

- 1 Editorial
- 2 Outlook
- 3 SAF: A Matter of Optics, and More
- 6 Business Conditions
- 7 Going, Going, Gone?
- 8 On-Demand Is In Demand
- 9 Where's My Privacy?
- 10 Sharing in the Recovery
- 11 There's Life in These Birds
- 12 Mind the Bounce
- 13 About JETNET iQ
- 14 Appendix

Rollie Vincent  
JETNET iQ Creator/Director



## Starting Up a Brand New Day

Like airplane designs that one day become recognized as classics, some of the best songs and the artists who created them stay relevant and 'in the game' through the ages. Just before the turn of the Millennium, British musician Sting released *Brand New Day*, a fun and forward-looking song that spoke to people ready to reset the clocks and start with a fresh slate to begin the Year 2000. With the Year 2020 now finally in our rearview mirrors, we try to bring some clarity and perspective to the year just ended as a basis for establishing plans for the year to come.

While we will await the upcoming year-end earnings reports from the OEMs and their key suppliers to provide more objective clarity, we already know that pre-owned business aircraft transactions were literally on fire - in a good and controlled way - at the end of 2020. As usual, activity was driven by customers focused on getting deals done before 'December 31' year-end, driven by desires to capture accelerated (bonus) depreciation incentives while they still exist under the current U.S. tax laws.

We also examine business jet utilization patterns, which are available within the JETNET database on a near real-time basis. An analysis of U.S. business jet flights by operational category is now possible for the full-year 2020, revealing the relative strength of the charter / on-demand segment, one of the darlings of the COVID-19 era. Hopes are high that an

acceleration in vaccination rates in the next several months will help propel a broader recovery in consumer and business confidence, in turn providing lift to our wider economies and a restart of face-to-face meetings. If there is any one thing that will herald the start of a new day for business aviation in 2021, it is this recovery in confidence. Results from the latest JETNET iQ Survey suggest that just such a rebound in confidence is already underway amongst the business aircraft owner / operator community.

***"If there is any one thing that will herald the start of a new day for business aviation in 2021, it is this recovery in confidence."***

We are delighted to be joined in this issue by Fred George, known widely throughout the industry for his expert pilot reports, aircraft operator analyses, and technical reviews which appeared throughout the pages of *Business & Commercial Aviation* magazine. For many years, he edited the near-biblical *B&CA Purchase Planning Handbook*, a standard reference tool that helps to put a plethora of aircraft models onto a level playing surface - in this case, affectionately known as tarmac. Today's - and tomorrow's - topic of interest: the environment!



## Outlook

Preliminary year-end results as recorded in the JETNET transaction database indicate that there were 2,470 retail sales and leases of pre-owned business jets worldwide in 2020, down 4% YOY after a busy month of December. Inventory for sale ended the year at 1,850 pre-owned jets, down 15% from the end of 2019 and representing 8.2% of the in-service fleet. Early indications suggest that inventory has since slipped even further, to just 1,776 jets on January 11, 2021 or just 7.9% of the fleet.

While sales in 2020 were no doubt buoyed by concerns regarding the potential loss of 100% bonus depreciation in the U.S., relatively soft prices were also in play. Asking prices in the Large Jet segment, for example, were off by ~10% in 2020 YOY, according to JETNET. A key question on many people's minds as we begin the year is: What is the outlook for pre-owned aircraft prices and valuations in 2021?

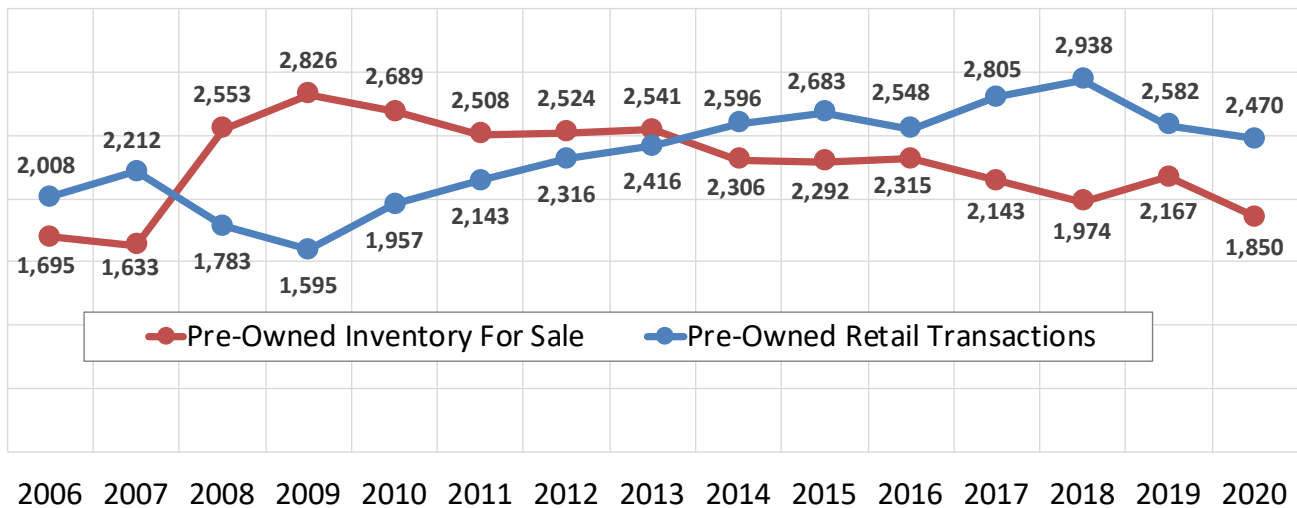
As much as any other indicator, pre-owned inventory levels - whether in absolute terms or as a percentage of the in-service fleet - reflect a

COVID-19 era marketplace that has evolved fundamentally from that which existed in the aftermath of the 2008/2009 Global Financial Crisis.

We believe that this reflects a marketplace where pre-owned pricing today is generally in alignment with expectations on both sides of the transactions table. This is a situation that was the result of a long, slow burn-off in inventory after May 2009, when for-sale jets peaked near 19% of the in-service fleet, the highest ever recorded by JETNET.

At 8% in January 2021, inventory as a percentage of the in-service fleet is now at its lowest recorded level to date in this millennium. Other things being equal, market conditions today support a transition to firmer pre-owned pricing / values, especially for younger, well-pedigreed models, reflecting a healthy and smoothly functioning marketplace.

**Pre-Owned Business Jet Inventory  
and Pre-Owned Whole Retail Transactions - Worldwide**



Source: JETNET iQ  
December 2020 data are preliminary (as recorded through January 11, 2021)  
For aircraft size category definitions, please see the Appendix

## SAF: A Matter of Optics, and More



**Fred George**  
Principal, Fred George Aero LLC  
fgeorge@bendbroadband.com  
1-541-527-4263

The heat is on the business aviation community to reduce its carbon footprint. While corporate aircraft account for only 0.04% to 0.05% of all human-caused carbon emissions, each passenger aboard the aircraft accounts for as much as 30 times the CO<sub>2</sub> emissions as a single person driving the average automobile. More importantly, many environment activists portray all of air travel as being a discretionary activity in contrast to other forms of transportation. Little wonder that teenager Greta Thunberg, a fierce opponent of air travel, was named Time magazine's 2019 Person of the Year.

"This is a wide environmental challenge for business aviation because of the scrutiny of the industry," notes David Coleal, former head of GAMA's environmental committee and 20+ year aerospace industry veteran. "But, we've created a clear plan with measurable goals and objectives. And the business aviation industry is publishing reports showing that it's making progress towards attaining those goals. It's setting an example for other industries."

The incoming Biden administration plans a "clean energy revolution" based on the Green New Deal proposed by Rep. Alexandria Ocasio-Cortez and Sen. Ed Markey. With Democrats now in control of both Congress and the White House, the business aviation community will face even more pressure to slash its carbon impact.

Coleal says the focus on reducing carbon emissions has been going on for more than a decade. In 2009, the business aviation community took the initiative to reduce carbon emissions, recognizing that it was squarely in the crosshairs of environmental activists. The business aviation community defined four methods for reaching a 50% reduction in carbon emissions by 2050.

More efficient aircraft, using sustainable aviation fuels [SAF or biojet], shorter flight times resulting from the 21st century air traffic management system and carbon offsets are key to cutting business aviation's carbon output by half by mid-century.

Switching from conventional fossil fuel to SAF accounts for most of the decarbonization. Notably, the entire aviation sector consumes about 100 billion gallons of jet fuel every year. Business aviation, alone, annually burns about 2 billion gallons.

At present, SAF is at least 2.5 to 3.0 times as expensive to produce as fossil fuel Jet A. "Commercial aviation drives demand for SAF," says Keith Sawyer, AvFuel's manager of alternative fuels. "Business aviation operators are likely to be rapid adopters [of SAF]" because fuel cost makes up a considerably smaller part of their operating budgets. Increased demand will drive up production rates, leading to a drop in the price per gallon for SAF. Favorable government policy regarding SAF use, such as tax credits currently available for biodiesel, potentially could boost demand.

In January 2021 AvFuel and Neste, currently one of the world's largest producers of SAF, announced an agreement to supply blended SAF in greater volume to FBOs, airports, airlines, aviation organizations and aircraft manufacturers. Neste plans to open additional biorefineries in Rotterdam and Singapore by 2022, increasing its production 14-fold.

Today, Neste in Porvoo, Finland, World Energy in Paramount, CA, and Gevo Biorefinery in Silsbee, TX represent about 59 million gallons of annual production capacity, says Steve Csonka, executive director of the Commercial Aviation Alternative Fuels Initiative (CAAFI). However, Csonka estimates that nearly 20 more biorefineries will go into operation by 2025, boosting annual production to more than a billion gallons.

The steep difference in price between SAF and fossil fuel Jet A is only one challenge. Competition for various SAF feedstocks will be another hurdle as production rates increase for renewable diesel, says Csonka. Fortunately, almost any materials rich in carbon and hydrogen will do, including lipid fatty acids, plant biomass, starches and sugars, and waste streams.

## SAF: A Matter of Optics, and More (cont.)

In the U.S., there are seven potential waste feedstocks that do not compete with food supplies or require land use change: wet sewage, municipal solid waste, agriculture residue, forestry byproducts, fats / oil / grease [“FOG”], industrial exhaust gases and other plant waste (e.g., removal of invasive species). Csonka estimates that if all such U.S. waste were sustainably utilized for the production of renewable fuels (gasoline, jet, and diesel), it could supply nearly 6 out of 10 gallons of jet fuel, based on 2019 business aviation industry consumption data.

The SAF blending components can also be produced from a wide range of biochemical and thermochemical processes, almost as varied as the different kinds of feedstocks. The nearly century old Fischer-Tropsch gas-to-liquid conversion technology, hydroprocessing of lipids, and ethanol-to-kerosene transformation are among the aviation industry approved techniques to produce SAF outlined in ASTM D7566 (published by the American Society for Testing and Materials [ASTM]).

Ideally, all SAF could be refined to include the well-proven four-to-one ratio of various paraffins to aromatic hydrocarbons contained in fossil fuel Jet A. That’s beyond today’s biorefining capabilities, thus SAF must be blended with fossil fuel Jet A to meet ASTM performance standards for heating value, freezing point, viscosity, and lubricity, plus dozens of other benchmarks. Currently, that requires SAF to be blended with fossil fuel in no more than 50 / 50 proportions, depending upon the biorefining process.

Blending can be tricky because there is no such thing as “standard” fossil fuel Jet A, owing to differences in crude oil chemistry and refining processes. As long as the resulting product meets the basic ASTM D1655 Jet A standards for physical, chemical and performance properties, it’s viable for use as jet fuel. That’s why there’s substantial variation in fluid density and heating value for jet fuel from various refiners and in different countries. Csonka says fossil jet fuel is comprised of a “Gaussian distribution of hydrocarbons” somewhat similar to diesel fuel. The variability in fossil fuel composition can complicate the blending process required to meet ASTM jet fuel standards.

Biojet proponents believe that pure SAF that meets ASTM D1655 Jet A standard without blending will be available in less than a decade. But it will be decades before the last barrel of fossil fuel crude is converted into jet fuel. Biojet feedstock supplies will have to be increased by a factor of four or more to meet business aviation’s needs. It will be challenging to grow enough algae, seeds and weeds, among other plant forms, to meet demand without using land and water needed to produce food. Exxon and some other oil companies believe they can grow algae from saltwater in sweltering desert heat to produce biofuel feedstock in mass quantities.

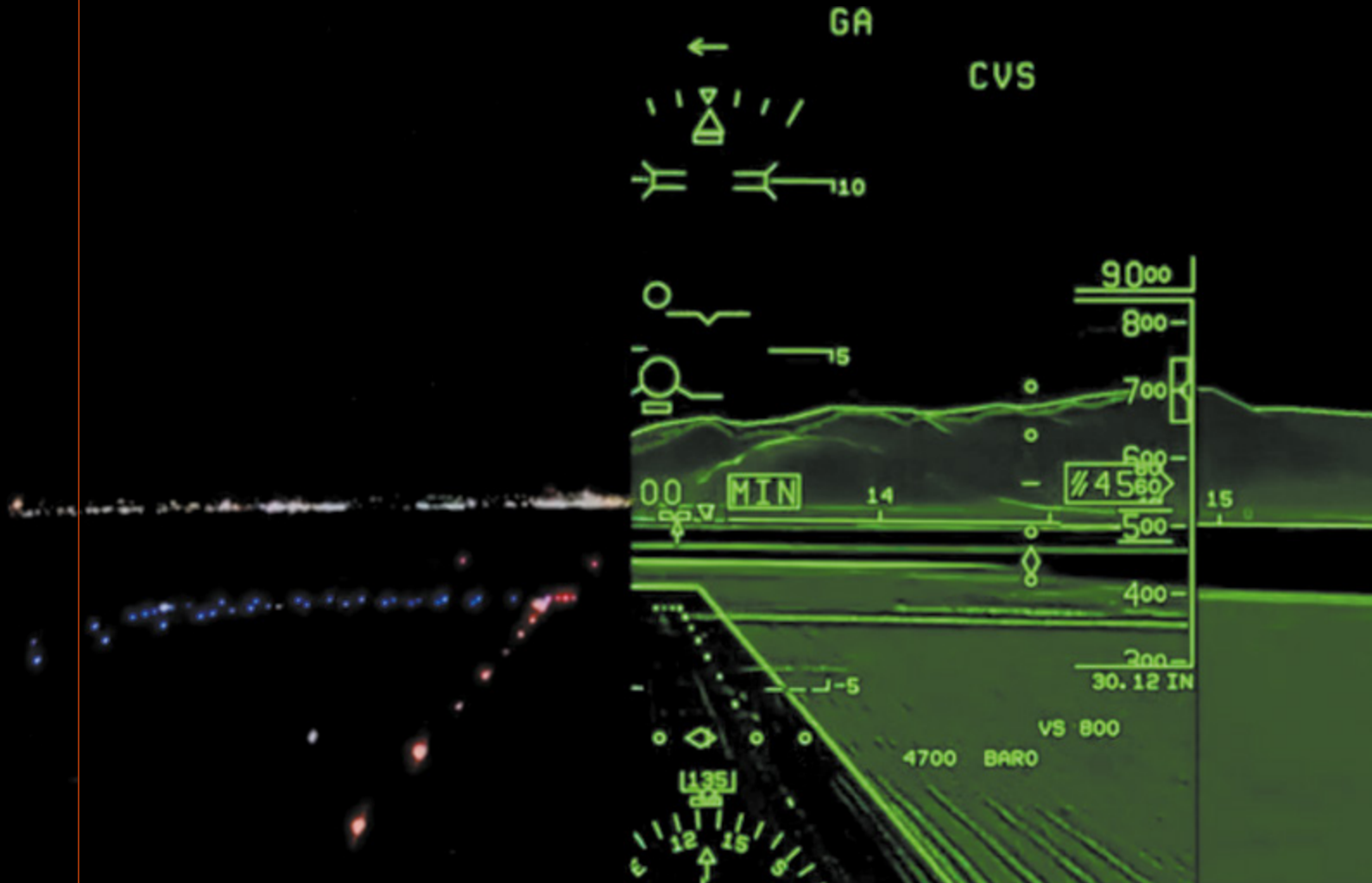
If large-scale clean electricity generation can be developed, it could be possible to capture CO2 from the atmosphere and convert it back into hydrocarbon fuel. Thus far, all “clean electric” generation technologies, including wind, tidal, solar and nuclear fission, come with sizable downside risks.

In addition, the aviation community is not the only customer for biofuel. Ground transportation consumers – autos, trucks, trains and others - create a potential market for biofuel that’s more than seven times as large as aviation. As ground sector demand for biofuels increases, it’s going to tax feedstock supplies and biorefining capacity. So, the aviation community will have to compete with other forms of transportation for biofuels.

As companies face increasing public scrutiny for reducing carbon footprint, critics are likely to put laser focus on flight department operations and the resulting greenhouse gas emissions. With SAF likely to be in short supply until well past mid-century, now’s the time for the business aviation community to embrace SAF and start lining up long term contracts for supply. Being dependent on fossil fuel could hasten the demise of your jet.



# BETTER VISION. GREATER PRECISION.



## Fly with greater confidence

From takeoff to touchdown, fly with the only vision system that truly combines enhanced and synthetic vision in a single view for advanced situational awareness. The Collins Aerospace Combined Vision System (CVS) clears the way – showing you real-time imagery of your surroundings, sharpening your approach precision and qualifying you for a lower decision height. See what you've been missing.

## COMBINED VISION SYSTEM

- Removes the surprise of runway incursions
- Reduces decision heights
- Enhances situational awareness and safety
- Improves visibility in degraded weather conditions

[collinsaerospace.com/VisionSystems](https://collinsaerospace.com/VisionSystems)



## Business Conditions

### GDP



The Economist's **GDP estimates** for U.S. and Euro Area economic growth for 2020 are -3.7% and -7.5% respectively, and -11.3% for the U.K.; China is the only major business aviation economy that apparently grew in 2020, but by only 1.9%



### **Business jet cycles** (take-offs and landings)

In December 2020 were down by -33% YOY for U.S. Part 91, down by 4% YOY for U.S. Part 91K, but up by 3% YOY for U.S. Part 135



The **Dow Jones Index** (U.S.) was up 7.4% from January 2, 2020 to January 12, 2021; The **FTSE 100** (U.K.) was down 11.2% from January 2, 2020 to January 12, 2021



U.S. Index of **Consumer Sentiment** was 80.7 in Dec. 2020, versus 76.9 in Nov. 2020 and 99.3 in Dec 2019 YOY; Euro Area **Economic Sentiment Indicator** was 90.4 in Dec. 2020, up from Nov.'s 87.7 and down from 103.4 in Feb. 2020 at the onset of COVID-19



U.S. initial **unemployment claims** were 73.9 million in the 42 weeks ending January 2, 2021; U.S. unemployment rate (seasonally adjusted) was 6.7% in December 2020 (representing ~10.7 million people)



U.S. **Purchasing Manager Index** (Manufacturing PMI) was 60.7% in Dec. 2020, up from 57.5% in Nov. 2020; Euro Area **Business Climate Indicator** was -0.41 in Dec. 2020, up from -0.63 in Nov. 2020



**Transactions** of pre-owned business jets (retail sales & leases) in December 2020 were down 8% YOY to 343 (preliminary results); days-on-market were up 23% YOY to 276 days



### **Business aircraft deliveries**

2020 were 540 jets (including Cirrus, Boeing, Airbus) and 265 turboprops according to JETNET (preliminary results); we estimate 2020 shipments were off ~25-30% YOY

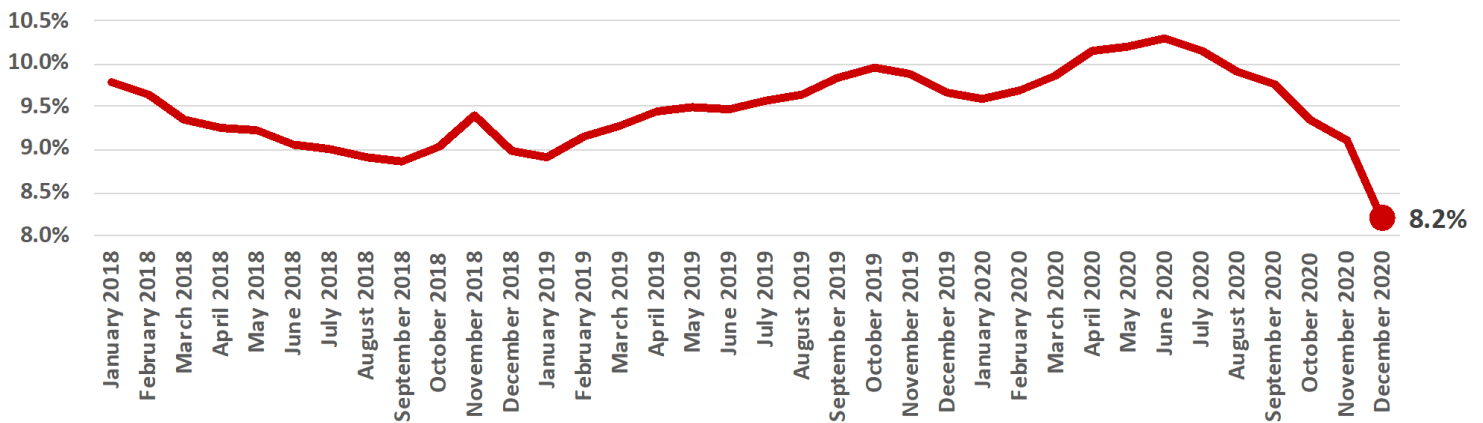
## Going, Going, Gone?

### Inventory For Sale: Business Jets and Business Turboprops January 2018 – December 2020

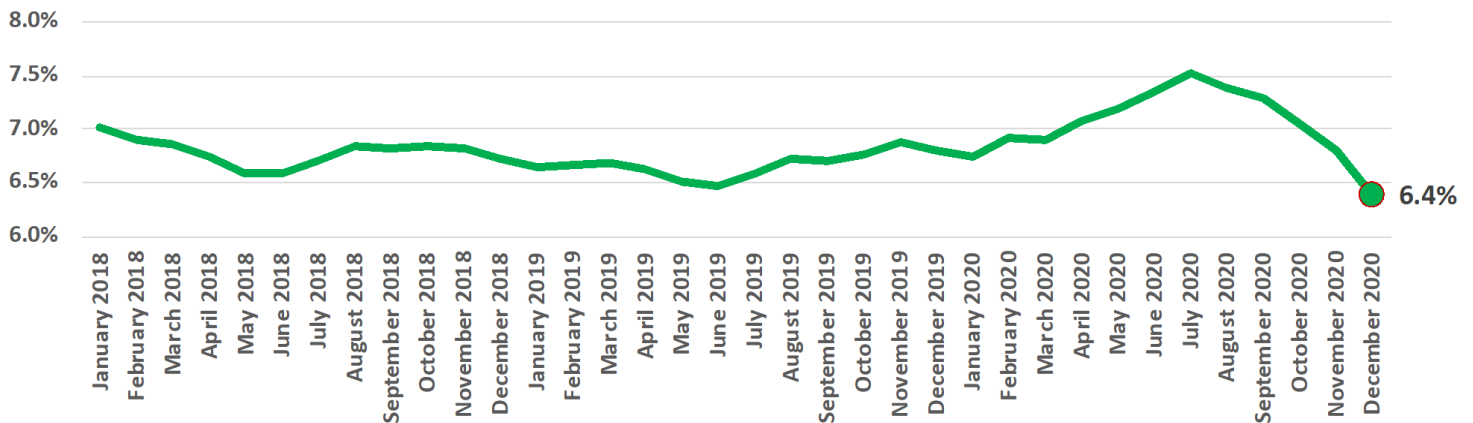
After a rapid buildup immediately after the March 2020 pandemic announcement, inventory for sale (measured as a percentage of the in-service fleet) began to decline in June / July 2020. The rate of decline accelerated somewhat beginning in October, ending 2020 at 8.2% (jets) and 6.4% (turboprops). For-sale inventory has continued to decline into January 2021,

reaching 7.9% (jets) and 6.3% (turboprops) as of January 11, 2021. Of the 986 business turboprops currently for sale on the JETNET system, just 8% were delivered new in the previous 5 years. Customers seeking to purchase a 5-year-old Pilatus PC-12 NG or King Air 250 have just 2 aircraft to choose from when considering either model.

**% of In-Operation Business Jet Fleet For Sale By Month  
2018 - 2020**



**% of In-Operation Turboprop Fleet For Sale By Month  
2018 - 2020**



Source: JETNET iQ

## On-Demand Is In Demand

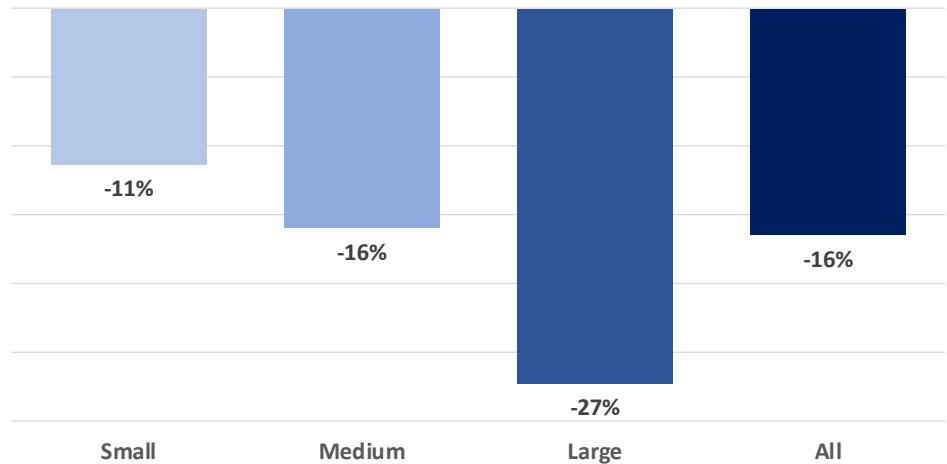
### U.S. Part 135 Business Jet Cycles 2020 versus 2019

While U.S. on-demand business jet charter flying was down by 16% overall in 2020 versus the prior year, much of this underperformance was concentrated in March-April-May. By August 2020 (a typically strong demand period for leisure and family travel), charter flight activity had returned to prior-

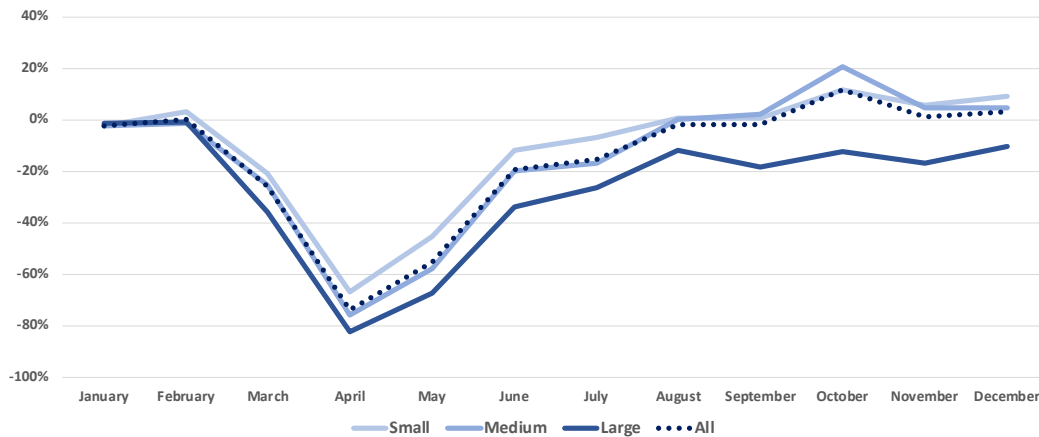
year levels for Small and Medium Jets. The biggest shortfall in utilization throughout most of 2020 was in the Large Jet segment, with cycles (one takeoff and landing) down 27% YOY on average.



Year-Over-Year Change in Flight Activity (Cycles) by Size  
Part 135 Operations 2020 versus 2019



Year-Over-Year Change in Flight Activity (Cycles) by Size  
Part 135 Operations: Monthly 2020 versus 2019



Source: JETNET iQ  
For aircraft size category definitions, please see the Appendix



## Where's My Privacy?

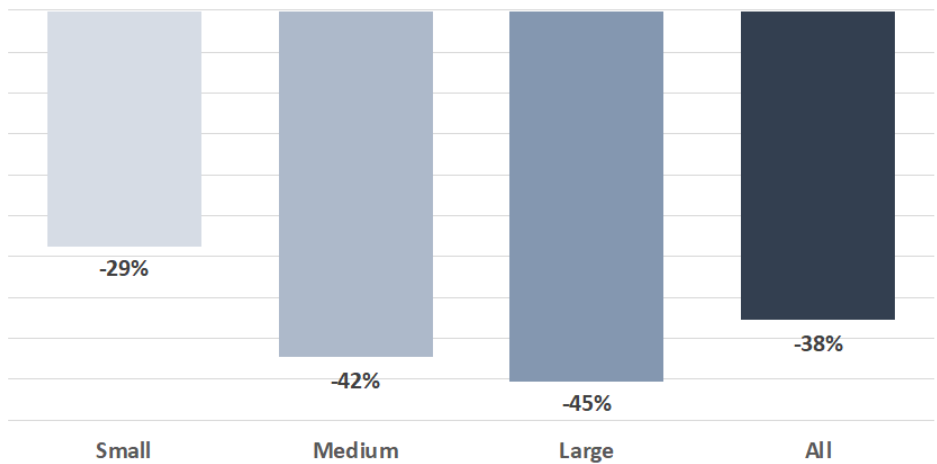
### U.S. Part 91 Business Jet Cycles 2020 versus 2019

While U.S. private and corporate flight operations (so-called Part 91) dropped off precipitously in March and especially April 2020, this segment of the market has shown few signs of recovery, with utilization rates stubbornly flat and down 30-40% from 2019 levels, and with the greater decline posted amongst larger, longer range jets. This operational segment experienced YOY declines approaching 80% in April 2020, an unprecedented

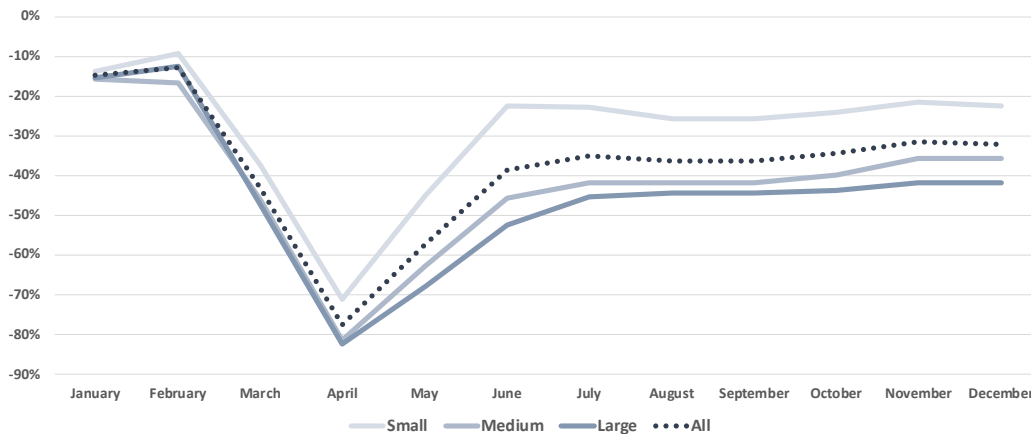
shock as companies and high net worth individuals / families abruptly stopped flying in response to the pandemic. With Part 91 representing 52% of business jet flights in the United States in 2019, a recovery in private and corporate demand in the post-COVID era will be a welcome tailwind for the business of business aviation.



Year-Over-Year Change in Flight Activity (Cycles) by Size  
Part 91 Operations 2020 versus 2019



Year-Over-Year Change in Flight Activity (Cycles) by Size  
Part 91 Operations: Monthly 2020 versus 2019



Source: JETNET IQ  
For aircraft size category definitions, please see the Appendix

## Sharing in the Recovery

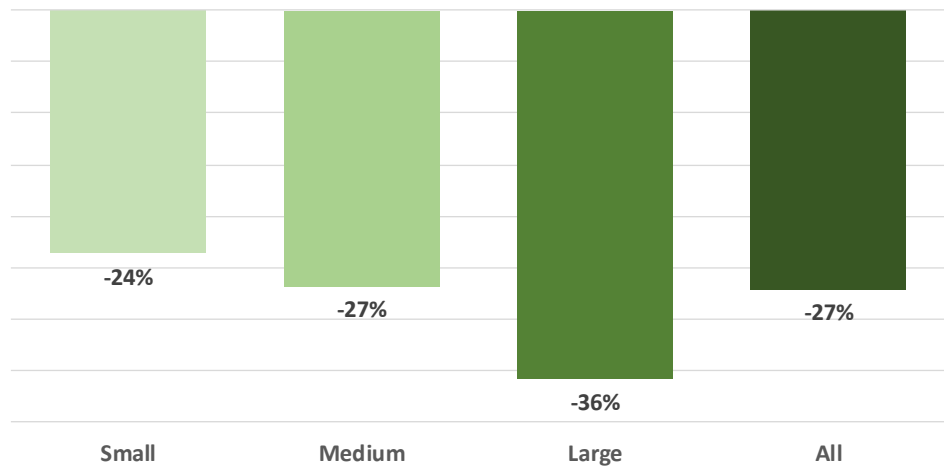
### U.S. Part 91K Business Jet Cycles 2020 versus 2019

Business jet cycles amongst the various U.S. fractional program holders were down 27% YOY in 2020, despite a relatively strong performance in the 2<sup>nd</sup> half of the year. Large Jets have been laggards, with evidence suggesting that customers have

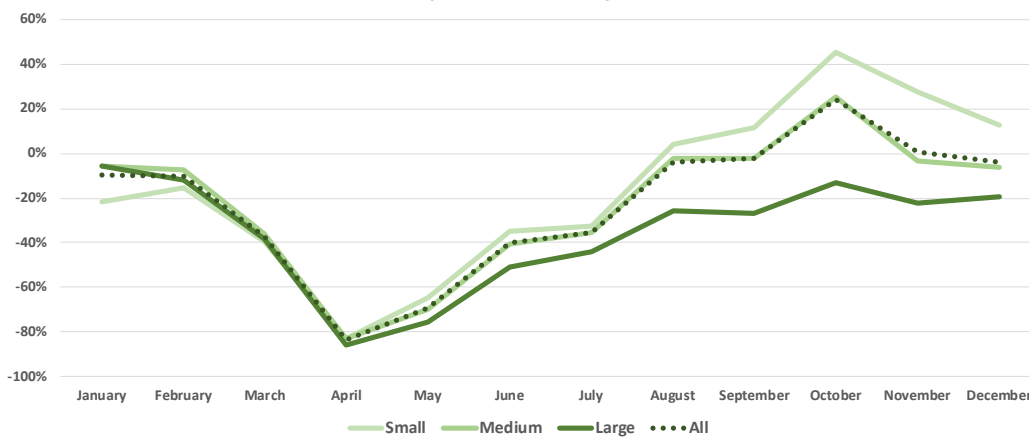
been using the flexibility inherent in their aircraft interchange agreements to opt for smaller “right-sized” aircraft to match their needs for largely U.S. domestic missions.



Year-Over-Year Change in Flight Activity (Cycles) by Size  
U.S. Fractional Operations 2020 versus 2019



Year-Over-Year Change in Flight Activity (Cycles) by Size  
U.S. Fractional Operations: Monthly 2020 versus 2019



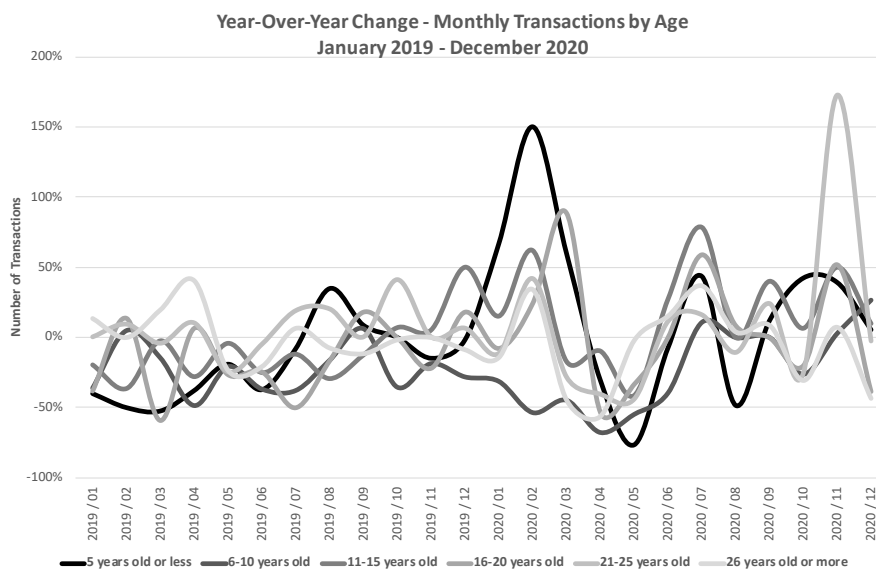
Source: JETNET iQ  
For aircraft size category definitions, please see the Appendix

## There's Life in These Birds

### Pre-Owned Business Jet Transactions by Age Category - Worldwide 2019 and 2020

When COVID-19 was proclaimed a worldwide pandemic in March 2020, the lift that had been building after a long, slow recovery came out of the industry's wings. While Q4 2020 will mark a busy delivery quarter for the 8 primary OEMs who currently offer new-build jets, we forecast that overall output will be off by about 29% when year-end results are tallied. This represents output levels not seen since 2003 / 2004. Through the end of Q3 2020, we estimate that firm order backlogs for the five OEMs that regularly report on these types of results

– Bombardier, Dassault, Embraer, Gulfstream, and Textron Aviation – have slipped ~14% in value since the beginning of 2020, at the same time as some customers have negotiated to defer planned deliveries for this year into 2021 or beyond in some cases. To put 2020 into some historical perspective, the delivery drop-off this year is similar in magnitude to that of 2008-2009. In contrast to that situation – when deliveries fell for two consecutive years – we expect total new business jet shipments to be up in 2021, at this point by approximately 7%.



Source: JETNET IQ

## Mind the Bounce

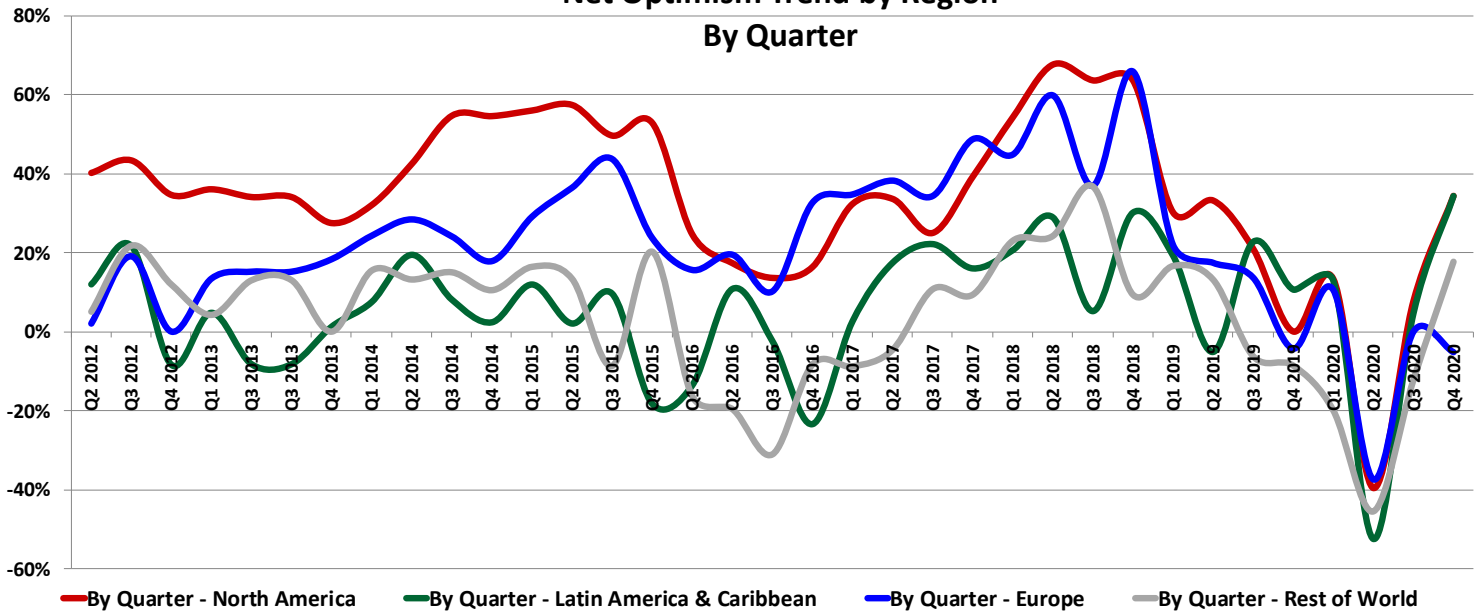
### JETNET iQ Market Sentiment Index Since the Beginning of 2012

Our proprietary monitor of sentiment amongst aircraft owners / operators rebounded smartly in Q4 2020 across most regions of the world, based on JETNET iQ quarterly surveys. Led by sentiment in North America (U.S. and Canada) and Latin

America & Caribbean, improvements in optimism are up from historical lows in Q2 2020 in the immediate aftermath of the WHO's COVID-19 pandemic declaration.



Net Optimism Trend by Region  
By Quarter



Source: JETNET iQ

Q4 2020 JETNET iQ Survey in progress, with 501 respondents to date

## 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 conferences providing unique data, insights and networking opportunities; and
- **JETNET iQ Consulting** 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 8 different levels**. JETNET iQ is a partnership between JETNET LLC of Utica, New York and Rolland Vincent Associates, LLC, of Plano, Texas.

Material in this publication may not be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise) without the prior written permission of the publisher.

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 includes at least 500 respondents in 50 or more countries each quarter, and respondents closely reflect the worldwide distribution of the business jet and turboprop community.

For more information on JETNET iQ, please contact:

Rolland Vincent, JETNET iQ Creator/Director

Tel: 1-972-439-2069

e-mail: rollie@jetnet.com

To subscribe to JETNET iQ Reports or inquire into sponsorship of JETNET iQ PULSE, please contact:

Paul Cardarelli, JETNET Vice President of Sales

Tel: 315-797-4420, ext. 254

e-mail: paul@jetnet.com

## Appendix

### Data sources:

**Real GDP growth estimates (2020):** The Economist – January 9, 2021

<https://www.economist.com/economic-and-financial-indicators/2021/01/09/economic-data-commodities-and-markets>

#### Stock Markets:

Dow Jones Industrial Average: <http://ca.spindices.com/indices/equity/dow-jones-industrial-average>

London Stock Exchange (FTSE 100) : <https://www.londonstockexchange.com/indices/ftse-100>

**Unemployment:** Bureau of Labor Statistics (U.S.); <https://www.dol.gov/ui/data.pdf>; “SA” = seasonally adjusted

**Consumer Confidence:** University of Michigan Survey of Consumers (U.S.); <http://www.sca.isr.umich.edu>

European Commission (Euro Area) – Economic Sentiment Indicator; [https://ec.europa.eu/info/sites/info/files/full\\_bcs\\_2020\\_09\\_en.pdf](https://ec.europa.eu/info/sites/info/files/full_bcs_2020_09_en.pdf)

**Business Confidence:** U.S. ISM Manufacturing PMI (U.S.)

<https://www.instituteforsupplymanagement.org/about/MediaRoom/newsreleasedetail.cfm?ItemNumber=31182>

Eurostat (Euro Area); <https://ec.europa.eu/eurostat/databrowser/view/teibs010/default/table?lang=en>

[https://ec.europa.eu/eurostat/databrowser/view/ei\\_bsci\\_m\\_r2/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/ei_bsci_m_r2/default/table?lang=en)

**Business aircraft fleet, deliveries, transactions, days-on-market (DOM), utilization:** JETNET; DOM refers to aircraft that were sold / leased

**Survey results:** JETNET iQ Global Business Aviation Surveys (Quarterly)

**Photo credits:** Page 3: Fred George; Page 4: Signature Flight Support; all other photos / images: Rolland Vincent Associates, LLC / JETNET iQ

### Definitions and Abbreviations:

For the purposes of these Reports, business aircraft may be classified into 4 primary categories, reflecting propulsion, price, performance, and weight class differences. These categories are: Turboprops (Single-Engine Turboprops - SETP and Multi-Engine Turboprops - METP), Small Jets (Personal Jets, Very Light Jets, Light Jets), Medium Jets (Super-Light Jet, Mid-Size Jet, Super Mid-Size Jet), and Large Jets (Large Jet, Large Long-Range Jet, Large Ultra Long-Range Jet, Airline Business Jet). The “Personal Jet” category includes single-engine turboprop-powered models, today represented by the Cirrus Vision Jet.

B&GA: Business & General Aviation

EIS: Entry in Service

FBO: Fixed Base Operator (private air terminal)

FTSE: Financial Times Stock Exchange (London)

GAMA: General Aviation Manufacturers Association

GDP: Gross Domestic Product

HNWI: High Net Worth Individual

MTOW: Maximum Takeoff Weight

NGO: Non-Governmental Organization

OEM: Original Equipment Manufacturer

QOQ: Quarter over Quarter

QTD: Quarter to Date

S&P: Standard & Poor's

TTM: Trailing Twelve Months

WHO: World Health Organization

YOY: Year over Year

YTD: Year to Date

### Disclaimer:

*Certain statements in this report constitute forward-looking statements or statements which may be deemed or construed to be forward-looking statements. The words “forecast”, “anticipate”, “estimate”, “project”, “intend”, “expect”, “should”, “believe”, and similar expressions are intended to identify forward-looking statements. These forward-looking statements involve, and are subject to known and unknown risks, uncertainties and other factors which could cause actual results, performance (financial or operating) or achievements to differ from the future results, performance (financial or operating) or achievements expressed or implied by such forward-looking statements. These forward-looking statements are based on beliefs, assumptions and estimates based on information currently available to JETNET LLC (JETNET), and are subject to certain risks and uncertainties that could cause actual results to differ materially from historical results or those anticipated, depending on a variety of factors, including: significant disruptions in air travel (including as a result of terrorist acts), regulatory and tax changes, labor disruptions, currency exchange rate fluctuations, aerospace program development and management risks, aerospace supplier and customer financing issues, economic and aviation/aerospace market stability, competition, consolidation and profitability. Should one or more of these risks or uncertainties materialize adversely, or should underlying assumptions or estimates prove incorrect, actual results may vary materially from those described. All forward-looking statements attributable to JETNET and its officers, directors, shareholders, employees, agents, and affiliates herein are expressly qualified in their entirety by the abovementioned cautionary statement. JETNET disclaims any obligation to update forward-looking statements contained in this report, except as may be required by law. JETNET makes no representations or warranties concerning the accuracy and adequacy of any data, analyses, forecasts, or reports it provides, and shall not be liable, in any manner, for the Customer's reliance on this information. In no event shall JETNET be liable for any direct, indirect, special or consequential damages in connection with or arising out of furnishing data, analyses, forecasts, or reports to the user.*

# ➤➤ ELEVATE YOUR iQ

*JETNET iQ: A Market Research, Strategy, and Forecasting Service For Business Aviation, in Three Components:*

- JETNET iQ Reports: Definitive analytical references incorporating state-of-the-industry analyses, owner/operator surveys, and detailed multi-year forecasts.
- JETNET iQ Summits: Thought-leadership forums providing state-of-the-market perspectives and networking opportunities.
- JETNET iQ Consulting: Customized research and analysis for clients requiring proprietary insights.



➤➤ KNOW MORE.

The World Leader in Aviation Market Intelligence  
800.553.8638 +1.315.797.4420 [jetnet.com](http://jetnet.com)