JETNET IQ PULSE

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Makin' Up for Lost Time, Takin' Flight

Full disclosure: I must admit to knowing less about Taylor Swift than probably most humans. But I do know a phenom when I see one, whether made in Brazil or born and bred in West Reading, PA (population (4,553; per capita income: \$21,414). We know for certain that she must be a phenom when respected businessmen are seen smiling in purple suits accompanying their teenage daughters to Swiftie events. Swift's Eras Tour Seattle concerts created enough seismic activity last July to be measurable on the Richter scale - and probably felt on the Boeing 737 MAX production line. Flight tracking aside, her less newsworthy activities - including generous donations within communities where she performs, for example - are the mark of a hugely successful entrepreneur - a phenom. Making up for lost time by stitching her complex lifestyle and schedule together with a little help from a flock of Falcons and Globals - and their amazing crews - sounds like a wise investment.

Released in 2012 on her *Red* album, *Everything Has Changed* is a song written by Taylor Swift and Ed Sheeran, two popular performers who are amongst the most successful of their genre. While some critics see access to business and private aviation as nothing more than a climate-damaging indulgence for a select few HNWIs, we wonder whether this isn't so much angst about carbon as it is the latest chapter in the age-old "us-versus-them" debate? Spoiler alert: The latter, for sure.

Riveted to my chair at the recent CJI London conference as 3 panelists of the loose but noisy anti-corporate aviation coalition were opining, it became clear to me that the current battle for hearts and minds has almost nothing to do with carbon and everything to do with haveand-have nots. Where we were seated — just 5 miles from Karl Marx's tomb — I wondered whether the old guy would

have been happy to know that his teachings about the evils of capitalism are still resonating, albeit with a mostly angry community content with staring at life through a fuzzy lens.

"....the current battle for hearts and minds has almost nothing to do with carbon and everything to do with haveand-have nots."

The good news: Business aviation is laserfocused on developing the technologies, processes, and tools to lead the changes that are necessary to reach net zero carbon by 2050. Are we doing enough? Hell no, but we are in the labs, on the factory floors, at our desks, and in the air with awareness of the problem, and energies and resources focused on a bluer sky / greener future. Listening rather than throwing stones, building coalitions instead of spray-painting engine inlets, business aviation is on a good trajectory making up for lost time by directing energies and focusing some of our best minds on creating our better future while recognizing shortfalls of the past. We are doing objectively better than other industry sectors, and we have all the incentives in the world to continue along this path - including convincing the nextgeneration that business aviation is the best place to invest their futures. \sim





Outlook

On February 21, 2024, industry leaders gathered in Washington, D.C. for the General Aviation Manufacturers Association's (GAMA) annual State of the Industry Press Conference and release of the trade organization's highly anticipated Annual Shipments and Billings Report. It included several key indicators on the industry's recent progress.

<u>Jets</u>

According to GAMA, business jet shipments worldwide reached 729 units in 2023, up 3% from 707 jets YoY (excluding twin-aisle bizliners).

Turboprops

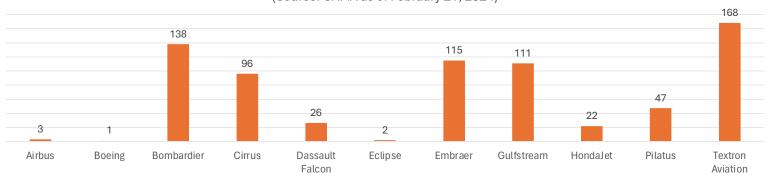
At the same time, business turboprop shipments were 389 units in 2023, up 8% from 361 units YoY (excluding agricultural and certain utility / regional aircraft) such as the Pilatus PC-6, Viking Twin Otter, and Cessna SkyCourier.

Want to know more? JETNET's database through late February 2024 included model-by-model details on $^{\sim}97\%$ of GAMA-reported shipments. With additional aircraft tail-number specific information being gathered, analyzed, and incorporated each day, the JETNET database is an irreplaceable asset for industry and market analysts - and other geeks like us - seeking deeper insights into this rapidly evolving marketplace.

Want to know where these markets are likely to evolve in 2024 and beyond? Our 10-year JETNET iQ fleet and delivery forecasts are created every quarter on a model-by-model, year-by-year basis. JETNET iQ forecasts have been acknowledged by customers to be the most consistently accurate in the industry. Barring any further aircraft certification delays and assuming continuing improvement in supply chain performance, we forecast that 2024 industry shipments will be up more than 100 units YoY.

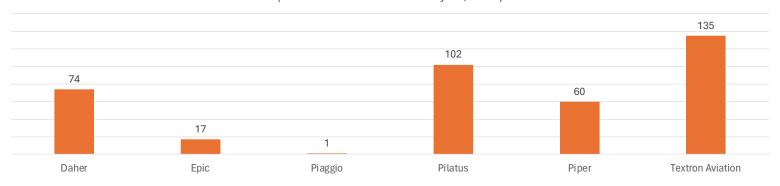
Business Jet Shipments - 2023

(Source: GAMA as of February 21, 2024)



Business Turboprop Shipments - 2023

(Source: GAMA as of February 21, 2024)





Business Conditions



The Economist's <u>GDP growth estimates</u> (Feb. 22, 2024) for 2023 are: U.S. +2.5%, Euro Area +0.6%, U.K. +0.2%, Mexico +3.4%, Brazil +2.9%, Canada +1.1%, China +5.2%, Australia +1.9%, and Russia 3.0%



Business jet cycles (take-offs and landings) for Jan. 2024 were down by 13% YoY for U.S. Part 91, up by 11.1% YoY for U.S. Part 91K, up by 4.1% YoY for U.S. Part 135, and up by 6.7% YoY for European operations



<u>Dow Jones Index</u> (U.S.) was up 19%, <u>FTSE 100</u> (U.K.) was down 3.2%, <u>CAC 40</u> (France) was up 8.8%, and <u>DAX 30</u> (Germany) was up 13.4% YoY on Feb. 26, 2024



U.S. Index of Consumer Sentiment was 79.6 in Feb. 2024 vs. 79.0 in Jan. 2024 and 67.0 in Feb. 2023 YoY;

Euro Area Economic Sentiment Indicator was 96.2 in Jan. 2024 vs. 96.3 in Dec. 2023 and 99.5 in Jan. 2023 YOY



U.S. unemployment rate

(seasonally adjusted) was 3.7% in Jan. 2024 representing 6.1 million unemployed people, little changed from Dec. 2023 (3.7%)



U.S. Purchasing Manager Index

(Manufacturing PMI) was 49.1 in Jan. 2024 vs. 47.1 in Dec. 2023 and 47.4 in Jan. 2023 YoY; Euro Area Business Climate Indicator was -0.40 in Jan. 2024 vs. -0.50 in Dec. 2023 and 0.68 in Jan. 2023 YoY







Transactions of pre-owned business aircraft

in 2023 were
2,465 jets and 1,155 turboprops,
down 22% and 24% respectively YoY
(JETNET as of Feb. 1, 2024;
whole retail transactions only)

Business aircraft deliveries

registered YTD in 2024 are 27 jets
(including Cirrus and Boeing / Airbus
single-aisle) and 19 turboprops
(Source: JETNET – early and preliminary
as of Feb. 29, 2024)



Recommended Areas of Focus for Industry Leaders

Our recently completed Q4 2023 Survey, our 52nd in a series of quarterly polls since Q1 2011, elicited almost 500 responses from owners and operators of fixed-wing turbine-powered business aircraft in 50 countries and territories. In an openended question regarding recommended areas of focus for business aviation leaders to keep the industry healthy and viable, 23% of Survey respondents identified public perception, sustainability, and environmental topics as foremost. While these same topics were ranked highest

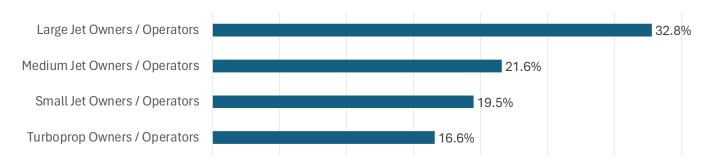
regardless of aircraft size category, almost 1/3rd of Large Jet respondents were of this opinion, significantly higher than all other aircraft size categories in our sample. With the October 2023 launch of *Climbing.Fast.*, highly-engaged trade associations, including NBAA, GAMA, IBAC, IADA, NATA. NAFA, AEA, AOPA, EAA, HAI, and WCA, are well aligned with business aircraft owners and operators on these strategic priorities.

#1 Area of Recommended Focus for Business Aviation Leaders

JETNET iQ Q4 2023 Survey – By Aircraft Size Category

"What should industry leaders be focused on to keep the business aviation industry healthy and viable?"

% Mentioning Public Perception, Sustainability, and Environmental Topics in Their Open-Ended Responses - By Aircraft Size Category



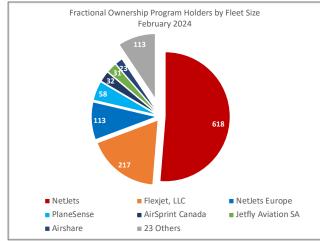
 $Source: JETNET \ iQ \ Q4\ 2023\ Survey\ (n=474\ owner\ /\ operator\ respondents\ from\ 50\ countries\ and\ territories)\ ;\ \%\ of\ total\ mentions$



Fractional Ownership Programs: Putting It All Together

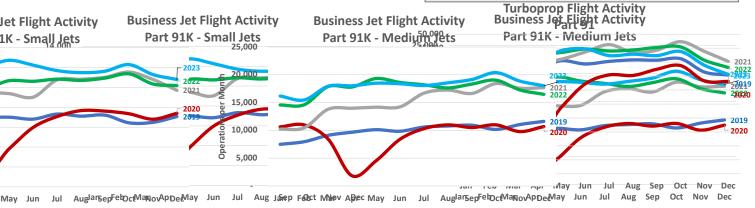
Fractional ownership flight operations recovered to 2019 levels by mid-2020, just months after the COVID-19 pronouncement by the WHO. Utilization grew steadily in 2021, remained strong in 2022, and has since continued to grow across all aircraft size categories from single-engine Turboprops to Large Jets. The 7 largest fractional programs in

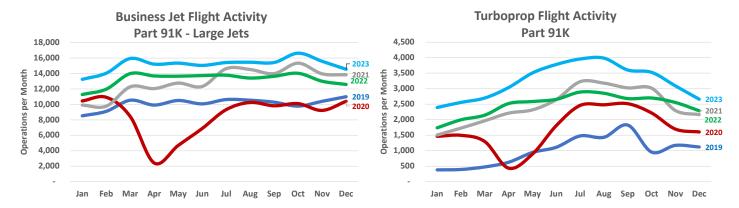
operate 91% of the world's in-service fractional fleet of more than 1,200 aircraft. With complex flight patterns, business and private aviation's highest asset utilization rates, and a growing base of very satisfied high net worth customers, fractional ownership programs are well positioned for continuing growth in 2024 and beyond.



U.S. Fractional Ownership Operations

Jan. 2019-Dec. 2023: By Aircraft Size Category





Source: Flight Operations: U.S. FAA; JETNET; ADS-B network signals; Fractional Ownership Program Holder fleets: JETNET as of Feb. 25, 2024

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12.00



Sky Kings

If it can be said that customers vote with their wallets, certain aircraft models have become perennial customer favorites, building for their manufacturer and authorized service providers a strong foundation for future business. Over the 5-year period from 2019 through the end of 2023, the most delivered models have been the Pilatus PC-12 NG / NGX and Cirrus Vision Jet SF50, averaging more than 80 aircraft per year (see table below). At the upper end of the market, the

Gulfstream G650 / 650ER has averaged more than 42 deliveries/year, representing close to \$3B in delivery value based on current list prices. The Cessna Citation Latitude, Embraer Phenom 300 / 300E, and Challenger 300 / 350 / 3500 are the 3 most popular aircraft in fractional ownership, together accounting for more than half of the in-service fractional jet fleet worldwide in February 2024.

New Business Aircraft Delivery Leaders

Deliveries from 2019-2023: By Aircraft Size Category

Category		Manufacturer / Model	2019-2023 Delivery Units	Average Delivery Units / Year
SETP	Single-Engine Turboprop	Pilatus PC-12 NG / NGX	437	87.4
PJ	Personal Jet	Cirrus Vision Jet SF50	422	84.4
П	Light Jet	Embraer Phenom 300 / 300E	279	55.8
LGULR	Large Ultra Long-Range Jet	Gulfstream G650 / 650ER	212	42.4
SMJ	Super Mid-Size Jet	Bombardier Challenger 350 / 3500	203	40.6
MJ	Mid-Size Jet	Cessna Citation Latitude	199	39.8
METP	Multi-Engine Turboprop	Beech King Air 350 / 360	191	38.2
VLJ	Very Light Jet	HondaJet HA-420	154	30.8
LGLR	Large Long-Range Jet	Gulfstream G600	116	23.2
SLJ	Super Light Jet	Cessna Citation XLS+ / XLS Gen 2	88	17.6
LGJ	Large Jet	Bombardier Challenger 650	68	13.6

Source: JETNET as of Feb. 25, 2024



About JETNET iQ

JETNET iQ is a business aviation industry intelligence service. 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, aircraft owner / operator surveys, and detailed aircraft delivery and fleet forecasts
- **JETNET iQ Summits** are annual industry thought-leadership conferences providing unique data, insights and networking opportunities
- **JETNET IQ Advisory** provides customized research and analysis for clients on a project-by-project basis.



JETNET IQ is a partnership between JETNET LLC of Utica, New York and Rolland Vincent Associates, LLC, of Plano, Texas. JETNET IQ Reports are available in various formats on a subscription basis.

JETNET iQ's proprietary quarterly surveys of the worldwide community of business aircraft owners and operators gauge customer sentiment, brand perceptions, aircraft purchase, selling, and utilization expectations, and areas of topical interest in this fast-changing marketplace. JETNET iQ Surveys are password-protected and by invitation-only. Respondents include both aviation professionals and senior management, and closely reflect the worldwide distribution of the business jet and turboprop community. Since Q1 2011, more than 25,000 respondents from more than 140 countries and territories have participated in JETNET iQ Global Business Aviation Surveys, generating the largest commercially available database of its kind in the world.

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