made you waver in your support of him?

That's a difficult question, because at the time [of the election] you had to make a decision. There were two candidates. There was her and there was him. And I made the decision not to support her.

In 2005, you founded Music Drives Us, which helps to fund music education in New England. What led to that?

Studies show that if kids take music when they're young, it makes them more communicative, less violent, better at math, better at learning a second language, and socially more astute. Music can literally rewire the brain. Because of all the budget cuts and all the economic stress on towns, school systems have suffered. The first

thing that goes is the music program, so I created a foundation to try and keep music in the schools.

You also underwrote the nonprofit organization that runs Boston's Shubert and Wang theatres, now collectively known as the Boch Center.

The Wang and Shubert are living, breathing theatres that start at 10 o'clock in the morning. You've got kids performing, programs—it's really an amazing cultural center.

You traveled to Uganda for a National Geographic reality show and built up an impoverished village. How did that happen?

It was a program in which they took people like me, put them under assumed names, had them live on a dollar a day, dropped them off into a community in the middle of nowhere

where they knew no one and their job was to make a difference in the community. One thing led to another and I discovered that over 400 people a week in Uganda die of bad water.

I hooked up with a company called Drop-4Drop, which specializes in bringing water to Third World nations. When the show was all over, I met the guy [Simon Konecki] who runs Drop4Drop, who happens to be singer Adele's husband. I have now supplied three water wells to villages in Uganda.

I understand you're having a bespoke Batmobile built?

It's an exact copy of the original 1966 Batmobile. I'm a Batman fan, and I found the only guy who's certified to produce Batmobiles.

Will you be able to drive it?

Oh, yes, just like the original Batmobile. It's street legal.

You're also building an 800-squarefoot garden pavilion on your estate. You've said it will be a place to relax and that people can also be buried there, like in a mausoleum.

Well, who wants to be buried alone? In your final resting place, you want to be amongst your family and friends.



FASTFACTS

NAME: Ernie Boch, Jr.

BORN: Feb. 15, 1958 (age 60)

POSITION: President and CEO, Subaru of New England

TRANSPORTATION: Owns Cessna Citation Sovereign. Drives Subaru Forester and his collection of vintage autos.

CHARITIES: Music Drives Us

EDUCATION: B.A., Berklee School of Music, 1983

PERSONAL: Lives in Norwood, Massachusetts. Divorced. Has 17-year-old daughter and 15-year-old son from his marriage as well as six-year-old daughter with his girlfriend. Collects cars and guitars.

Once a year, I visit Subaru in Japan, and I lease a large jet. But if I am within North or Central America, I'll take my Sovereign.

Do you think about death often?

Death is like nighttime. It's always going to happen.

What's your management style?

The leader must be benevolent. You can be tough, you can be brutal, but you've got to be benevolent. Also, I surround myself with people who are more talented than myself. I think that if I am the sharpest knife in the drawer, we have a problem. The idea of bringing people into your organization who have better skills and more intelligence makes the organization better.

What does the public not know about you?

I am somewhat of a polarizing person. I think you either love me or hate me. And if you check Twitter, you'll see a lot of people who hate me.

What makes you polarizing?

I am kind of a public person here in Boston, and it just happens when you are a public figure. Didn't Winston Churchill say, "If you don't have enemies, then you are not passionate about what you do"?

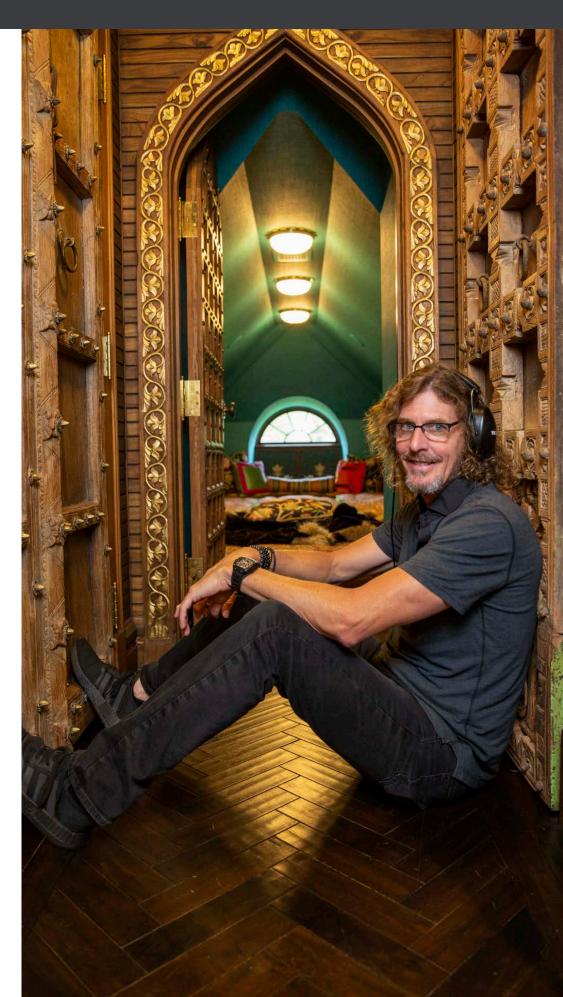
What's the most important thing you've learned about business?

I think that in any business situation, it's got to be a win-win. You can't just shock and awe, scorch the ground. It has to be a win-win; that's what is sustainable.

What's the biggest business mistake you ever made?

I've made a lot of business mistakes. I've made more right decisions than wrong decisions, but so many wrong ones that you can't even count them.

New York-based Margie Goldsmith (mgoldsmith@bjtonline.com) is a longtime **BJT** contributor.This conversation has been edited and condensed.



Fessing up to jet perquisites

Understating the value of personal usage of the company aircraft can lead to significant financial penalties from the SEC.

by Jeff Wieand

he disclosure rules of the Securities and Exchange Commission are designed to protect investors by providing material information about public companies. This includes information that reasonable investors would likely want to know when they're deciding whether to buy or sell securities and voting on corporate matters, such as the election of directors.

Investors have certainly demonstrated an interest in disclosures regarding business jet usage. In 2012, for example, a shareholder of Chesapeake Energy Corporation brought a derivative suit alleging that its executive officers and board of directors wasted millions of dollars by making personal flights on its jets. The plaintiff argued that public filings understated the cost of such flights by as much as \$10 million.

But understating the cost of business jet usage does more than raise the hackles of shareholders; it can lead to significant financial penalties from the SEC. In a 2005 settlement, that commission imposed a \$1.5 million penalty against Tyson Foods and a \$700,000 penalty against its former chairman and CEO, Donald Tyson, for failing to disclose \$3 million of perquisites received by him and his friends and family, including "personal use of

company-owned aircraft." Last July, following a whistleblower lawsuit by a Dow Chemical employee who claimed she was fired for questioning perks received by Dow CEO Andrew Liveris, the SEC agreed to a \$1.75 million settlement with that company stemming from repeated failures to disclose perquisites

compensation paid to directors. Both tables have a column for "other compensation," which includes perquisites like travel on the company's jet. Disclosure of perquisites for a given executive is not required until their value exceeds \$10,000, and once their value exceeds the greater of \$25,000 or 10 percent of total



(including jet travel) in its proxy statements and annual reports.

SEC regulations require disclosure of compensation paid to the principal executive and principal financial officers, the three most highly compensated executives other than the foregoing, and a couple of other individuals. These disclosures appear in the so-called "Comp Table" of the annual proxy statement. A similar table discloses

perquisites, they have to be footnoted or identified in an accompanying narrative. Creative drafting of these identifications and disclosures consumes a good deal of legal time and talent.

The first thing to notice is that the SEC is interested only in the company's top dogs. If a lowly senior vice president pays a modest charge to fly on the corporate jet, the SEC doesn't care, though the IRS will have its hand out for the ticket tax and the FAA may be on the ramp to shut down the flight as illegal compensation for air transportation.

Second, the SEC has its own standards for deciding whether perquisites need to be disclosed. Dow Chemical got into trouble with the commission because it failed to disclose perquisites on the theory that there was a business purpose behind them. That's a nice theory, but the SEC wants them disclosed unless they are "integrally and directly related to the performance of the executive's duties."

O how should compensation consisting of flights on a company jet be calculated? As was once argued in Corporate Counsel magazine, one might expect the SEC to look at the value to the executive on the flights. A logical way to calculate that value is to consider what the executive would have paid to charter a comparable aircraft for the trip. Compensation, though, is a two-edged sword; one party receives it, but one party also pays it. The SEC focuses on the latter. Instead of tracking the benefit to the executive, it wants the company to disclose to the public what it calls the "aggregate incremental cost" of the flight.

For example, a company operates a business aircraft, and the CEO uses it to fly to Aspen for a vacation. The fixed costs—such as those for pilots, insurance, and hangar—will be borne by the company whether the CEO makes that trip or not. Therefore, they do not figure in the company's incremental cost for the trip. On the other hand, fuel, landing fees, and other direct operating costs (DOCs) would not have been incurred if the CEO hadn't flown to Aspen, and that's what the SEC wants to see disclosed as "other compensation." In a letter to the SEC, the National Business Aviation Association supported this view, saying "the current standard of reporting, aggregate incremental cost, is the proper valuation methodology for valuing perquisites and other personal benefits."

Still, issues remain. The SEC's method of calculating the costs of perquisites reflects the idea that a company uses its jets primarily in

its business, so the personal use is merely an "incremental cost." But suppose that's not the case? The plaintiff in the Chesapeake lawsuit argued that the company should have been disclosing the fixed costs of using its fractional shares because a company buys a jet and puts it in service this year and all the flights satisfy IRS standards as business flights, the company can deduct 100 percent of the purchase price against taxable income in 2018. On the other hand, if some of the flights

The SEC's method of calculating the costs of perquisites reflects the idea that a company uses its jets primarily in its business.

a high proportion of the executives' use was personal. If the principal purpose of the aircraft is the personal use by the company's top dogs, it's the corporate use—not the personal—that is "incremental."

But personal use raises another issue. A complete picture of the incremental cost to the company should arguably include the loss of tax benefits for perquisite flights. If

were wholly or partly for the "entertainment, recreation, or amusement" of company employees, the IRS will disallow a portion of the deduction. And, unlike the SEC, the IRS looks at the total cost of owning and operating the aircraft, not just the incremental cost (the DOCs) related to perquisites for key executives. This can result in significantly higher taxes for the company.

I am not aware that the SEC has ever asked companies to disclose disallowed tax deductions resulting from personal use of their aircraft, but some do it anyway. Coca-Cola's 2018 proxy statement, for example, says that among the items included in calculating the aggregate incremental cost of personal use is "the amount, if any, of disallowed tax deductions associated with such use." This is a conservative (and laudable) approach to the issue. Meanwhile, part of the SEC's settlement with Dow was an agreement that the company would retain an independent consultant to help it implement processes and internal controls "to reasonably ensure payments and other expenses are properly evaluated for perquisite disclosure under the securities laws."

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.





We've made a list and checked it twice.

by Jennifer Leach English

How is it possible that 2018 is already coming to a close? It feels as if just yesterday we were lighting the menorah candles and trimming the tree. But once again, it's time to get the decorations out of storage, make schedules, menus, and travel plans—and buy presents. We know the holiday season can be as stressful as it is joyful, so we've done the gift shopping for you.









(1) Time Well Spent

For the person in your life who is always trying to beat the clock, a sand timer can serve as a gentle reminder to stop and enjoy the moment—at least for half an hour. The silent tracking of seconds through an hourglass has a soothing, tactile effect not available from a smartphone and is a potent symbol of our most precious commodity: time. \$33 at justhourglasses.com

(2) Hide the Diamonds

For the jetsetter who wouldn't think of leaving her jewels at home, the Mara Travel Jewelry Box from Smythson offers an elegant and durable solution. Covered in navyprinted leather, it contains several compartments to organize rings and earrings and keep delicate necklaces untangled. Complete with a lock and key, the box can be personalized with up to three initials. \$1,895 at smythson.com

(3) Puppy Love

Raising a puppy is not for the faint of heart, but if you know someone who is ready to commit to a best friend for life, this is a gift that will surely never be forgotten. Greenfield Puppies (greenfieldpuppies.com) is an organization committed to humane breeding practices, and it's a good place to start if you're looking for a specific pedigree. Another resource is the American Kennel Club (akc.org), which provides tips on how to find a reputable breeder in your area. You might also consider adoption—plenty of animals are in need of rescue, though finding the right pet to adopt isn't as easy as you might assume. We recommend reaching out to a reputable no-kill animal shelter such as North Shore Animal League. (animalleague.org)



(4) Safety Has Never Been So Stylish

Know someone who has a cool motorcycle like the one on page 50? The Helite Adventure Jacket might be the only gift that is cooler. This sleek jacket is waterproof, windproof, and breathable, and it comes with airbag technology, meaning it will inflate in 0.1 seconds in order to break a fall. \$799 at helitemoto.com

(5) Budding Gourmet

Little kids love feeling like grown-ups in the kitchen. A subscription to My Little Sous encourages children to start their exploration in the culinary arts. Each month, a themed box will appear in the mail containing a step-by-step cooking lesson, recipe and activity cards, puzzles, stickers, and a culinary tool. Learning to cook helps to tune fine motor skills, develop patience and confidence, and promote healthy eating. Snack time has never been more fun! \$24.99 at mylittlesous.com





(6) It's Five O'clock Somewhere

Is your special someone a design-savvy shaker of cocktails? This sleek bar cart from Pernod Ricard is guaranteed to get the good times rolling. The fully stocked cart comes with champagne, Glenlivet 18, Waterford glasses, a copper cocktail shaker, and many other essential items to create the perfect aperitif or nightcap. \$2,400 at reservebar.com

(7) Moving On from the Frat House

This Cristallino foosball table will satisfy the gamer in your life who still longs for college but now lives in an impossibly chic abode. The limited-edition table—only 50 are being produced—is embellished with 24-karat gold-plated figurines.

\$24,438 at duplexdsgn.com

(8) Rare Find

It's not often that we come across jewels that take our breath away like Elli Saraan's. Surprise the sparkler in your life with a creation like the Athiya ring (pictured)titanium metal meticulously handcrafted around a 5.54-ct Burma ruby with assiduously set 2.38-ctw melee diamonds and a smattering of additional rubies. Founder/designer Meg Gupta's family has been in the gemstone business for over four decades, and she named her New York City-based company after her beloved grandparents, with whom she lived during her high school years in India. Pricing and further information available upon request at concierge@ellisaraan.com

(9) Wing It

For the aviation aficionado: this sleek, weighty desk will take the dread out of sitting down to face those 500+ emails. The design, which mimics an airplane wing, was inspired by WWII fighter planes and features an aluminum patchwork exterior. The piece is part of a wider furniture collection that includes shelving and side tables.

\$2,795 at restorationhardware.com



Music Boxes by Jeff Burger

Are music fans on your holiday gift list? One of these recently issued box sets could be just what they're wishing for.



Imagine: The Ultimate Collection, John Lennon.

The word "ultimate" is overused but it surely fits this collection, which expands Lennon's excellent 10-track, 40-minute 1971 album to a whopping 149 selections on four CDs and two Blu-rays. Though the package includes a few singles and other extras that didn't appear on the original *Imagine* (most notably the likable "Happy Xmas (War Is Over)"), the vast majority of this box is devoted to alternate takes and previously unavailable mixes of the original 10 songs, which include the classic title cut and other gems like "Jealous Guy" and "Oh, Yoko!." As such, this is not a package for casual fans, but if you're a Lennon aficionado, you'll likely find it revelatory and fascinating. Ditto the accompanying 120-page hardcover book.

Forever Changes (50th Anniversary Edition), Love.

Half a century after its release, Love's Forever Changes remains one of the most memorable records of the entire rock era, thanks to complex, absorbing melodies, intriguing albeit cryptic lyrics, and inventive use of strings and brass. This box devotes two of its four CDs to excellent remasters of the original stereo and mono albums. A third disc offers alternate mixes and an outtake, while a fourth features 14 related recordings. The package also includes the album on vinyl, a DVD that delivers a high-resolution stereo version, and a booklet that presents track-by-track notes, session credits, and more.



Gift Guide continues on next page





(10) Silver Tooth

Is there a newborn on your gift list? A personalized sterling-silver baby rattle is sure to delight everyone involved. It's beautiful to look at, doesn't take up much room, and is probably the best thing on the market to sooth teething gums (tip for new parents: chill first in the refrigerator or under cold water). Once the little angel gets big, this silver rattle (complete with tiny teeth marks) will serve as a priceless heirloom and a sweet reminder of simpler times. \$200 (includes personalization) at allsilvergifts.com

(11) This Ain't the Airlines

A hand-woven 100 percent cashmere travel blanket and case from Hermès will ensure comfort and warmth for any passenger on vour business iet.

\$2,925, at Hermes.com



(12) Ride this Bike to Get a Jump

Help someone get a jump on 2019 fitness goals with a state-of-the-art stationary bike. The Peloton indoor cycling system earns consistently high marks for its highquality equipment and live-streaming online sessions, which allow riders to participate in spin classes (and compete with others) from home as if they were at the gym. \$2,644 "essentials package" includes bike, shoes, weights, and headphones, at onepeloton.com

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



Music Boxes continued



Battleground Korea: Songs and Sounds of America's Forgotten War, various artists. "War-what is it good for? Absolutely nothing!" argues Edwin Starr, on his 1970 hit, "War." In fact, numerous wars, including the Korean conflict, have been good for at least one thing: music. Witness this

four-CD, 121-song collection, which features a preponderance of country but also includes a good deal of blues and pop, plus a bit of gospel, R&B, folk, and jazz. Interspersed with the music are sound bites from newsreel announcers and snippets from key political figures that help to conjure up the period.



Days of Future Passed (50th Anniversary Edition), the Moody Blues. The original 1967 version of this record—which includes the sublime hit "Nights in White Satin"-spawned countless other classical/rock fusions and was also among the first concept albums. This

new package contains the LP's original stereo mix, plus alternate mixes, period singles, and radio performances. Most notable is a DVD that features a 5.1 surround-sound mix that improves dramatically on the original album.



The Joshua Tree (30th Anniversary Super Deluxe Edition), U2. One of the most famous songs on *The Joshua Tree* is called "I Still Haven't Found What I'm Looking For," yet musically, this is the LP where U2 found exactly what they were after. Commercially, too: this was the fastest-

selling album of all time in the U.S. when it debuted in March 1987. It topped the charts and went on to sell 25 million copies worldwide, thanks to its anthemic melodies, gripping performances, and intense, introspective lyrics. This 30th anniversary edition adds B-sides, outtakes, remixes, and a fine, previously unreleased 1987 concert recording

More Blood, More Tracks, The Bootleg Series, Vol. 14. Bob Dylan. Fans have been waiting years for the release of this material, from the sessions that resulted in Dylan's emotional 1975 masterpiece, Blood on the Tracks. The 87-song, six-CD set—which consists entirely of previously unreleased performances—is consistently engrossing, because, typical of Dylan, it includes versions that lyrically and musically depart significantly from the ones we've heard.





Business Jet Traveler editor Jeff Burger (jburger@bjtonline.com) has covered popular music throughout his career. His latest book is Dylan on Dylan: Interviews and Encounters with Bob Dylan.



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FACTORY-NEW AIRCRAFT



Leonardo's Trekker

This go-anywhere light twin helicopter costs millions less than similar models from the company but offers excellent range, payload, and high/hot performance.

by Mark Huber

Talian manufacturer Leonardo's light twin Trekker helicopter is ready for takeoff. It received a European Aviation Safety Agency (EASA) type certificate in late 2017, and FAA approval is expected shortly.

The Trekker is a lower-priced, skidded version of the company's popular wheeled-landinggear AW109S Grand/GrandNew. It features advanced single-pilot-capable IFR Genesys Aerosystems avionics and a pair of full authority digital engine control (Fadec)—equipped Pratt & Whitney Canada engines that deliver a maximum speed of 152 knots. The Trekker has a maximum takeoff weight of 7,000 pounds and will have an endurance of four hours, 20 minutes or 445 nautical miles with a modular, five-cell fuel system.

The helicopter is aimed primarily at the emergency medical services and utility markets; but it should also appeal to those who desire greater range, payload, and high/hot performance than the AW109S offers and to those who routinely land on dirt, snow, or sod, where the AW109's small wheeled gear can get bogged down.

Discounting the differences in avionics and



landing gear, the Trekker looks pretty much like any other AW109, an aircraft that has been around in one form or another since 1976. Conceived in 1967, the 109 was Agusta's first clean-sheet-of-paper product (although the company had been successfully building helicopters under contract and designed by others, most notably Bell, for years).

he initial "A" model featured a pair of 420shp Allison (now Rolls-Royce) 250-C20B turbine engines and a high-speed, four-blade main rotor system. The A109 quickly became one of the most popular rides for the rotorborne executive set. A U.S. distributor took out an option for 100 units and, for a time, Great Britain's Royal Air Force even used it to transport the royal family and other VIPs. Law-enforcement, search-and-rescue, military, and air-ambulance variants also were developed. Upgrades to the aircraft over the years have included up-rated engines and transmissions; better avionics; improved hydraulic, drive-shaft, and rotor systems; redesigned maintenance access panels and tail boom; beefier landing gear; single-pilot IFR capability; and sliding cabin doors for utility and military operators.

In 1997, Agusta launched the A109E Power. The Power is slightly larger, the avionics are more modern, and the engines are more powerful. The instrument panel was updated with a



six-screen LCD display. Customers had a choice of two engines for the Power: Pratt & Whitney Canada PW206 or the Turbomeca Arrius. The Pratts, while notorious for belching soot all over the tail boom, were otherwise fine under most circumstances but the Turbomecas provided slightly more power for operating in high/hot conditions, such as around mountains in the summer.

2018 Leonardo AW109 Trekker at a Glance

	Price	\$4.3–\$4.8 million		
	Crew	1–2		
Passengers (typical)		5		
Engines		2 Pratt & Whitney Canada PW207C 625 shp (max continuous)		
Range		445 nm*		
Max speed		152 kt		
Max taked	off weight	7,000 lb		
Cabin	Height	4 ft		
	Width	5 ft		
	Length	8 ft		

^{*} with five-cell fuel system, no reserve Source: Leonardo



FACTORY-NEW AIRCRAFT

Either way, customers got 25 percent more takeoff power (about 1,300 shp) than with the Allison 250s in the original 109s and a maximum cruising speed of 154 knots. The larger marketplace also embraced the helicopter: AgustaWestland has received orders for more than 470 AW109E Powers from 50 nations. Almost half of these were for aircraft customized for executive transport. In this configuration, the Power remains largely unchanged from the original 109s; two pilot positions up frontalthough it can be flown well with one-and two facing benches behind with room for four to five passengers.

With a full complement of fuel, the Power has a ferry range of 440 nautical miles and a useful load of 1,287 pounds. Of course, most executive helicopter flights last less than 30 minutes, requiring nowhere near full fuel. Typically laden with passengers, a Power has a range of 260 nautical miles and can stay in the air for slightly less than two hours with a 30-minute reserve.

The bench seats are a tad cramped for longer trips and tall pilots find the cockpit somewhat confining, but that rap applies to most helicopters in this class. AgustaWestland did attempt to improve passenger ergonomics by subsequently offering the Power Elite model, which provides better rear bench pitch at the expense of slightly less fuel capacity. An extended 34-cubic-foot cargo-hold option is also available, but passengers still need to pack light.

gusta merged with Britain's GKN Westland Helicopters in 2000 and the entire company became a subsidiary of Agusta's parent firm, the Italian Finmeccanica Group, in 2004. That same year, the company introduced the stretched-cabin 109S Grand, the fuselage that serves as the foundation for the Trekker—a model that incorporates all the improvements over the years but substitutes the skid gear and less-expensive avionics.

The Trekker features a cocoon-type airframe, a crash-resistant fuel system, and a 30-minute "run-dry" main gearbox. The aircraft can accommodate six passengers (seven if one occupies the copilot's seat). The skid gear allows you to equip the helicopter with emergency pop-out floats, adding another

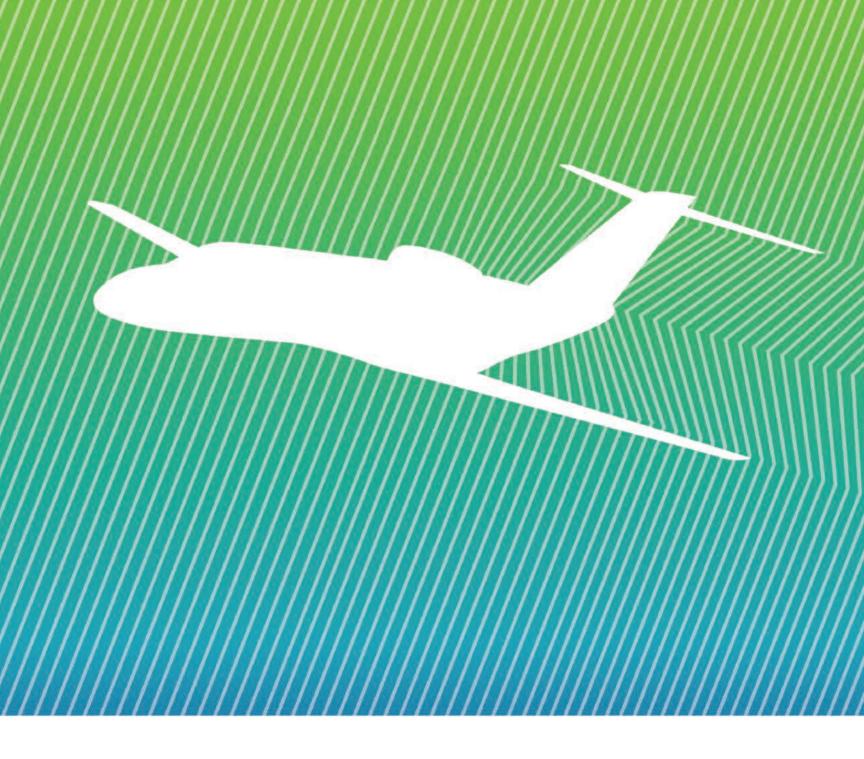
dimension of safety for overwater operations. However, the Trekker's main attraction is its price: nearly \$3 million less than you'd pay for a fully dressed-out GrandNew, thanks to the less-expensive avionics, a more spartan interior, and the absence of retractable gear.

Of course, if you want to drop an extra couple of hundred grand for more luxury in the cabin, there are options: Mecaer Aviation Group, located near AW Philadelphia, or the Rotorcraft Service Group in Fort Worth, Texas, both of which have strong reputations when it comes to AW109 interiors. The latter company offers window shades for the helicopter and a particularly popular aftermarket air conditioner that weighs 82 pounds and features a compressor rated at 28,000 BTU.

But the Trekker appeals to those who want to use their helicopter more like an SUV than a limousine and don't mind saving a few million bucks in the process.

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







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www.nbaa.org/2019



Eight steps to a successful aircraft completion

Furnishing and equipping a large business jet is a daunting and lengthy project. Follow these guidelines to assure a satisfying result.

by Gordon Gilbert

Purchasing a small or midsize business jet is similar to buying a new car: you select interior components and exterior colors from a preexisting set of options and then simply wait for the manufacturer to deliver a product that incorporates your choices. Purchase a larger airplane, on the other hand, and it will reach you unpainted and with a nearly empty interior. (Such aircraft are called "green," a reference to the color of the protective primer paint that's applied to the exterior at the factory.)

Long before you take possession of an airplane like this, you must arrange for the interior completion and the exterior paint. You must make the appointments for a completion and paint with the aircraft manufacturer or completion shop as soon as possible after you finalize the purchase and receive a firm delivery date because most reputable shops have scheduling backlogs that can stretch out for several months.

Turning an empty space into your dream cabin is a challenging and time-consuming task. The list of required and desired components and approvals is invariably extensive and detailed, with variances based on many factors, including cost, weight, durability, appearance, and FAA regulations. The completion $\frac{\pi}{2}$ center you select can help with all of this and will assign a team and team leader for your project so the same people will be able to assist you whenever problems arise, as they likely will from time to time.

Still, there's much you need to do yourself. To assure a successful project complete the steps outlined on the following pages. $\frac{9}{5}$



1. Select an outfitting facility.

Your first priority should be to find a completion center that has worked on your aircraft model or on models of the same size and complexity. Other factors to weigh include a center's reputation, proximity to your home base, estimated schedule and labor cost, warranties, and contingency policies for unscheduled issues. (In the case of an older aircraft going through a complete renovation, you'll also want to know whether the facility has additional capabilities, such as the ability to handle airframe, engine, and avionics maintenance and upgrades.)

2. Evaluate your needs.

The interior-design appearance, setup, robustness, and usefulness should reflect your plans for the aircraft—the purpose of your trips, typical stage lengths, and the average number of people per flight. Will only top executives use the aircraft, or will it be accessible to middle management, troubleshooting teams, and the company's customers? Will it be available for personal use by family or friends? Will it be employed as a daily corporate shuttle? How frequently will it fly overseas and on other long trips?

The longer the typical journey, the more attention you should give to food storage and preparation areas, seats or sofas that can be positioned for sleeping, and separate crew and passenger rest compartments. Also, the length and purpose of trips will govern the extent and capability of electronics for phone, internet communications, and entertainment systems.

3. Assemble a team.

Completion centers usually employ design specialists to assist aircraft owners, but owners sometimes

hire their own consultants to work with those specialists. If the flight crew includes a cabin attendant, he or she should also be present during the design phase to provide advice concerning amenities and safety features. At the same time the interior details are being planned, company pilots will be involved in selecting the additional communications, surveillance, and navigation instrumentation appropriate to the aircraft's anticipated uses.

4. Pick materials and colors.

When a design is more or less finalized (modifications and adjustments are to be expected as the work progresses), it is time to settle on exact materials, fabrics, and colors for rugs, cabinets, seats, overhead and side panels, trim work, cabin-section separators, window shades (manual, electrical, or automatic dimming), desks and other tables, storage compartments, cup holders, and lighting. You'll also need to select galley and lavatory accessories as well as the exterior paint scheme and colors.



Attendees at the National Business Aviation Association's 2018 convention examine fabric and color samples from bizav supplier Moore & Giles.

Minutiae Matters

Little things can mean a lot when it comes to completion of an airplane.

When a completion center employee noted that a customer's aircraft was finished except for the installation of one flight-deck instrument and that another customer's aircraft wouldn't be finished for a while but had that same instrument waiting to be installed, he decided to do the first customer a favor: he took the instrument from the inventory stock designated for the second aircraft and had it installed on the first one.

Several weeks after that aircraft left the completion facility, however, the instrument failed and the owner shipped it to the vendor for warranty service. The vendor said warranty coverage wasn't valid because the instrument's serial number showed it belonged to a different aircraft. The problem was eventually resolved by the completion center for both customers but not without a lot of confusion and embarrassment. —G.G.

Be Careful What You Wish For

When an aircraft owner started working with a completion center, he specified that his highest priority was sound reduction. At the time, before the advent of lightweight electronic sound-reducing technology, noise control chiefly involved lead lining. This material is heavy, and the completion center explained to the owner that while using a lot of it would indeed make the cabin quieter, it would also contribute to making the aircraft exceed the recommended weight allowance, resulting in performance penalties. However, the owner continued to insist on maximum noise reduction.

On the acceptance flight, the good news was that the cabin proved to be one of the quietest the facility had ever completed. The bad news: not only did the soundproofing add considerably to weight but it made the aircraft so quiet that virtually every sound in the flight deck—from pilot conversation to warning bells, alert buzzes, and the constant beeping of the autopilot trim adjustment feature—could be clearly heard in the cabin. This interference became so distracting to passengers that it wasn't long before the aircraft returned to the completion facility for a renovation. —G.G.







As you make all these choices, you and the completion center will need to pay constant attention to weight buildup. Every aircraft has a specified weight allowance for the interior completion. If you exceed this allowance, the number of passengers or the amount of fuel you can carry on certain missions will have to be reduced so that the airplane's maximum allowable weight is never exceeded.

5. Preserve the engines.

When an aircraft will be sitting for more than two months, as it will for an interior completion, operators need to preserve the engines. This is known as "pickling," and it can be as easy as ensuring that oil is coating components properly or as complicated as removing and bagging the engines. Neglecting an engine that sits inactive for a protracted period can cause serious problems that aren't covered by a maintenance plan, the completion center, or insurance. (Of course, pickling isn't a concern if you're having engine work performed simultaneously with the interior. Engine work, as well as avionics upgrades, might apply to a used aircraft that is in the shop for an interior renovation.)

6. Monitor the project.

Now it's time for the interior to start taking shape. Someone from your flight department can monitor progress, or you can hire a consultant who specializes in this work and will represent your interests exclusively. In either case, the extent of the individual's responsibilities must be clear. Does the person have the authority to approve changes in scheduling or costs and substituting of items in place of original choices? Or must these sorts of changes be cleared with the CEO or flight-department manager?

During the completion process, your representative will perform phase checks at scheduled times to confirm that all contracted items have been installed and verified for proper operation and appearance. Your rep will also ensure that the airframe insurance keeps pace with the increase in aircraft value as the interior develops.

Don't be alarmed if an ordered part doesn't arrive on time and downtime consequently increases. Downtime beyond the contracted schedule will trigger previously agreed-to cost adjustments.

When the interior is finished, a walk-through inspection is conducted by a group usually consisting of the chief pilot, chief mechanic, head cabin attendant, representatives for major vendor suppliers, and the managing director of the completion facility. Sometimes, the CEO of the aircraftowning company also joins the inspection team. Discrepancies will be noted and a resolution plan prepared. Again, any additional time needed for repair, modification, or replacement of items will be factored into the final completion cost, per the contractual agreement.

7. Paint the exterior.

Once all the principals sign off on the cabin and flight-deck work, the penultimate step in the completion process is exterior painting. The paint shop may be associated with the completion center and its job may be part of your contract with that center. Or the work may require a separate contract with another shop to which the airplane is flown.

8. Take an acceptance flight.

It's been a long time coming, but now the new aircraft is ready for its acceptance flight, the final step before it is officially handed over to you. (Sometimes, an acceptance flight precedes the paint job; this avoids the possibility of paint damage at the completion facility if the airplane must return there for any revisions or maintenance to the interior.)

The acceptance flight will take at least two hours, because approximately 70 items on a checklist-from air conditioning to window

shades—will need to be examined for functionality, appearance, and operability. The list will cover every aircraft compartment: flight deck, forward cabin, mid cabin, aft cabin, passenger entrance, bar/galley, lavatory, and baggage/closet areas.

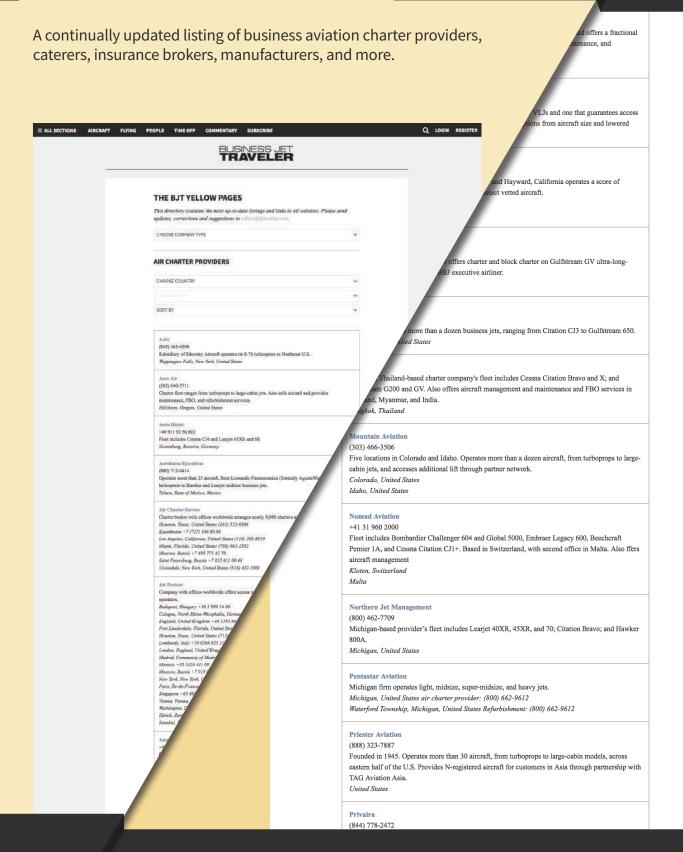
For the test flight, storage areas will be filled with items typically carried on board. For example, silverware, glasses, cups, and plates will be put into their specially designed cabinet dividers in the galley. Lavatory, galley, and drinking water will be loaded for testing faucet, washing, and flushing functions. The flight will also serve to assess initial durability of the paint job, especially if the aircraft flies through precipitation.

Despite all the phase checks that were made on the ground as the cabin was forming, it is likely that glitches will appear during the acceptance flight. The final proof of proper form, fit, and function is a factor of the flight itself as the fuselage flexes, expands, and contracts or experiences turbulence. These motions might reveal rattles of cabinet doors or dishware. Narrow gaps between connections might expand. Deployment of oxygen masks and oxygen flow may not operate as intended. Phone or internet service may not work properly. Water leaks may occur. Folding tables may not move smoothly.

However, unless emergency or other essential items prove faulty, you might wish to sign off on the acceptance flight to get the aircraft into operation as soon as possible and arrange for relatively minor problems to be addressed later. After all, you will have just spent months overseeing the transformation of an empty cylinder into a custom-designed interior. Now it will be high time for you to enjoy the fruit of your labor-and expense. BJT Happy flying.

Gordon Gilbert (ggilbert@bjtonline.com) is a former senior editor at BJT sister publication Aviation International News.

BJT YELLOW PAGES





Question: When is a lower-cost derivative aircraft better than the original? Answer: When it's the Global 5000, which Bombardier began delivering in 2005.

Both the range and passenger section of the large-cabin Bombardier Global 5000 are slightly shorter than what its Global XRS big brother offers, but lower acquisition and operating costs and champion short-runway performance more than compensate for these deficits.

A 10-year-old 5000 in good condition can fetch up to \$14 million (retail), according to the aircraft pricing service Vref. That's \$4 million less than you might pay for a similar vintage XRS,

whose cabin is a mere 2.5 feet longer. The main differences reveal themselves in runway requirements, range, and payload capabilities.

True, the XRS with a full bag of gas can fly 6,471 nautical miles nonstop, but to do so, it needs 6,476 feet of takeoff runway and is limited to a payload of 5,770 pounds. Conversely, a fully fueled 5000 can fly 5,200 nautical miles, taking off from a 5,540-foot runway and carrying 7,139 pounds of payload. For shorter flights, it needs considerably less pavement: on a 1,000-nautical-mile flight, the 5000 requires a takeoff distance of just 2,743 feet; and on a 3,000-nautical-mile trip, it needs just 3,800 feet

(sea level, standard temperature). It's this kind of versatility that makes the 5000 an attractive choice for those who don't regularly require the range of an XRS.

While the 5000 compares well with bigger, long-range, large-cabin offerings like the XRS, it fares even better when measured against competing aircraft in its peer group, such as the Gulf-stream G450 and the Dassault Falcon 900EX. The 5000's cabin is roomier than that of either of those competitors, with the widest cross section (just over eight feet at centerline), longest seating area (about 27 feet), and most headroom (six feet, three inches) in its class. The cabin is divided into



three approximately nine-foot-long zones with enclosed forward and rear lavatories, a large galley that can support two in-flight meals, and an optional rear stateroom.

While many cabin layouts were offered for this jet, the most commonly employed one features a forward crew closet and lav followed by the galley; then a forward club-four area of single executive seats and a four-seat conference grouping with table opposite a credenza; and an aft stateroom with either two facing three-place 80-inch divans or a divan and two single seats. The cabin is extremely quiet, with a sound

level at cruise flight measured at 52 decibels.

Thoughtful details further enhance passenger comfort. The single executive passenger seats feature integral headrests, contoured backrests, fully flat berthing and compound curve arms that support natural arm placement regardless of recline angle. The contoured seat backs provide two to three inches of additional legroom. Storage, life vests, and video screens are accessible through forward-facing hinged doors on the front of the armrests. The seats were available with the customer's choice of either the industry standard Dax foam or viscoelastic memory foam, which is similar to the

Range*	4,655 nm		
Max cruise speed	511 ktas		
	Height: 6.17 ft		
Cabin dimensions	Width: 8.17 ft		
	Length: 42.7 ft		
	Volume: 1,889 cu ft		

*seats full, IFR NBAA 200 nm reserve

Economics

Total variable cost/hour	\$5,438
Total fixed cost/year	\$1,012,847
Total cost/year**	\$4,295,095

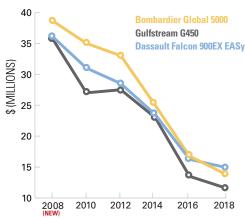
**Includes variable and fixed costs plus market deprecation and assumes usage of 175,000 nautical miles and 405 flight hours. Source: Conklin & DeDecker, Orleans, Mass.

Visit **BJTonline.com** for a searchable aircraft guide that contains detailed performance, specifications, and expense data for this and all other popular business aircraft.



FAIR MARKET VALUE

price comparison of competitive aircraft



Source: Vref Publications (vrefonline.com)

material in high-end mattresses. A full-function powered seat is optional.

The bifold sidewall cabin tables fold out flush with the top of the side ledge to provide more usable and comfortable surfaces. They extend from the dado panel rather than from the side ledge and incorporate an easy-to-use, pull-out-and-retract mechanism. The hi-lo conference table features a single-pedestal design that greatly increases legroom. Again, it deploys with its top flush with the top of the side ledge. The four integral cup holders are available regardless of how

many table panels are unfolded. An electrically deployed conference table is available.

The small, low-mounted cabin windows have long been an esoteric sore point for Global Express owners. While the 5000 uses these same windows, its interior window surround increases the direct line of sight up to 40 percent. Light-emitting diodes (LEDs) illuminate the cabin. The standard installation features white, amber, and red for wash lights while red, green, and blue mood lighting is an available option. You can control lighting for the entire cabin from a galley

touchscreen or from controls at the VIP passenger seat. Reading-light controls are at each seat.

The Global 5000 originally came with the Rockwell Collins Airshow 21 cabin entertainment and information system, which offers digital Ethernet and on-demand audiovisual distribution to laptops, high-speed data capability, onboard firewall and dedicated channels for Inmarsat and Iridium satellite communications. More modern Ka-band systems can be retrofitted onto the aircraft and Bombardier and

The 5000 has innovative systems that minimize the impact of mechanical and electrical faults.







third-party providers began doing that earlier this year. The installation takes about 18 days if done concurrently with a major aircraft inspection and systems are priced between \$600,000 and \$700,000.

The aircraft's 24.7-gallon potable-water equipment is lighter than the system on the Global Express and is designed for single-point servicing, which takes only 10 minutes. Water recirculates in a closed loop once a minute (without use) throughout the system, which features a UV sterilizer and electronic monitoring for status and fault reporting. The Global 5000's forward and aft lavatories enable a private rear "stateroom" design with one or two berthing divans.

Forward holding-tank lavs in business jets have traditionally spawned in-flight olfactory problems. However, the 5000 comes with a vacuum lav system that minimizes this concern and that can be monitored electronically for maintenance needs. The system uses 16 gallons of fluid and requires servicing only every 128 flushes.

A generously sized baggage compartment is accessible in flight through the rear lavatory. The galley is designed for two five-course meal services (eight passengers each). It features microwave and high-temperature convection ovens and a chiller.

iven its 5,200-nautical-mile range, the 5000 can reach the central U.S. from anywhere in Europe. It can also fly unrefueled from New York to São Paulo, Brazil, or from Tokyo to Sydney, Australia—and, thanks to its Mach 0.85 cruise

Global 5000 compared with other aircraft

Model	First year produced	Variable cost/hour	Seats exec/max	Range (nm)	Normal cruise (kt)	Max takeoff weight (lb)
Global 5000	2005	\$5,438	13/19	4,860	488	92,500
Falcon 900EX EASy	2003	\$3,873	12/19	4,630	459	49,000
Gulfstream G450	2005	\$4,509	14/19	4,364	476	74,600

Assumptions: Aircraft are 2008 models. Jet fuel \$4.48/gal; variable cost: fuel plus maintenance reserves; four passengers;

NBAA IFR 200 nm reserve fuel; passenger weight 200 lb includes baggage; two pilots.

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

speed, it can do this an hour faster than either the Falcon or the Gulfstream. (Global 5000s produced before 2007 had a range of 4,800 nautical miles; after that, Bombardier offered extra fuel capacity—and thus extra range—as a \$1 million add-on option that has now been incorporated into most of the fleet.) The swift speed comes courtesy of highly swept wings mated to a pair of Rolls-Royce Deutschland BR710A2-20 engines (14,750 pounds of thrust each).

The 5000 has a ceiling of 51,000 feet, enabling it to cruise above almost all of the worst weather. The airplane will also likely be able to reach its destination in any but the foulest of conditions, thanks to capable but dated avionics that include the Honeywell Primus 2000XP system and the Thales heads up display. And while no airplane is immune from downtime due to mechanical or electrical faults, the Global 5000 has innovative systems that will minimize the impact, including a central aircraft information and maintenance system (CAIMS). This system

provides real-time data and can even automatically order replacement parts and provide instructions on how to install them. Available cockpit updates include new, brighter LCD displays. A full avionics upgrade to the Primus system will run around \$650,000 if performed during a major maintenance inspection.

Bombardier supports the aircraft via per-hour programs including Smart Services, with an estimated 60 percent of the Global fleet currently enrolled. The program covers replacement costs of major components and select rotables in exchange for a per-hour flight fee.

The Global 5000's attributes add up to a lot of short-field utility and large-cabin comfort for buyers who don't require 6,000-nautical-mile-plus range. If a 10-hour airplane is all you really need, you'd be hard-pressed to do better than this.

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

READY FOR TAKEOFF

This recurring editorial feature spotlights aircraft that are for sale at press time. For this issue, we asked dealers to tell us about aircraft they're currently offering for \$10 million or more. **BJT**'s editorial department selects aircraft for inclusion and the magazine receives no compensation in exchange for coverage. Brokers wishing to have their inventory considered for this department should email readyfortakeoff@bjtonline.com.

Aircraft selling for \$10 million or more



→ 2010 Embraer Lineage 1000

You'll have room for more than a dozen friends, family, or colleagues on this Lineage, which has 2,301 flight hours. The aircraft features a well-equipped galley, Blu-ray players and widescreen monitors, and two lavs. The airframe is enrolled in Embraer Executive Care and the engines are enrolled in GE OnPoint.

Asking price: \$21.95 million **Broker:** The Jet Business



← 2005 Dassault Falcon 2000EX EASy

Configured for 10 passengers, this jet underwent a 2C inspection and gear overhaul last year, at which time NextGen compliance was achieved. The aircraft, which has had two owners, features state-of-the-art equipment and has been maintained at a Dassault-approved service center. It has 2,551 flight hours.

Asking price: \$10.995 million

Broker: Par Avion



↑ 2004 Dassault Falcon 900EX EASy

This 12-passenger jet, which has had only one corporate owner, features a Honeywell EASy II avionics suite and an Ovation Select entertainment system. It has accumulated 7,382 flight hours. With four passengers, it has a range of 4,475 nautical miles.

Asking price: \$13.25 million **Broker:** Guardian Jet

2010 Gulfstream G550 ->

Still owned by the Fortune 100 company that bought it new, this jet offers the latest avionics, a well-equipped galley, and a 16-passenger cabin with three distinct sections and individual berthing for up to seven people. Flight time to date totals 4,142 hours.

Asking price: make offer **Broker:** Guardian Jet





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Making sense of current sales data

Transaction and inventory statistics indicate a steadying market, but some wonder how long this situation can last—or whether the business has, in fact, even stabilized.

by James Wynbrandt

fter a decade of wishful thinking and 2017's banner year for transactions, the long-awaited market turn appears to finally be upon us, marked by stabilizing prices and a shrinking supply of aircraft.

"This is a fundamentally different marketplace than just 12 to 18 months ago," says aviation consultant Rolland Vincent, who notes that buyers are no longer "blessed with the luxury of time and a variety of good inventory from which to choose."

Bizav data research firm Amstat reported "a tightening of aircraft inventories across all market segments" in its mid-year "Business Jet and Turbo-Prop Resale Market Update," which cited the 9.1 percent of the business jet fleet for sale as "the lowest overall percentage since 1998."

In June of this year, 1,966 preowned business jets were for sale globally, according to JetNet, compared with 2,301 a year earlier, a 1.7 percent drop from the 10.8 percent available in mid-2017. Meanwhile, JetNet recorded 1,344 retail preowned business jet sale and lease transactions through the first half of this year, 0.2 percent more than last year's record-setting 2,700-plus deals. Crowed Jay Mesinger, CEO of Mesinger Jet Sales, "We haven't

enjoyed this phenomenon of high demand and low supply since the '08 downturn."

Even AircraftPost president Dennis Rousseau, a reliable glass-half-empty observer with the data to back up his views of an ongoing decline in values, admits to seeing "relatively small upticks" in some prices, an indication that "there's value for the dollar" for buyers and sellers in the market.

As a buyer of preowned aircraft, if you don't accept that the market has shifted toward the seller's side, you "may have to miss a few deals to realize the message is honest," says Chad Anderson, president of

brokerage Jetcraft. "[Buyers] outwager the negotiations to the point where they miss the airplane they really want. It's painful. It's awkward. Even when we're the seller."

If you're a seller yourself, you don't have to take the first offer for fear of not getting another, and though an upward price adjustment may not be possible, you can be more demanding in the sale agreement than you probably could have been a year ago. "Most sellers today want hard transactions, not soft transactions," says Mesinger. "The deposit becomes non-refundable at contract signing, and the contract should include very specific delivery conditions."

Even as signs point to a market rebound, people are asking how long it can last. Brian Proctor, CEO of private aviation consultancy Mente Group, sees a sales slowdown ahead. Proctor, who chairs the International Aircraft Dealers Association (formerly NARA), points to "an incredible contraction in availability of latemodel airplanes," which will reduce sales, along with a shortage of prebuy inspection slots as FAA-mandated ADS-B technology upgrade work occupies maintenance-and-repair facilities.

Others question whether the preowned market has even turned. While noting "genuine stimulants that bode well," Paul Cardarelli, a JetNet vice president, said he's "still reluctant to declare the market in full recovery." He cites "real challenges" that include "soft residual values on nearly all models, fleet utilization sharply down from prerecession levels, and a market that is geographically concentrated and in general oversupplied."

BUSINESS AIRCRAFT FOR SALE 2015–18



AircraftPost's Rousseau also disputes talk of a supply shortage, dismissing such claims as "rhetoric." Citing stats for various models, Rousseau says, "No one can make the comment that there's no inventory at this stage of the game."

Buyers and sellers alike have to realize that the market remains thin and that the outcome of any deal is about the individual aircraft more than any surrounding noise about trends. Also remember that all data services track their own group of aircraft, so their numbers and percentages rarely agree, but the general trends reflected usually do. Still, even within each provider's reports, there's enough data to dispute or corroborate just about any generalization you might make about the market.

Value-retention percentages, which have plunged over the past decade, can also be deceiving, as the factory-new prices they're based on may be incorrect. Moreover, the raw figures don't show the shape of descent, which reveals changing valuations that are part of every market, as preowned airframes come in and out of demand.

But if you'd like to know in simple terms how a particular jet has performed in the preowned market recently, you can check new charts from AircraftPost that show the change in value over the past 24 months of a specific model year business jet. According to the data, despite the vaunted power of large-cabin aircraft in the preowned market, the 2012 Citation CJ4 (\$6.1 million), 2014 Lear 75

PROJECTED 15-YEAR PRICE CHANGES FOR SOME POPULAR MODELS

MODEL	2018 PRICE	PROJECTED 2033 PRICE	PROJECTED RESIDUAL VALUE
Bombardier Challenger 650	\$32.35M	\$18.45M	57%
Cessna Citation CJ3	\$8.30M	\$6.18M	74%
Embraer Phenom 300	\$9.45M	\$6.46M	68%
Falcon 8X	\$59.30M	\$37.99M	64%
Gulfstream G600	\$57.90M	\$51.78M	89%
HondaJet	\$5.33M	\$1.68M	31%

Source: Vref Publications

AVERAGE SALE PRICES FOR SOME POPULAR BUSINESS JET MODELS

				2018	2017–18
	Aircraft	2016	2017	YTD*	% Change
토	2012 Citation CJ4	\$6.6M	\$6.0M	\$6.05M	1%
SMALL/LIGHT	2014 Lear 75	n/a	\$6.1M	\$6.2M	2%
MALL	2008 Lear 45XR	\$3.45M	\$3.4M	\$3.4M	0%
S	2012 Embraer Phenom 300	n/a	\$5.9M	\$6.1M	3%
	2009 Citation XLS+	\$6.0M	\$5.6M	\$4.75M	-15%
	2000 Lear 60	\$1.8M	\$1.5M	\$1.6M	7%
ZE	2008 Lear 60XR	\$3.2M	\$3.4M	\$3.25M	-4%
MIDSIZE	2000 Hawker 800XP	\$1.9M	\$1.85M	\$1.3M	-30%
Σ	2008 Gulfstream G150	\$5.5M	\$5.4M	\$5.0M	-7%
	2008 Citation Sovereign	\$7.4M	\$6.2M	\$6.1M	-2%
	2015 Citation Sovereign+	n/a	\$12.9M	\$11.1M	-14%
щ	2000 Citation X	\$3.5M	\$3.2M	\$3.2M	0%
SUPER MIDSIZE	2010 Challenger 300	\$11.0M	\$10.1M	\$10.5M	4%
Z Z	2014 Gulfstream G280	\$17.4M	\$16.9M	\$16.05M	-5%
UPE	2008 Falcon 2000 EASy	\$14.9M	\$12.0M	\$12.3M	3%
S	2009 Challenger 605	\$11.9M	\$8.8M	\$9.9M	13%
	2008 Gulfstream G450	\$14.1M	\$12.3M	\$12.05M	-2%
\rightarrow	2004 Global 5000	n/a	\$11.5M	\$9.1M	-21%
MEA	2000 Gulfstream GV	\$10.9M	\$9.8M	\$10.1M	3%
LARGE/HEAVY	2000 Global Express	\$9.6M	\$9.0M	\$9.2M	2%
5	2008 Gulfstream G550	\$21.6M	\$19.6M	\$20.0M	2%
	2012 Global 6000	\$35.5M	\$31.5M	\$28.5M	-10%
*as of November 1 n/a = not applicable (no sales). Source: AircraftPost.com					

(\$6.2 million), and 2012 Embraer Phenom 300 (\$6 million) led the field in value retention among the tracked jets, with each up 1 percent in value over the past two years. The 2000 Hawker 800XP was the worst performer, dropping 30 percent over the same period. Bombardier's 2012 Global 6000, in the twilight of its flagship reign with the impending arrival of the Global 7500 and 6500, is down 9 percent over the period.

hether you're a buyer or seller, of course, you want to know where the market is going, not where it has been, and in the near future you may not need to sift through tea leaf–like data or peer into a rearview mirror to identify a trend. Vref, the aircraft valuation and appraisal service, in October released its first annual "15 Year Residual Value Forecast,"

covering all new, in-production business jets; piston, fixed-wing, and light sport aircraft; and helicopters.

If you buy a 2018 Phenom 300 today (\$9.45 million), it will be worth \$6.46 million in 2033 (68 percent value retention) according to Vref's data, which shows the projected value for every year from now until then. The midsize jet may not have the range or speed of a new Global 6000, but it will still outperform it in the preowned market, Vref says, with the Global retaining only 26 percent of its \$62.31 million value, or \$16.22 million in 15 years.

Computing the values is "part science and part experience, with new data needing to be correlated daily," says Vref CEO Ken Dufour. If his company is correct in its forecasts, the data could be market turning in its own right.

James Wynbrandt (jwynbrandt@bjtonline.com), a multiengine instrumentrated pilot, is a longtime BJT contributor.









tah's Wasatch Mountains offer some of the world's best and most accessible wilderness downhill skiing opportunities—especially for those who ride a helicopter to starting points that are at elevations of 7,000 to 11,000 feet. From there, you can enjoy deep-powder runs, some beginning above tree line, that are 1,000 to 3,000 feet long and descend through scenic alpine bowls and glades.

The downhill season here is December through April, with a peak period from January 15 through March 15. Although the 2017–18 season started with a disconcerting near-zero snowpack, storms hit the Wasatch Range on cue and, by April, accumulation had built to 50 to 60 percent of normal. Utah slopes typically receive 400 to 500 inches annually but even in a year with just 300 inches, there's much more snow here than in any other region in the West.

Powderbird Helicopter Skiing, the area's oldest and largest heli-skiing operation, has been introducing adventurous folks to this extraordinary Rocky Mountain backcountry since 1973. It employs AStar single-engine helicopters to fly four guests and a guide on daily trips that typically run from 8 a.m. to 3 p.m.

Powderbird manager Jared Grant advises his privatejet customers from Aspen to San Francisco—an hour to an hour-and-a-half flight away—to sign up for his "storm watch" for last-minute charter opportunities when fresh powder bestows ideal conditions.

"Any predictions for this year's weather?" I asked Grant. He laughed, then noted that even in winters with relatively low precipitation, the beauty of mobility by air is that "we always manage to find snow."

Thomas R. Pero (tpero@bjtonline.com) is publisher of Wild River Press. His latest book is *Turkey Men*.



How to win the battle against jet lag



Crossing time zones can leave you feeling awful. Here's what experts recommend.

by Marion Flanagan

ots of products promise miracle cures for jet lag. The plethora of panaceas includes herbal homeopathic tablets, melatonin-based liquids, wearable blue-light therapy devices, caffeine pills with B vitamins, and hematite bracelets with supposed "grounding" powers.

Do any of these things work? Research suggests that while some products may help minimize symptoms of jet lag, there are few ways to completely eradicate the groggy stupor that invariably follows flying across multiple time zones. Moreover, chronic jet lag is linked to a host of health issues, including cancer and heart disease.

What's a frequent business traveler to do? Controlling your exposure to light is key, according to many experts. That's because light is the primary signal to your internal circadian clock, which regulates melatonin levels and wake-sleep cycles. Jet lag throws off that clock and, the more time zones you cross, the worse you feel-especially when you're flying east and losing hours.

One of the most effective ways to speed the circadian-reset process is by tricking your body with light. Does that mean spending a few hours outdoors in a new destination will do the trick? It depends on whether you're traveling east or west, and on the times you depart and arrive.

The rule of thumb is that if you're flying east to west, you need evening exposure to light. If you're going west to east, you need morning light. But research from the Rush University Medical Center in Chicago suggests there are more specific lightbased strategies for resetting melatonin levels.

Start by estimating when your body reaches its minimum temperature—generally two hours before your usual wakeup time if you sleep seven hours per night or three hours before waking if you sleep more. When traveling east, it's best to avoid light for four hours before your body temperature minimum and find light four hours after it. Then adjust your sleep schedule to shift your minimum body temperature time one hour earlier each day. If you're traveling west, adjust your sleep schedule to shift your minimum body temperature one and a half hours later each day.

If you ignore the optimal light/dark periods and expose your body to light during a dark cycle or vice versa, you run the risk of worsening jet lag and shifting circadian rhythms in the wrong direction.

Several apps can help you develop a multiday schedule that lessens jet lag (see sidebar). But if you need a quick fix for a faster turnaround, some research suggests, the best option is light therapy.

Exposing people to short flashes of light during a sleep cycle hacks the biological clock and resets it faster, according to a 2016 study by the Stanford University School of Medicine. The

process, which is most effective at night, tricks your body into adjusting to a different time zone before takeoff and could be more effective than continuous light. The light flashes, which are delivered in millisecond pulses, trigger the retina cells that send light signals to circadian systems and ultimately to the part of the brain known as the hypothalamus. The hypothalamus tells the pineal gland when to release melatonin.

Lumos Tech is delivering on the Stanford research with what it calls a Smart Sleep Mask, which offers personalized light therapy using LED bulbs. While the \$175 product isn't on the market yet, the company website is taking reservations. A smartphone app controls the device, which Lumos Tech hopes to sell to everyone from business travelers and night-shift workers to astronauts.

Ome research suggests that like light, eat-Jing times play an important role in resetting melatonin and circadian rhythms. There is conflicting data on whether jet-lag diets work: the Mayo Clinic says the strategy is unproven while a 2016 study by England's University of Surrey found meal times were critical to adjusting circadian rhythms.

For what it's worth, several dozen travelers have given high marks on Amazon.com to the book The Cure for Jet Lag (originally published in 1987 as Overcoming Jet Lag), which focuses on

If you're flying east to west, you need evening exposure to light. If you're going west to east, you need morning light.

diet rather than light exposure. The authors, Dr. Charles F. Ehret and Lynne Waller Scanlon, offer guidelines for consuming alcohol, caffeine, and food, starting four days before an international trip. Among their simple rules: restrict caffeine for the first three days, except from 3 to 5 p.m., the only two hours when caffeine doesn't affect circadian clocks.

According to Ehret and Scanlon's diet, days one and three are "feast days" of high-protein breakfasts and high-carbohydrate dinners, while days two and four are "fast days" with limited carbs and lots of liquids. The high-protein meals are meant to be stimulants, while the high-carbohydrate meals act as sedatives. On the day before travel, advise the authors, limit caffeine intake to between 6 and 11 p.m. if you're traveling east and to the morning if you're traveling west. The book also suggests a high-protein breakfast at the destination breakfast time and staying awake with lights on after the meal.

While this diet may or may not help,

there's little question that alcohol, dehydration, and sleep deprivation can worsen jet leg. So drink plenty of liquids—but not alcohol—and get lots of rest before a trip. And keep in mind that some people withstand time-zone changes better than others—your own experience depends on your light sensitivity and deep-sleep patterns.

Once it's time for some shut-eye, try strategies to precipitate slumber, such as noise-cancelling headphones paired with a white-noise app. Melatonin may also ease jet lag. A 2002 review by Cochrane, a nonprofit medical research organization, claims it's most effective if you're flying east and across five or more time zones. There's no scientific consensus on melatonin, however—and there's still wide debate about what best mitigates jet lag.

New Jersey-based freelancer Marion Flanagan (mflanagan@bjtonline.com) combatted jet lag on a trip to Verona, Italy, which she wrote about for BJT's April/May 2018 issue.

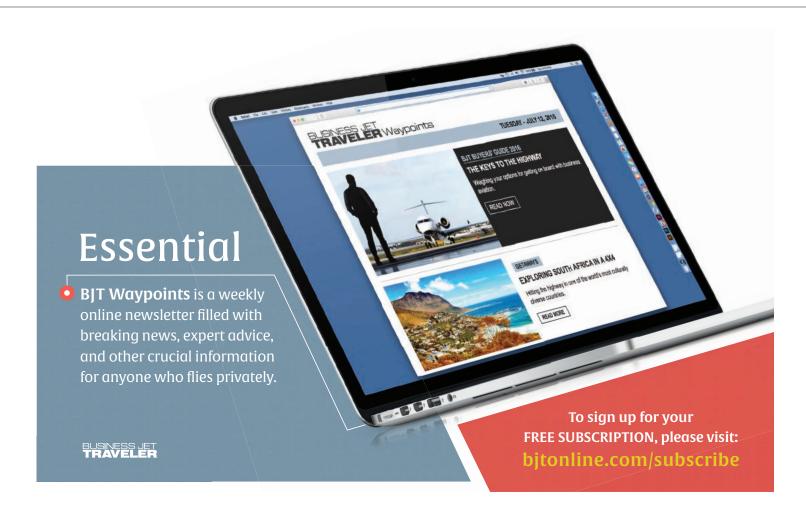
App Therapy

Several smartphone apps offer tips and schedules to reset circadian clocks to new time zones. Here are three, all of which are free and available for both iOS and Android devices:

Entrain. This app, developed by researchers at the University of Michigan, offers optimal light exposure and sleep schedules based on destinations. Smartphones monitor whether you're in light or dark environments. The app, while helpful, may not be practical for you if you can't follow long light or dark periods during a hectic business schedule.

Stop Jet Lag. This app runs on software developed by Dr. Charles Ehret, coauthor of *The Cure for Jet Lag*. It takes a multi-pronged approach to shifting the circadian clock by monitoring sleep patterns, light exposure, food, and caffeine intake. Melatonin supplements are also recommended during sleep-cycle times at the destination.

Jet Lag Rooster. This app maps out ideal sleep times and light/dark exposure based on your starting point and destination. It also suggests melatonin, and when to take it, to sync circadian clocks. You can start the sleep calculator on arrival or a few days before departure, and use the app's alarm to signal when to seek light, for example, or when to go to bed. —*M.F.*





OTOS COURTESY BMW EXCEPT WHERE INDICATED

On a picturesque journey through the French countryside, our reviewer experiences what he calls "the sweetest bike I've ever ridden."

by Matt Thurber



'm cruising along at nearly 90 miles an hour (140 km/h), easily keeping up with my traveling companion, Vadim Feldzer, on his BMW R 1200GS. The big twin cylinders on the BMW that I'm riding—a 2018 R nineT Pure—are hardly working, emitting a smooth, barely perceptible grumble as the pavement rushes by.

I notice Vadim lengthening his lead so I twist the throttle and the grumble deepens to a throaty pulse of power as the R nineT leaps forward. A huge reserve of energy is on tap, and at 140 km/h, the 1,170-cc, 110-hp engine is just ticking over and eagerly awaiting my command for more speed.

The occasion of this ride through the early summer countryside north of Paris is a happy confluence of business travel plans involving a test flight in a Falcon 8X business jet with Vadim's employer, Dassault Aviation, and some extra time tacked onto the trip for fun activities.

Thanks to Vadim's connections with the local BMW Motorrad rep and his loan of a demo R nineT, I am humming along on the sweetest bike I've ever ridden. After pulling out my iPhone at our first stop to see how much one of these beauties would cost (\$15,495 base price), I decide it might be time for a motorcycle upgrade.

Our destination is Aéroport Albert-Picardie, a sleepy airstrip that is famous for the occasional visit by an Airbus Beluga, the modified airliner that transports too-big-to-truck Airbus components made in the nearby factories to one of the airframer's final-assembly facilities in Europe. We are going not to see a Beluga but to visit with the Amicale des Avions Anciens d'Albert, a volunteer organization entirely dedicated to maintaining two rare World War II Dassault Flamant twin-engine bomber/observation airplanes. That our trip includes a flight in one of

them is icing on what is turning out to be a wonderful cake.

When motorcycles are involved, however, it's all about the journey—especially when the bikes are as excellent as the ones we're riding.

The R nineT offers an ideal combination of power and stripped-down elegant utility. A boxer engine classic BMW—two opposed air-cooled cylinders riding mid-frame—this motorcycle presents itself as a clean and uncluttered machine, but the beauty of the design is that it is highly customizable, not only mechanically but also, surprisingly, electronically.

Weighing just 489 pounds fully fueled (4.8 gallons), the R nineT offers a comfortable 31.7-inch seat height, although a custom 31.3-inch seat is available. The rear pillion structure of the four-part frame is removable for when one rider is onboard. The aluminum fuel tank helps cut weight. Antilock braking is standard as are spoked wheels and the onboard computer and multifunction display. Automatic stability control is an option and assists the rider in dealing with unwanted rear-wheel spin.

For the buyer who wants to personalize the bike, BMW provides options galore, from colors (Vintage added to the base Black Storm Metallic or Blue Storm Metallic/Aluminum) to Billet Packs with "BMW Spezial" machined external parts offering visual confirmation of the precision engineering inside the machinery.

Compared with the motorcycle that I'm used to riding, my now ancient-feeling 1981 Honda CB750K, the R nineT is a spritely, smooth-handling dream.

y time with it begins early on a Saturday morning, as we try not to create too much noise exiting Vadim's garage underneath his home near the Bois









BMW R nineT at a Glance

Base price	\$15,495	
Engine	Air/oil-cooled 4-stroke flat twin with balance shaft, 4 valves per cylinder, double overhead cam, wet sump lubrication	
Capacity	1,170 cc at 7,750 rpm	
Rated output	110 hp	
Maximum torque	86 ft/lb at 6,000 rpm	
Transmission	6 speed	
Fuel capacity	4.8 gal (premium unleaded)	
Fuel consumption	44 mpg	
0-60 mph acceleration	2.9 seconds	
Top speed	Over 125 mph	
Weight	489 lb	
Warranty	3 years/36,000 mi	
Source: BMW (except acceleration, from R nineT owners)		

BMW R NineT Pure

de Boulogne in Paris's 16th arrondissement. Traffic isn't bad at this hour, and it doesn't take us long to wend our way through the city streets and almost halfway around the encircling Périphérique, then onto the A1 freeway heading north. So far, Paris drivers are being kind to me, and it isn't hard to keep up with Vadim.

Once on the A1 and past the speed restrictions around Charles de Gaulle Airport, Vadim pours on the power and soon the gorgeous green landscape of the massive Trois Forêts (three forests) region flashes by.

It doesn't take me long to get used to the R nineT's solid feel and large reserves of power. Cruising along, I never have to hesitate before flying past a slow car or truck. I like having ABS and don't feel that having that critical safety feature makes me more reckless. Perhaps more confident, but that's probably a feeling shared by many BMW riders.

After about an hour on the freeway, it's time to exit onto the A29 and slow to a less frenetic

The beauty of the design is that it is highly customizable, not only mechanically but also, surprisingly, electronically.

pace. Soon, we turn onto an even smaller road and motor past picturesque little towns with unfamiliar names, looping down gentle rolling grades and around well-designed curves. The R nineT holds the road like a champion; I feel as if I could lean almost perpendicularly, and snatching a boatload of power and pulling out of the curves seems oh so natural.

We cut across the River Somme, then past finely furrowed farms onto the quiet grounds of Aéroport Albert-Picardie, where we enjoy the promised ride in Flamant F-AZKT. Vadim and I are spellbound as Airbus A380 pilot Claude Mercier flies the ancient twinengine bomber over the Somme at 500 feet, swooping around the many World War II memorials that dot this verdant landscape.

All too soon, it's time to fire up the BMWs and return to Paris. Vadim chooses a different route back so we can carve some turns on perfectly smooth country roads before zipping onto the A1. As we dip into the turns and climb and descend the swales that mirror the precisely plowed farmland, the soft music of the motorcycles' engines rises and falls, a distinct counterpoint to the regular roar that will soon accompany the upcoming freeway.

We pick up the Al and resume our afternoon high-speed cruise south toward Paris. After breaking up the tedious freeway bit



PHOTOS THIS PAGE: MATT THI IBBEE

with a gas stop, and while we are fueling up, Vadim, with an adventurous smile, asks whether I would enjoy riding through the heart of Paris instead of circling around on the Périphérique. Tooling through traffic-jammed streets, between cars, buses, motorcycles, bicycles, and pedestrians without ruining my borrowed R nineT? Count me in!

It isn't long before we emerge from the Trois Forêts and zoom by CDG Airport. The A1 traffic remains light, but then we drive under the Périphérique and begin the slow slog through the City of Lights.

n the R nineT, the ride on Paris's crowded streets is far less nerve-racking than I expected. I would never want to do this on my bulkier Honda, but I can motor the slim BMW between tight spaces, slipping next to a slow-moving bus

in one moment, then just in time taking advantage of a narrow alleyway between columns of cars and catching a fading green light to blast through an intersection.

The BMW's smooth-shifting six-speed transmission moves quickly to the desired gear, throttle at the ready to pump a hefty dose of power to the rear wheels just when I need it. On the other end of the spectrum, powerful anti-skid brakes keep me out of trouble and help me stop when and where I want with no worry about skidding the rear wheel.

All sorts of pavement types cross our paths, and the R nineT's fine suspension takes each on with nary a complaint, from smooth macadam to bubble-shaped cobblestones.

Of course, I have no idea where I am, but when we start riding parallel to the Seine River, I have an inkling that Vadim soon confirms,

when he asks whether I would like to stop for a clichéd pose in front of the Eiffel Tower. "Mais oui," I assure him in my best high-school French. "Je suis Américain!" Of course I want to do that!

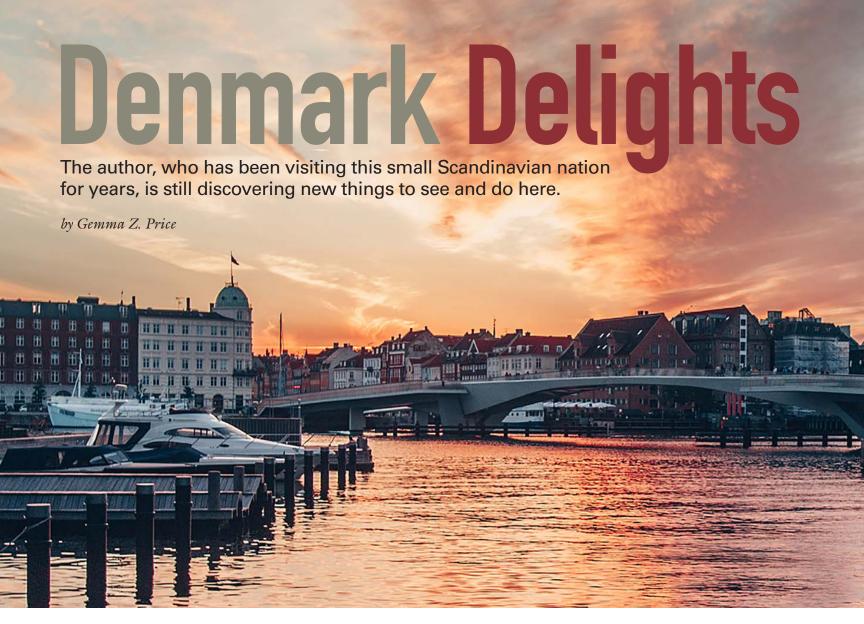
Vadim leads me through a few tight U-turns and up a sidewalk that apparently is the go-to spot for wedding photography. We park the BMWs on a bridge with a perfect view of the tower and take photos, in between the wedding parties and selfie-shooting tourists.

When we pull into Vadim's garage and put the bikes to bed, I can't help but feel enormously satisfied, for a safe and adventurous ride outside my normal motorcycling range, for enjoying the French summer countryside in a way few are able to experience, and for the opportunity of a day of riding on a magnificently engineered motorcycle.

I can motor the
slim BMW between
tight spaces, slipping
next to a slow-moving
bus in one moment,
then taking advantage
of a narrow alleyway
between columns
of cars.

MattThurber (mthurber@bjtonline.com) is editor in chief of AIN Publications, publisher of **BJT**.





overing 200 feet in the air atop Tivoli Gardens' Golden Tower ride, I see central Copenhagen laid out before me. I spot a few landmarks—the copper-spired city hall, the blue screens of Pritzker Prize—winner Jean Nouvel's Danish Radio Hall—before the platform lurches and drops straight down, the cityscape swallowed by rooftops amid the gleeful screams of my fellow riders.

Established in 1843, Tivoli has delighted generations of locals and visitors, and every time I come to Copenhagen I find myself lured back here. I love to ride the century-old wooden rollercoaster, controlled, terrifyingly, by an attendant who stands on the car, pulling a lever. Today, as I dig into pork belly with lingonberry inside the Victorian greenhouse–inspired dining room at Gemyse's, a parade passes by outside,

and I see the park's white-faced mascot, Pjerrot, dancing and waving to the crowds.

There's a magic to Copenhagen that has survived the march of urban development, and as I explore its interconnected tiny islands by bicycle or boat, I'm constantly struck by how seamlessly the city's 850-year history is layered with urban development.

Nowhere is this more apparent than from the zero-emission, skipper-it-yourself GoBoat, cruising up the middle of the Øresund—the stretch of water separating Denmark from Sweden. Looking left, I can see Nyhavn (new harbor), where fishing boats and handsome masted ships have docked between ochre, blue, and red canal houses to unload spices and textiles since 1629. To the right, the grill-like, glass-and-steel façade of Henning Larsen's Opera House—nicknamed

brødristeren (the toaster)—gleams in the sun.

Just beyond, there's another odd pairing: "free town" Christiana, established by hippies on ancient fortifications in 1971 and a hub for arts and culture (and smoking weed in shaded cubbies, out of sight of the police); and its neighbor, chef René Redzepi's lauded New Nordic restaurant Noma, which reopened last February.

But today I continue past Amalienborg, Queen Margrethe II's winter residence, to the city's Little Mermaid, a bronze statue that has been gazing wistfully out to sea since being gifted to the city by the Carlsberg Foundation in 1913. In recent years, this sculpture, inspired by Hans Christian Andersen's namesake fairytale, has been a target of public vitriol: she has been decapitated twice, been covered in paint multiple times, had her arm sawn off, and been blown





Denmark Delights



Left: Danish modern chairs at the Design Museum Danmark. Below: Cirkelbroen.

into the harbor with explosives. I don't feel the need to resort to vandalism but her diminutive size and setting are somewhat underwhelming.

Other gifts from the Carlsberg Foundationestablished by Carlsberg beer founder J.C. Jacobsen in 1876 in support of science, art, and culture—have been better received. J.C.'s son and brand namesake Carl Jacobsen was a big fan of sculptures, and Copenhagen's Glyptotek museum houses more than 10,000 of them from his personal collection. It's curious to see so many works juxtaposed in such close proximity—wandering the halls feels like time traveling through 6,000 years of culture, aesthetics, and civilization rendered as stills of Ramses III and Tutankhamun, Degas's dancers, ancient Greece and Rome. Yet somehow it all seems entirely natural in modern Copenhagen, a dream destination for art, architecture, and design aficionados, or even anyone with just a passing interest in these fields.

If you peek into the windows of apartments after sunset, you'll see people relaxing in iconic (and valuable) midcentury modern furnishings, such as Arne Jacobsen's Drop, Egg, and Swan chairs. They'll be bathed in the warm pools of light created by Louis Poulson lamps—the essence of hygge, that nowfamous concept of coziness and contentment central to Danish culture.

The Design Museum Danmark offers a more



curated insight into Danish modern. Alongside its more than 100 iconic chairs, it exhibits contemporary Kaare Klint's diligent analytical studies of spatial design and the unsurpassed workmanship of Hans J. Wegner, Børge Mogensen, Arne Jacobsen, and Verner Panton, all of whom revolutionized how the world works, sleeps, and sits.

Not all of Denmark's excellent museums devoted to aesthetics and design are in the capital.

Dubbed the "Home of the Brick," museumcum-sensory-experience Lego House opened in the family-run brand's hometown of Billund late last year, in time for its 60th anniversary in 2018. A creation of Bjarke Ingels's firm BIG, it is constructed from 25 million Lego bricks and offers 130,000

Traveler Report Card

Copenhagen's dining scene has gone from strength to strength since René Redzepi and Claus Meyer opened Noma (A+) in 2003, kick-starting the New Nordic movement and wide adoption of locavorism and turning a global culinary spotlight on Copenhagen... If you can't score a table at Noma, consider two-Michelin-star Geranium (A+). Set rather incongruously within a sports-stadium complex, chef Rasmus Kofoed's restaurant serves a tasting menu of dishes such as wild mushroom soup in silver-plated eggs and charred scallops with young Jerusalem artichoke...For an elevated take on the open-faced sandwich smørrebrød ("butter bread")—Denmark's national dish, featuring house-made toppings such as fried pickled herring and beef tartare with pickled beets-visit smørrebrød champion Adam Aamann's new restaurant 1921 (A).

ACCOMMODATIONS:

Rooms at the new Hotel Sanders (A) draw on contemporary influences and Danish classicism...The Krane (A), a one-bedroom hotel designed for two guests, offers all-black accommodations atop a former coal crane... Following extensive renovations, 18th century Hotel D'Angleterre (A+) reopened in 2014 as one of the city's most luxurious lodgings. (Book ahead for its legendary Sunday brunch and the Krug Champagne afternoon tea.)... Moorish-inspired Nimb (A+) more than doubled its complement of 17 suites by adding 21 accommodations plus a rooftop pool this year, along with an excellent fitness center and spa. Rooms command views of the adjacent century-old Tivoli Gardens amusement park, where guests enjoy free rides...Kurhotel Skodsborg (A) debuted newly refreshed neutral-toned rooms and public spaces a few years ago; fronted by a private beach on the Øresund, it offers everything needed good restaurants, an expansive spa, and fitness activities—for a relaxing, restorative stay.

ARE YOU FLYING INTO A DEPARTMENT OF LABOR AUDIT?

If you provide a 401(k) retirement plan for employees, you should be aware that the U.S. Department of Labor has stepped up its oversight of these arrangements and you can no longer afford to take a hands-off approach to managing them.



Plan fiduciaries (typically you as the employer or as a designated committee) must ensure that everything possible is being done to act exclusively in the best interest of the plan participants. That means adopting an ongoing due diligence process that starts by conducting a fiduciary and operational assessment of the 401k plan to determine and document its current state.

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Donald M. Goldberg at 800-660-4015 or dgoldberg@aepg.com



Denmark Delights

square feet of endless possibilities for play and learning that capture the ethos of Lego—an abbreviation of the Danish words "leg godt" (play well).

Four color-coded zones are designed to speak to different facets of play—creativity, communication, emotion, logic-while the Masterpiece Gallery features rotating exhibitions of works by the world's adult Lego builders, such as life-size dinosaurs and a tree made of more than 6.3 million bricks.

"If BIG, the company, had been founded with one single purpose, it would have been to build the Lego House," says Ingels.

Another of my favorite Danish institutions turned 60 this year: modern-art museum Louisiana, set within a series of pavilions framed by sculpturedotted lawns and views over the Øresund, 25 miles north of Copenhagen. I've been here many times, vying with other visitors to take the perfect selfie inside Yayoi Kusama's joy-affirming work, Gleaming Lights of the Souls; wandering through

an exhibition of Marina Abramović's seminal, often shocking works. You can easily day trip here by train or car along Strandvejen—the artery that hugs the eastern coastline from Copenhagen up to the town of Elsinore and Hamlet's UNESCO-listed 17th century Renaissance castle Kronborg-but I'll take any opportunity to spend the night.

My lodging of choice is Kurhotel Skodsborg, a striking white royal residence from 1852 until King Frederik VII's death a decade later and repurposed as a sanitarium at the turn of the 20th century. The best way to start the day here is with a saunagus, an intense spa experience that alternates essential oil-rich steam in a 210-degree Fahrenheit heat with dips in extremely cold water.

"Mist master" Tina R. Andersen-who has tightly pulled-back blonde hair, a serene expression, and the glossy, rippling muscles of a gymnast—leads today's session. As I settle onto the wooden slats, she whirls and whips a towel to intensify the heat,







Top left and bottom: Louisiana modern-art museum, north of Copenhagen. Top right: ARoS, a popular art museum in Jutland.

Traveler Fast Facts

The Kingdom of Denmark is the southernmost Scandinavian nation. It consists of more than 440 islands and the Jutland peninsula on mainland Europe. Its neighbors include Norway to the north, Germany to the south, Sweden to the north and east, and the U.K. to the west. Copenhagen, the capital, is on the island of Sealand. Denmark ranks as the world's least-corrupt country, according to a 2017 report by Transparency International, and has a high degree of socioeconomic equality and high standard of living. It's also among the happiest countries in the world, according to the United Nations' World Happiness Report.

CLIMATE:

Because water surrounds Denmark, its weather can be extremely changeable, but it is generally characterized by cool summers, with the warmest days reaching about 77 F; temperatures on the coldest winter days hover around freezing. It rains a lot, especially in fall—the annual average is 30 inches over 179 days-so it's wise to pack an umbrella.

GETTING THERE:

Denmark is well served internationally by Scandinavian Airlines (SAS), with airports offering commercial and executive services in most urban hubs. More than 50 airports serve private jet clients, including hubs for destinations covered in this story: Copenhagen Kastrup Airport, Billund Airport, Aarhus Airport, Bornholm Airport, and Odense Airport (for Fyn).

WHAT TO KNOW BEFORE YOU GO:

Denmark's currency is the krone, although many places also take euros. Credit cards are widely accepted by retailers and at ATMs. Biking is not just popular in Denmark—it's hardwired into the local psyche. More than half of Danish commuters travel by bicycle, and Copenhagen, which has 100 miles of bike lanes, was the first city to implement a bike-sharing initiative.

sending blasts of hot air into my face, which makes me gasp. Then she leads me barefoot across the road fronting the property to plunge into the ocean. Tina says an elite group of businesswomen come here for a saunagus early every Monday morning, to network and discuss the forthcoming week's issues. I can barely move, think, or speak.

"People often don't realize how hard it can be. You might be sitting still, but your body is working really hard," says Tina as she helps me crest the ladder and ties my robe around me.

Once recovered, I bike into the lushly forested 1,000-hectare Deer Park—King Frederik VII's former royal hunting grounds. It's anchored by a 1730s baroque hermitage hunting lodge, named for its dumb waiter—like elevator, which enabled the king and his entourage to feast and converse in privacy beyond the ears and eyes—but not ministrations—of his servants.

Nods to more recent history are nearby. You can see writer Karen Blixen's family home and the desk where she wrote "Babette's Feast" and the memoir *Out of Africa* under the pseudonym Isak Dinesen in the 1930s. Cars still refuel at Arne Jacobsen's jet age—inspired white-tile gas station; and the former residence of architect Finn Juhl, credited for introducing America to modern design, is now a museum filled with his collection of arts and crafts.

On every trip to this country, I try to see or do something new, and Denmark always delivers.

Fyn—the birthplace of Hans Christian Andersen—is a popular summer destination for families for its idyllic, bucolic vibe and moated castle Egeskov, and for providing easy access to another 96 tiny islands. While most are inhabited—including Drejø, popular among artists, and Skarøm, known for its fantastic ice cream—many are not, and there's something incredibly relaxing about knowing that you're separated from every other human in the world by a body of water.

Historic sites dot Bornholm, a 227-squaremile island between Sweden and Poland that is lauded by artists and poets for its scenic landscapes and pure light. At the Duodde bunker, I stroll among the remnants of a 56-foot-long gun the Germans installed during WWII. On a visit to the 13th century fortress ruins at



Copenhagen is a dream destination for anyone with an interest in art, architecture, and design.

Hammershus, I learn that the site is as famous for its centuries of scuffles with Swedish forces as for its clog-wearing troll Krøllebølle, who—everyone will tell you—lives in the caves nearby.

Another Danish destination worth checking out: Aarhus in Jutland, named European Capital of Culture 2017. My first stop here is contemporary art museum ARoS, which attracts a million visitors a year. Here, I look at the city through Danish-Icelandic artist Olafur Eliasson's Your rainbow panorama, a 150-meter-long circular rooftop tunnel clad in transparent colored panels to create chromatic vistas.

Like Copenhagen, Jutland is a place where history and modernity are easy companions. At one end of the city, Gamle By (Old Town)—an open-air, village-sized museum that comprises of buildings moved here from all over the country and painstakingly reconstructed—offers an immersive insight into Danish life through the centuries. I step into a house that takes me through a day in the life of a 16th century

carpentry apprentice; at the other end of the complex, a docent in flares and a polyester-collared shirt pretends to try to sell me the latest turntable from Bang and Olufsen from a shop styled as it would have been in the 1970s.

To the east, the new Aarhus Ø development, distinguishable at a distance thanks to its already iconic multifaceted white Iceberg apartment complex, rises from the shoreline like, well, an iceberg. Encompassing a 50-meter-long swimming pool, circular diving pool, children's pools, and two saunas—another Bjarke Ingels project—the Aarhus Ø area features a floating triangular harbor bath that was an immediate hit when it opened last June.

Now, in fall, a few diehard sunbathers have stripped down despite the chilly wind, and the handful of bars and cafés are doing good Saturday brunch business. I imagine that the planned theatre, hotel, dining, and retail developments will only bolster this district's appeal. I'm already looking forward to returning to see how things progress.

Gemma Z. Price (gprice@bjtonline.com) covers travel, culture, and lifestyle for publications like Time, CNN Traveler, and Condé Nast Traveler. For this feature, she stayed at Kurhotel Skodsborg courtesy of the tourism board Visit Denmark; was hosted by Nimb; and was flown to Aarhus courtesy of Visit Aarhus, which provided free access to public transportation and museums.











FLY-IN

Let the Fun Begin Sooner by R. Randall Padfield

Flying commercially to some of the world's best resorts can make a vacation feel like work. To reach Indonesia's Wakatobi Dive Resort by airline, for example, you have to fly to Bali, take a scheduled flight to Makassar or Kendari, then jump on a local flight to Wangi-Wangi, stay overnight, and finally take a ferryboat to Wakatobi on Tomea Island.

A handful of resorts provide a better option, however: they offer runways that let you fly privately right to their doorsteps. Here are five such places, all of which earn high marks from travelers at tripadvisor.com.



Red Reflet Ranch Ten Sleep, Wyoming

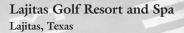
Here, you can enjoy horseback riding, cattle herding and branding, fishing, mountain biking, ATVs, hiking, a rifle range, and rock climbing, plus some activities you might not expect, such as cooking lessons from the chef, yoga, and spa massages. The husband-and-wife owners are licensed pilots, and the ranch sells homestead properties adjacent to the 5,000-foot runway of its private airport. (Homesteaders receive access to the resort's facilities.) Pilots visiting the ranch can book a mountain-flying seminar and even train for a type rating in a Cessna Citation I jet.



Fox Harb'r Resort

Wallace, Nova Scotia, Canada

You know you're in Canada when Tim Horton's coffee is served in every room. An 18-hole championship course, described as a blend of Scottish and traditional parkland golf, and a par-3 "executive" course dominate the resort and provide views of the Northumberland Strait. Fox Harb'r offers casual and formal restaurants and a variety of accommodations, including homes at a deep-water marina, where guests can dock their yachts. You'll also find a spa, wellness center, and swimming pool. Depending on the season, activities may include horseback riding, shooting, partridge and pheasant hunting, sea kayaking, fishing, hiking, and biking. A Fox Harb'r sister company operates a Gulfstream 100 and Challenger 604, and Air Canada Jazz offers charter flights from Montreal, Halifax, Ottawa, and Toronto directly to the resort, which has a 4,885-foot runway.



The Rio Grande cuts through Big Bend National Park and Big Bend State Park and between them lies this 27,000-acre gem. Lanny Wadkins, winner of the 1977 PGA Championship, designed the 18-hole golf course at the resort, which offers horseback riding, sheep hunting, three zip lines, shooting, mountain biking, birding, jeep rentals, rafting on the Rio Grande, and stargazing. Four eateries range from fine dining to deli. Guests can arrive at the nearby, privately owned Lajitas International Airport, which has a 6,017-foot runway. Lajitas coordinates charter flights with Resort Air Services in Dallas.





Nemacolin Woodlands Resort

Farmington, Pennsylvania

More than 1,000 artworks from the eclectic collection of Joseph Hardy III, founder of 84 Lumber, add grace, beauty, and whimsy to his 2,000-acre resort in southwestern Pennsylvania. Featuring three hotels, two Pete Dye–designed golf courses, and a critically acclaimed restaurant, the resort offers a spa, holistic garden, climbing gym, zip lines, and off-road driving. Nearby attractions include Fort Necessity, where the French and Indian War began, the Flight 93 National Memorial, and three Frank Lloyd Wright–designed houses (including well-known Fallingwater). Nemacolin coordinates with Blade of New York City for charter flights, which land on its 3,845-foot runway.

Wakatobi Dive Resort

Tomea Island, Indonesia

Wakatobi provides luxury bungalows on its white-sand beach, near several reefs that are popular with divers and snorkelers; but hard-core divers may want to spend several nights on a 36-meter diving yacht to be closer to more distant reefs. The resort offers a spa, paddleboarding, kite surfing, and a nature trail. A kids' club entertains five- to 12-year-olds; and care for four-and-unders is available. Wakatobi's 5,000-foot runway can accommodate large jets; and the staff can book charter flights for you from Bali.



R. Randall Padfield (rpadfield @bjtonline.com) retired in 2014 as editor-in-chief and chief operating officer of AIN Publications, BJT's parent company.

TRAVELER CALENDA!



November 29-December 30

ALVIN AILEY

New York. The Alvin Ailey American Dance Theater is celebrating its 60th year with its biggest season ever, including new works from some of its most acclaimed choreographers and classic favorites such as Revelations. Info: alvinailey.org

January 22-25

DAVOS WORLD ECONOMIC FORUM

Davos-Klosters, Switzerland. Handpicked top brass from over 100 organizations and governments will meet to discuss global economic issues. Info: weforum.org

January 25-27

NAPLES WINTER WINE FESTIVAL

Naples, Florida. Celebrity chefs and renowned vintners participate in this annual children's charity event. Info: napleswinefestival.com

January 25-27

SNOW POLO WORLD CUP ST. MORITZ

St. Moritz, Switzerland. This annual competition is the only polo tournament played on a frozen lake covered in snow. Bring your game face for the abundance of social events surrounding the tournament. Info: snowpolo-stmoritz.com

February 3

SUPER BOWL LIII

Atlanta. Are you ready for some football? Maroon 5 will perform at halftime. Info: nfl.com

February 9, 11-12

WESTMINSTER KENNEL CLUB DOG SHOW

New York. Release the hounds! The world's mosttalked-about dog show has expanded to include events such as the Masters Obedience and Masters Agility Championships.

Info: westminsterkennelclub.org

March 5

MARDI GRAS

New Orleans. Head to the Big Easy for a crazy celebration complete with intricate costumes, performance art, rich food, and revelry. Info: mardigrasneworleans.com

March 7-10

THE ARMORY SHOW

New York. This major art fair features 20th and 21st century art. Info: thearmoryshow.com





March 16-17

IVY LEAGUE MEN'S AND WOMEN'S BASKETBALL TOURNAMENTS

New Haven, Connecticut. The country's elite colleges compete for the chance to head to the NCAA Championships and March Madness.

Info: ivyleague.com

March 29-31

ART BASEL HONG KONG

Hong Kong. As a show of commitment to the region, Art Basel ensures that at least half the galleries represented at this event are based in the Asia-Pacific region. The platform also provides space for galleries around the world that want to introduce their finest works to Asia.

Info: artbasel.com/hong-kong

April 11-14

THE MASTERS

Augusta, Georgia. The world's best golfers compete for the coveted Green Jacket. Info: masters.com

April 11-14

SINGAPORE YACHT SHOW

Sentosa Cove, Singapore. Check out the world's finest superyachts and boating brands. Info: singaporeyachtshow.com

May 4

KENTUCKY DERBY

Louisville, Kentucky. It's never too early to start planning for a day of old-world glamour, fancy hats, and plenty of mint juleps. Info: kentuckyderby.com

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

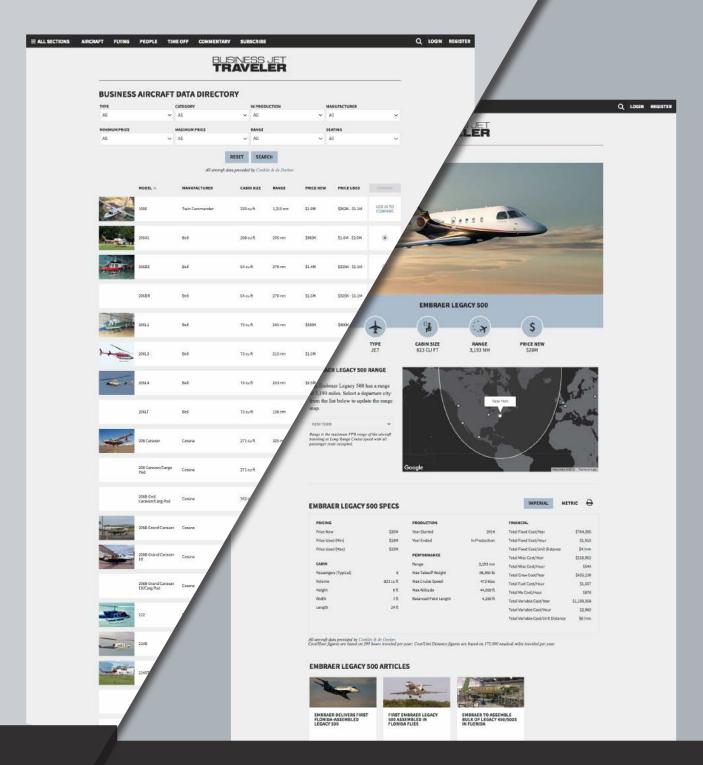
Squashing commuter blues

The J.P. Morgan Tournament of Champions will take place January 16-23 where it always does: in a glass squash court on the floor of Grand Central Terminal in New York City. It is here that the best squash players in the world will compete for the championship title in this 23rd annual tournament. Reserved seats are available, and there's also free public viewing. Info: tocsquash.com -Jennifer Leach English



BJT AIRCRAFT DIRECTORY

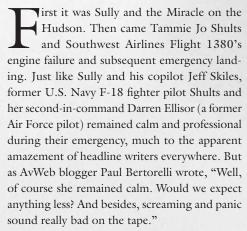
A data-packed, photo-rich guide to every major business jet, turboprop, and helicopter.



Think you've ever had a rough flight? Probably not compared with these.

Escapes Escapes

by Mark Phelps



I'd be the last person to take anything away from these pilots' skill and sangfroid. But this kerfuffle got me reflecting on a time not that long ago when pilots faced similar or far more dire emergencies on a nearly daily basis. There are miles of footage of combat airplanes returning from World War II missions with seemingly impossible battle damage, and untold numbers of still photos showing airplanes with huge sections ripped apart by flak, enemy fighters, or midair collisions.

In many of the pictures, the pilot can be seen poking through a gaping hole in the tail or wing and wearing a big smile. And many of those pilots and other crewmembers had not yet reached their 25th birthday. I was privileged to meet several of them in their later years—most are gone now—and they all remembered their improbable escapes not so much as "fantastic stories" but rather, as little more than "all in a day's work."

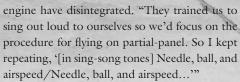
But they did recall those escapes in vivid detail. One B-17 combat pilot, sitting in the left seat of a parked "Flying Fortress" and describing one mission for me, calmly pointed to exactly where the 20mm canon shell passed through the flight deck;

it went out the other side, he said, and exploded when it hit the inboard right engine, setting it on fire. The way he described it, you might have thought he was talking about the time his son knocked a baseball through the garage window.

While brewing a cup of tea in his suburban kitchen in northern New Jersey, aging P-51 Mustang fighter pilot Herb Blanchfield described how he was strafing a German airfield on May 9, 1944 in St. Dizier, France. Anti-aircraft fire hit his engine and he had to pull up to about 3,000 feet to bail out, his leather flying jacket soaked with oil and coolant gushing from his engine. I asked him what that had felt like. He shrugged and said, "I don't know. You just...do it." Turning back to squeeze out his teabag, he muttered something about the alternative to bailing out being much less attractive.

T wenty-two-year-old Bob Wehrman from Old Greenwich, Connecticut, was attacked from behind by Luftwaffe Focke-Wulf Fw-190s over France in his single-seat P-47 Thunderbolt on Feb. 4, 1944. A canon shell came through the cockpit, destroyed most of the instrument panel and continued on to the engine, where it blew one of the Pratt & Whitney R2800's 18 cylinders completely off. Bleeding from a leg wound, he turned toward his base in England.

He told me this story in the early 1990s while we were riding in his Cadillac, on our way to lunch in Southern California. "Somehow, the engine kept running...sort of," he said. "But the windshield was covered with oil and I couldn't see out." The only instruments still operating were his turn-and-bank/slip-skid indicator ("needle and ball") and his airspeed indicator, the bare minimum for staying right side up, even when you're not bleeding and large parts of your



Bob made it back to his base and recovered from his wounds. A month and a day later, he was flying again and crash-landed a spanking new Mustang through thick fog, taking down power lines in East Sussex, England. The engine had quit due to mechanical failure as he was returning from a mission over German-occupied France. Bob had only a few seconds to pick a landing spot once be broke through the low overcast.

He told me how the man who helped pull him from the cockpit took him to the local pub to "steady his nerves." Because of the power outage, it was dark inside. "No one there could tell I was the pilot, and I kept quiet, because the locals were complaining about why the 'bloody Yank, whoever the 'ell he was' couldn't have come down a few more yards off the road, instead."

Frank Speer of Emmaus, Pennsylvania, was another Mustang pilot I got to know pretty well. He destroyed six German airplanes, got shot down by flak, and spent the rest of the war in a POW camp. Frank wrote a few books about his experiences, and I helped edit one of them. I even got to fly with him. One time—probably after I'd asked him one more question about some minute detail—he told me, "I'm just amazed that you're still interested in all this stuff. I think it's great! Hardly anyone today cares what we did back then."

Maybe that's because what was "routine" in their time seems almost unimaginable now.

Mark Phelps (mphelps@bjtonline.com) is the executive editor at AIN Publications, publisher of BJT.



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