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You've Got a Friend

Leaders across the business aviation industry are adjusting to the new realities of the dynamic marketplace in what will hopefully soon be our post-coronavirus world. How could we have known that we are as adaptable as we are without these kinds of trials?

As the heat of the Northern Summer prepares to test our cool, we take another look at the market in all of its many facets. While business aircraft utilization levels are constrained, they are clearly less impacted than what is happening in the commercial airline world. As we noted in our last issue of JETNET iQ PULSE, the only good thing about traffic being down almost 100% YOY at major commercial airline hub airports is that activity levels can't get much worse than that. While this isn't saying much, we take no joy in anything that reflects the fact that fewer people are experiencing the joys and opportunities of human flight. The good news is that there are already signs of bluer skies ahead.

For travelers considering their go-forth best options for moving their families, friends, and professional colleagues, there is a growing realization that life is indeed short, death is long, and that—absent a viral vaccine—a business aircraft might just be the most effective prescription that

the good doctor ordered after all.

In this issue of JETNET iQ PULSE, we are delighted to welcome Ed Bolen, NBAA's President and CEO, and his organization who are leading the way in responding to this unprecedented crisis.

Anecdotally, we are very encouraged to hear evidence of a noticeable uptick in enquiries from qualified prospects investigating business and private aviation solutions. The good news is that there are some battle-seasoned experts they can rely upon for help with evaluating their many options, doing the basic math, and deciding whether or even how best to proceed. In our experience, these are context-specific and not either/or decisions. We need a wide variety of travel options, and one may be best on a given day but not the next. A key waypoint in seeking our best solutions is choosing a trusted advisor with the depth of experience and breadth of portfolio options to prescribe what is needed - rather than to sell what is on the shelf. While there are no hard and fast rules to this selection process, we believe that size and pedigree matter. When in doubt, call on someone who has been serving customers well through the ups and downs of one and hopefully more business cycles. This only seems prudent when considering the overall capital investment and the health, safety, and security of those who need and/or choose to travel together.

Rollie Vincent
JETNET iQ Creator/Director



"A business aircraft might just be the most effective prescription that the good doctor ordered after all."



Outlook

With much attention in the world focused on the reverberations of COVID-19 on our economies and ways of life, it is easy to forget that we do not live in a binary world. Reality is inherently (and thankfully) more complicated than a choice between the red pill or the blue pill, as was famously offered the character Neo in the sci-fi film *The Matrix*. In aviation, there are always going to be the more straightforward navigational choices (up / down, left / right, or faster / slower) that get us from origin to destination. But there are innumerable other choices we face that may appear to be discrete at first glance, but that are truly more nuanced upon closer examination. Examples include private versus commercial aviation, jets versus turboprops, personal versus business use of an aircraft, new versus pre-owned, and shared versus whole aircraft ownership. While many customers may profess to be loyal to one or another brand, service provider, or method of accessing business aviation, an analysis of behavioral patterns typically illuminates a much more elaborate decision matrix and set of choices.

The outlook for business aviation depends very much on the segment of the market under consideration. We believe that aircraft utilization will be the first to rebound to new-normal levels, although this is unlikely to occur on an annualized basis before the end of 2021 at the earliest. Much, of course, is contingent on our individual and collective successes in avoiding a serious 2nd wave of coronavirus outbreaks. With a fast-approaching long, hot Northern Summer, demand for private aviation flight services is already on the uptick, as high net worth individuals and their families prepare to travel to 2nd homes and vacation properties to enjoy quality time – away from the office but never too far away to stay connected. Travel for business purposes remains limited, as companies continue to adjust to the new realities of social distancing, work-from-home, and trans-border restrictions that keep their key people effectively grounded for the time being. Desktop “zooming” is now commonly leveraged as a communications alternative to enable a semblance of connectivity during the pandemic, but it is no substitute for meeting face-to-face with clients, prospects, business partners, and other key stakeholders upon whom trust is built and our businesses depend.

Pre-owned transaction volumes began the year (as did most everything else) on a fairly positive level, but were down by about 1/3rd in the March-April timeframe on a YOY basis. Days-on-market for the aircraft that are being sold or leased was up ~30% YOY over the same period, as the going gets tough and customers feel they have the power lever firmly in their control. Business jet inventory availability is edging up into the range of 10.2% of the fleet, but the most desirable assets - young, low-time, single U.S. owner, N-registered, attractive paint and soft goods, the latest WiFi, on an hourly program – are as hard to find as another Hope Diamond.

New business jet and (especially) turboprop deliveries got off to a slower-than-expected start in Q1 2020, based on the latest GAMA shipments report and JETNET database records. Although several manufacturers experienced little year-over-year change in shipment volumes in Q1 2020, this was unfortunately the calm before the COVID-19 storm that hit our shores in mid-March. Q2 2020 factory deliveries will be headline-grabbing for sure, reflecting forced facility shutdowns, supply chain disruptions, delivery deferrals, and widespread travel and logistics breakdowns that have made business very challenging and in some cases next to impossible to conduct safely and efficiently. For the full year 2020, we are anticipating that new business jet deliveries will be off by ~25-30% YOY to just under 600 units worldwide, including the Cirrus Vision Jet. We expect that industry output will hover near that level for the next 2 years, although the value of shipments is likely to rise in the low double-digit percentages based on a healthy mix of aircraft that tend to occupy the higher price points of their respective segments, from light jets through ultra long-range models.

With interest rates expected to remain historically low, and the U.S. Dollar historically strong, the stage would appear to be set for continuing strength in U.S. sales. Recent geo-political events well beyond the control of industry leaders will continue to exert outsized influence on the state of the market, and make the art and science of forecasting future events the enduring challenge that it is.

An Unparalleled Response to an Unprecedented Crisis



By Ed Bolen
President and CEO, National Business Aviation Association (NBAA)

“Along with NBAA’s work as your advocate, we have made a commitment to be your definitive source for reliable information related to business aviation and COVID-19.”

The COVID-19 pandemic has had a profound impact across many facets of our lives. While we don’t yet know all the lasting effects the crisis will have on business aviation, our nation and our world, I also believe our industry’s response to the situation has been remarkable.

For example, the business aviation community’s support has been critical to ensuring the voice of NBAA and other advocacy groups has been heard by Washington policymakers over these difficult months. Your response to our mobilization alerts has been key to the support aviation businesses and others have received through the CARES Act and the Paycheck Protection Program. Equally important, your engagement helped NBAA secure much-needed accommodations for extensions or exemptions on pilot medical certifications, training proficiency and a host of other pressing requirements for business aviation through Special Federal Aviation Regulation (SFAR) 118.

Our combined advocacy efforts continue as of this writing: NBAA has joined with other general aviation groups to request that Congress implement temporary relief from federal excise taxes on fuel for non-commercial GA operators through the end of the year – the same timeframe granted to commercial operators in the CARES Act. You can make your elected leaders aware of this important issue by visiting nbaa.org/contactcongress today.

Along with NBAA’s work as your advocate, we have made a commitment to be your definitive source for reliable information related to business aviation and COVID-19. Since the crisis began, we’ve introduced an entire roster of new offerings that specifically recognize the urgency of this moment, and the need to convey the very latest news to our members. These new distribution channels include NBAA’s Insider Daily news service, our interactive NBAA News Hour webinars (produced three times each week), our new NBAA GO series of event-driven online programming, our dedicated web resource – nbaa.org/coronavirus – and more.

While NBAA will continue working on your behalf, we salute the countless efforts you have made to help others, reflecting the humanitarian spirit that is the industry’s trademark. Even as many companies grapple with steep declines to their business and flight activity, they nevertheless have offered their support and solutions. Manufacturers have retooled to produce ventilators; employees have assembled face shields and sewn facemasks; and pilots flew critically-needed supplies to people and communities most in need, often at their own personal expense. These efforts, and innumerable others, truly demonstrate the heart of our industry, and our willingness to step up to the plate in times of crisis. Thank you.



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Exceptional by design

Business Conditions

GDP

The Economist's **GDP growth forecast** is for the U.S. and Euro Area economies to shrink by 3.8% and by 7.5% respectively in 2020; China is the only major business aviation economy expected to grow in 2020, but by just 1.0%



Business jet cycles (take-offs and landings) in May 2020 were down YOY, by -59% for U.S. Part 91 (an improvement from -78% in April YOY), by -54% for U.S. Part 135 (vs. -74%), by -71% for U.S. Part 91K (vs. -84%), and by -58% for Europe – all operations (vs. -69%)



The **S&P 500 Index** (U.S.) was down 5% YTD from January 2 to June 2, 2020 but up 12% YOY; The **FTSE 100** (U.K.) was down 19% YTD from January 2 to June 2, 2020, and down by 15% YOY



U.S. Index of **Consumer Sentiment** was 71.8 in April 2020, down 29% from 101.0 in February 2020; Euro Area **Economic Sentiment Indicator** was 67.5 in May 2020, down 35% from 103.4 in February 2020 at the onset of the COVID-19 pandemic



U.S. initial **unemployment claims** were 40.8 million in the 10 weeks ending May 23, 2020; U.S. official unemployment was 14.7% in April 2020



U.S. **Purchasing Manager Index** (PMI) was 43.1% in May 2020, down from 50.9% at the beginning of the year; Euro Area **Business Climate Indicator** fell to -2.43 in May 2020, its lowest reading since September 2009



Transactions of pre-owned business jets (retail sales and leases) in March-April 2020 were down 34% while days-on-market were up 31% to 331 days YOY based on the latest JETNET data



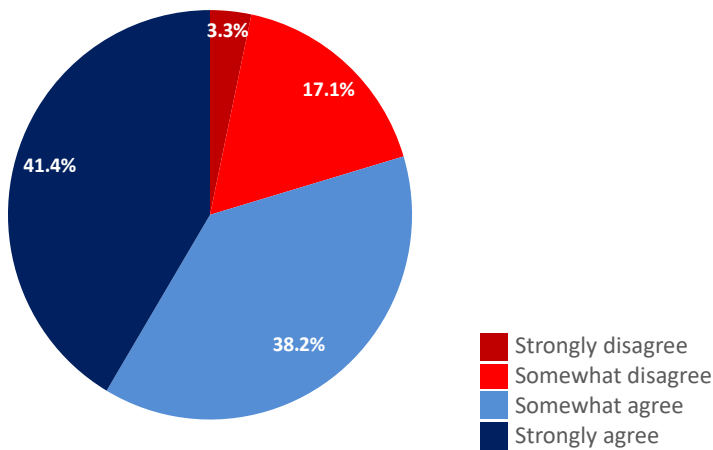
GAMA's Q1 2020 **shipments** of business jets (114 units) and turboprops (71 units) were off by 19% and 42% YOY, respectively; Q2 2020 shipments are expected to be the low point of the current COVID-19 down cycle

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Charter Flying

I / We believe there will be an increase in the use of charter flying in 2020

JETNET iQ COVID-19 Mini-Survey of Industry Professionals – Apr/May 2020

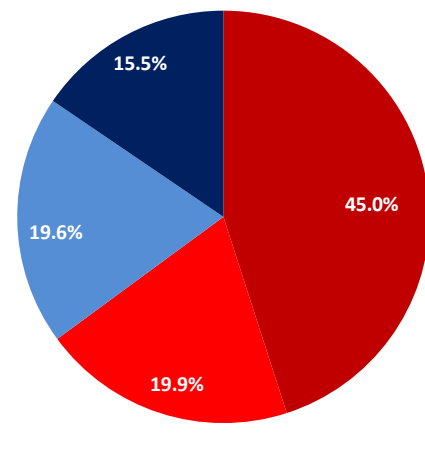


Source: JETNET iQ COVID-19 Mini-Survey, April/May 2020 (n=160)

Our JETNET iQ Surveys reveal some significant differences in the opinions of industry professionals (including aircraft brokers/dealers, OEMs and aerospace suppliers, lenders/lessors, aircraft management companies, MROs, and aircraft transaction support specialists) and their customers, represented by the aircraft owner / operator community. Almost 80% of industry professionals believe that there will be an increase in the use of charter flying in 2020, largely driven by incremental demand from customers who do not currently

I plan / My organization plans to increase our use of charter flying in 2020

JETNET iQ Global Business Aviation Survey of Aircraft Owners / Operators – Q2 2020



Source: JETNET iQ Q2 2020 Survey (in progress; n = 476)

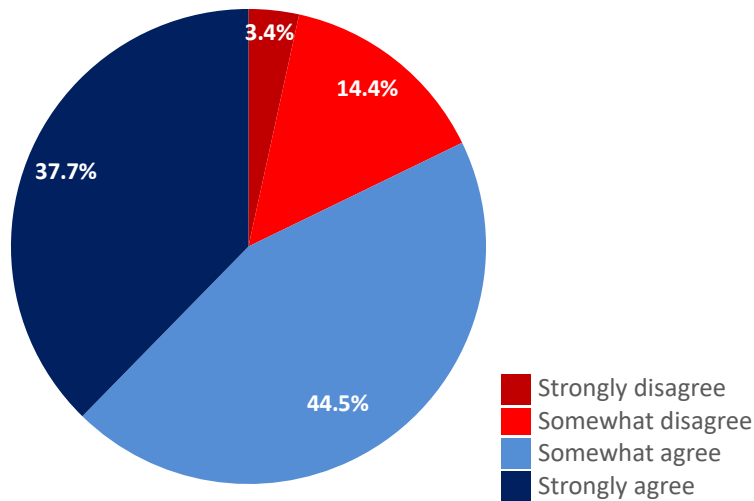
own or operate their own aircraft. Much of the expected demand for additional charter looks to be coming from outside the existing owner / operator community, a group that are likely to be operating throughout the year with underutilized capacity.



Unscheduled Maintenance and Upgrades

I / We believe our customers are taking the opportunity to perform unscheduled maintenance / upgrades to their business aircraft

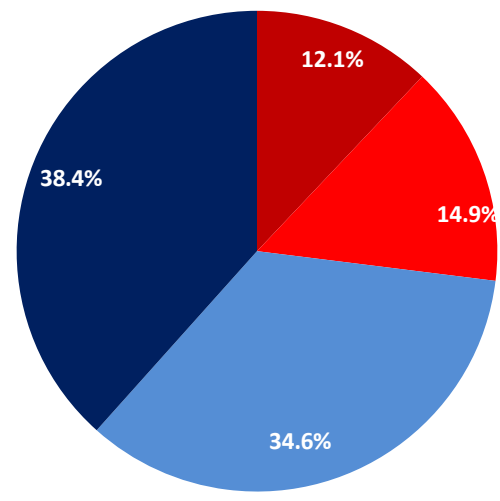
JETNET iQ COVID-19 Mini-Survey of Industry Professionals – Apr/May 2020



Source: JETNET iQ COVID-19 Mini-Survey, April/May 2020 (n=160)

I am / We are taking the opportunity to perform unscheduled maintenance / upgrades to our business aircraft

JETNET iQ Global Business Aviation Survey of Aircraft Owners / Operators – Q2 2020



Source: JETNET iQ Q2 2020 Survey (in progress; n = 476)

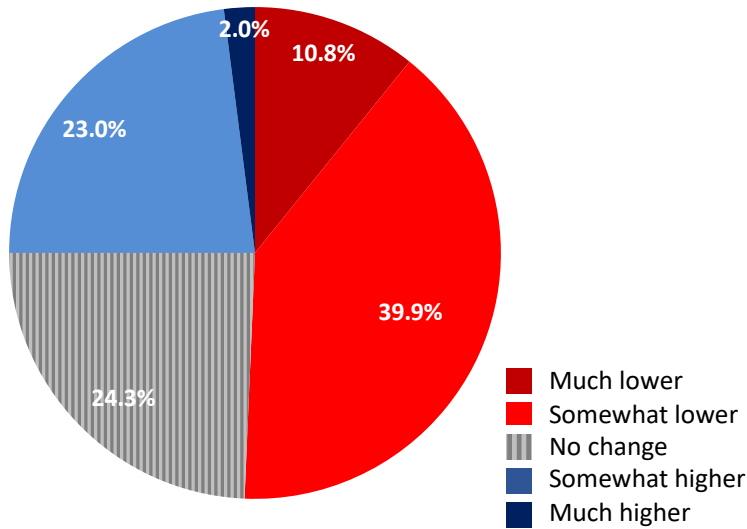
There is general agreement between aviation professionals and the ultimate customers they serve – i.e. aircraft owners and operators – that the additional aircraft downtime resulting from the COVID-19 pandemic is an opportune time to have both unscheduled

maintenance and upgrade works performed, some good news for the industry’s maintenance, repair, and overhaul (MRO) service providers.

MRO Spend - Upgrades

How has COVID-19 changed the next 12-month outlook for the amount of money to be spent at a MRO facility for upgrades?

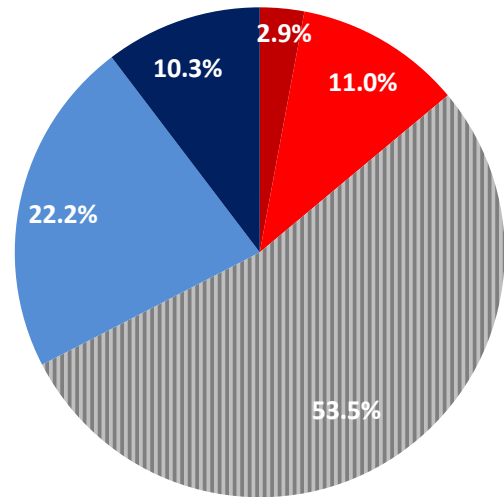
JETNET iQ COVID-19 Mini-Survey of Industry Professionals – Apr/May 2020



Source: JETNET iQ COVID-19 Mini-Survey, April/May 2020 (n=160)

How has COVID-19 changed your next 12-month outlook for the amount of money to be spent at a MRO facility for upgrades?

JETNET iQ Global Business Aviation Survey of Aircraft Owners / Operators – Q2 2020



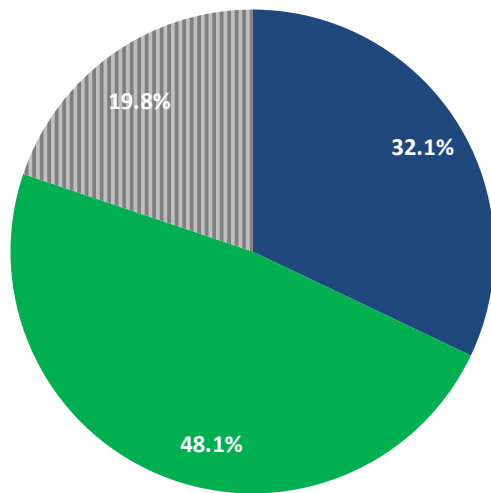
Source: JETNET iQ Q2 2020 Survey (in progress; n = 476)

The aircraft owner / operator community appears to be reasonably bullish on the next 12-month outlook for their spending on aircraft upgrades. More than half of JETNET iQ Q2 2020 Survey respondents believe there will be no change in their MRO upgrade spending, while

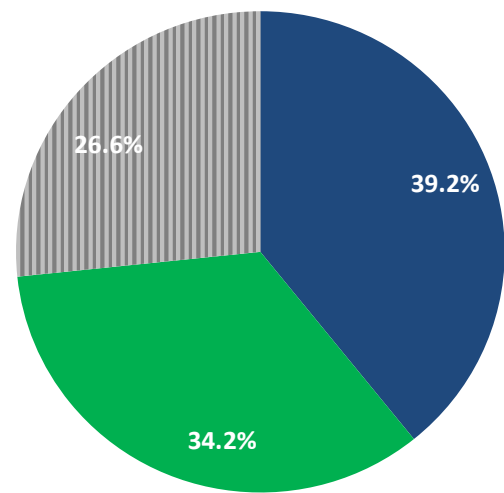
almost 1/3rd expect an increase in their spending outlook over the next 12 months. This is some welcome good news for MRO service providers.

Trends Post COVID-19

JETNET iQ COVID-19 Mini-Survey of Industry Professionals – Apr/May 2020



JETNET iQ Global Business Aviation Survey of Aircraft Owners / Operators – Q2 2020



- Full owners selling their jets and using other business aircraft alternatives (fractional, card, charter)
- Fractional/Card users transitioning to full ownership
- There will be no change

Source: JETNET iQ COVID-19 Mini-Survey, April/May 2020 (n=160)

Source: JETNET iQ Q2 2020 Survey (in progress; n = 476)

Survey respondents were asked to indicate whether they believed that there could be a shift in the post COVID-19 world in the mix of whole aircraft ownership versus fractional aircraft ownership, card, and charter usage. Almost half of the aviation professionals group believe that COVID-19 could ultimately encourage current fractional owners and jet card users to upgrade to whole ownership. On the other hand, 39% of existing owners / operators in our Q2 2020 JETNET

iQ Survey believe that COVID-19 could encourage whole owners to evaluate transitioning to fractional ownership, cards, and charter (or some combination of these options). In any event, it is clear from the variety and disparity of responses that the industry could be facing significant change in the way customers access business aviation in the wake of COVID-19.

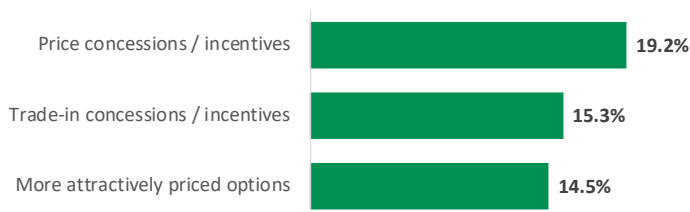
On the Radar

Despite the near-constant stream of negative reporting of news events, there is widespread evidence that business aviation customers are preparing for better days ahead. Although some have deferred their purchase decisions or rescheduled the delivery date of their next aircraft, it is clear that their interest in purchasing aircraft remains intact. This is a sea change from 2008-2009, when new aircraft order cancellations were common, and pre-owned sales were few and far between.

About 35% of business aircraft on customers' "next purchase" radar are large cabin business jet models at the top of the market. While this premium class of aircraft is often associated with the largest and most successful companies in their respective industries, customers are open to various concessions and incentives that can make all of the difference in capturing today's sales opportunities.

Factors Likely to Increase Purchase Probability of a New or Pre-Owned Business Aircraft Q2 2020 JETNET iQ Survey

What would increase your purchase probability
New Aircraft



What would increase your purchase probability
Pre-Owned Aircraft



Source: JETNET iQ Q2 2020 Survey (in progress; n = 476)



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, NY and Rolland Vincent Associates, LLC, of Plano, TX.

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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 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.

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Appendix

Data sources:

GAMA shipments report (Q1 2020): <https://gama.aero/wp-content/uploads/2020ShipmentReportQ1-05272020Final.pdf>

GDP growth forecasts (2020): The Economist – May 28, 2020

<https://www.economist.com/economic-and-financial-indicators/2020/05/28/economic-data-commodities-and-markets>

Stock Markets:

S&P 500 Index: <https://www.marketwatch.com/investing/index/spx>

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>

Consumer Confidence: University of Michigan Survey of Consumers (U.S.); European Commission (Euro Area) – Economic Sentiment Indicator

Business Confidence: US ISM Manufacturing PMI (U.S.); European Commission (Euro Area); <https://tradingeconomics.com/euro-area/business-confidence>

Business aircraft fleet, deliveries, transactions, utilization: JETNET

Survey results: JETNET iQ Global Business Aviation Surveys (Quarterly); JETNET iQ COVID-19 Mini-Survey (April/May 2020)

Photo credits: Page 3: www.nbaa.org

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.

S&P: Standard & Poor’s

EIS: Entry in Service

FTSE: Financial Times Stock Exchange (London)

GAMA: General Aviation Manufacturers Association

GDP: Gross Domestic Product

OEM: Original Equipment Manufacturer

TTM: Trailing Twelve Months

YOY: Year over Year

YTD: Year to Date

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