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Rollie Vincent JETNET iQ Creator/Director



Thinkin' About the Good Things to Come

The COVID-19 shock was impossible to predict, and has thrown the proverbial "spanner into the spokes" of industry plans in 2020 and probably for years beyond. For many, this has already become a lost year, something to look back to when we ask ourselves: What did we do in the Year of the Great Pause?

With less time consumed in traveling to and from meetings, work sites, and conventions, 2020 has already provided ample opportunity to assess the current and evolving state of the business aviation industry. For those who have learned from history, and are more entrepreneurial in nature, it is time to reimagine and recreate our businesses in ways that respond to and anticipate the rapidly evolving operating environment. These efforts are fueled by a realization that COVID-19 is both a tragic and pervasive health crisis and a well disguised once-in-a-lifetime opportunity to reinvent our future, and in a way that of our industry.

"...it is time to reimagine and recreate our businesses..."

At the danger of sounding too blue-sky lofty at a time when communities worldwide are struggling with the ravaging pandemic, I suggest that it would be wise to also be mindful of what's next, and be preparing our organizations to be distinct, successful, and impactful - in a word, relevant.

While it is easy to argue that nothing good has come out of the coronavirus, I am reminded of Cat Steven's timeless lyrics from his song entitled *Peace Train*:

Now I've been smiling lately, Thinkin' about the good things to come And I believe it could be, Something good has begun

In this issue, IADA's Wayne Starling shares with us some perspectives from the international aircraft broker / dealer community, an often unsung group of professionals who act as trusted advisors to buyers and sellers, both with pre-owned but increasingly with new aircraft transactions. Wayne highlights some of the journeys that IADA members have been along, with an international membership that reflects the global nature of business aviation.

Thank you for spending a few minutes with us to review highlights of some of our latest business aviation market intelligence.

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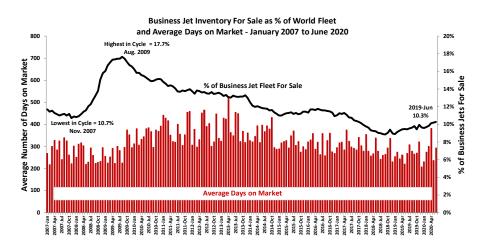
Outlook

Where is the market today, and what is the outlook? What can we learn by "peeling the onion" a few layers?

Beyond readily available aircraft utilization data, for-sale inventory and pre-owned aircraft transactions are, in our view, amongst the most timely and helpful indicators of our industry's market health. Unlike new order and production rate information, these data are available for analysis with a basic subscription to JETNET and a laptop. We find that research and analyses of this sort, when combined with informed "gut" instincts of entrepreneurial leaders, can provide deep insights and a formidable competitive advantage in today's marketplace.

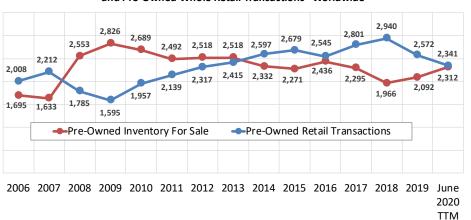
While pre-owned transactions were down in 2019 and will be again in 2020, for-sale inventory levels have only slowly drifted upwards, including

since March 2020. Contrast this with the situation in 2008, when for-sale jets increased by 56% YOY. At that time, this put dramatic down-pressure on aircraft prices and residual values after the Great Financial Crisis (GFC) 11-12 years ago, hitting the light and mid-size jet segments hardest. It took ~5 years for total transactions and ~10 years for available inventory (as % of fleet) to recover to 2007 levels, a sobering observation on the long up-and-down cycles that are common in the civil aviation business. Today, we are seeing early signs of strength in the light jet segment (utilization and pre-owned sales are trending upwards in mid-2020), with relative price / residual value stability, quite unlike post-GFC days. With so little young inventory available for sale today, buyers are advised to seek the services of experienced professionals to navigate the complexities of business aircraft transactions.



Source: JETNET iQ

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





IADA: Reinventing Itself Just in Time



IADA INTERNATIONAL AIRCRAFT

By Wayne Starling Executive Director International Aircraft Dealers Association

The International Aircraft Dealers Association (IADA) reinvented itself as a worldwide organization just in time to exercise vital industry leadership in the face of a pandemic inflicting a terrible cost in lives lost and disrupting economies across the globe. Faced with a massive drop in private flights in March, the bizjet industry rebounded significantly as economies around the world bounced back during reopening. But we face an unknown future as COVID-19 continues to plague many nations, forcing many of them to retreat again from global commerce at a time when economic recovery remains uneven at best.

IADA's focus is to exercise leadership in the used aircraft arena by not overreacting to market forces, while preserving the fundamental value that business aircraft have globally, no matter how bumpy other economic indicators might be. As IADA Chairman Paul Kirby said on one of IADA's recent webcasts, "Things are improving dramatically. May is generally better than April, and we all anticipate June to be significantly better. The trends are in the right direction." He was right; June and July have seen an increase in aircraft sales without a big decline in prices, especially for good newer aircraft.

We are all hopeful this continues, even if there are global trouble spots that can flare up until a vaccine is created to prevent the coronavirus. IADA's dealers, brokers and product and services members are grateful for Paul's leadership and insight, as used aircraft sales and new bizjet manufacturing adjust to what is a year of great disruption due to COVID-19. We have been fortunate in a way that these troubles highlight the true value of private flying by keeping the engines of worldwide commerce afloat, while the airlines have suffered horribly.

It was fortuitous IADA's transformation from the National Aircraft Resale Association (NARA) into the International Aircraft Dealers Association (IADA) occurred before 2020. Under the previous leadership of Chairman Brian Proctor, IADA became a reality reflecting its international profile. His extraordinary vision in positioning the organization was clearly instrumental in getting our dealers, brokers and products and services members aligned for the economic tsunami that hit them in 2020.

Under Brian in 2019, IADA conceived and implemented the industry's first aircraft dealer accreditation process and created a certification program for brokers that elevated the level of qualifications and professionalism available to aircraft buyers and sellers. IADA engaged an independent firm to oversee processes ensuring objectivity. Similar stringent qualifications are now required to verify experts who provide products and services as IADA affiliate members.

Also, in 2019 the IADA foundation received approval from the IRS as a taxexempt charitable organization. This permits IADA to expand initiatives inside and outside the industry, while its business aviation scholarships build a cadre of business aviation professionals for the future.

IADA Foundation by-laws prescribe that the organization can provide business aviation scholarships, education, learning, and leadership opportunities. We can now work through other organizations, including NBAA, the University of Virginia Darden School of Business and Georgia State University.

Key among the advances was creation of www.AircraftExchange.com, an exclusive online aircraft listing service that only features aircraft for sale which are IADA verified, eliminating time consuming distractions from the buying and selling process. The site lists 650 aircraft represented exclusively by IADA dealers. Buyers can create a confidential dashboard with their preferred aircraft filtered by aircraft class, age, and cost. Today, IADA represents 45 accredited dealers, six OEMs and more than 60 verified products and services members.



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Business Conditions



The Economist's <u>GDP forecasts</u> for the U.S. and Euro Area economies were lowered to - 5.3% and -8.4% respectively in 2020; U.K.'s 2020 growth rate is -9.4%; China is the only major business aviation economy expected to grow in 2020 - by 1.4%



The **Dow Jones Index** (U.S.) was down 4.1% YTD from January 2 to August 11, 2020, and up 6.9% YOY; The **FTSE 100** (U.K.) was down 17.8% YTD from January 2 to August 11, 2020, and down by 13.5% YOY

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U.S. initial <u>unemployment claims</u> were 55.3 million in the 20 weeks ending August 1, 2020; U.S. unemployment rate (SA) was 11.0% in the week ending July 25, 2020 (representing ~16.1 million people)



<u>**Transactions</u>** of pre-owned business jets (retail sales and leases) in March-June 2020 were down 29% YOY to 150/month while days-on-market were up 22% to 305 days/month YOY based on revised data</u> Business jet cycles (take-offs and landings) in July 2020 were down by -35% YOY for U.S. Part 91, by -15% YOY for U.S. Part 135, and by -36% YOY for U.S. Part 91K



U.S. Index of <u>Consumer Sentiment</u> was 72.5 in July 2020, down from 78.1 in June and from 98.4 in July 2019 YOY; Euro Area <u>Economic Sentiment Indicator</u> was 82.3 in July 2020, up from 75.8 in June but down from 103.4 in February 2020 at the onset of COVID-19



U.S. <u>Purchasing Manager Index</u> (PMI) was 54.2% in July 2020, up from 50.9% at the beginning of the year; Euro Area <u>Business</u> <u>Climate Indicator</u> was -1.8 in July 2020, up from -2.39 in May (lowest since September 2009)

Business jet deliveries YTD as of August 12, 2020 were 259 units and turboprop deliveries were 117, according to JETNET; Q2 2020 shipments are expected to be the low point of the current COVID-19 down cycle



Pre-Owned Business Jet Inventory

By Select Model – August 11, 2020 (from JETNET)

Business Aircraft Fleet and For Sale Inventory JETNET - August 11, 2020	Gulfstream G550	Dassault Falcon 7X	Bombardier Challenger 350	Cessna Citation XLS+	Embraer Phenom 300	Citation CJ4
Fleet (#)	593	289	346	282	472	325
For Sale (#)	45	20	12	23	32	18
For Sale %	7.6%	6.9%	3.5%	8.2%	6.8%	5.5%
For Sale % (Delivered 2015 or Later)	0.5%	1.4%	2.9%	2.5%	1.9%	1.5%

Source: JETNET iQ

One factor that is distinctly different about the pre-owned business jet market today versus 2008/2009 is that there are relatively few young aircraft for sale. An analysis of JETNET databases reveals several key attributes of the market that are important to keep in perspective. With 2,260 jets – or 10.2% of the world fleet – listed as "for sale" on JETNET as of August 11, 2020, a marketplace that might otherwise be labeled "buyer friendly" by the less-informed is actually relatively balanced, with very limited inventory of some of the most popular models. A prospective buyer of a late-model light jet delivered new in the last 5 years might be disappointed to learn that just 3 Citation CJ4 aircraft are currently listed as for

sale. Similarly, just 4 Phenom 300 aircraft are on the market today, representing a scant 1.9% of the in-operation fleet. First-time buyers attracted to the privacy, security, and ultra-convenience of their own private aircraft likely don't have the negotiating leverage they might otherwise expect if they had planned to be flying a relatively young pre-flown aircraft. With such limited availability, and with OEMs throttling back on new production, the time could be right for them to consider an all-new aircraft, with its spotless pedigree, full warranty, and a personalized completions and delivery experience that OEMs have perfected over the years.





Pre-Owned Business Jet Transactions – By Age

21.9%

Transactions for Business Jets Less Than 10 Years Old:

37.8% 34.4% 38.5% 28.5% 28.5% 28.5% 28.5% 28.5% 28.5% 27.9% 27.9% 27.9% 26.8% 26.8% 26.8% 26.8% 26.8% 26.8%

% of Transactions by Month of Pre-owned Business Jets Less Than 10 Years Old



% of Transactions by Month of Pre-owned Business Jets

23.69

Younger aircraft are typically what most prospective buyers are seeking, given their more modern features including, perhaps most importantly, fast WiFi in the cabin, and advanced avionics in the cockpit. Nevertheless, these aircraft appear to be getting harder and harder to source (see graph above.)

While well-known challenges of aging aircraft can keep aircraft on the ground and in the maintenance, repair, and overhaul (MRO) shop, some of these aircraft can be purchased at attractive price points.

With an average age of ~23 years, lower-priced light jets are probably bright on the radar screen of prospective buyers today.

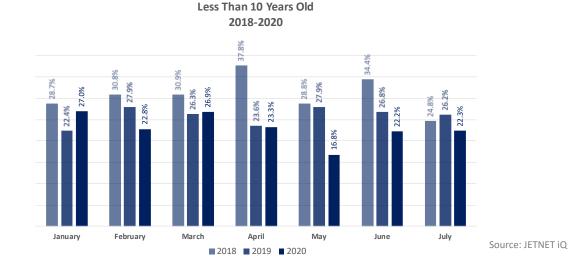
Source: JETNET iQ

22.2%

While low asking prices are a surefire way to attract buyers, they would be well advised to seek the services of knowledgeable dealers / brokers before proceeding too far with their purchase decision. A trusted advisor who understands the unique complexities of this segment of the market can make all the difference in ensuring a successful transaction. As with any asset purchase, all-in costs need to be carefully considered, including expenses related to inspections and repairs, airworthiness directive and service bulletin compliance, and a spectrum of cockpit / cabin / engine upgrades, all of which impact the owner experience, in-service reliability, and residual value retention.

24.7%

22.89

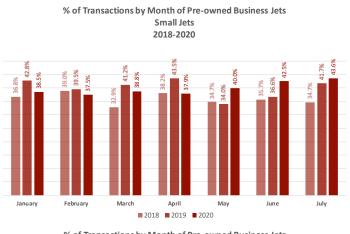


>> August 13, 2020

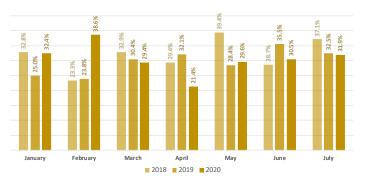


Pre-Owned Business Jet Transactions – By Aircraft Size

Transactions By Aircraft Size



% of Transactions by Month of Pre-owned Business Jets Medium Jets 2018-2020



% of Transactions by Month of Pre-owned Business Jets Large Jets 2018-2020



Source: JETNET iQ

While worldwide business jet transactions have notched lower since reaching their all-time peak in 2018, there are some signs of a mix change favoring Light Jet and Very Light Jet models ("Small Jets" in the attached chart) since the beginning of 2019. As of June 30, 2020, Small Jets account for 39% of the world's business jet fleet in operation, but 44% of pre-owned jet sales in July 2020. Should this continue through the rest of 2020, this would be some good news indeed for the health of the lower end of the business jet market.



>> August 13, 2020

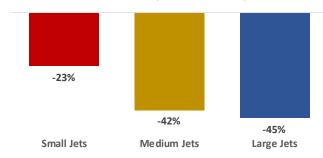


U.S. Flight Activity

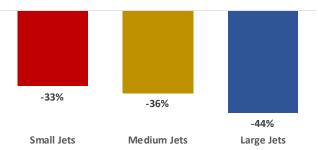
U.S. Flight Activity July 2020 versus July 2019

U.S. utilization trends mirror the relatively strong performance of Small Jets in the current environment, with total cycles (1 takeoff and landing) down 23% YOY in July 2020 for FAR Part 91 (private)

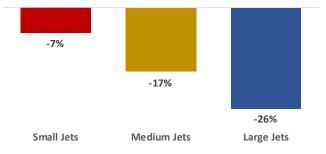
Year-Over-Year Flight Activity Change US Part 91 - July 2020 vs July 2019



Year-Over-Year Flight Activity Change US Fractional - July 2020 vs July 2019



Year-Over-Year Flight Activity Change Part 135 - July 2020 vs July 2019



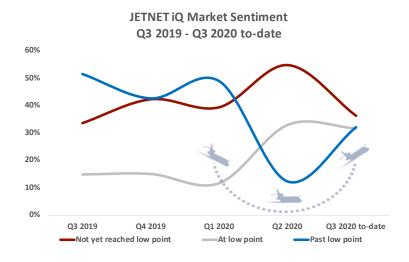
flying, compared to -42% for Medium Jets and -45% for Large Jets. Similar trends are apparent in both U.S. fractional program (Part 91K) and on-demand charter (Part 135) flying.



Source: JETNET iQ

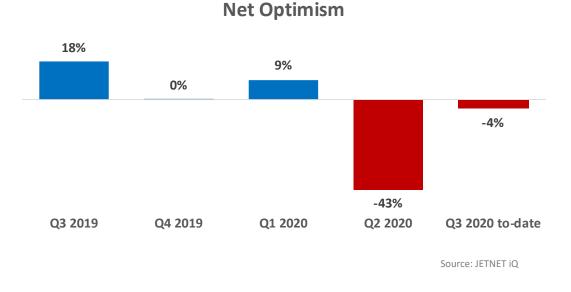


JETNET iQ Market Sentiment



Source: JETNET iQ

In some very positive news, the sentiment of business aircraft owners / operators has begun to swing back after the historic downturn registered in Q2 2020. With more than 200 respondents to date as of August 11, 2020, early indications from the in-field Q3 2020 JETNET iQ Survey are that business conditions are already improving. Net Optimism, the difference between those who believe we are past the low point in the current business cycle (Optimists), and those who believe that we have not yet reached the low point (Pessimists), plummeted in Q2 2020 to -43%. With ~40% of expected responses to the Q3 2020 Survey gathered to date, indications are that the number of Optimists and Pessimists are already reconverging.





Market Research: Some Takeaways

Managing the Vagaries of Today's Marketplace

While new aircraft orders, cancellations, and production rates can occasionally jump to the top of industry headlines, the reality is that this information is typically quietly and closely guarded by the OEMs. Considered as company-confidential, such information is rarely shared outside the corporate board room, other than on occasion and on a need-to-know basis with key suppliers and other stakeholders. While this can make production rate planning throughout integrated supply chains difficult at best, suppliers at all tier levels have become necessarily adept at working with what they have at hand, based primarily on information received from the OEMs. There is clear logic for this information to be closely guarded as many suppliers work with multiple OEMs and could unwittingly be a source of intelligence leakage to a competitor.

It is a challenging time to work in the civil aerospace sector, with supply chains whipsawed by the unanticipated downturns in commercial airliner production rates and, to a lesser extent, in the business & general aviation sector. With just 4.5 months remaining in the Year of the Asterisk, and less than 3 months from an historic U.S. presidential election, leaders of the aerospace supply chain have more on their minds than simply delivering now-fewer widgets and integrated systems at even lower costs and higher quality levels, all with zero-down and extended payment terms.

While specialization may have won the business, diversification across different OEMs and programs has always been an important counter-balancing strategy to enable suppliers to continue to operate profitably, despite dynamic OEM requirements.

I recall a conversation I had several years ago with the CEO of a small but capable aerospace machining business in Kansas. Curious about how they did their planning around shop rates, tooling, and capital expenditures on things like multi-million dollar 5-axis CNC machines, I was surprised to learn that they relied almost exclusively on the OEM to tell them what and how much was needed. Given the propensity of some manufacturers to share only basic information about the market, and to sometimes have to pirouette to new rates (something that has already happened in 2020), a sole reliance on OEM-provided insights can leave a supplier exposed to undue risks.

In our view, when it comes to aviation market intelligence, it is always a good idea for companies to have their own capabilities in market research. Whether to bolster what is known about the state of the industry, to evaluate business and investment risks and opportunities, or to provide a foundation for capital and overhead budgeting and planning, this simply makes good business sense. Just as it is a shame to have a business aircraft collecting dust in an empty hangar, so it is wasteful to have other capable assets like advanced CNC machinery and their operators idled and waiting. An in-house market research capability might be just what the Doctor ordered to identify opportunities while managing risks, and the vagaries of today's marketplace.

Do you want to build your capabilities in market research, strategy, and forecasting? Elevate your iQ.





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.

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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.

For more information on JETNET iQ, please contact: Rolland Vincent, JETNET iQ Creator/Director Tel: 1-972-439-2069 e-mail: rollie@jetnet.com

<u>To subscribe to JETNET iQ Reports or inquire into sponsorship of JETNET iQ PULSE, please contact:</u> Paul Cardarelli, JETNET Vice President of Sales Tel: 315-797-4420, ext. 254 e-mail: paul@jetnet.com



Appendix

Data sources:

GDP growth forecasts, Unemployment Rate, \$U.S. Exchange Rate (2020): The Economist – August 8, 2020 https://www.economist.com/economic-and-financial-indicators/2020/08/08/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.); https://data.sca.isr.umich.edu/fetchdoc.php?docid=65386;

European Commission (Euro Area) – Economic Sentiment Indicator; https://ec.europa.eu/info/sites/info/files/full_bcs_2020_06_en.pdf Business Confidence: US 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

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)

Coronavirus updates: https://www.worldometers.info/coronavirus/

Brazil, Argentina, Australia, and South Africa population, economic, and airport data: https://www.cia.gov/library/publications/the-world-factbook; The Economist Intelligence Unit; U.S. Congressional Research Service

Photo credits: Page 1: Satcom Direct; Page 3: IADA

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 turbofan-powered models, today represented by the Cirrus Vision Jet.

B&GA: Business and general aviation EIS: Entry in Service FTSE: Financial Times Stock Exchange (London) GAMA: General Aviation Manufacturers Association GDP: Gross Domestic Product NGO: Non-Governmental Organization OEM: Original Equipment Manufacturer QOQ: Quarter over Quarter S&P: Standard & Poor's TTM: Trailing Twelve Months YOY: Year over Year YTD: Year to Date

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