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The Way It Is

Bruce Hornsby and the Range's unexpected hit song on the band's debut album - *The Way It Is* - struck a chord with listeners worldwide. The tune reached #1 on the Billboard Hot 100 chart in December 1986, with the band winning the prestigious Grammy award for Best New Artist the year later. Hornsby's lyrics focus on big picture socio-political topics that continue to resonate today – including unemployment and wealth disparity. Critically acclaimed, *The Way It Is* delivers a message of hope for many who feel lost, forgotten, or out of step in today's rapidly evolving world.

The business aviation industry leads – and thrives – on innovation. Innovation and the many changes it fosters were on full display at NBAA-BACE 2023 in Las Vegas, NV on October 17-19, with announcements of new products and services and updates on sustainable aviation and business aviation's electrifying future. We appreciate these opportunities to gather to become much better informed and connected to people and organizations on the leading edge of our industry's progress.

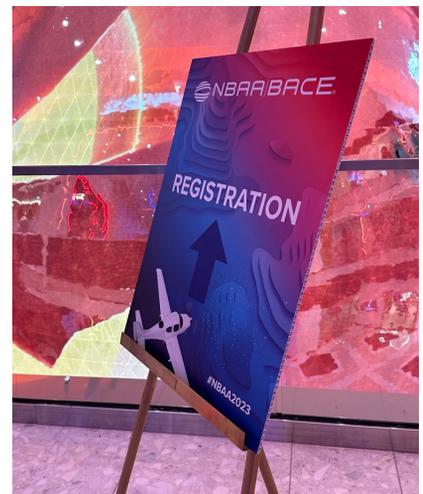
“The business aviation industry leads – and thrives – on innovation. Innovation and the many changes it fosters were on full display at NBAA-BACE 2023...”

Much work is in front of us to create our sustainable future, rebuild our supply chains and talent pipelines, improve our industry's image, and retool to meet next-gen customer requirements and expectations. What is even more clear is that this change cannot come soon enough.

While business aviation's successes in creating our future – providing advanced technology and bespoke air transport

services to the world's most discriminating customers – are becoming increasingly recognized, they have also galvanized the attention of those outside who see the way it is as a win/lose situation. One could argue that this is partly or perhaps even largely a consequence of our industry's traditional focus on maintaining a low public profile. This stay-off-the-radar approach has its origin largely in privacy, safety, and security concerns that have been cultivated and embedded in our industry's products and services over many years, to protect both asset values and customer interests.

NBAA-BACE's smartly conceived and just-launched ***Climbing. Fast.*** advocacy campaign is already helping to change the narrative about business aviation's sustainability progress and pathways to net-zero carbon emissions within the industry and with those who are less informed. That said, it is difficult to overstate the profound changes and parallel paths between now and 2050 for these targets to be met. Sprinkled with a little hope, our plan is to accelerate the role that JETNET iQ - our research analytics, industry and customer insights, and detailed forecasts - plays in illuminating the path forward for leaders who believe in and embrace change for the good.



Outlook

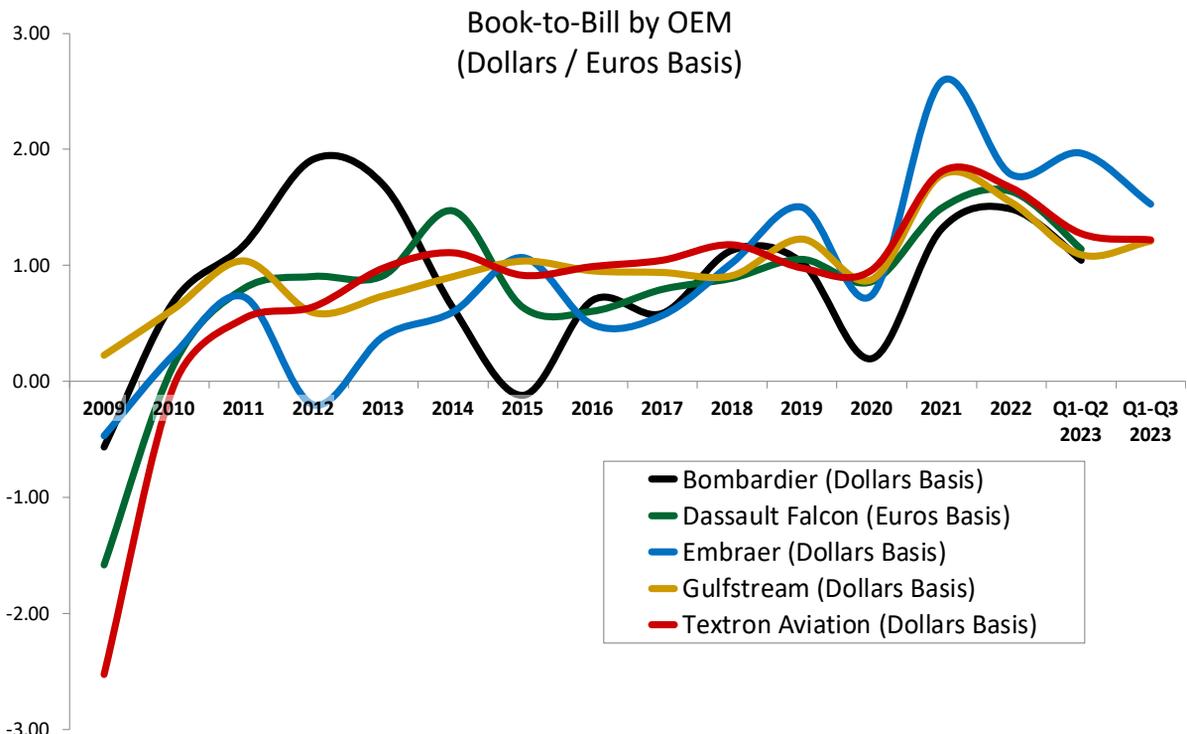
Business aircraft original equipment manufacturers (OEMs) have benefitted from strong demand for their products and services after a brief, painful shock to the system in the immediate aftermath of COVID-19. Since mid-2020, demand has far outstripped supply as customers caught on quickly to the fact that access and ownership of business and general aviation aircraft provide unmatched value in a world that had changed. More than 3.5 years after the WHO pronouncement of the global pandemic, bulging OEM orderbooks and tight inventory of young pre-flown business aircraft across the market indicate that customers remain eager to be served. Book-to-bill performance through Q3 2023 - including our estimates where enough information is available - are presented below. While performance for the 4th quarter remains to be seen, we expect that year-end deliveries will exceed orders on both a dollar / Euro value and unit basis, pulling book-to-bill performance down closer to the 1-to-1

ratio that reflects a balanced demand / supply market situation. As the shape of the graph's curves suggest, the business aircraft market rarely if ever strikes a demand / supply balance for long, a dynamic that highlights why we publish JETNET iQ reports on a quarterly basis.

The hard work of turning factory orders and pre-owned aircraft acquisition engagements into crewed, fueled-and-ready aircraft is a complex and daily challenge. While we like to think of this as a classic 1st World problem, it is nothing but hard work to choreograph all elements of our product and service supply chains to delight our discerning customers. Thought leadership, innovation, and action in all that we do will lead us to better places and better results, which were amongst the key themes and takeaways from this year's JETNET iQ Summit held last month in New York City.

Book-to-Bill Performance

"Top 5" Business Aircraft Manufacturers



Source: Regulatory filings, company reports, JETNET iQ analyses and estimates; note that Gulfstream results reflect the performance of General Dynamics' Aerospace division, which includes both Gulfstream and Jet Aviation

Business Conditions

GDP

The Economist's **GDP growth forecasts** (Oct. 26, 2023) for 2023 are: U.S. +2.0%, Euro Area +0.8%, U.K. +0.4%, Mexico +3.2%, Brazil +3.1%, Canada +1.1%, China +5.2%, Australia +1.6%, and Russia 0.6%



Business jet cycles (take-offs and landings) for Jan.-Sep. 2023 were down by 7.3% YOY for U.S. Part 91, up by 8.0% YOY for U.S. Part 91K, down by 5.5% YOY for U.S. Part 135, and down by 11.3% for European operations



Dow Jones Index (U.S.) was up 0.6%, **FTSE 100** (U.K.) was up 3.3%, **CAC 40** (France) was up 8.9%, and **DAX 30** (Germany) was up 11% YOY on Oct. 30, 2023



U.S. Index of Consumer Sentiment was 64.2 in Oct. 2023 vs. 63.0 in Sep. 2023 and 60.8 in Oct. 2022 YOY; **Euro Area Economic Sentiment Indicator** was 93.3 in Oct. 2023 vs. 93.4 in Sep. 2023 and 93.0 in Oct. 2022 YOY



U.S. unemployment rate (seasonally adjusted) was 3.8% in Sep. 2023 representing 6.4 million unemployed people, up 336,000 from Aug. 2023 (3.8%)



U.S. Purchasing Manager Index (Manufacturing PMI) was 49.0 in Sep. 2023 vs. 47.6 in Aug. 2023 and 50.9 in Sep. 2022 YOY; **Euro Area Business Climate Indicator** was -0.33 in Oct. 2023 vs. -0.36 in Sept. 2023 and 0.76 in Oct. 2022 YOY



Transactions of pre-owned business aircraft in the first 8 months of 2023 were 1,424 jets and 768 turboprops, each down 30% YOY (JETNET as of Oct. 1, 2023; whole retail transactions only)



Business aircraft deliveries in 2023 YTD were 460 jets (including Cirrus and Boeing / Airbus single-aisle) and 259 turboprops (Source: JETNET through Oct. 30, 2023)

Business Aircraft OEM Backlogs

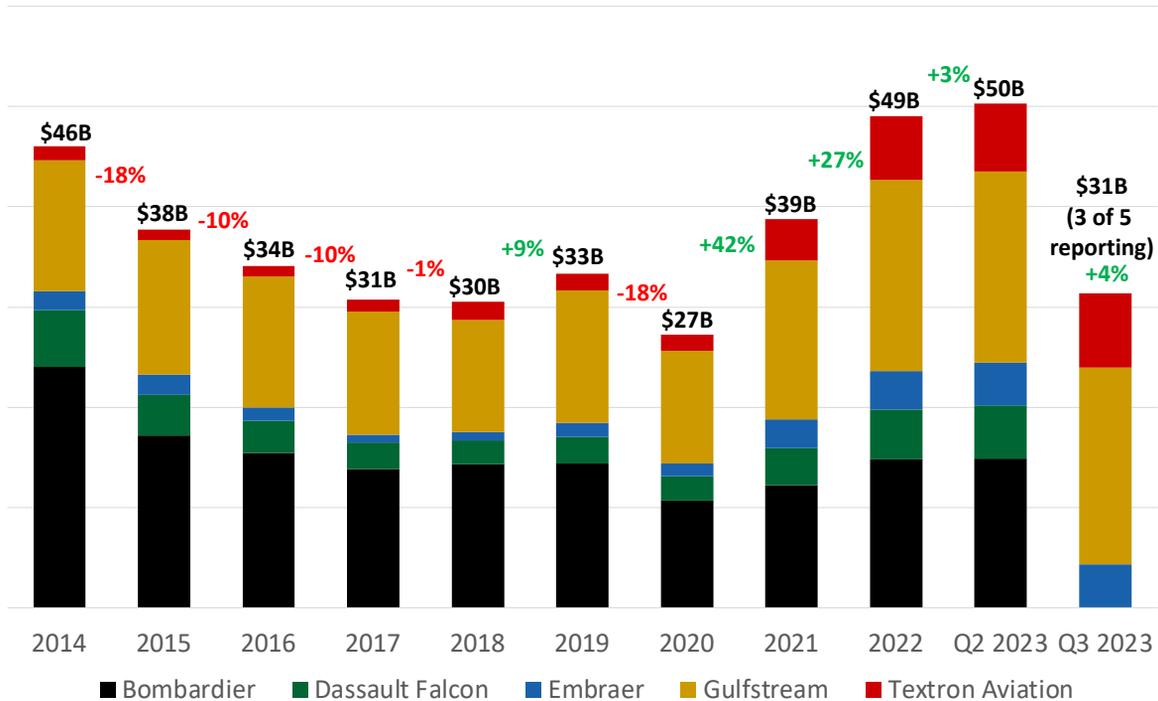
Firm order backlogs at the five largest business aircraft manufacturers are widely monitored measures of performance. Results through Q3 2023 reflect an overall leveling of demand at about twice the value level recorded at the end of 2020, the year of the COVID-19 pandemic announcement. While the various OEMs strain to accelerate aircraft production, completion, and delivery rates, challenges with talent retention, recruitment, and training at their various sites and throughout their respective supply chains govern their overall abilities to turn mountains of

orders into cash.

While our latest forecasts do not incorporate a wide-scale economic slowdown, backlogs that extend out beyond two years of production are longer than any period prior to the Global Financial Crisis. We suspect that prospective customers considering their next purchase are near or already beyond their comfort zone with current wait times, a factor driving the rate of growth in the "Big 5" backlog into the 3-4% range YOY so far in 2023.

Order Backlog Performance

"Top 5" Business Aircraft Manufacturers



Source: Regulatory filings, company reports, JETNET iQ analyses and estimates; note that Gulfstream results reflect the performance of General Dynamics' Aerospace division, which includes both Gulfstream Aerospace and Jet Aviation

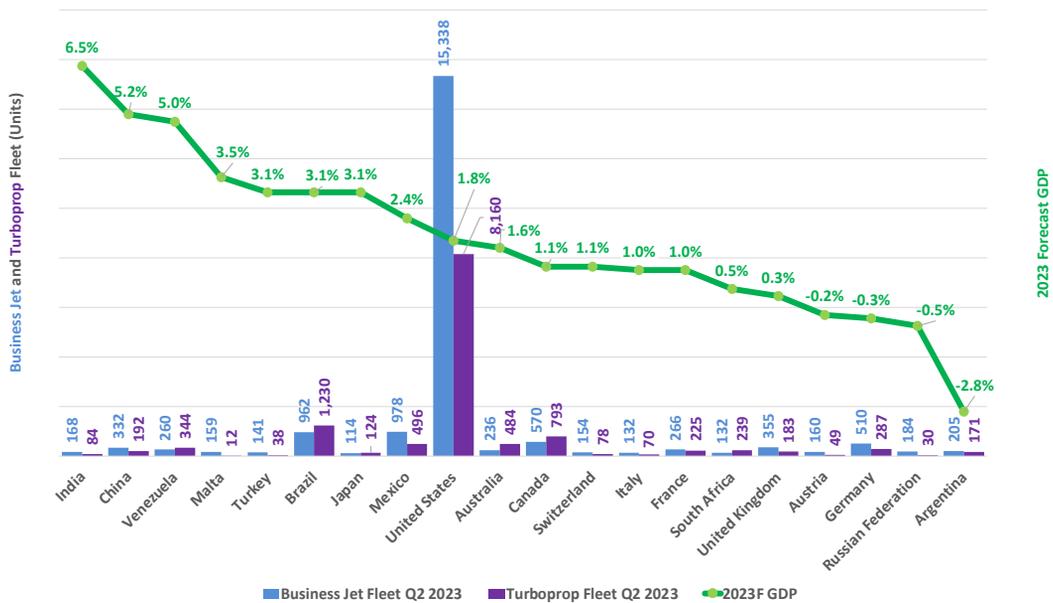
Update: Top 20 Country Markets for Business Aircraft

Economic growth forecasts for 2023 in the largest country markets where business aircraft are based are presented in the accompanying chart. Only 6 of the “top 20” country economies are expected to expand by 3.0% or more in 2023, with the current outlook for 2024 reflecting much of the same. The slowdown in output is particularly acute in Europe, where Germany, the Euro Area’s leading economy, is hovering in and out of technical recession. According to a recent International Monetary Fund (IMF) report, Germany’s manufacturing-oriented economy is very energy intensive, having previously relied heavily on Russia for low-

cost resupply. As with other Euro Area economies, Germany faces structural challenges linked to an aging workforce, a shortage of skilled labor, and a weakened case for business investment in the face of high interest rates. A preliminary estimate of +0.1% Q3 2023 YOY GDP growth in the 20-country Euro Area, released on October 31 by Eurostat, echoes sluggish economic conditions in the world’s largest single market. After an extended period of remarkably low interest rates and inflation, some C-suite leaders may be yearning for the “good old days” of pre-pandemic 2019, already a distant memory.

GDP, GDP Growth, and Business Aircraft Fleet Size

“Top 20” Country Markets Where Business Aircraft are Based



Sources: GDP forecasts: The Economist – October 5, 2023; Fleet: JETNET

High Watch: The Economy

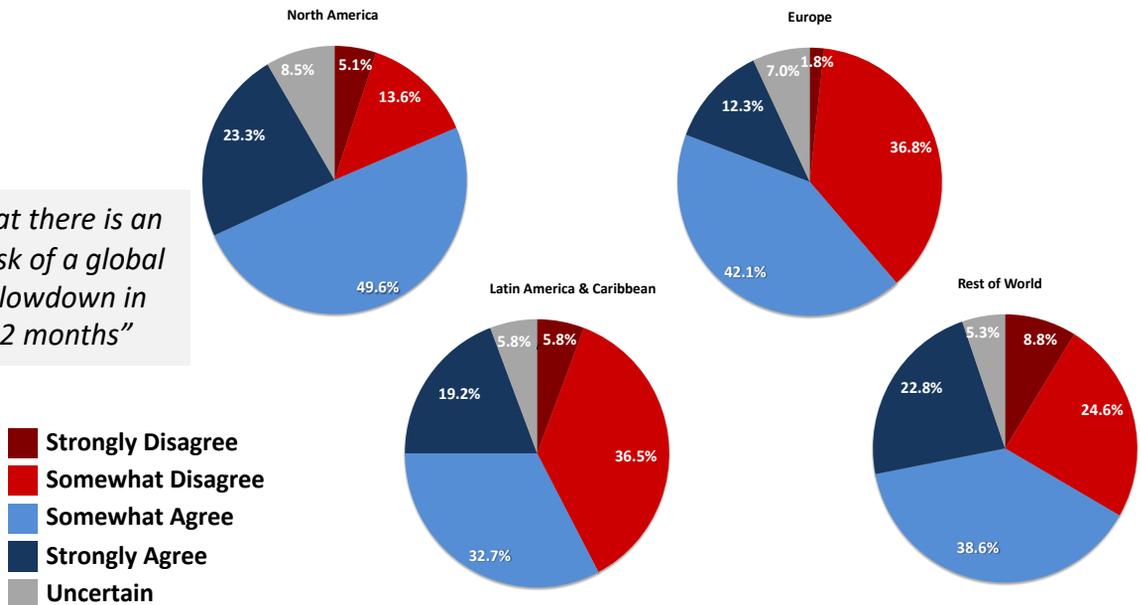
Business aircraft owners / operators are exceptionally well connected to dynamic market conditions wherever they are based – and through our JETNET iQ Surveys and regular outreaches from our researcher team, we are well connected to them. Based on results of our most recently completed survey for Q3 2023, the community of aircraft

owners /operators is expressing concern about the potential for a slowdown in economic activity over the next 12 months. While results vary somewhat by region, concern appears to be highest in North America (U.S. and Canada), where almost 2/3^{ds} of the fleet is based, a situation that bears close watch by industry leaders.

Perceived Risk of Economic Slowdown – Next 12 Months

Q3 2023 JETNET iQ Survey

“I believe that there is an increasing risk of a global economic slowdown in the next 12 months”



Source: Q3 2023 JETNET iQ Survey

Making Aviation Personal

While far-ranging business jets and easily recognized fleet operators seem to capture many of the headlines in business aviation, it is eye-opening to realize the vast breadth and depth of a sector that has long defied easy definition. While it is never a good idea to be defined by what we are not – i.e., we are not the airlines and we are not military – business aviation is a vibrant and aspirational segment of the broader business & general aviation (B&GA) industry. Whether professionally or personally flown, general aviation aircraft perform a vast array of missions that are collectively part of a compelling value proposition.

While NBAA-BACE 2023 offered many glimpses into B&GA's electric-powered future, aircraft with gas turbine and piston engines power the vast majority of the in-service fleet. Transitioning the fleet to new energy sources is a challenge that will take many years, pockets of capital, and new business models with promised paybacks that will entice many to join the industry. Customers for our bluer skies and greener future are already entering the industry, enticed by leaps forward in new technologies that make B&GA ever more accessible and more personal.

OEM innovators like Cirrus Aircraft are carving unique spaces for themselves to serve customers who are attracted

to the idea and promise of personal aviation. Working with equally innovative supplier partners such as Garmin and Williams International, Cirrus Aircraft has already been awarded the Collier trophy celebrating its single-engine SF50 Vision Jet and its Cirrus Aircraft Parachute System (CAPS). Cirrus subsequently participated as an OEM partner with Collier-recipient Garmin by incorporating Autoland into the Vision Jet, a feat also accomplished by Piper and Daher.

Less celebrated but highly efficient single-engine aircraft are powering the industry forward – and promise to increase their share of the market in the future. At NBAA-BACE 2023, Cirrus Aircraft announced the 500th delivery of the world's first single-engine jet, an impressive accomplishment since certification and entry-in-service in late 2016. This comes on the heels of Cirrus' April 2023 announcement of the 9,000th delivery of the innovative SR 20-series single-engine piston model, a family of 4-seat composite aircraft that have introduced new generations of customers to personal aviation. Fresh thinking, access to capital, new designs, win-win supplier partnerships, service innovations, and an end-to-end customer orientation are ingredients for making aviation more personal, an approach that solidifies our industry's foundation and positions it for long-term growth.



Source: <https://cirrusaircraft.com/story/cirrus-aircraft-celebrates-500-vision-jet-deliveries-with-limited-edition-series/>

Photo: Cirrus Aircraft (right)

About JETNET iQ

JETNET iQ is a business aviation market research, analysis and forecasting service consisting of three main elements:

- **JETNET iQ Reports** are the definitive analytical reference for business aviation, incorporating quarterly state-of-the-industry analyses, owner / operator surveys, and detailed delivery and fleet forecasts;
- **JETNET iQ Summits** are annual industry thought-leadership conferences providing unique data, insights and networking opportunities; and
- **JETNET iQ Advisory** provides customized research and analysis for clients on a project-by-project basis.

JETNET iQ Reports are available in various formats on a subscription basis, and are published regularly by JETNET LLC, 101 First Street, Utica, NY 13501 - **currently offered at 11 different levels**. JETNET iQ is a partnership between JETNET LLC of Utica, New York and Rolland Vincent Associates, LLC, of Plano, Texas.

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Since late 2010, JETNET has conducted quarterly surveys of the worldwide community of business aircraft owners and operators in order to gauge customer sentiment, brand perceptions, aircraft purchase, selling, and utilization expectations, and other factors. JETNET iQ Global Business Aviation Surveys are password-protected and by invitation-only. Potential respondents are drawn randomly from the JETNET worldwide database of business jet and business turboprop owners and operators; they are initially contacted by telephone and/or e-mail by JETNET's team of multilingual researchers. Target respondents include chief pilots, directors of aviation, and senior management. Each survey is targeted to include ~400-500 respondents in ~50+ countries each quarter, and respondents closely reflect the worldwide distribution of the business jet and turboprop community.

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