

GLOBALSKYMEDIA

# Quarterly

4TH QUARTER 2022

**PRATT & WHITNEY CANADA MARKS  
ONE BILLION FLYING HOURS**



Global Sky Insight

**MENA PROFILE  
MOOD & INTENTIONS  
MARKET DYNAMIC  
MARKET SUMMARY**

Features

**ROLLS-ROYCE  
PRATT & WHITNEY CANADA  
DASSAULT AVIATION  
GLOBAL SKY FORUM**

Market Updates

**IADA  
GLOBAL JET CAPITAL**

  
A M S T A T



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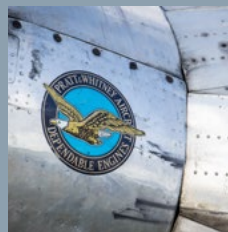
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COVER IMAGE

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# EDITOR'S NOTE



One of the first things you are taught as a trainee pilot is that takeoffs are optional, but landings are mandatory. It is the most basic law of physics: What goes up, must come down.

So whilst we have recently seen record levels of transactions, we all knew that it would not last. This however can be viewed as a good thing, as with record transactions come record levels of pricing. And record low levels of inventory. So a correction, a landing if you like, has been welcomed by some, especially the buyers themselves.

During a seller's market, availability is low, and pricing is high. Whilst this certainly helps with broker's commissions, it leads to frustration for buyers - there are no bargains to be had, and the good aircraft that are available are snapped up super quickly.

The problem this time around has been that buyers that are keen to get good aircraft relatively quickly have been unable to turn to the OEMs. This is due to a variety of different reasons, mostly pandemic-related, as the OEMs dialed back on production due to staffing and supply chain issues.

This is unfortunate, as in the fourth quarter we saw an uptick in interest from respondents to our quarterly survey looking to

acquire both new and pre-owned aircraft. Although the interest in acquiring pre-owned aircraft saw the biggest percentage increase, up by 12.4% over Q3 2022, the intention to acquire new aircraft saw an increase of 6.2%. Whilst that might not seem like a headline-grabbing triple digit increase, it is not only the highest percentage that we have seen post-pandemic, but also the highest percent that we have seen since we began our famous Mood and Intentions survey back in Q4 2015.

Of course, the opposite is also true when we look at the respondents who are not sure if they will acquire a new or pre-owned aircraft soon. As a result of the increases in both, the amount of people who are uncertain plummeted to just 20.5%, which was again the lowest percentage since we began the survey.

What does this mean? Well, I always view the Quarterly in two different ways: The first is through the hard data, as this tells us what happened in the past. But the second way is through the survey, which tells us what is likely to happen in the future. Which all means that more people will be looking to acquire new and pre-owned aircraft in the short-term future. Which is good for the industry. And good for broker's commissions.

Purchase intentions is only one part of the Mood and Intentions survey, which begins on page five of this edition of Global Sky Quarterly. Elsewhere we have fourth quarter reviews from AMSTAT, Global Jet Capital and IADA, as well as features from Dassault Aviation and Rolls-Royce. Special features in this

## SPECIAL THANKS TO OUR CONTRIBUTORS AND SPONSORS



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edition include a look at Pratt and Whitney as it celebrates a huge milestone in flight hours, and a look back at our first in-person event, held recently in Kuala Lumpur, Malaysia.

We also have a primer on the fascinating Middle East & North Africa business jet market. This falls nicely in line with our recently published fleet report for the region, which if you haven't read yet is now available on our website [www.globalsky.media](http://www.globalsky.media). As an added bonus, you can also read and download our first ever Europe fleet report.

As always we would like to thank everybody that has contributed to the compilation and production of this report.



Sincerely,  
Alud Davies  
Editor-in-Chief  
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# GLOBAL SKY FORUM - BUSINESS AVIATION 2023 IN PICS

Bringing the industry together whilst catching up with old friends and making new business contacts was the main aim of the inaugural Global Sky Forum – Business Aviation.

Held in the Ritz-Carlton Kuala Lumpur, Malaysia, in late February, the intimate event attracted over 150 delegates from Malaysia and the surrounding countries.



**1.** With a focus on the Southeast Asia business aviation market, the forum was held at the Ritz-Carlton and brought together just over 150 business aviation professionals from across the region.

**2&3.** Delegates joined networking drinks the night before the forum kicked off.





1. The first panel touched upon the unique and diverse Southeast Asian market, where industry leaders spoke about the challenges of operating in the region. Other topics included cultural issues that companies outside of the region face when trying to enter the region.

2. Electric aircraft are regarded as another rapidly emerging industry that is likely to drive sustainable practices. Industry leaders said advanced air mobility (AAM) is not only about transporting people from point A to point B, but a way to improve people's lives and bringing communities.



3. During the first evening, the story of Kuala Lumpur was told during a guided city walk. The group walked through the central market and stopped at Masjid Jamek, which sits on the banks of the River of Life and is one of the city's oldest mosques.



1. On the second day, Boeing Business Jets, Airbus Corporate Jets, Dassault Aviation and Bombardier joined the “Does Size Matter?” panel, and debated the Southeast Asian market’s long existing preference for big aircraft.



2. During a hybrid sustainability session, Ian Moore from VistaJet and Faizal Khan from Jet Aviation talked about the growing importance for sustainable business practices, and called upon companies in the industry to come together and take “baby steps” to achieve 2050 carbon neutral goals.

3. During the Women in Corporate Aviation panel, speakers said they’re glad to work in an industry where females are welcomed. Amy Yang from VistaJet said women are equally capable but their stories are less told. Aida Ismail from HADID said she’s confident that she will see a growing number of females in the industry in the years to come, even in senior positions.







# MENA MARKET PROFILE

The Middle East and North Africa (MENA) business jet fleet contracted by 4.3% over the past three-year period, which was attributed to the effects of the global pandemic and its subsequent economic difficulties impacting the market. The helicopter fleet, in contrast, expanded at a rate of 3.7% over the same period, with domestic use not as heavily affected as fixed wing aircraft. Since the first quarter of 2022, however, the region's overall sector has made positive strides because of several key factors that have assisted the region in capitalizing on the strong value proposition and resilience of the sector.

Tourism has been a big part of the region's growth in recent years, and regional operators have kept growing their charter services by coming up with new business models that make business aviation a flexible, safe, and personalized way to travel.

High-net-worth individuals (HNWIs), especially the growing expatriate population in the Middle East sub-region, have helped to drive up market demand as an increasing number relocate or move business operations to the sub-region. Attractive ownership benefits like private jet card programs have also supported the market.



*Note: Due to the difference in statistical methods between data sources, the data presented in the Quarterly report may differ from the data displayed in the Business Jet Fleet Report.*

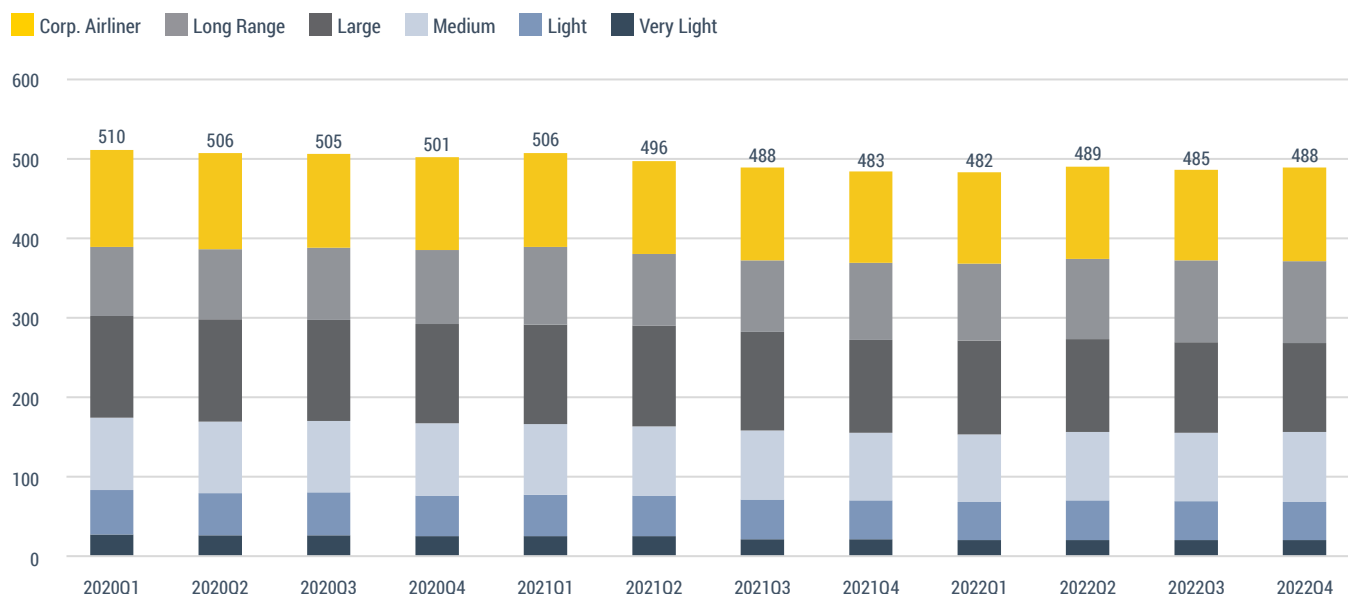




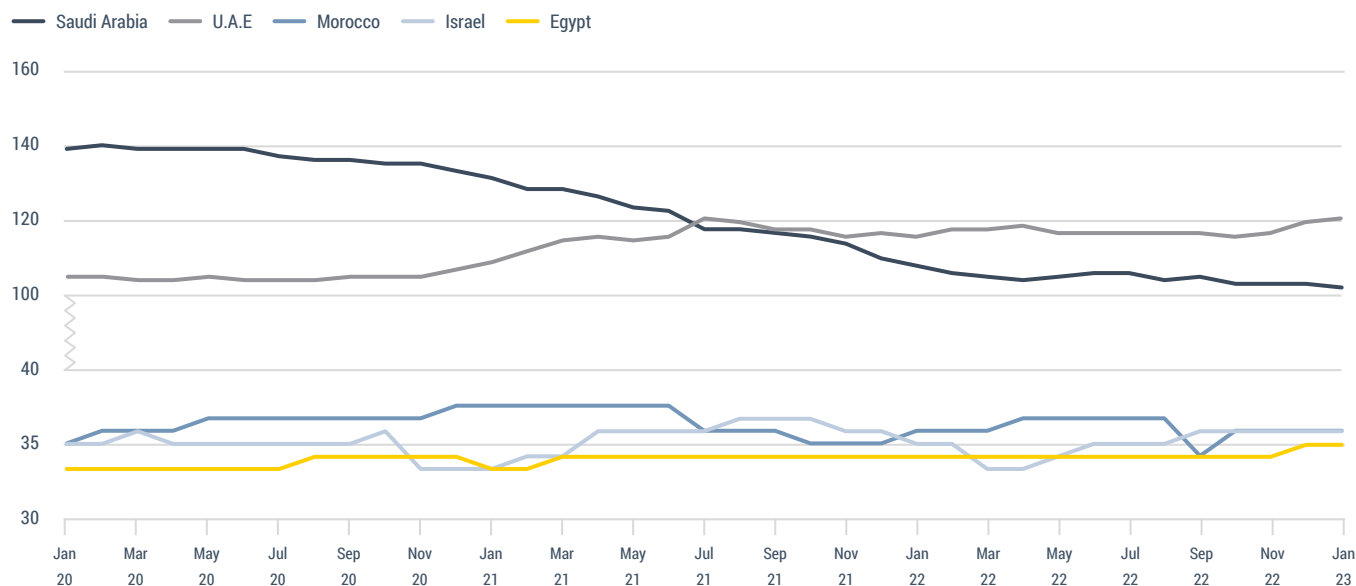
# BUSINESS JET

## MARKET OVERVIEW

### Business Jet Fleet by Quarter



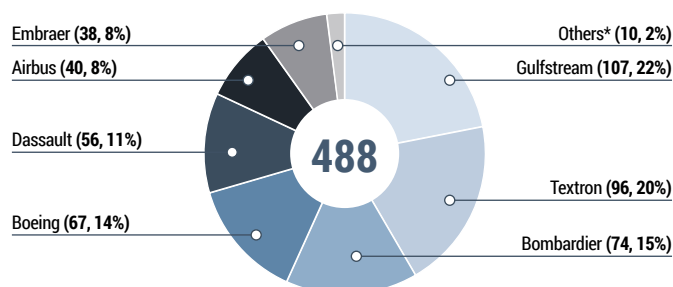
### Top Five Countries by Fleet Size



According to data from AMSTAT, as of Q4 2022, the MENA region was home to 488 business jets. The fleet in the region has experienced a downward trend since Q1 of 2020, primarily due to the decrease in Saudi Arabia's fleet, which used to be the largest in the region. However,

compared to Q3 2022, the MENA market has seen a net increase in Q4 2022, mainly driven by the growth of Corporate Airliners. The additions during the fourth quarter included five business jets added to the fleet in the United Arab Emirates (UAE), while Egypt saw a single business jet added to its fleet.

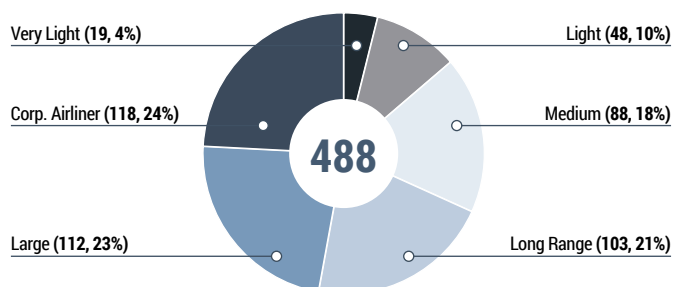
## Business Jet OEMs in 2022Q4



Others\*: Other OEMs include British Aerospace, British Aircraft Corporation, Cirrus, Fokker, Lockheed, and Pilatus.

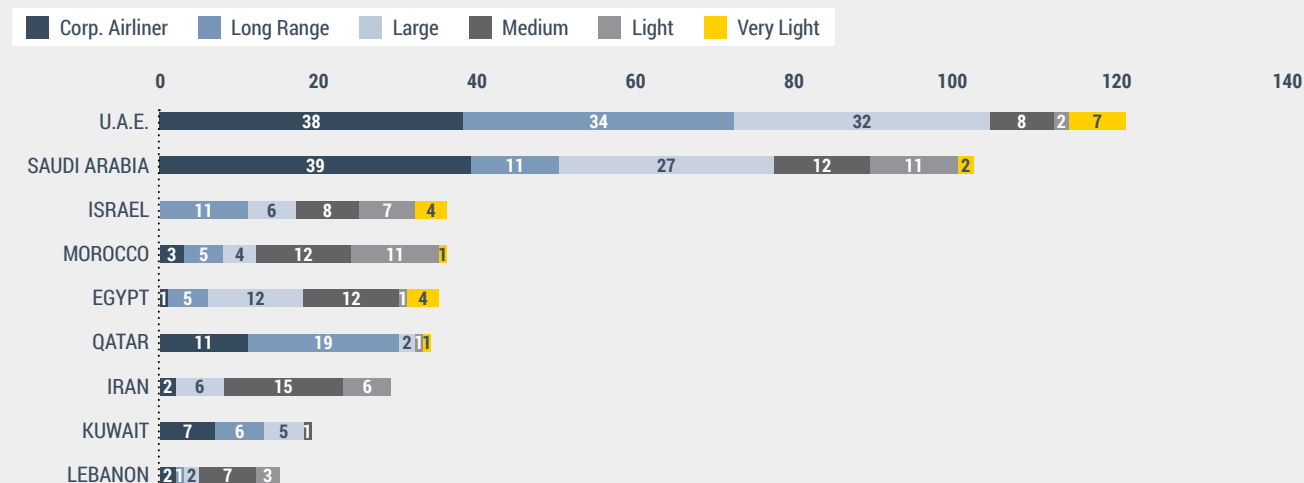
Gulfstream, Textron, and Bombardier were the top three OEMs, accounting for 57% of the market share. When it comes to market value, Boeing and Airbus held a significant share, with a combined total of 107 Corporate Airliners in their fleets.

## Business Jet Size Categories in 2022Q4



Luxury and opulence are highly valued in the MENA region, and as such, UHNWIs (ultra high-net-worth individuals) tend to own larger business jets, with Corporate Airliners (ACJ, BBJ), Long Range Jets (G650ER, Global 5000) and Large Jets (G IV/GIV-SP/G400, G450) being the most popular categories. The MENA business jet fleet had the largest proportion of Corporate Airliners worldwide at the end of 2022Q4.

## Top Countries by Size Category in 2022Q4



Note: Only countries with a fleet of 15 or more business jets are included.

There were nine countries in the MENA market with a significant market share of business jets, with each operating a fleet of 15 or more business jets. The UAE and Saudi Arabia had the largest fleets in the region, with over 100 aircraft each, primarily consisting of Corporate Airliners, Long Range and Large models. The market demand from the UAE and Saudi Arabia together held the foundation of the business aviation market in the MENA region.

Saudi Arabia had the largest business jet fleet in the MENA region, with a peak of 141 units during the first quarter of 2020. Since July of that year, their fleet has been gradually reduced, with the onset of the COVID-19 pandemic negatively impacting both business and general aviation in the Kingdom. In contrast, the UAE's business jet fleet began

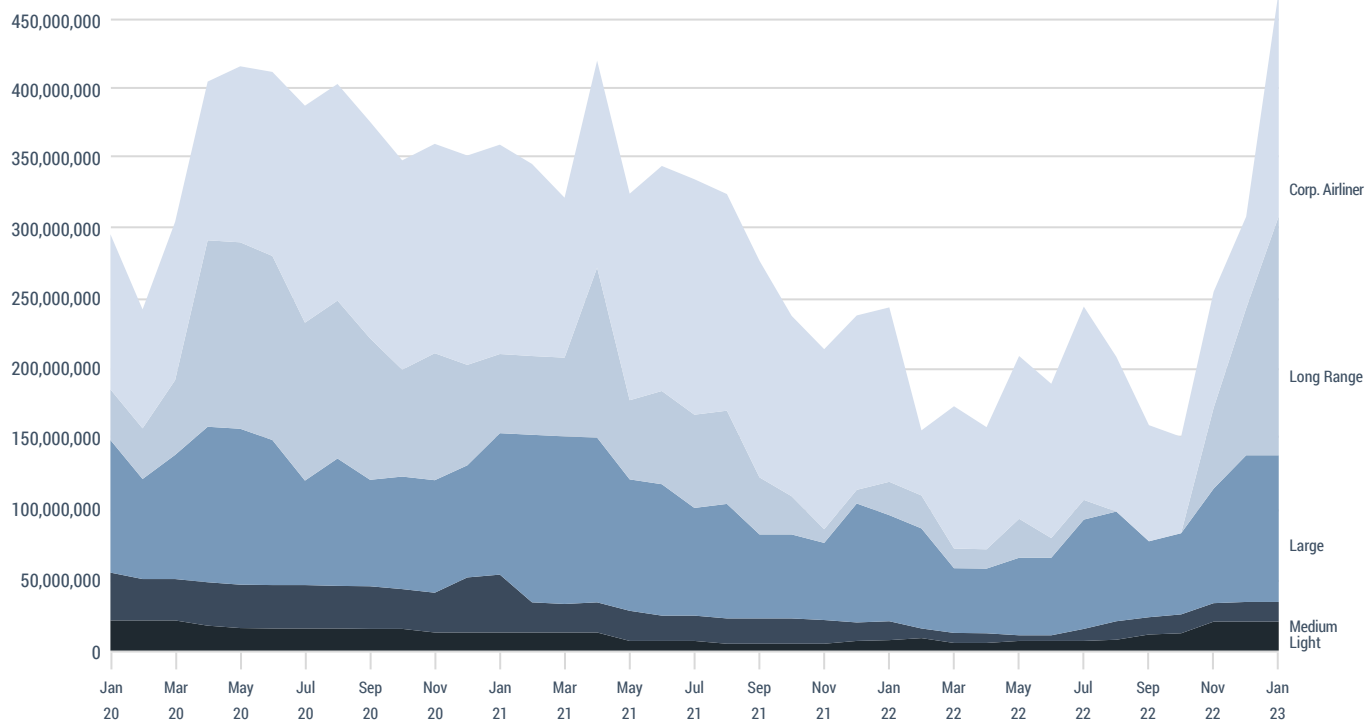
to experience growth at the end of 2020. The two national jet fleets' growth paths crossed at the beginning of the third quarter of 2021, when the UAE fleet passed Saudi Arabia's to become the region's new biggest jet fleet.

At the end of 2022, Saudi Arabia's fleet was 16% smaller than the UAE's fleet, with the gap expected to widen as the UAE establishes itself as an increasingly appealing proposition in facilitating the growth of the business jet market. The UAE's diverse economy and business incentives for attracting foreign investment and talent are key factors driving continuous growth. Additional targeted investments to improve business jet infrastructure would undoubtedly boost market optimism.



# PRE-OWNED MARKET SITUATION<sup>1</sup>

## Inventory Value (USD)<sup>2</sup>



Source: AMSTAT & Global Sky Media

Major contributors to the pre-owned inventory value in the MENA region included Corporate Airliners, as well as Long-Range and Large cabin jets.

The cumulative inventory value for pre-owned aircraft listings dropped yearly from an average of USD\$361 million in Q4 2020, to USD\$234 million in Q4 2021. This is reflected in inventory values for Large cabin aircraft, which reached a peak of USD\$101 million during Q4 2020 but reduced to a peak of USD\$85 million in Q4 2021. However, the cumulative value has started to rise again, as it stood at USD\$476 million at the end of 2022.

The COVID-19 pandemic and tax relief measures introduced by the Trump administration in the US resulted in a surge in demand for business jets, which led to higher consumption of pre-owned market inventory and a decrease in market inventory value for the past three years. During the pandemic, the MENA region had become a major source for the global pre-owned market, particularly in niche markets like Corporate Airliners, with eight transactions completed in 2022

compared to six in 2021. As a result, buyers across the global market found it increasingly difficult to find their desired aircraft and often had to pay inflated prices to acquire them.

External factors that potentially impact the pre-owned market may be attributed to ongoing geopolitical instability in the region, particularly involving conflicts in Yemen, Syria, and the Israeli-Palestinian territories. The greatest impact is on aircraft condition, where aircraft may be subjected to harsh operating conditions (including restrictions to airspace), which could impact their overall value. This could negatively impact market value across the inventory; while a decrease in transactions normally results in the rise of the inventory value, the drop in asking prices influenced by the physical effects of ongoing conflicts may yet depress overall value over rises linked to greater supply.

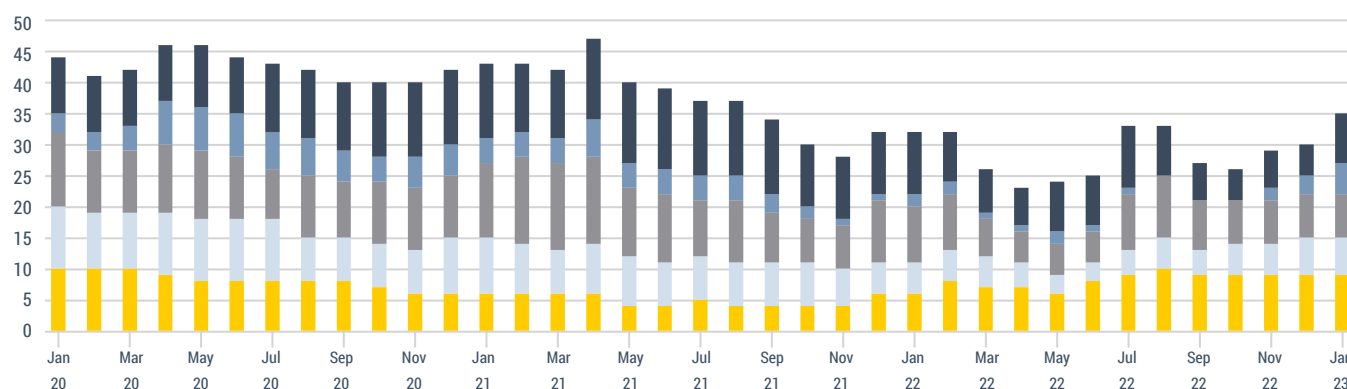
The potential political stance in key markets may further exacerbate intra-state conflicts that could subsequently affect the confidence of major stakeholders from investing further in the MENA market.

Notes: 1. Insufficient data is available for the Vey Light Jet for sale, therefore this particular size category is not displayed on the graphs. However, the available data has been incorporated in the calculation of cumulative inventory value, total average days on market, and percent of aircraft for sale.

2. Inventory value is adjusted by Global Sky Media based on aggregated data. It is calculated by taking the number of aircraft for sale, multiplied by their average asking prices.

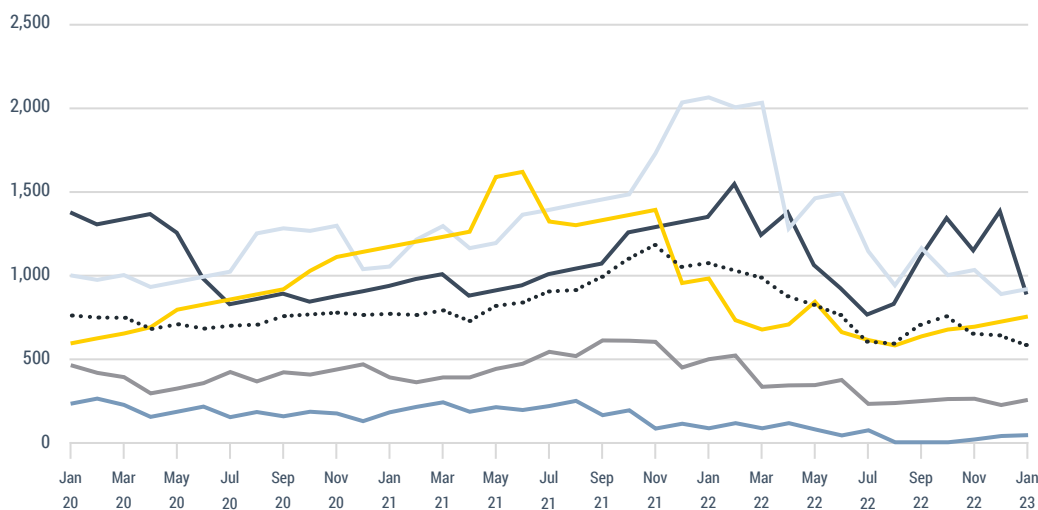
## Aircraft For Sale

■ Corp. Airliner ■ Long Range ■ Large ■ Medium ■ Light



## Avg. Days on Market

— Corp. Airliner — Long Range — Large — Medium — Light ..... Total Average

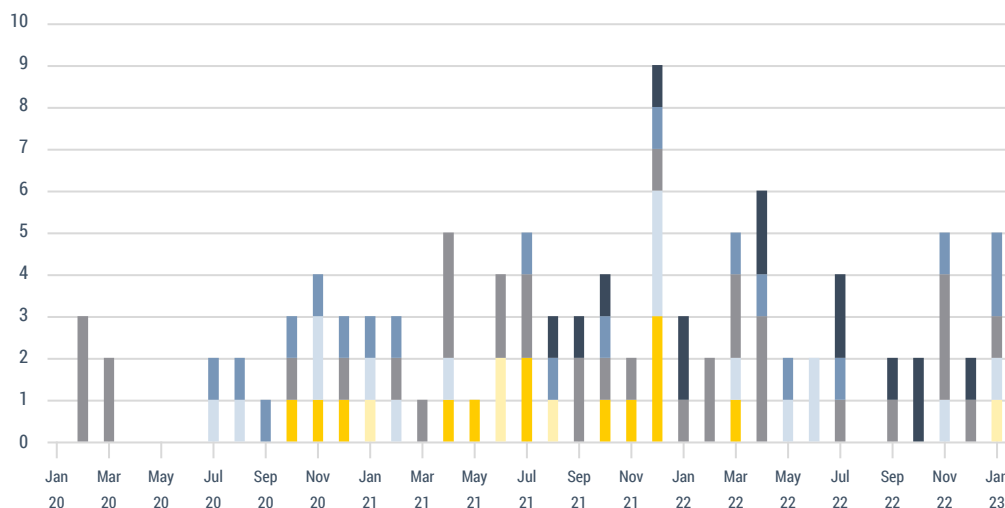


Sellers in the MENA region may have benefited from higher prices during the pandemic, although recent statistics suggest a shift towards a more balanced market.

Recent changes to the region's business jet market included a decrease in transactions in Q4 2022 compared to 2021 and an increase in the number of aircraft for sale, with a record high of 35 jets (excluding Very Light Jets) listed on the market at the end of the quarter. This is likely due to more Corporate Airliners being listed for sale during the period. The increase in inventory also contributed to a decrease in the average number of days a business jet listing is available on the market.

## Aircraft Sold

■ Corp. Airliner ■ Long Range ■ Large ■ Medium ■ Light ■ Very Light



During the quarter, the average time all active listings spent on the market was 625 days, which was lower than the 2022 yearly average of 750 days. The popularity and high absorption rate of Long Range



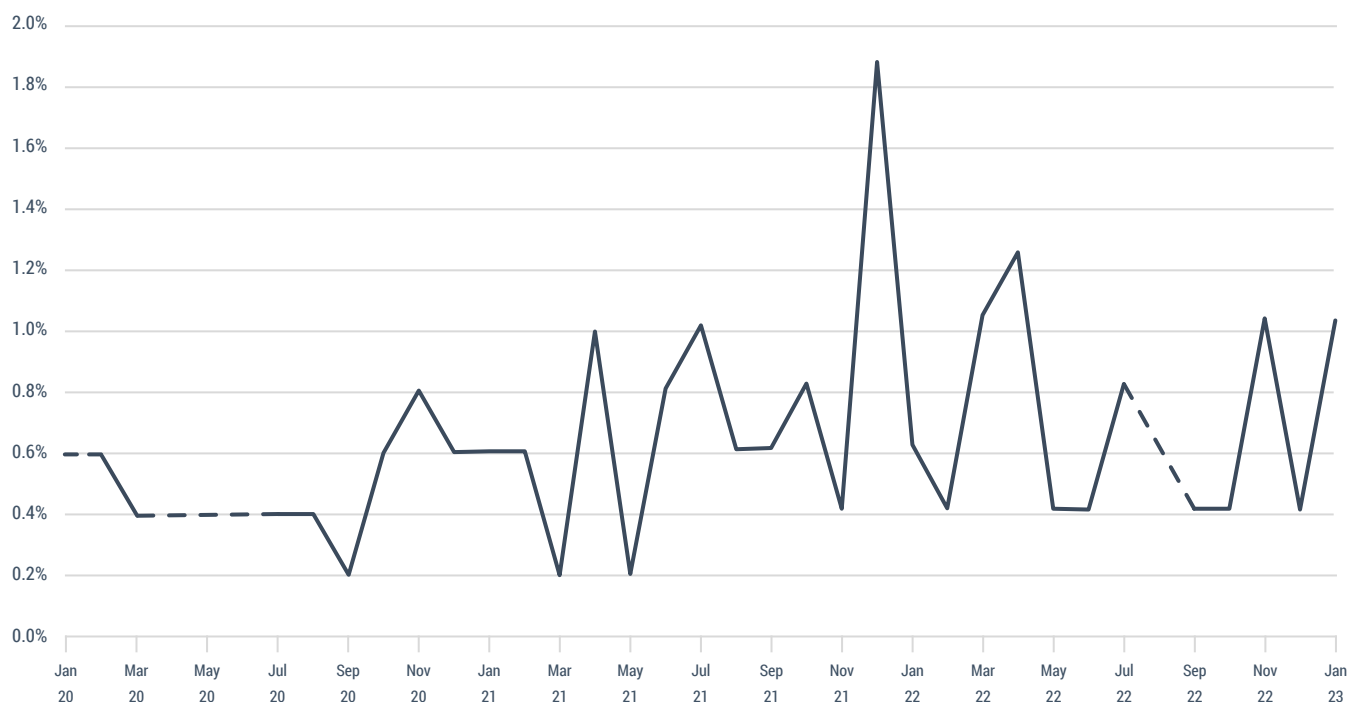
## Percent of AC for Sale (% of Fleet)



and Large cabin aircraft in the region have kept their sales listings in the market for a relatively short period of time compared to the average trend and other categories of aircraft.

In 2022, the yearly average percentage of aircraft for sale in the regional fleet was 6%, which was lower than the three-year average of 7.4%. However, the average number slowly went up and reached a peak of 7.6% at the end of 2022.

## % of AC Sold / Total AC in Operation



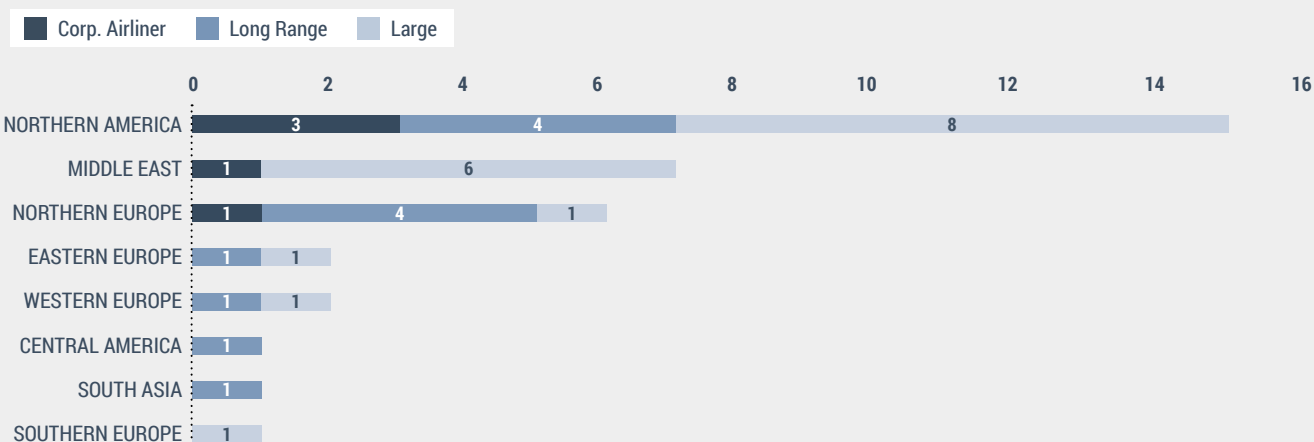
During the quarter, the average percentage of business jets sold in relation to the total fleet in operation was 0.8%, slightly higher than the yearly average percentage for 2021.

Several factors contributed to the lack of business jet transactions in the region between April and June 2020. The onset of the COVID-19 pandemic prompted countries in the region to impose travel restrictions and lockdown measures to control the virus's spread. The general aviation sector became significantly disrupted, creating unfavorable conditions for conducting transactions.

Secondly, the ensuing economic downturn caused by border restrictions and lockdowns caused businesses to scale back foreign operations and associated company expenditures. These factors reduced business travelers' willingness to travel, thereby reducing demand for business aviation.

Thirdly, a sharp drop in oil prices in March and April 2020 impacted the region's economy and reduced consumer confidence in purchasing luxury goods, including business aircraft.

## Seller Location - sold to MENA

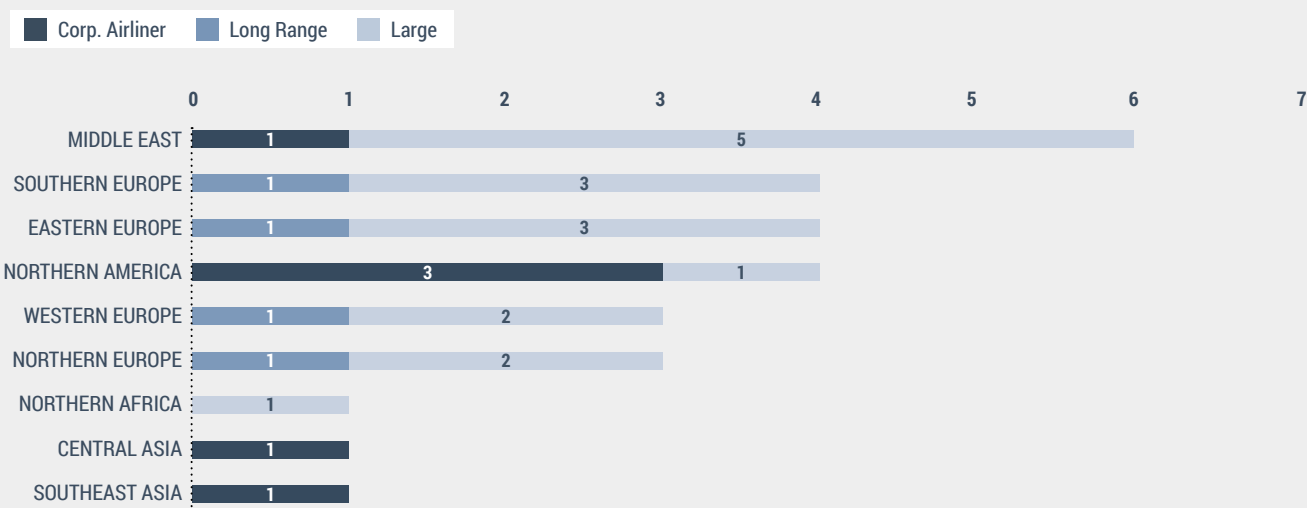


Note: Only transactions where the buyer and seller country are known are included.

Buyers in the region mainly preferred jets from the United States, in due part to their sheer availability on the US pre-owned market. However,

as is usual in other regions, the second highest number of transactions were intra-region.

## Buyer Location - sold from MENA



Note: Only transactions where the buyer and seller country are known are included.

Over half of Large cabin aircraft sold from MENA headed to various sub-regions across Europe, whilst 35% were intra-MENA transactions. Meanwhile, 50% of Corporate Airliners sold from the MENA market went to the United States, which is the second biggest market for Corporate Airliners around the world.

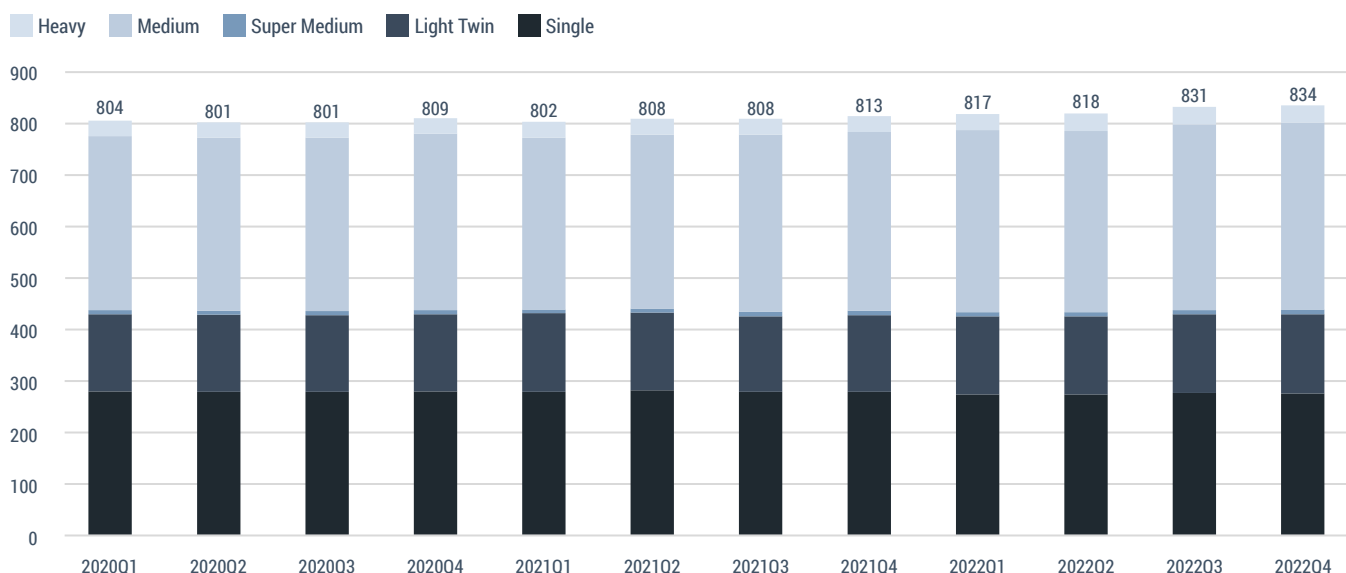
Overall, the business aviation market in the MENA region is undergoing a self-adjustment process, with local users gradually upgrading their aircraft. During the pandemic, these users enjoyed a good period amid high demand, as market dynamics leaned towards a sellers' market. However, recent market statistics suggest that this trend may be coming to an end. Sellers may now have to engage in more negotiations with buyers and could therefore expect longer transaction periods.



# HELICOPTER

## MARKET OVERVIEW

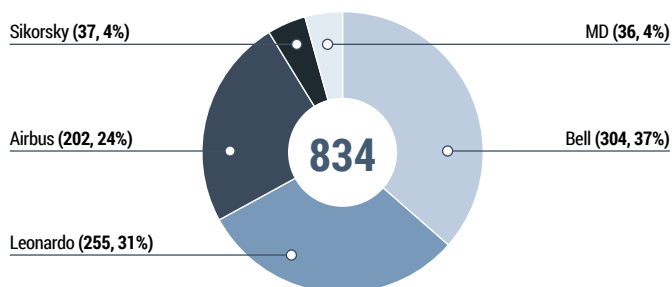
### Helicopter Fleet by Quarter



The MENA region's helicopter fleet stood at 834 at the end of the fourth quarter of 2022, up 3.1% from Q4 of 2020. There were three net additions to the fleet compared to the third quarter, as a result of five additions and

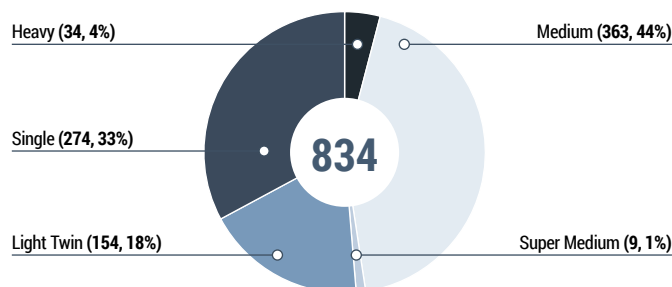
two deductions. Saudi Arabia and Morocco saw the most additions with two more aircraft apiece. The fleet has grown at a rate of 2.1% since Q1 of 2022.

### Helicopter OEMs in 2022Q4



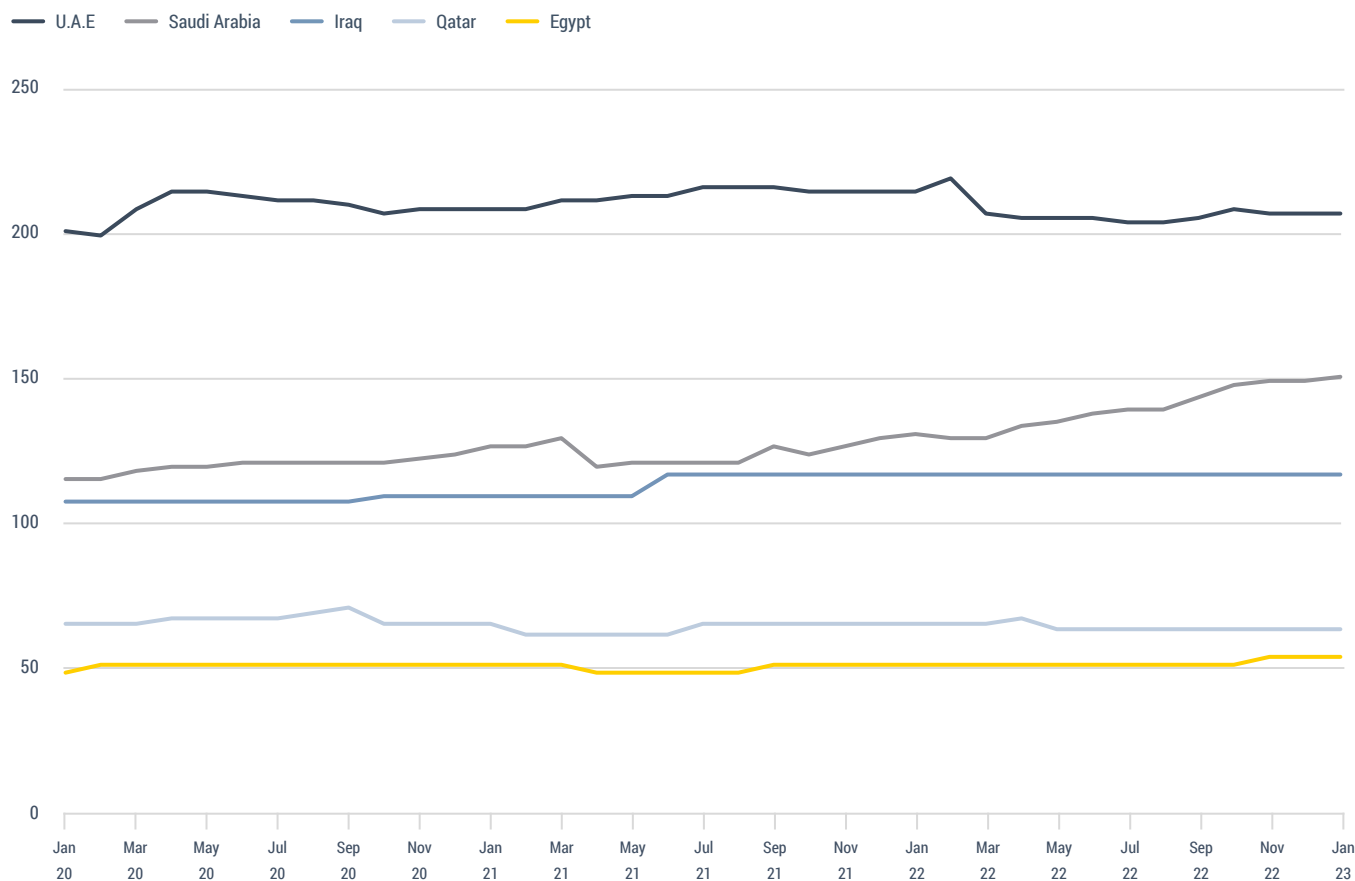
Bell and Leonardo were the leading OEMs in the MENA helicopter fleet and have a combined 68% share of the regional fleet. Airbus was the third largest OEM in the region with a 24% market share. Medium-sized helicopters had the greatest share of the regional fleet. The Leonardo

### Helicopter Size Categories in 2022Q4

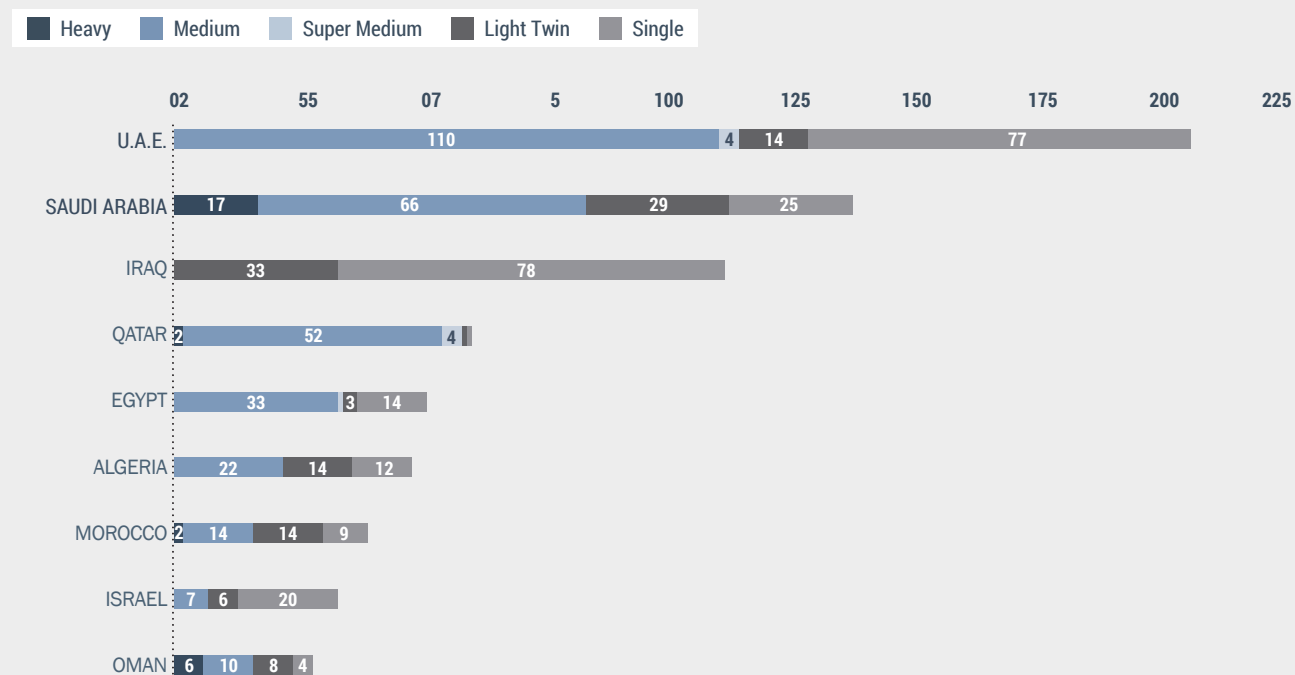


AW139, the Bell 407 and Bell 412 series were the most popular OEM models, each with more than 90 helicopters. All nine Super Medium helicopters in the fleet were Leonardo AW189 units.

## Top Five Countries by Fleet Size



## Top Countries by Size Category in 2022Q4



Note: Only countries with a fleet of 25 or more helicopters are included.



The United Arab Emirates (UAE) accounted for one-quarter of the MENA fleet, with a 2.5% growth rate achieved in the past three-year period. Medium and Single helicopters accounted for 91% of the UAE fleet.

Among the top countries with a fleet of 25 or more helicopters, Saudi Arabia's fleet has grown at the fastest rate in three years, at 22.3%, and had the second largest fleet (16% market share). Medium and Light Twin helicopters accounted for 69% of the fleet. With 17 units, the Saudi fleet also had the greatest number of Heavy-sized helicopters in the region.

Overall, the number of helicopters in the market in the MENA region has grown steadily over the three-year period. The industry has been able to take advantage of several key market opportunities.

Demand for emergency medical services increased with the onset of the COVID-19 pandemic, and while capacity on the ground began to stretch, this resulted in a greater need for helicopters to be deployed as a means of transporting patients to receive timely medical attention.

The expansion of the oil and gas industry, particularly in the oil-rich Middle East sub-region, increased demand for helicopters to transport personnel and equipment to and from the region's well-established offshore oil and gas fields. Although the price of oil fell dramatically in the first quarter of 2020, the industry remained resilient as global energy demand remained high throughout the pandemic period. This encouraged oil companies to invest further in modernizing their existing helicopter fleets.

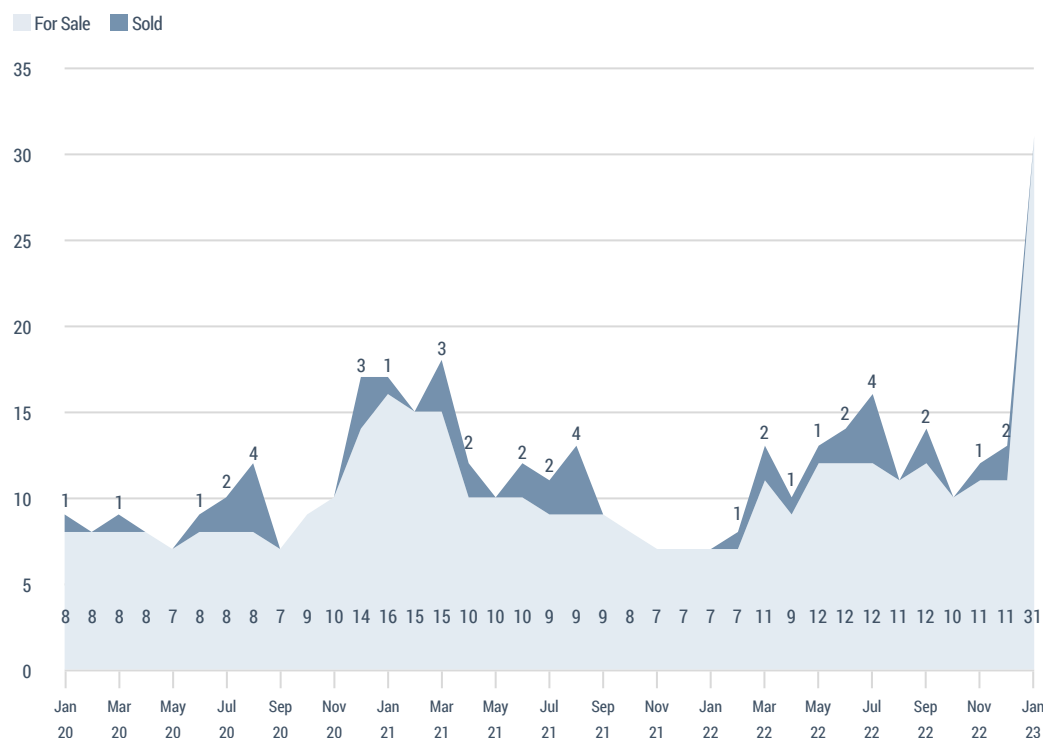
The region's infrastructure development has also made significant progress, with seaports, airports, and other transportation infrastructure being built. These activities have given helicopters a valuable role, assisting with aerial surveys and efficiently transporting construction materials and personnel across sites.

Finally, the region's increased use of Unmanned Aerial Vehicles (UAVs) for military, commercial, and industrial purposes increased demand for helicopters used to support UAV transportation, deployment, and recovery.



## PRE-OWNED MARKET

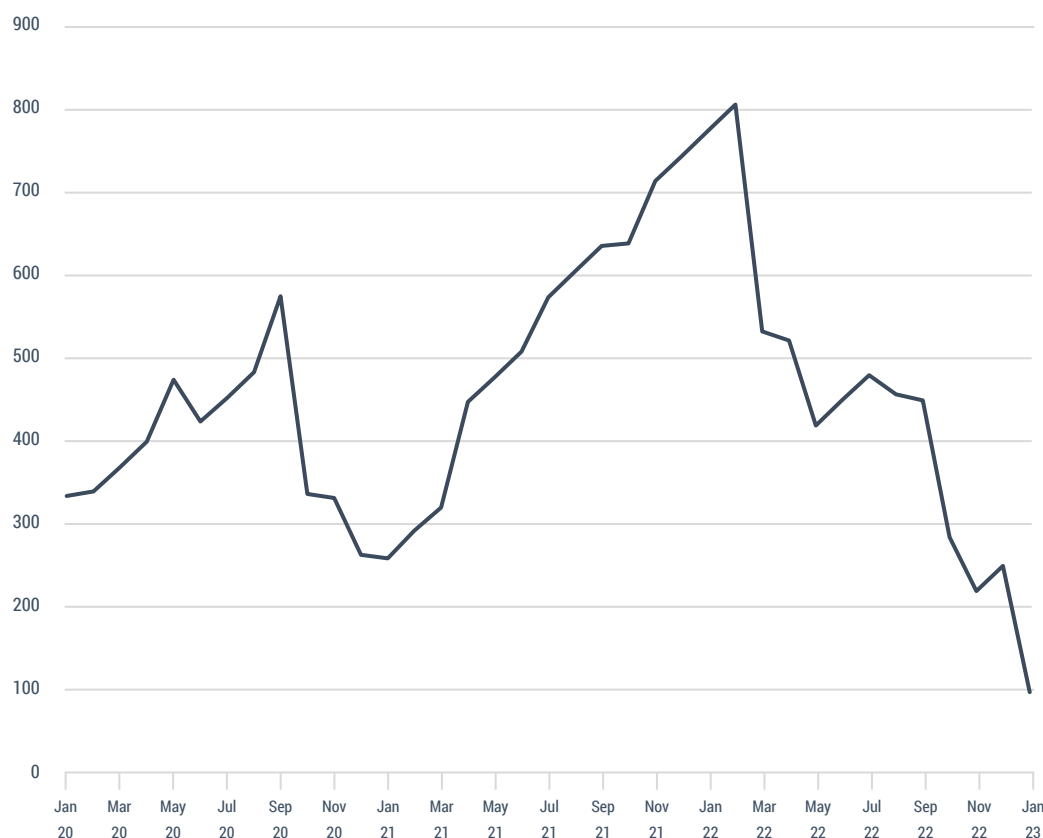
### For Sale vs. Sold



Peak transactions of up to four units occurred primarily in the third quarter of each year. During those periods, sold aircraft represented approximately 0.5% of the total fleet in operation. Listings in the region peaked for the first time between December 2020 and March 2021, when an average of 1.9% of the fleet was for sale. Following a quieter period for the market in Q4 of 2021, supply increased again to an average of 1.5% across Q2 of 2022.

Due to the increased absorption rate from the refreshed supply, the average wait time for listings on the market decreased from a peak 806 days in Q1 2022 to 97 days at the end of Q4 2022.

### Avg. Days on Market



There was a significant increase in the number of Medium type helicopters listed in the MENA market near the end of this quarter, which included 14 AW139s and six A109Es from Leonardo Augusta.

ARAMCO Capital Company, LLC, solely listed these helicopters through their aviation division (ARAMCO Aviation), which owns one of the largest offshore oil field operators under the name Saudi Arabian Oil Company.

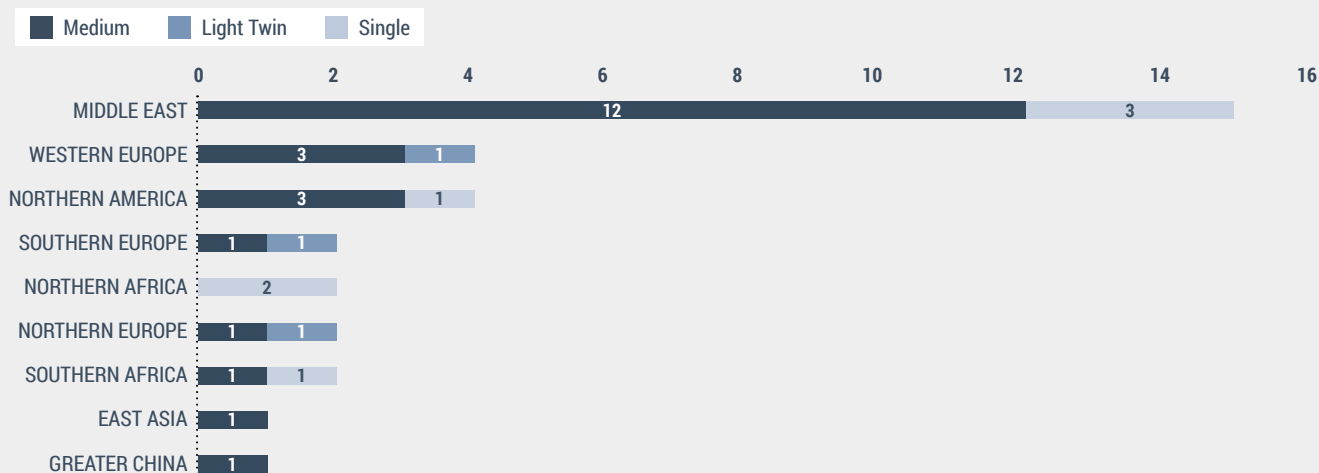
The reasons for offloading its helicopter fleet in such a short period of time are largely attributed to its desire



to reduce the risks associated with asset ownership and depreciation, whilst still meeting operational needs by leasing helicopters instead. Other companies across the oil and gas sector have also been looking to reduce costs and improve efficiency, which has similarly led to the divestment of non-core assets and a focus on improving their core operations.

The leasing agreements were made with Milestone Aviation Group Limited, which is a world leader in helicopter leasing and has been leasing helicopters to ARAMCO Aviation since 2016. Through the deal, the company was able to update and grow its fleet of helicopters with newer AW139s and was also offered Airbus Eurocopter H145 series helicopters to replace its fleet of A109Es.

### Seller Location - sold to MENA

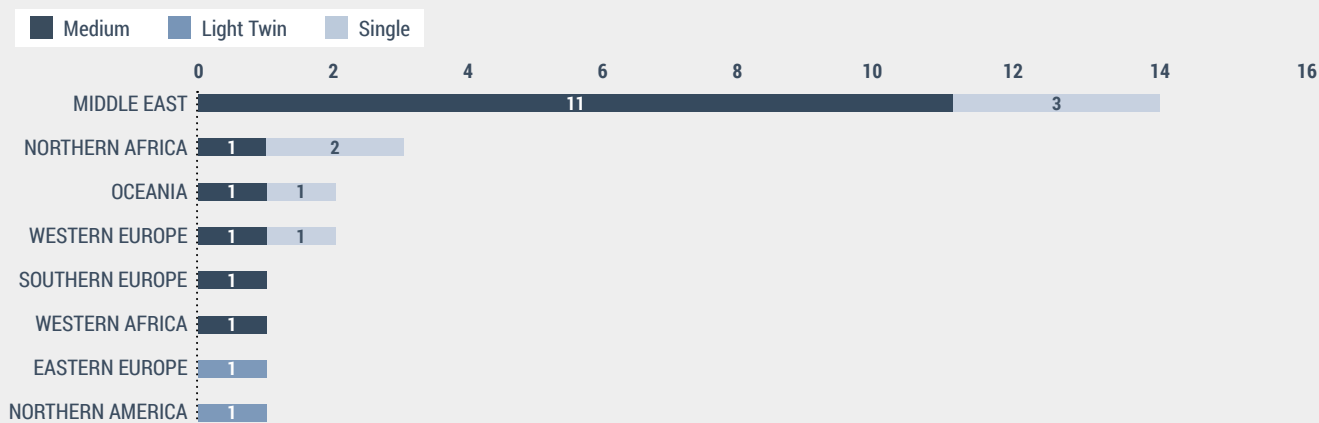


Note: Only transactions where the buyer and seller country are known are included.

In the three-year period to date, a total of 33 Medium, Light Twin and Single turbine helicopters were sold to the MENA helicopter fleet. Half

of all transactions were intra-MENA movements. Saudi Arabia sold the most units, with nine, while the United States sold four units.

### Buyer Location - sold from MENA



Note: Only transactions where the buyer and seller country are known are included.

In the same period, 25 Medium, Light Twin and Single turbine helicopters were sold from the MENA helicopter fleet, and 68% of all transactions were intra-MENA movements. Bahrain had the most sales among the MENA countries with six, followed by the UAE and Saudi Arabia, both of which had three.

Different from the business jet market, helicopter transactions occurring during times of economic uncertainty are more susceptible

to a range of external factors that can affect the demand for helicopters and the ability of buyers and sellers to complete transactions.

Some of the key external factors that could impact the success of transactions include the economic conditions, changes in the regulatory environment, geopolitical risks, the rise in fuel prices, and technological advances (through new aircraft design and retrofitting of existing aircraft).



# ASIA-PACIFIC MOOD & INTENTIONS

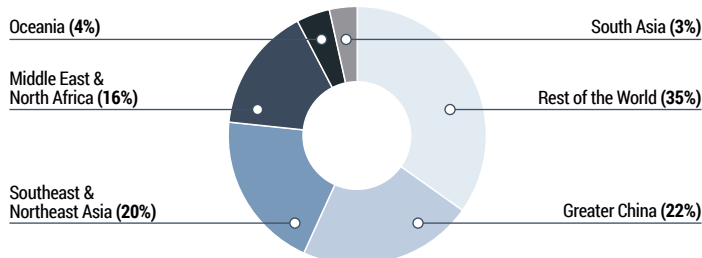
## QUARTERLY SURVEY

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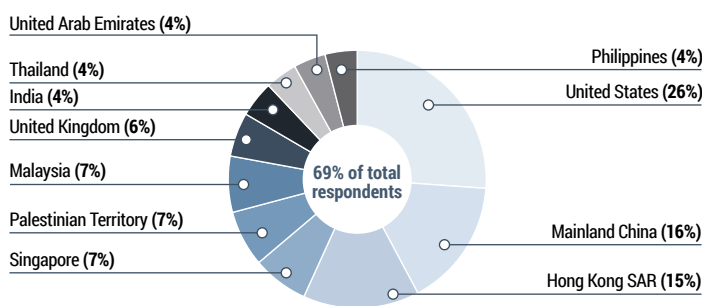
# QUARTERLY SURVEY

## RESPONDENT BREAKDOWN

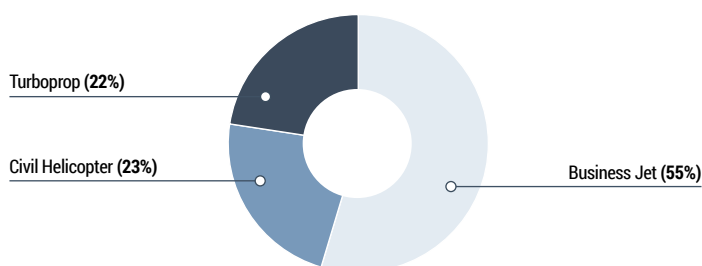
### Respondent Location Breakdown



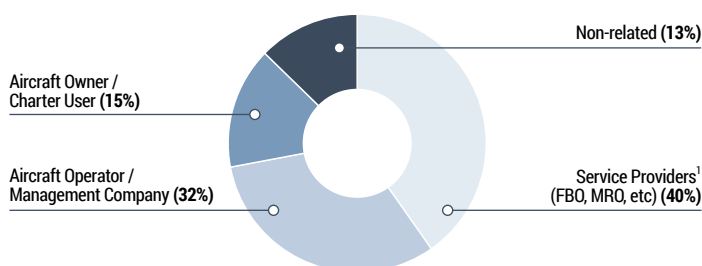
### Top 10 Respondent's Locations



### Respondent's Related Aircraft Type



### Respondent's Category



1. Aircraft Service Providers includes financial services, training, FBO, ground handlers, Service, MRO, parts, etc.

## Updates & Highlights in 2022 Q4 survey

1. Southeast Asia, and Northeast Asia are the sub-regions that had the most positive economic sentiment in Q4.
2. Fleet utilization is getting better in mainland China. This is due in large part to the country's COVID-19 restrictions being lifted at the end of 2022Q4 and its border with Hong Kong SAR no longer being tightly controlled.
3. Purchase intentions remain high, particularly for pre-owned Large cabin jets. Meanwhile, the market is now perceived as increasingly balanced, as inventory is slowly catching up with market demand.
4. The main things that will keep business and general aviation going in the future are good customer service and good value for the money.
5. The price of aircraft remains the top limiting factor influencing purchasing decisions.
6. A growing number of people in the industry have said that proactive steps are being taken to better control carbon emissions by using new ways and technologies to provide cleaner and more sustainable solutions.

In Q4, nearly 300 business aviation professionals responded to Global Sky Media's latest quarterly survey about the mood and intentions of the industry.

The regions with the most respondents include: 1. Greater China, mainly covering mainland China and Hong Kong SAR (22%). 2. Southeast Asia and Northeast Asia (20%). 3. Middle East and North Africa (16%). 4. Oceania (4%). 5. South Asia (3%).

The majority of respondents (55%) are associated with business jet operations. 72% of respondents from this quarter's survey are associated with aircraft service providers (FBOs, MROs, etc.) and aircraft operators, while 15% of respondents own or charter business aircraft. The remaining respondents are associated with non-related areas.

## Environment & Politics

Compared to the previous quarter, more people (48% of respondents) are now taking action to help reduce carbon emissions. 74% of respondents agree that the business aviation industry needs to keep working to reduce its carbon footprint, while 4% of respondents don't think this is a priority for the industry as a whole. Recent efforts by regulators, original equipment manufacturers (OEMs), and aviation companies to speed up the use of sustainable aviation fuel (SAF) and new propulsion technology have shown that this is a growing trend.

The desire for high-level customer service as well as delivering good value in return on investment are regarded as the most important factors in maintaining a buoyant future for business aviation. In comparison to aspects such as privacy, flexibility, and maintenance support, addressing carbon emissions ranks relatively low in the business aviation industry.

## Utilization in the Asia-Pacific Region

The overall utilization of business aircraft has progressively risen in the region,



with particular focus on growth of up to 20%. This threshold rose from 33% during the third quarter to 43% during the fourth quarter. 73% of all respondents reported increased fleet utilization, while only 13% reported decreased utilization.

The Southeast and Northeast Asia sub-regions saw the highest growth in utilization at 88%, and Greater China came in second with an 82% growth rate. Crucially, Greater China reported the steepest increase in utilization compared to the previous quarter (49% in Q3) as COVID-19 restrictions were drastically lifted towards the end of the year.

Economic Outlook in the Asia-Pacific Region

Respondents thought that the overall economic outlook is getting better during the fourth quarter. The number of people that were optimistic jumped from 69% in the third quarter to 80% in the fourth quarter.

Taking into account responses from both the APAC and MENA regions, 50% of respondents now think that their regional economies have passed what they see as a low point. Despite both region's ongoing economic difficulties, the consensus believes that economic recovery and subsequent growth will consolidate as the regions emerge from the three-year-long pandemic's shadow. With the relaxation of

the most stringent pandemic measures particularly in Greater China, utilization, and operational movements of business aviation across the APAC region and beyond would undoubtedly benefit from a return to open borders.

Purchase Intentions

Large cabin business aircraft continue to be popular in the Asia-Pacific region, particularly in Greater China, where 41% of respondents preferred this category. Respondents from the MENA region in the fourth quarter are especially intending on looking for Corporate Airliners and Medium-sized aircraft. However, it is worth noting that Medium-sized jets are generally less popular in the market compared with Long Range, and Large cabin jets. Respondents' intention to purchase used aircraft increased from 31.9% in the third quarter to 44.3% in the fourth quarter, while 35.2% expressed an interest in purchasing a new aircraft, up from 29% in the third quarter.

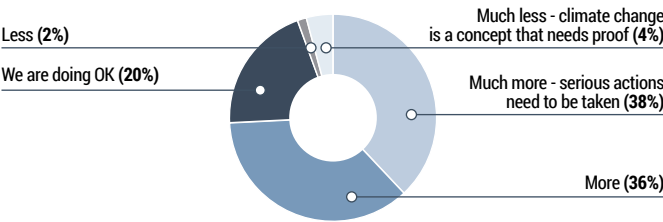
Respondents believed that the pre-owned market was shifting from a seller's market to a buyer's market in previous quarters in 2022, and that supply and demand is now becoming more balanced in the fourth quarter. The market data from AMSTAT and Global Jet Capital supports this trend, where aircraft prices have evidently stabilized during Q4 from their transactional peak during 2022.

ENVIRONMENT & POLITICS

Are you, your clients, or your authority currently taking any action for climate change?

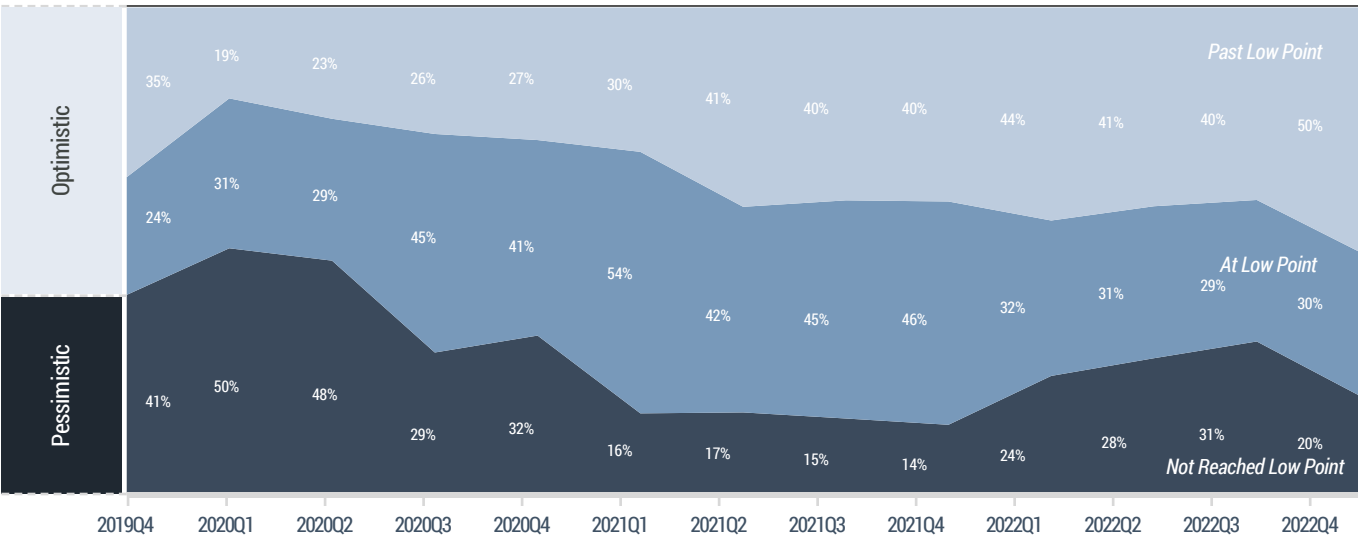


Do you think the industry (BizAv & GA) should be doing more or should be doing less to address climate change & carbon emissions?



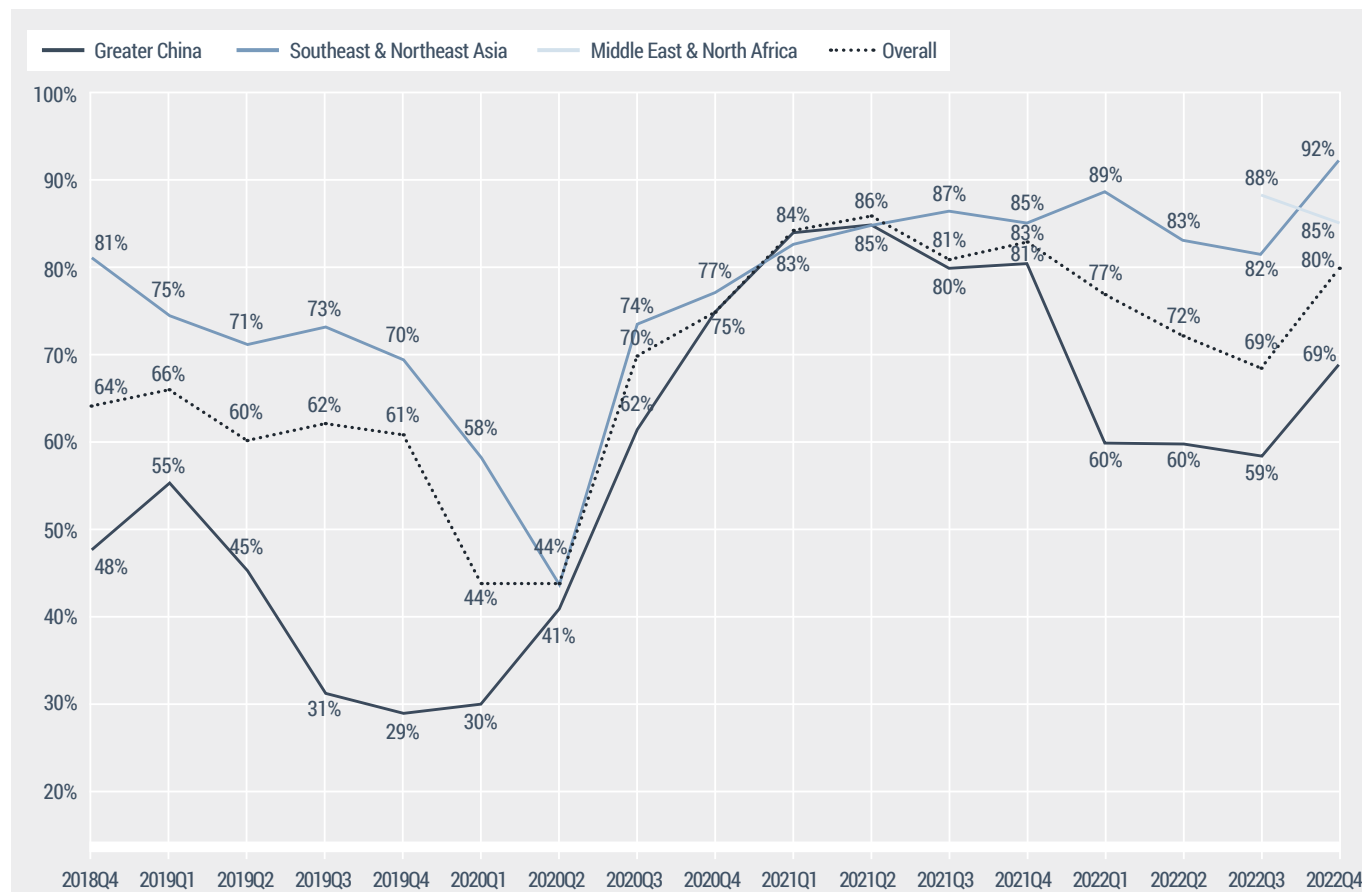
ECONOMIC STATUS

What is Our Current Economic Status?



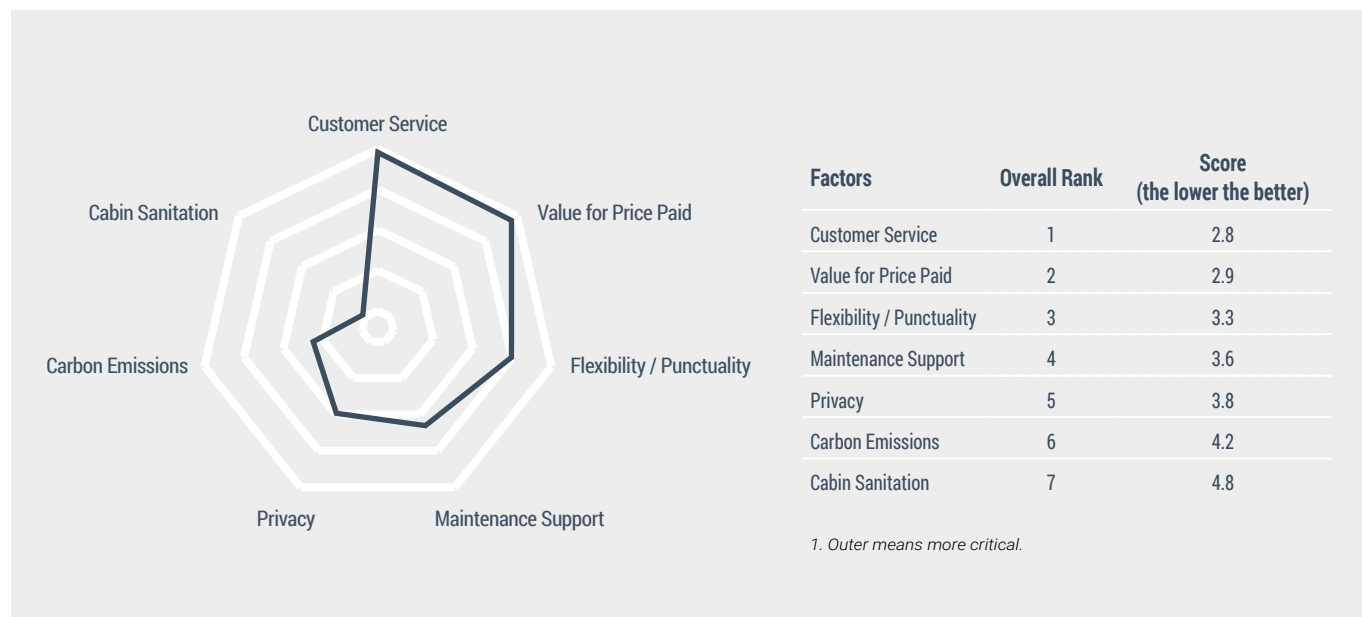
# ECONOMIC STATUS

## Optimism Level Since 2018Q4 Regional Difference \*



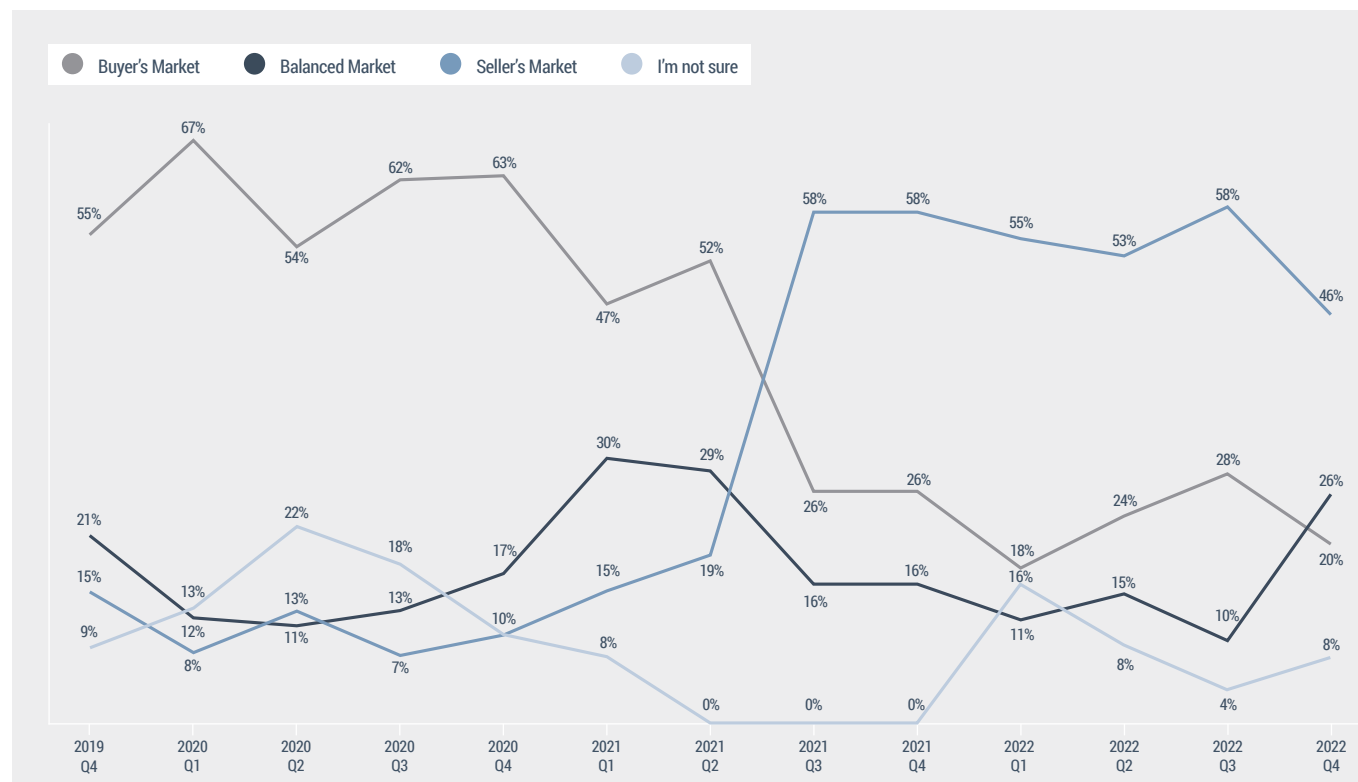
\*The Q4 data for the South Asia and Oceania regions will be published in the upcoming quarter.

## Rank the following factors that you think are critical to the future of business aviation / general aviation:<sup>1</sup>

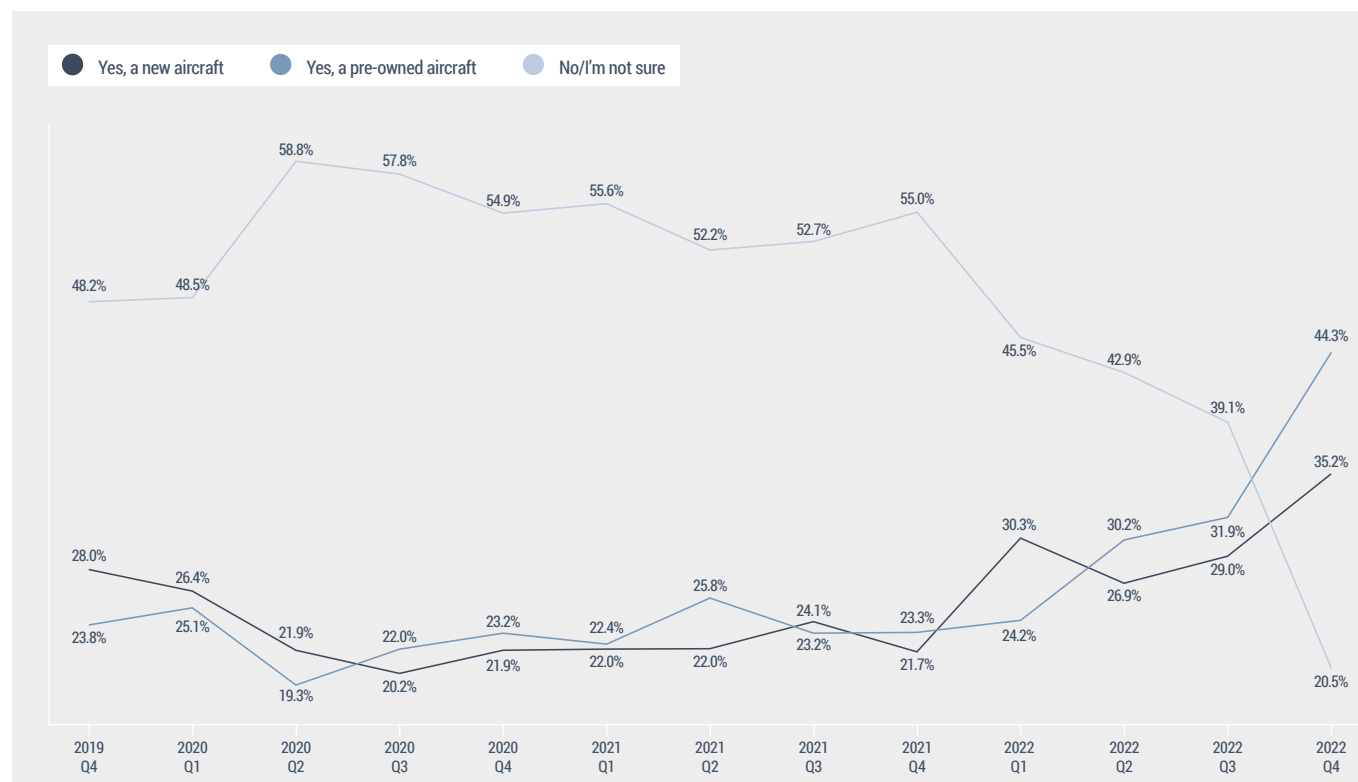


# PURCHASE INTENTIONS

## Where are We Currently in the Pre-owned Market?

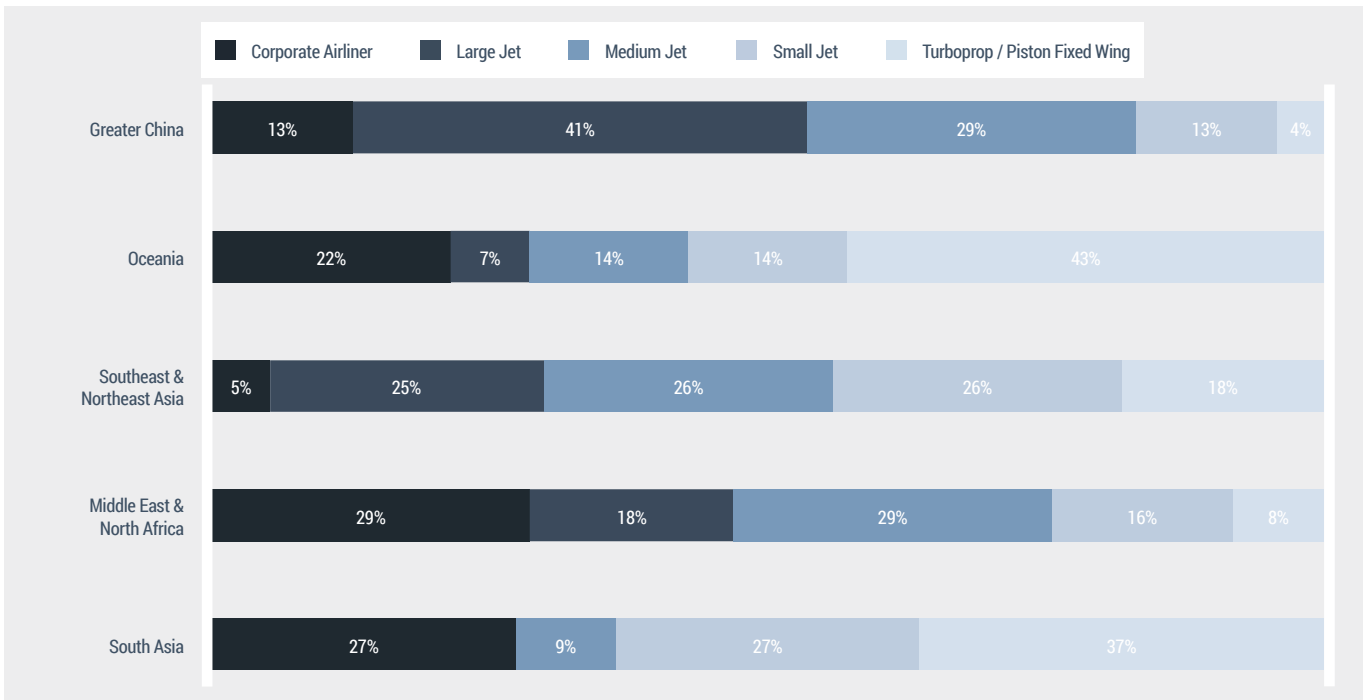


## Purchase Intentions 2019Q4 - 2022Q4

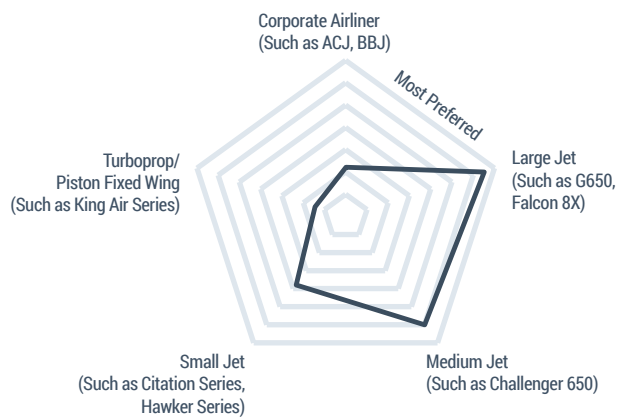




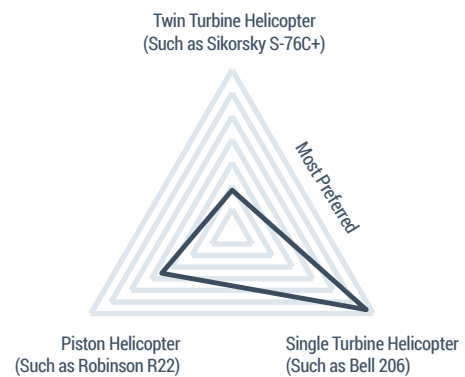
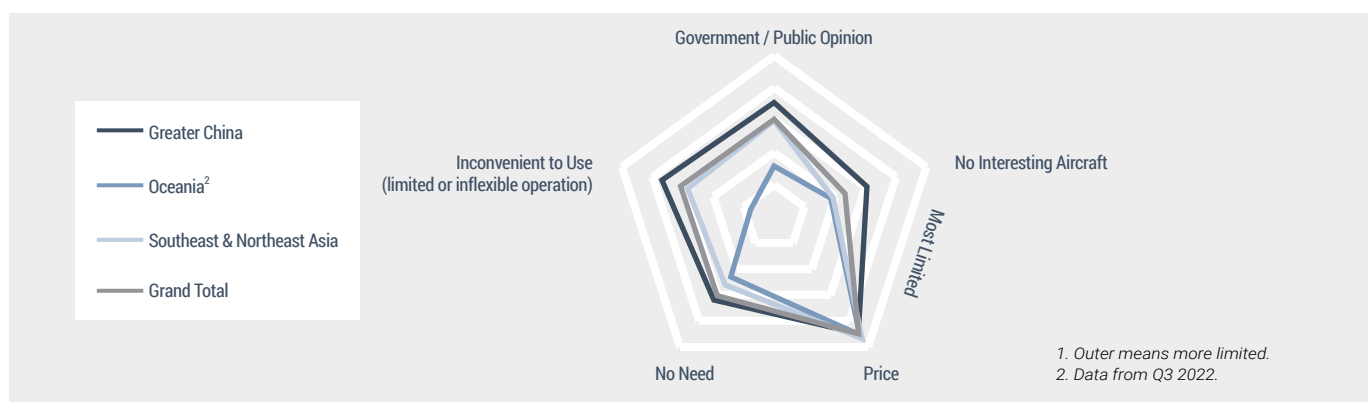
## Regional Differences (- Fixed Wing)



## Aircraft Purchase Intention - Fixed Wing

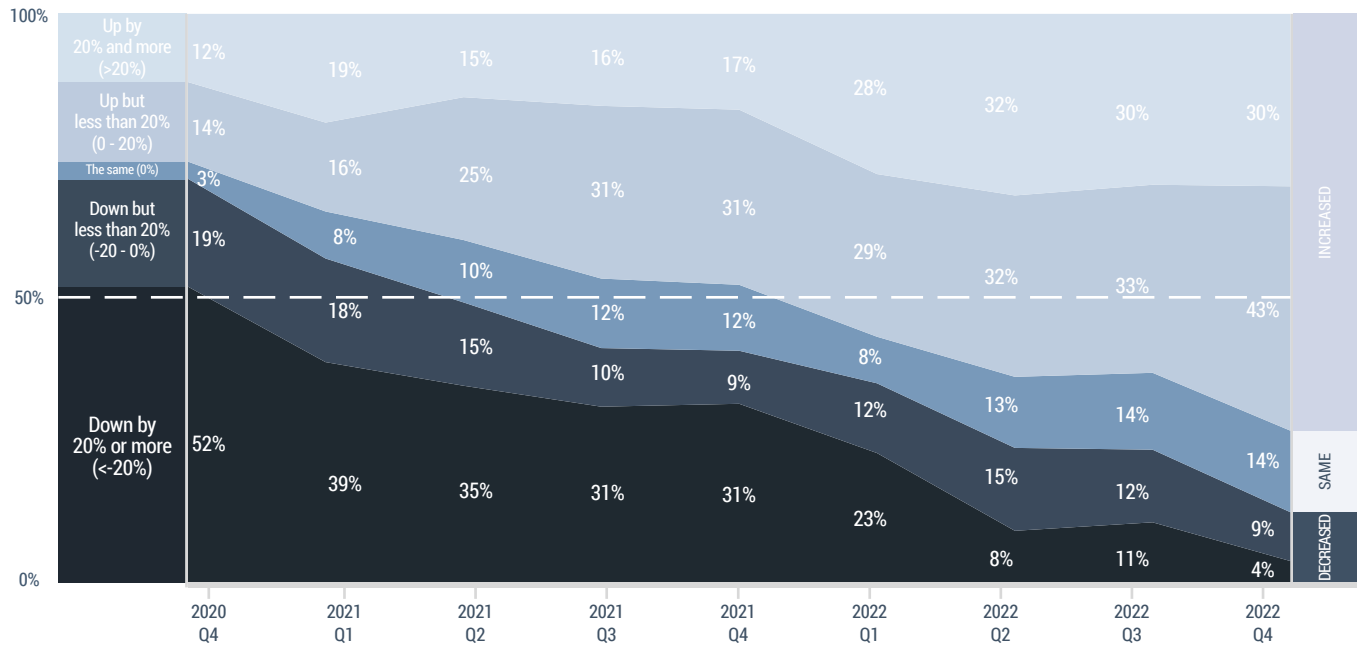


## Aircraft Purchase Intention - Rotary

Purchase Decisions - Influencing Factors<sup>1</sup>

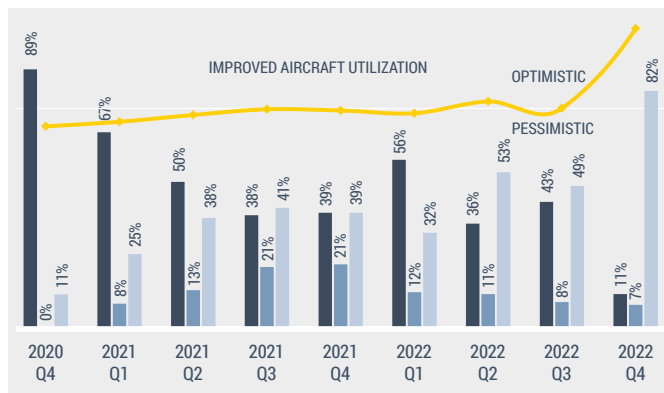
# FLEET UTILIZATION

## How is Your Aircraft Utilization Compared to 12 months ago?

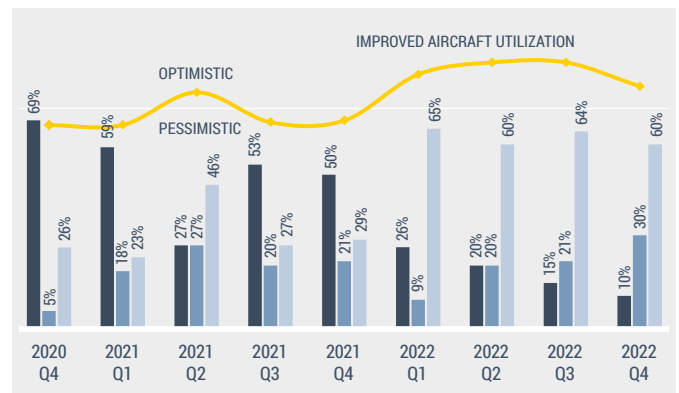


● Decreased ● The Same ● Increased — Signal Line<sup>1</sup>

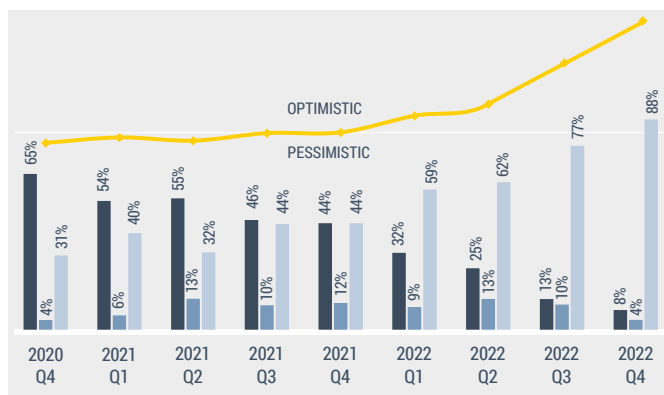
### Greater China<sup>2</sup>



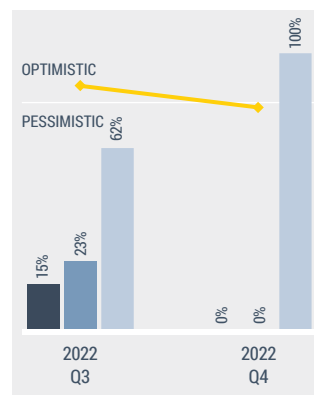
### Oceania<sup>3</sup>



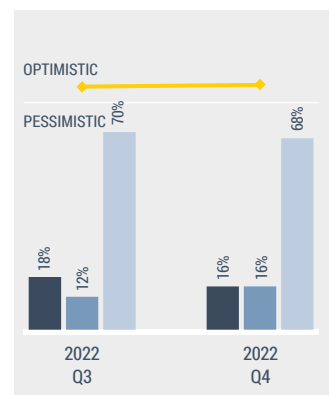
### Southeast & Northeast Asia



### South Asia<sup>3</sup>



### Middle East & North Africa



1. An Optimistic-Pessimistic Signal Line has been added to regional usage trend analysis for Greater China, Oceania and South and East Asia regions. An optimistic mood is derived from more people indicating 'higher' aircraft utilization compared with 12 months ago, while a pessimistic mood is derived from more people indicating 'lower' aircraft utilization compared with 12 months ago.

2. The survey respondents from Greater China were gathered between late December 2022 and early February 2023.

3. Preliminary Data for Q4 2022.

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# NEW, BIG FALCONS SUIT ASIA-PACIFIC



It is a big world out there, especially when business takes you from the Asia-Pacific region to the major cities of Europe and North America.

From Tokyo, it is 9,700 km to Paris. From Sydney, it is 12,100 kilometers to Los Angeles. These are 12 – 15 hour nonstop trips. Dassault engineers and executives wondered how they could deliver a better passenger experience over those vast ranges.

Their conclusion: make occupants feel more as if they were in their own homes rather than in a business jet.

## The flying penthouse

Accordingly, Dassault Aviation has introduced two new airplanes that are the biggest among purpose-built business jets (not converted airliners). The Falcon 6X, which is 1.98m tall by 2.58m wide, is eclipsed in size only by the Falcon 10X and its 2.03m by 2.77m cabin. Competitors are as much as 28 cm narrower.

## The best of contemporary home design-in a jet

Dassault's in-house Design Studio set a new standard for contemporary business jets, as recognized by honors such as the prestigious Red Dot and Good Design awards for industrial design. In the 6X, lines are less angular and more fluid; the furniture appears lighter and leaner. Open armrests, for example, accentuate

the impression of spaciousness. Aisle width is about 15 cm greater than competitors, easing movement about the cabin.

The typical cabin arrangement is a fourplace club seating arrangement forward, followed by a dining/conference table and opposite credenza, and then by an aft compartment with two divans for socializing or sleeping. Optionally, this space makes a comfortable private stateroom.

Cabin pressurization is a low 3,900 feet at a cruise altitude of 41,000 feet (on the 10X, it's even lower at 3,000 feet). A low cabin pressure altitude reduces fatigue. The 6X and 10X cabins are real fatigue reducers compared to airline cabins at 6,000 to 8,000 feet.

On the 6X, thirty-five square feet of window area leads the class for natural light. On the 10X, windows are even bigger to brighten a larger cabin. On both airplanes the windows are spaced closely for a uniform distribution of light in the cabin. LED lighting is passenger controlled to introduce new combinations from soft reading light to gradual sunrises that help adjust circadian rhythms.

## The no-compromises, biggest business jet yet

The 10X cabin simply gives passengers more of everything. The cabin has an extended galley with a crew rest area as an option. The passenger area has four cabin zones of equal size, each with its own climate controls, but the design is flexible and each zone can be shortened or extended to customize the layout.

An owner could specify a shortened compartment as an entertainment center with a divan on one side and a big screen TV on the other. Or the aft zone could be lengthened into a private suite with a full queen size bed (which is not possible on other large business jets because of their lesser width). An en-suite bath can be equipped with the largest and nicest shower in business aviation. It's 1.88m tall with electro-chromatic dimmable windows and a generous 30-minute hot water supply.

## A cabin that reflects modern art

The 10X cabin with its Modernist lines and decorative motifs has been enthusiastically embraced by customers and aviation journalists. One astute writer saw the influence of cubist painter Piet Mondrian, as well as other 20th century inspirations from French artists Georges Braque, Marc Chagall and Marcel Duchamp. For the 6X and 10X, Dassault designers moved away from traditional heavy-looking cabin furniture to reflect the latest in home design.





Dassault Falcon 10X

## An emphasis on privacy and quietness

New on the 6X and 10X is the optional Falcon Privacy Suite, a first within the business jet industry. One or two of these could be ordered for the aft cabin compartment. The suite has aisle dividers for privacy and a seat that reclines electrically to fully flat.

The Falcon Privacy Suite is well suited for long flights for at least two reasons. It provides a refuge for passengers who wish to work or just have a little time to themselves. The suite also makes it easier to sleep, inasmuch as we all prefer a little more privacy for sleeping.

**“ Comfort factors have been prioritized in the 6X and 10X to give passengers the best experience over the longest distances.”**

Falcons have long been known as quiet aircraft with sound levels below 50 dB—the equivalent of a suburban living room. Engineers report that the first Falcon 6X aircraft to receive full interiors are even quieter, with the 10X planned to be just as quiet. The low noise and vibration levels on these jets (in addition to low cabin altitudes) means that passengers feel much better at the end of a long flight.

## Masters of the long haul

All of these comfort factors have been prioritized in the 6X and 10X to give passengers the best experience over the longest distances.

The 6X is the largest aircraft in what is known in the industry as the long-range class. Its maximum range of 10,186 km allows nonstops



Dassault Falcon 6X

between Beijing and either Seattle or London. Typical cruise speed for the 6X is between .80 and .85 Mach and its top speed is .90 Mach.

The Falcon 10X offers even more range capability. It is classified as an ultra-long-range jet. The aircraft can fly 13,890 km and has a top speed of Mach 0.925, a whisker below the speed of sound. Shanghai to New York City is well within the aircraft's capability. On flight's of up to 14 hours or more, it's easy to see why cabin comfort has become so important.

## Embodying the best of French Style and Technology

If all the discussion of cabin style seems to place the emphasis on a French aesthetic, the 6X and 10X are also tributes to Dassault's heritage as one of France's leading aerospace companies and one of the world's top builders of advanced fighter aircraft.

Dassault Aviation was one of the earliest developers of digital flight control (fly-by-wire) technology, giving its fighters maneuverability advantages. It was the first manufacturer to introduce digital flight controls on a business jet. That was in 2005 with the first flight of the Falcon 7X. Digital controls enhance safety, reduce workload and impart a smoother ride. The 6X and 10X have even more advanced digital flight controls.

For Dassault, style, comfort and technology are braided together into quintessentially French exports—ones that customers will soon be enjoying on the world's longest routes.

The 6X is nearing the end of its flight test certification program and will enter service this summer. Parts and major structures for the 10X are being built today, with final assembly of the first units beginning in 2023.



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# SUPPORTING MODERN TIME MACHINES



*Business jets are often described by owners as today's time machines. Time is often at a premium for the influential customers that use the aircraft, so availability and reliability is essential.*



With more than 3,600 Rolls-Royce powered business jets in service worldwide, the company is the leading engine supplier in business aviation. Its top priority is to provide an extraordinary level of service that exceeds their customers' expectations.

More than half of Rolls-Royce's Business Aviation clients have a fleet of one aircraft, which means they typically do not have a comprehensive department to perform maintenance on the engines themselves.

"One key differentiator for Rolls-Royce is that we have a separate and dedicated Business Aviation unit," says Megha Bhatia, VP Sales & Marketing, Business Aviation. "This unit includes its own services organization - purposely set up to assist the distinct needs of our clients, which differ from those in commercial aviation."

It goes without saying that all the moving parts within this services organization – from the Business Aviation Availability Centre, logistics and spare parts to On-Wing services - must work like a perfectly tuned machine.

Rolls-Royce's Business Aviation Availability Centre looks after over 8,000 engines in service worldwide, and it operates 24 hours a day 7 days a week. All Engine Health Monitoring data is assessed at the Availability Centre and from here the company deploys teams of service engineers, logistics specialists, fleet and maintenance planners and operations specialists to ensure the smooth operation of the worldwide fleet. In the rare case where an issue with the engine prevents the customer from flying, these experts aim to solve a routine issue anywhere in the world in under 24 hours.

While there is no problem for predictable, routine tasks, which can be managed at any of our 75 Authorized Service Centers globally, it gets more challenging if a customer needs help in a remote location. Fortunately, Rolls-Royce created the On-Wing Services team to resolve such problems for their unique clientele. These

technicians, who rank among the best in their profession, travel to the respective aircraft to perform special and complex maintenance tasks, often to rescue customers from an aircraft-on-ground situation and ensure clients make their next planned flight.

The On-Wing Services team, which forms the spearhead of the organization for quick responses and special missions, is a vital part of Rolls-Royce's dedicated global service network. The team is composed of 65 highly qualified technicians, which are strategically placed around the globe. This ensures faster response times and minimizes AOG downtime wherever our customers are in the world.

**“Top priority is to provide an extraordinary level of service that exceeds their customers' expectations.”**

And with Rolls-Royce's pioneering CorporateCare Enhanced service programme these activities are already covered at no additional cost. The programme offers substantial financial and operational value to customers, such as increased asset value and liquidity, mitigating maintenance cost risk and protection against unforeseen costs and unscheduled events anywhere in the world. Increased aircraft availability, reduced management burden, full risk transfer, direct priority access to the Rolls-Royce services infrastructure and remote site assistance are further benefits for the customers.

"This outstanding service is recognized by Rolls-Royce customers all over the world. We are really proud of having been ranked number one in AIN's Product Support Surveys for two consecutive years now. This is really important for us, as the feedback comes directly from our customers. We want to ensure we're continually striving to better our customers' experience and exceeding their expectations" Megha adds.





# IADA MARKET REPORT FOURTH QUARTER 2022

**WAYNE STARLING**

**Executive Director, IADA**



I am excited to present to you the Fourth Quarter 2022 IADA Market Report. The IADA Market Report has quickly become a valued resource for anyone interested in the business aviation industry. Our summary and perspectives on the coming market provide an informed view of where our industry stands and our honest projections about the course of our industry.

Our data is both quantitative (based on actual sales and transactions) and qualitative (based on a survey conducted with IADA Accredited Dealers and Certified Brokers). The value of our data is crucial due to the dominance and performance of IADA members in the global marketplace. IADA Accredited Dealers and Certified Brokers buy and sell more aircraft by dollar volume than the rest of the world's dealers combined. We are proud of our continued status as the best of the best.

We have been working in a frenzied market for the past two years — one in which our Accredited Dealers and Certified Brokers have performed exceedingly well. The fourth quarter of 2022 has some characteristics that we believe will continue into the first quarter of 2023:

- There is movement toward a balance between buyers and sellers, led largely by an ongoing easing of severe inventory shortages and buyers' awareness toward pricing.
- The trend toward first-time buyers over the past two years continues, particularly in the midsize to large cabin aircraft. We believe these buyers will stay in the market for the long haul as the benefits of private ownership become more and more evident.
- Our industry continues to deliver an exceptional level of service.
- Client demand remains strong.
- There is still a backlog in the market of OEMs. Demand for their aircraft will continue even though the deliveries might be two to three years out.

IADA plays a key role in understanding the state of today's business aviation marketplace. I trust you'll find our latest Market Report to be as useful and interesting as I do.



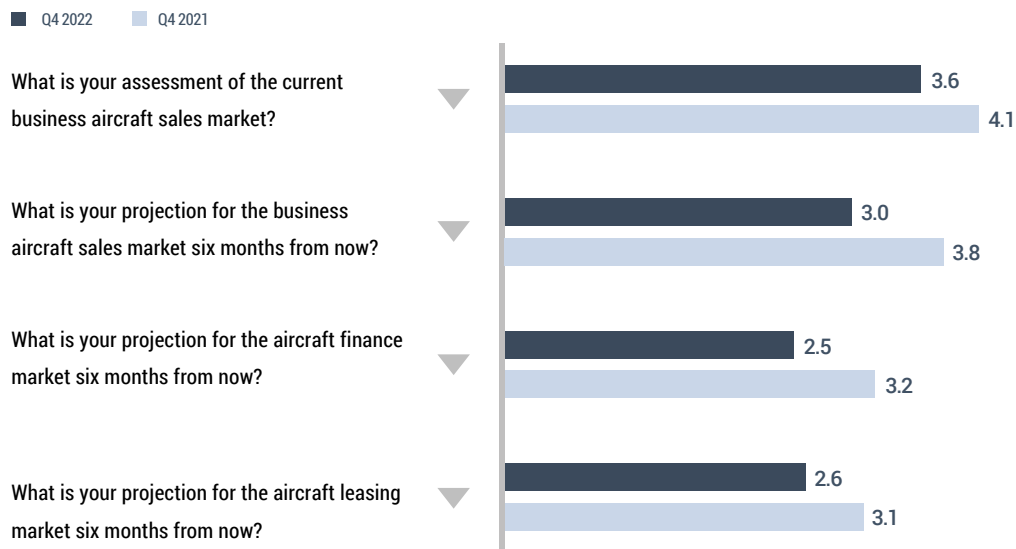
## GENERAL MARKET CONDITIONS

The following data are derived from questions that measure members' overall perspectives on the future of the used aircraft sales market over the next six months, including finance, leasing

and commissions. Responses are reported on a 1-5 scale, with 1 meaning "worst ever" and 5 meaning "best ever".

### OVERALL MARKET CONDITIONS | Q4 YEAR OVER YEAR

On a 1-5 scale, with 1 meaning "worst ever" and 5 meaning "best ever"

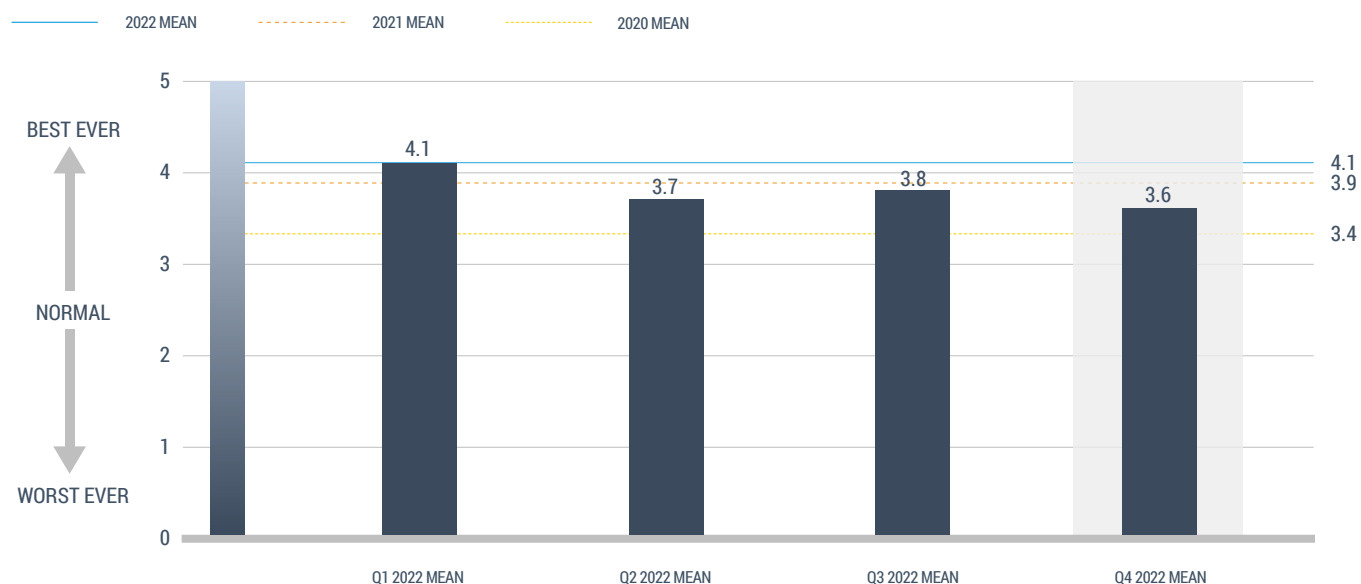


Respondents report current market conditions are normalizing with an increase in available on-market inventory.

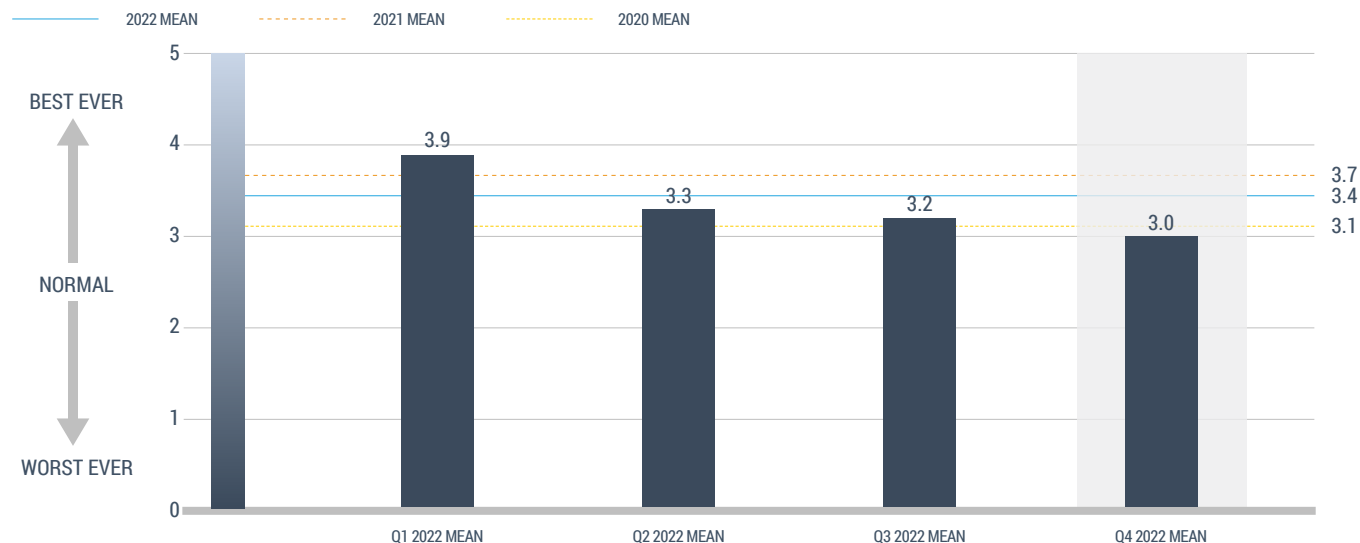
### OVERALL MARKET CONDITIONS FOR SALES, FINANCE, LEASING AND COMMISSIONS

On a 1-5 scale, with 1 meaning "worst ever" and 5 meaning "best ever"

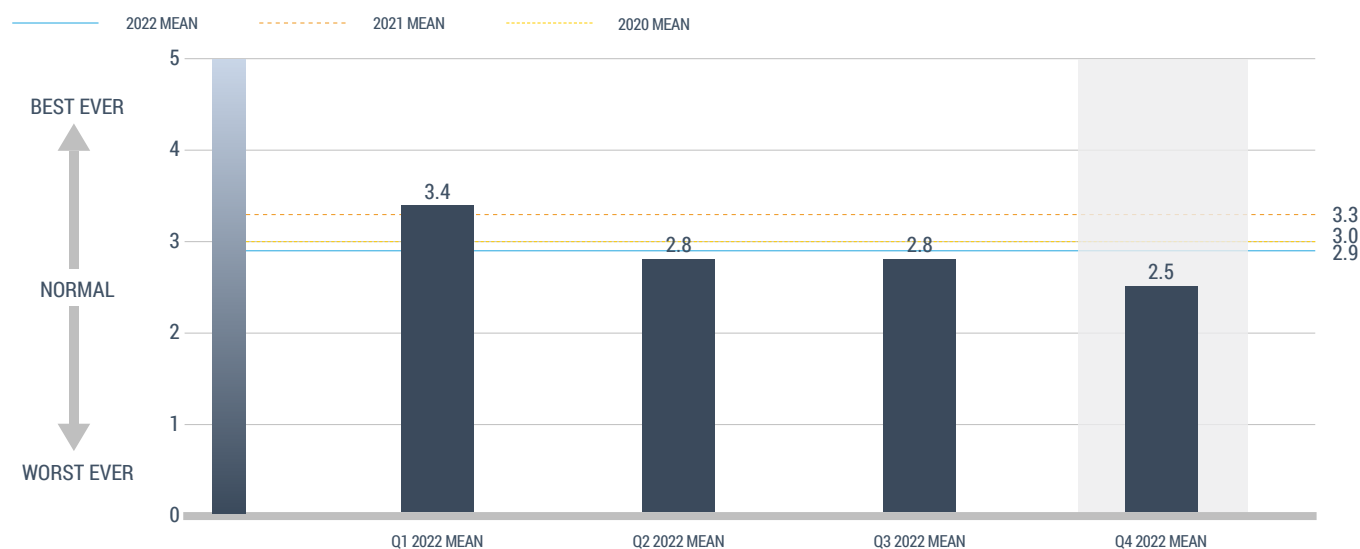
#### What is your assessment of the current business aircraft sales market?



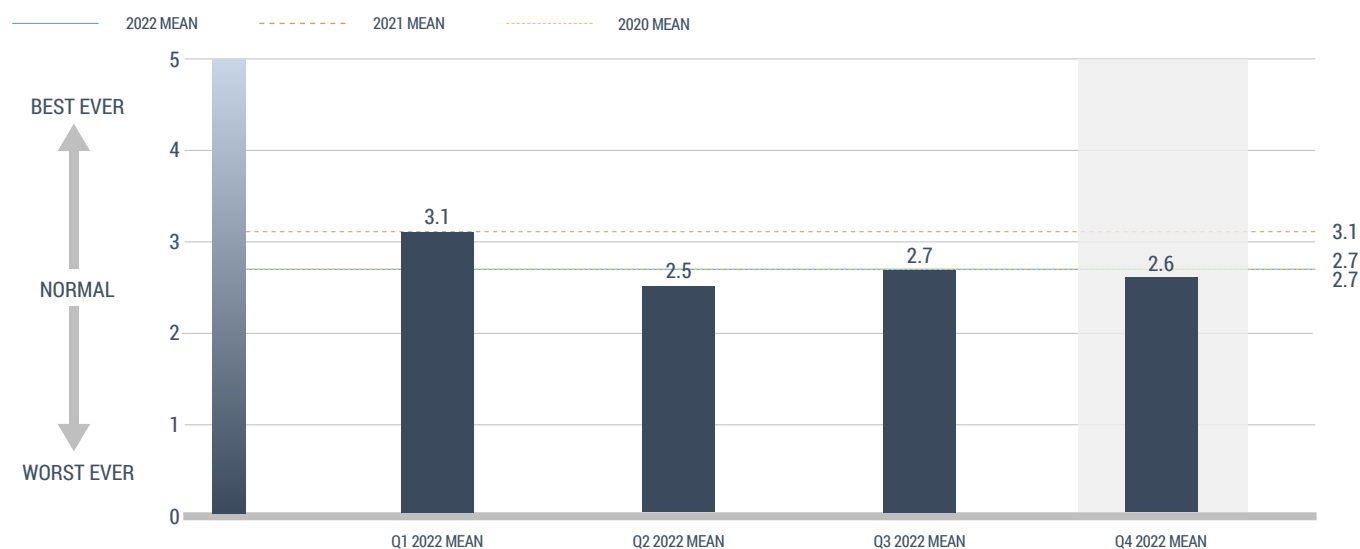
### What is your projection for the business aircraft sales market six months from now?



### What is your projection for the aircraft finance market six months from now?



### What is your projection for the aircraft leasing market six months from now?



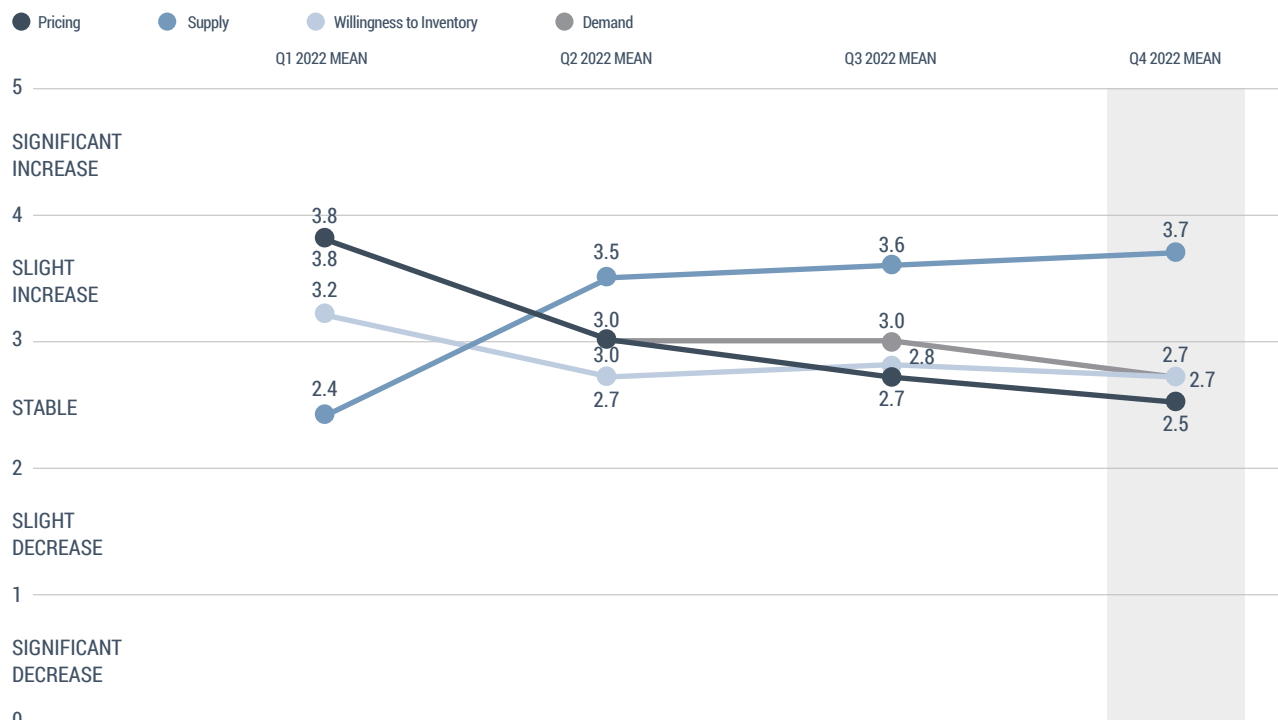
## 6-MONTH MARKET SECTOR OUTLOOK

Respondents to the Q4 survey indicated the next six months will show a continued normalization in all market conditions,

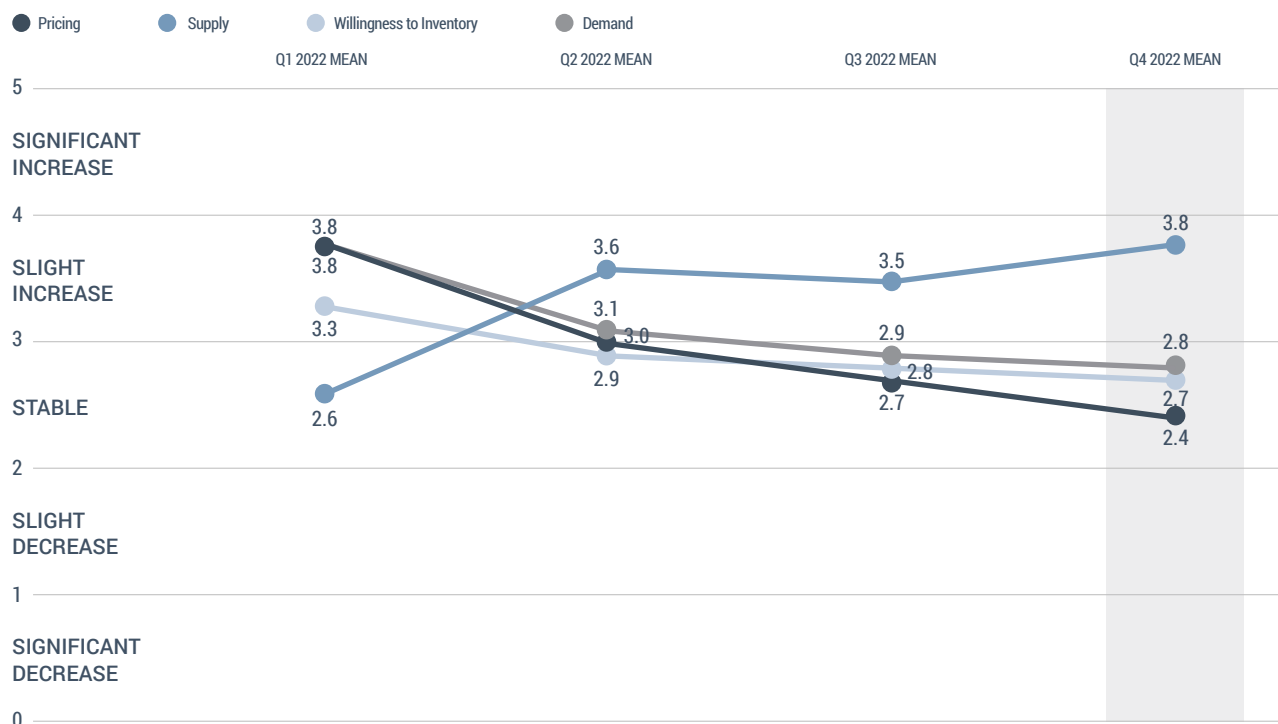
with the strongest areas of increase in the light and midsize jet markets.

On a 1-5 scale, with 1 meaning "worst ever" and 5 meaning "best ever"

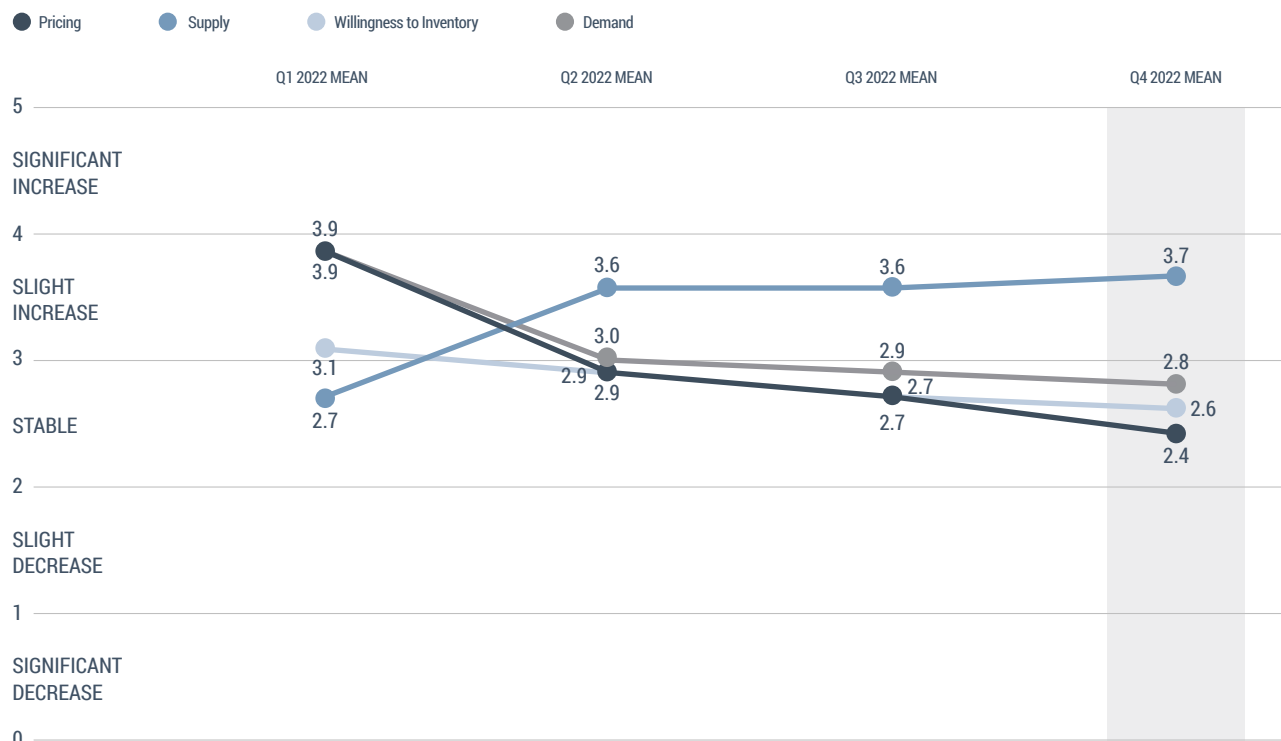
### PROJECTIONS FOR THE PRE-OWNED TURBOPROP MARKET FOR THE NEXT SIX MONTHS



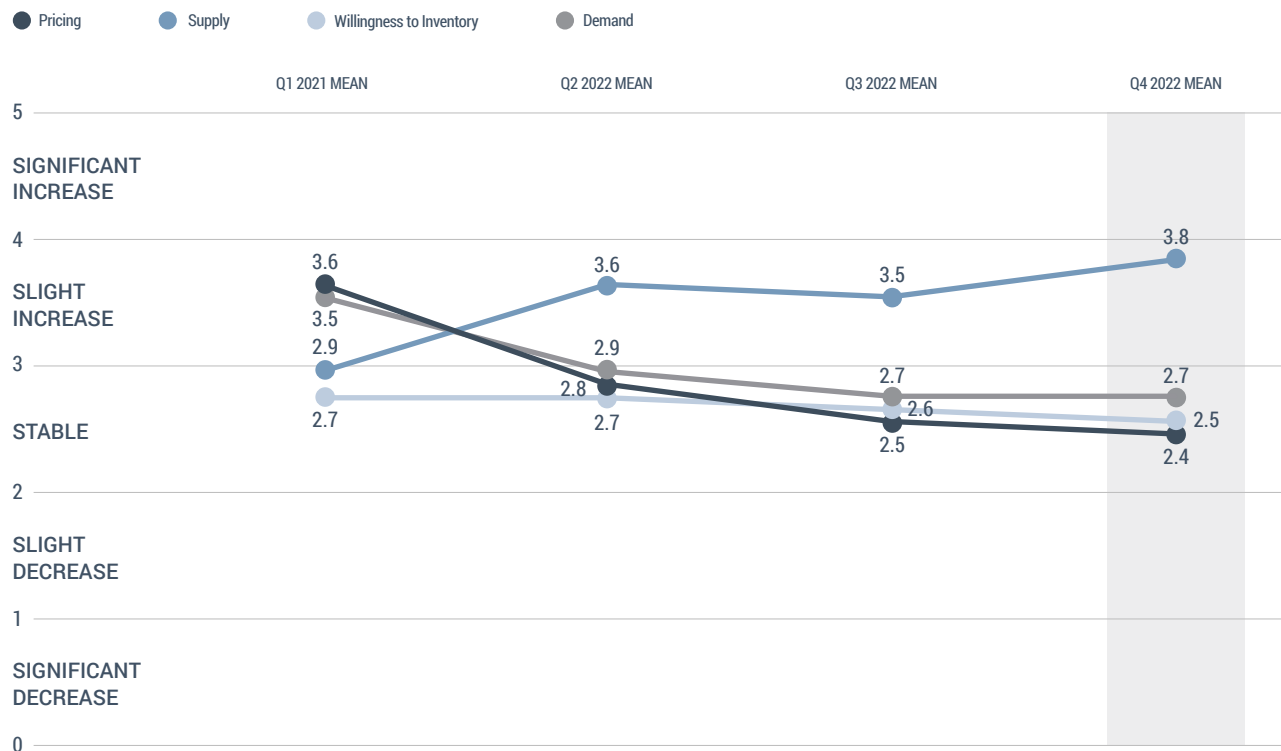
### PROJECTIONS FOR THE PRE-OWNED LIGHT-JET MARKET FOR THE NEXT SIX MONTHS



## PROJECTIONS FOR THE PRE-OWNED MID-SIZE MARKET FOR THE NEXT SIX MONTHS



## PROJECTIONS FOR THE PRE-OWNED LARGE AND ULTRA-LONG-RANGE JET MARKET FOR THE NEXT SIX MONTHS



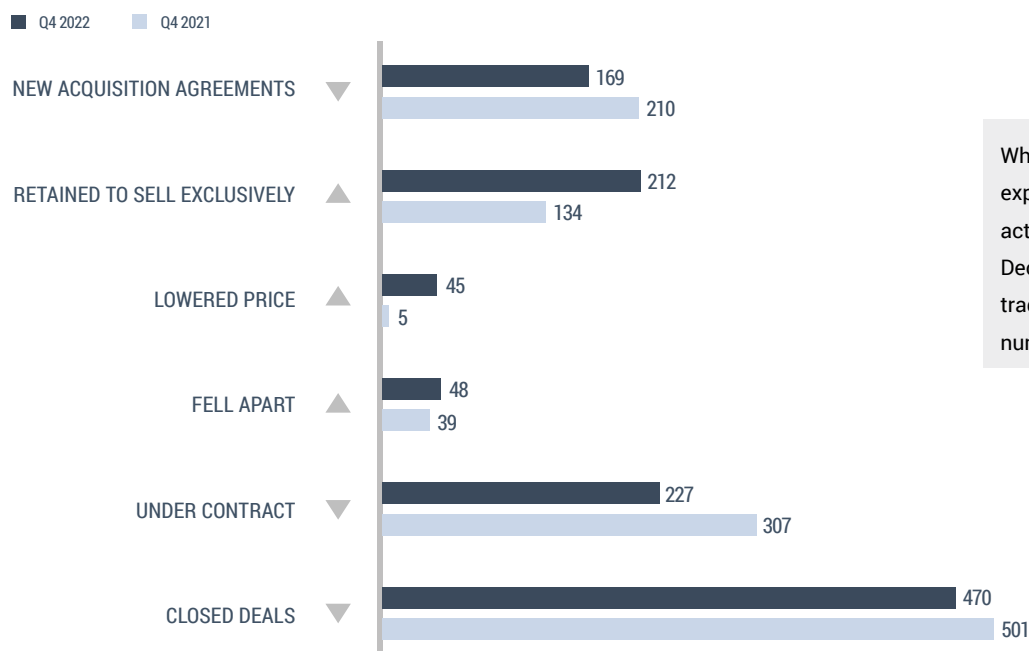


## MONTHLY ACTIVITY REPORTS

The perspectives and projections from IADA Members for the IADA Market Report are supported by the monthly transaction/activity reports submitted by IADA Accredited Dealers through AircraftExchange.

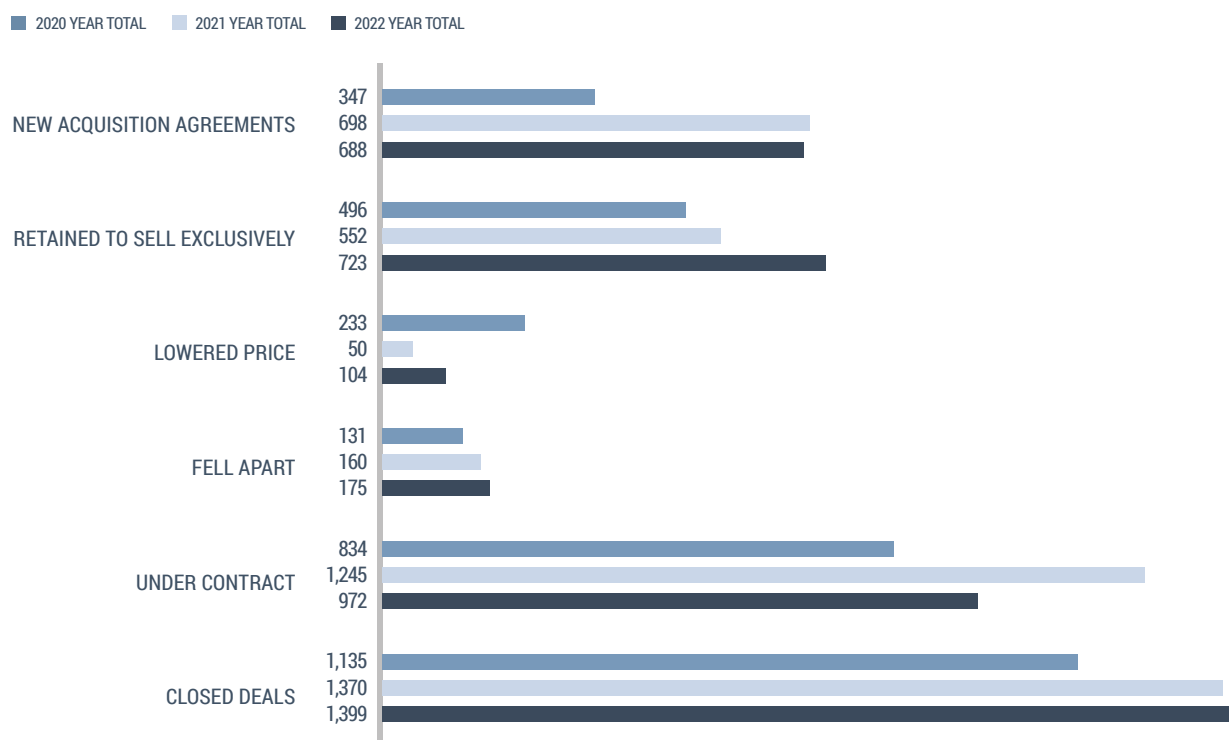
Please note that, in addition to sales data from AircraftExchange listings, the IADA Market Report includes data from all IADA Accredited Dealer activities and transactions, reported in total. Herein is a summary of those reports.

### DEALER ACTIVITY | Q4 YEAR-OVER-YEAR

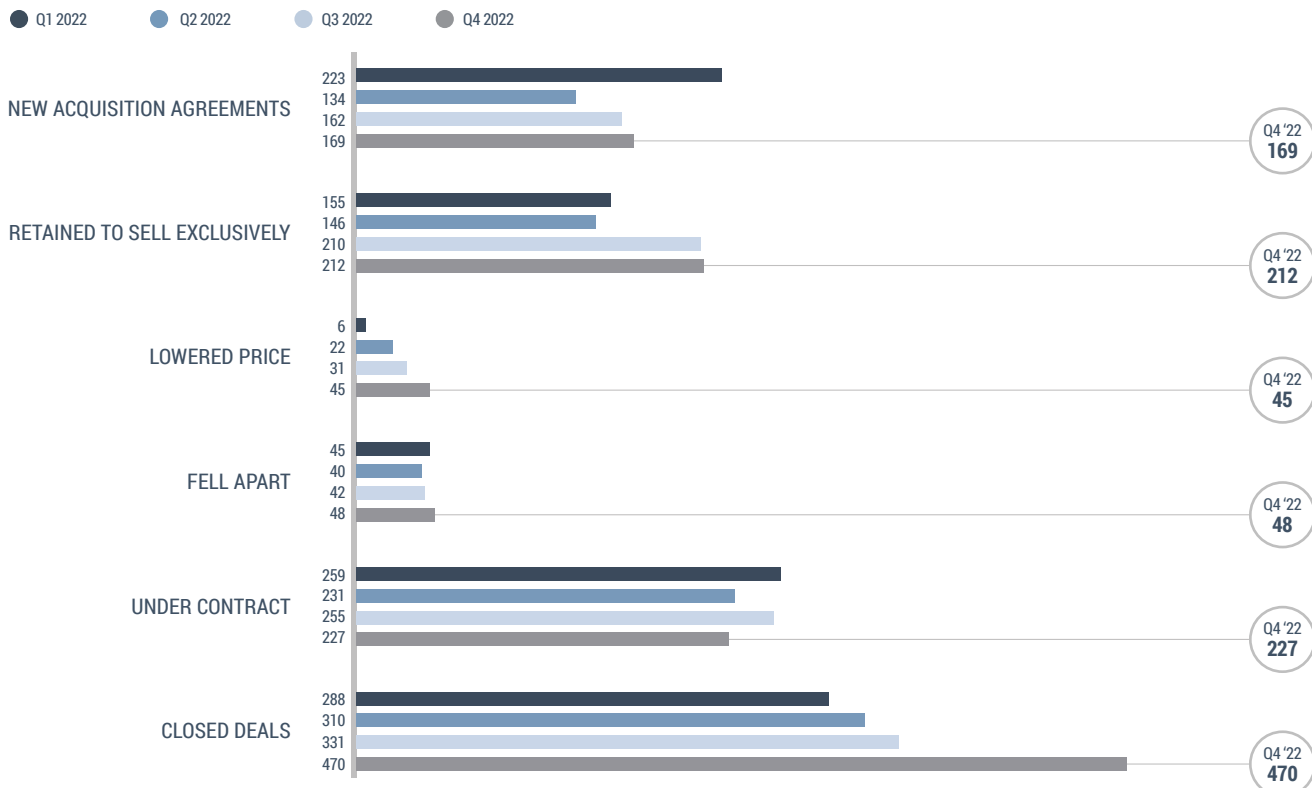


While Q4 2022 experienced calmer activity than Q4 2021, December saw the traditional high-performing number of closed deals.

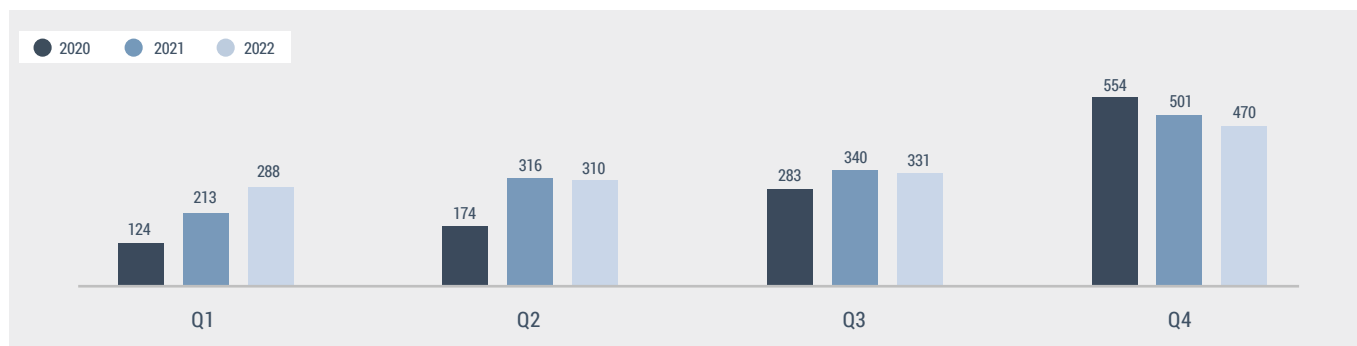
### IADA DEALER ACTIVITY YEAR TOTAL COMPARISON



## IADA DEALER ACTIVITY REPORT



## IADA DEALER CLOSED DEALS BY QUARTER



## IADA DEALER CLOSED DEALS YEAR OVER YEAR, BY QUARTER





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>>>>>>>

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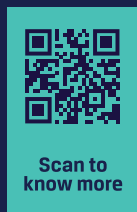
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# DRAWING LINES IN THE SAND: PRATT & WHITNEY CANADA'S NEXT ONE BILLION HOURS

Although the first mention of the Geoglyphs of Nazca, more commonly known as the Nazca Lines, dates back as far as 1553, it wasn't until the early 20th century that pilots flying over the area in Peru saw them and made the world aware of their existence.

Some of the geoglyphs that have been discovered are hard to decipher, but some historians argue that others point to the pre-Inca civilization that drew the geoglyphs telling us that people were capable of building kites that could be flown, and, most importantly, could take off and land. Historians also argue about the dates that the lines were created, although it is likely they were drawn during the Iron Age - roughly one billion hours ago.

Over the course of the following one billion hours man not only perfected the design of flight, but also created powered flight and then flew aircraft that could fly faster than the speed of sound.

However you think about it, one billion hours is a very very long time. So hitting a one-billion-hour milestone is therefore a major event, especially in aviation. That one-billion-hour milestone was recently celebrated by Pratt and Whitney Canada, who's engines have now surpassed the one billion flight hours mark.

Founded in 1928, the company has to date built more than 110,000 engines. They are fitted across various sectors, including general aviation, business aviation, helicopters and commercial aircraft. Its most popular engine, the PT6, recently celebrated its 60th anniversary.

“The PT6 really is the foundation of the company, it was our first step into the gas turbine era,”

says John Lewis, Pratt and Whitney Canada's Senior Director, Customer Programs. “Prior to that we were making parts, but also engines in the radial world, so the air-cooled radial world. But we stepped out of that with the PT6, and I guess we haven't looked back, even though some of those engines are still in existence today.”



Originally certified in 1963, the PT6 has seen many major upgrades and features added in its 60-year history. The first aircraft that it was fitted to was a King Air, and that association has remained to this day, as King Airs still use an upgraded version of the PT6.

However, according to Lewis, the PT6 was designed for various different aircraft types, and interestingly, the first time it flew was on a helicopter, a Hiller helicopter. “They were working on various different applications at the same time, it is just that the King Air got to the finish line first,” says Lewis. “The King Air is still in production today, which is testament to the longevity of the aircraft.”

In this day of upgrades, rebuilds and new designs, some might argue that PT6 has had its day and should be replaced by a clean sheet design. But the reality is that the current generation of PT6s have little in common with the original engine of the 1960s. “We say its venerable, yes, the basic design has been around since the ‘60s, absolutely, but have built over 66,000 PT6s over time, of which more than 25,000 are still in service,” says Lewis. “But we have also put more technology into the engine continuously over time, so that we have essentially quadrupled the power output.”

Other upgrades and changes to the PT6 over the course of the past 60 years include decreasing the engine’s fuel consumption by 20% and changing its power to weight ratio to 50%. Different versions of the PT6 fitted to different aircraft also include different features. The Pilatus PC-12NX is a great example of this, as not only the engine equipped with full FADEC (Full Engine Digital Engine Control) capabilities, but also a full prop controller. In the helicopter world, FADEC is also included on the latest versions of the PT6 that are fitted to the Airbus Helicopters ACH-175.

“So, you have an engine that bears the heritage of the PT6, and has the same basic architecture, it is none the less a modern engine. It probably shares a few nuts and bolts I would imagine, but it doesn’t share much else apart from the concept,” says Lewis. “The

advantage to that we have matured it over so many years, that it delivers benchmark reliability that it is known for.”

One new development that the company has been working on is the transition towards SAF – Sustainable Aviation Fuel (SAF), which Lewis says has been a major focus for the company for several years.

**“ Making aviation more sustainable is clearly very important, even though it represents a very small proportion of greenhouse gas emissions globally,”**

says Lewis. “All of our engines today can run on a 50% SAF blend, and of course the interest is to go beyond that.”

One of things stopping Pratt and Whitney going further than using a 50% SAF blend is the lack of a clear definition of what 100% SAF is actually composed of, unlike 50% SAF, which already has an ASTM (American Society for Testing and Materials) definition that different SAF providers can work towards. However, Lewis says that the company is already engaging with various groups around the world to help define the chemical composition of 100% SAF.

“We know what Jet A is because it has a specification with the ASTM and we also know what 50% SAF is,” says Lewis. “Actually we know what range it can be because there are seven different ways of making SAF right now that are recognized within the ASTM spec. So we know what that is, and we know what range of chemistries that you can have, and we know that our engines can live with that range of chemistries.”



Whilst the company is working hard to come up with that definition, it also offers a full range of carbon offsetting programs, which can be automatically tied into engine usage, which Lewis says is made easier by the way that engine utilization is automatically recorded.

“Something else we offer, which is really the most immediate thing that anybody can do at this point, is a carbon offsetting service,” says Lewis. “We work with South Pole, which is a very reputable company in this area, so that everybody on a power by the hour program, no matter what form that program takes, we already gather the amount of hours that they fly every month as part of administration those programs, and so we can relatively easily tack on the fuel burn.”

Going forward, the company is also working on hybrid electric engines, with a Dash 8 turboprop already lined up for testing. Lewis

says that the program, which will see one of the Dash 8's engines replaced with a hybrid electric engine, has been partially funded by the government, and will be used to learn more about power conditioning and managing batteries. Separately, Pratt and Whitney in the U.S. is working on hydrogen engines.

A billion hours ago the Nasca civilization drew lines in the sand that hinted that man might very well have flown using primitive hand gliding kites. And now, a billion flight hours later, Pratt and Whitney is close to drawing its own line in the sand when it comes to using fossil fuel to power its engines.

“You can see that we really do have a broad gamut of lanes of attack on this particular issue,” says Lewis.





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# GLOBAL PRE-OWNED MARKET UPDATE

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Andrew Young, AMSTAT General Manager, said, "While it is clear that there has been a slowing in transaction activity and an increase in the supply of pre-owned aircraft, these changes are only relative to the activity of the last 2 years, and in fact pre-owned transaction activity still remains above historical levels and availability still remains way below historical norms." He added, "That said, these changes also seem to have been enough to slow, stop, or even reverse the upward trend in values in the last 2-6 months, depending on the respective market segment."

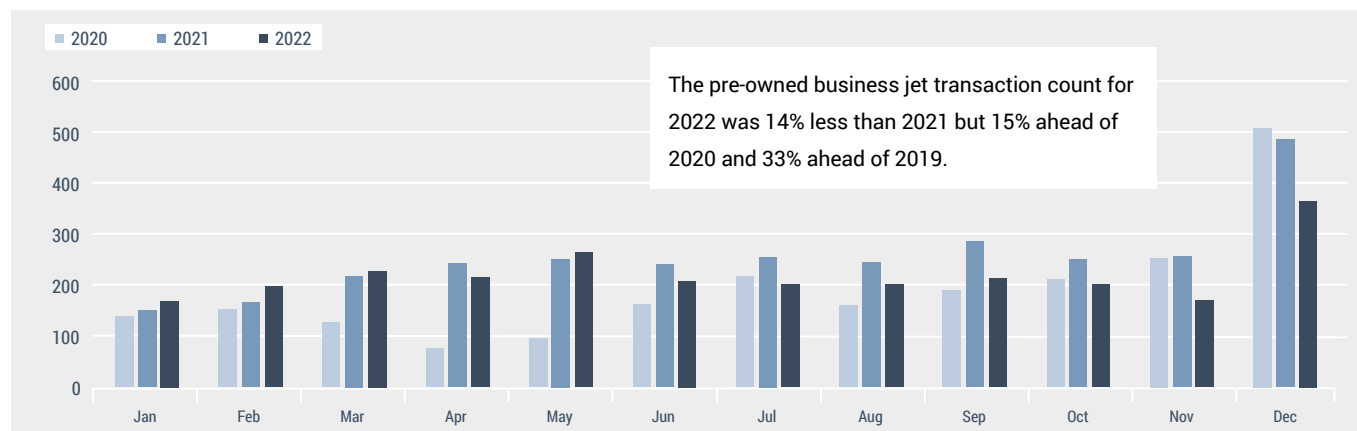




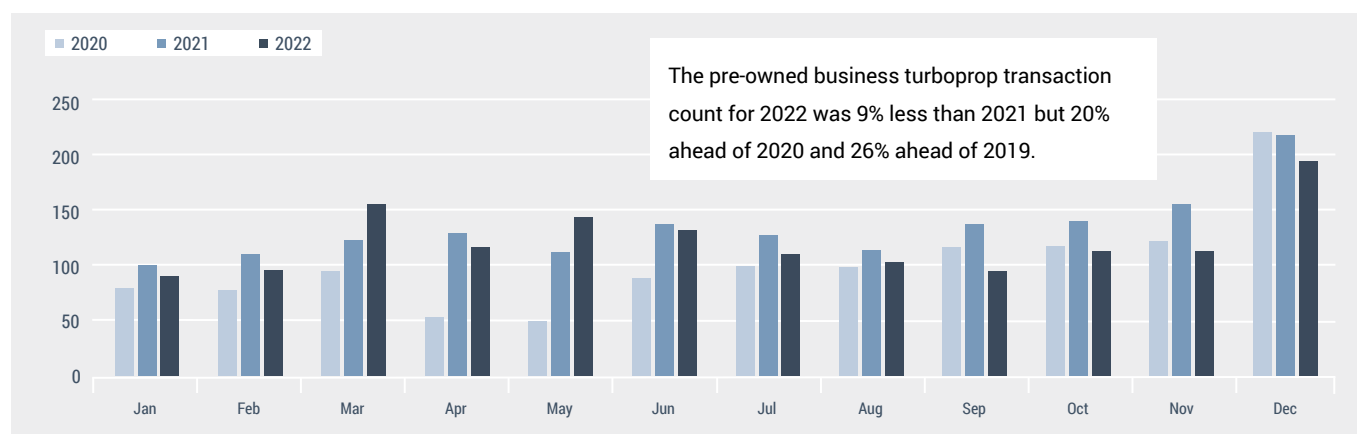
AMSTAT gives an update on the used business aircraft market using data from the Premier+ service. While there are still a few transactions to be recorded in 2022, total counts to date were lower

than those in 2021 in all market segments but still higher, in some cases significantly higher, than historical levels.

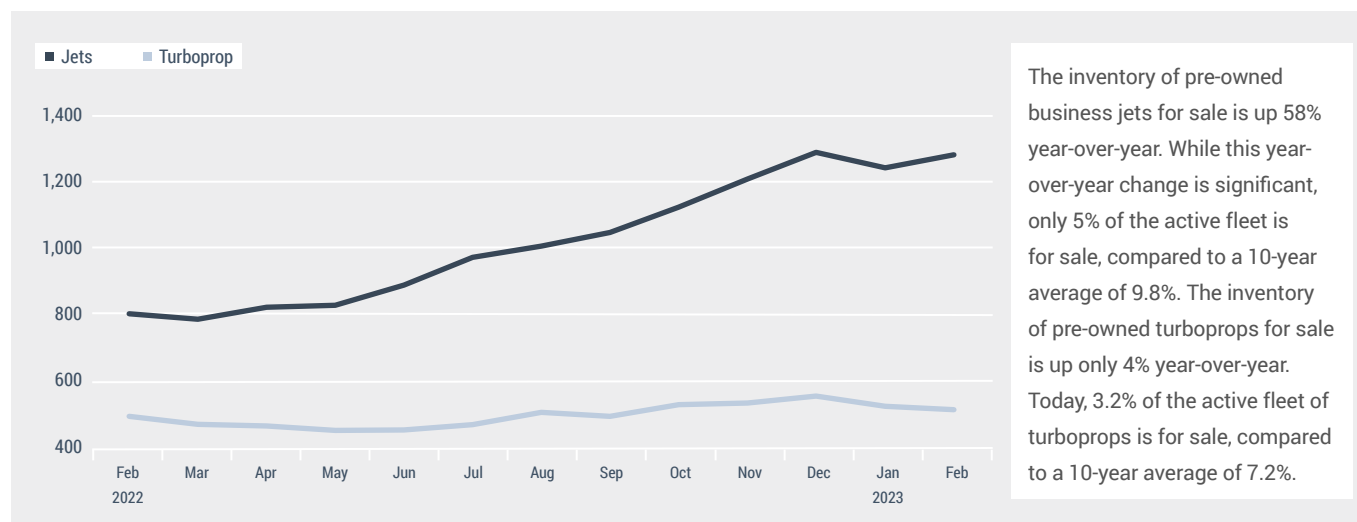
## BUSINESS JETS - RESALE RETAIL TRANSACTIONS



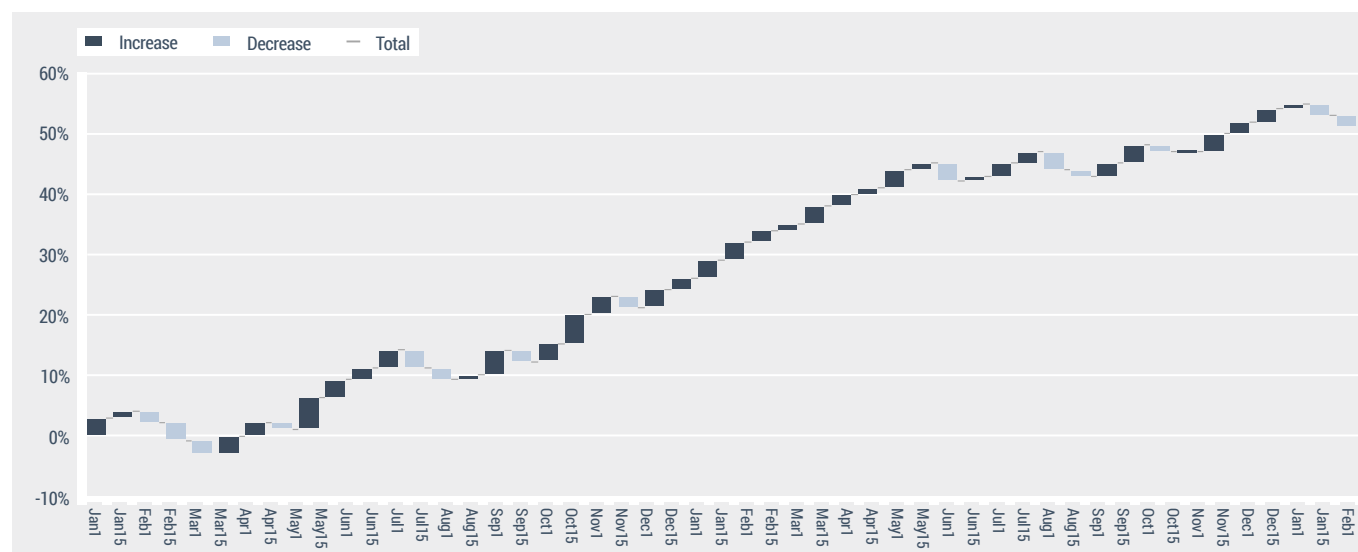
## BUSINESS TURBOPROPS - RESALE RETAIL TRANSACTIONS



## BUSINESS JETS & TURBOPROPS FOR SALE / LEASE



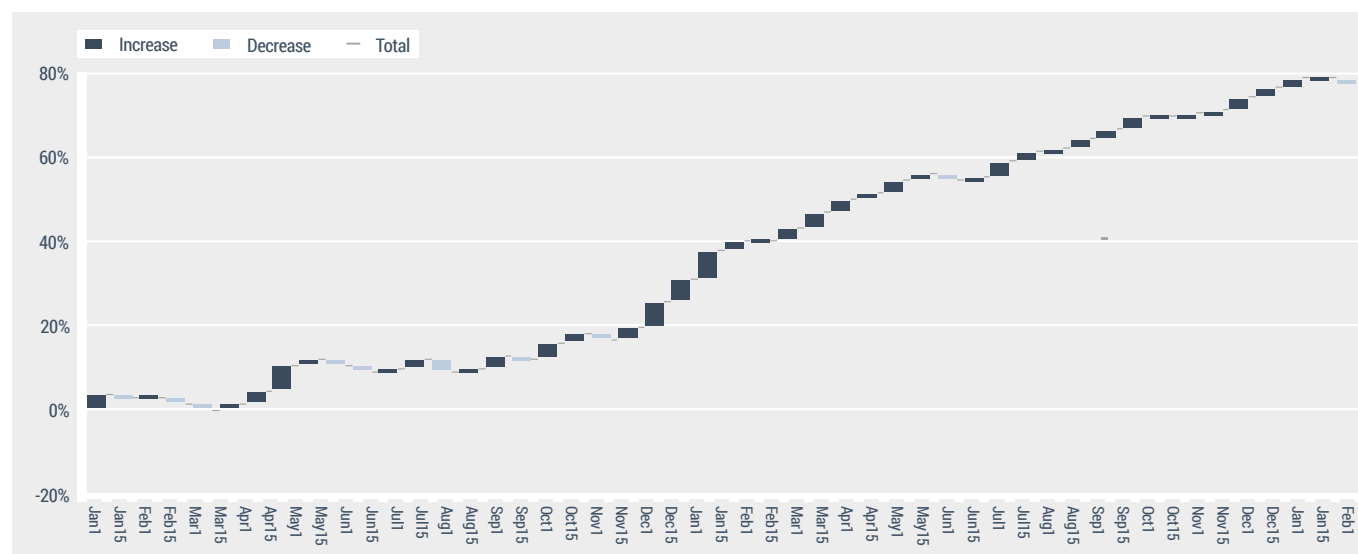
## HEAVY JETS - SHORT TERM MEDIAN VALUE CHANGE



During 2022, the rate of increase in the median value of pre-owned Heavy Jets slowed compared to 2021. Despite this slowdown, year-over-year, this metric is up 17%. That said, since the start of 2023, median values in this segment are off 4%, perhaps heralding a direction change. The continued increase in values in 2022 was due to strong resale market transaction activity. While total resale transactions in 2022 in this segment fell 16% below 2021 levels,

they were still ahead of historical levels, for example, 13% ahead of 2020 and 26% ahead of 2019. Pre-owned availability in the Heavy Jet segment is up 3% year-to-date and up 84% year-over-year. However, despite this significant increase, only 4.8% of active Heavy Jets are for sale, compared to a 10-year average of 8.5%. The pre-owned supply is still tight by historical standards.

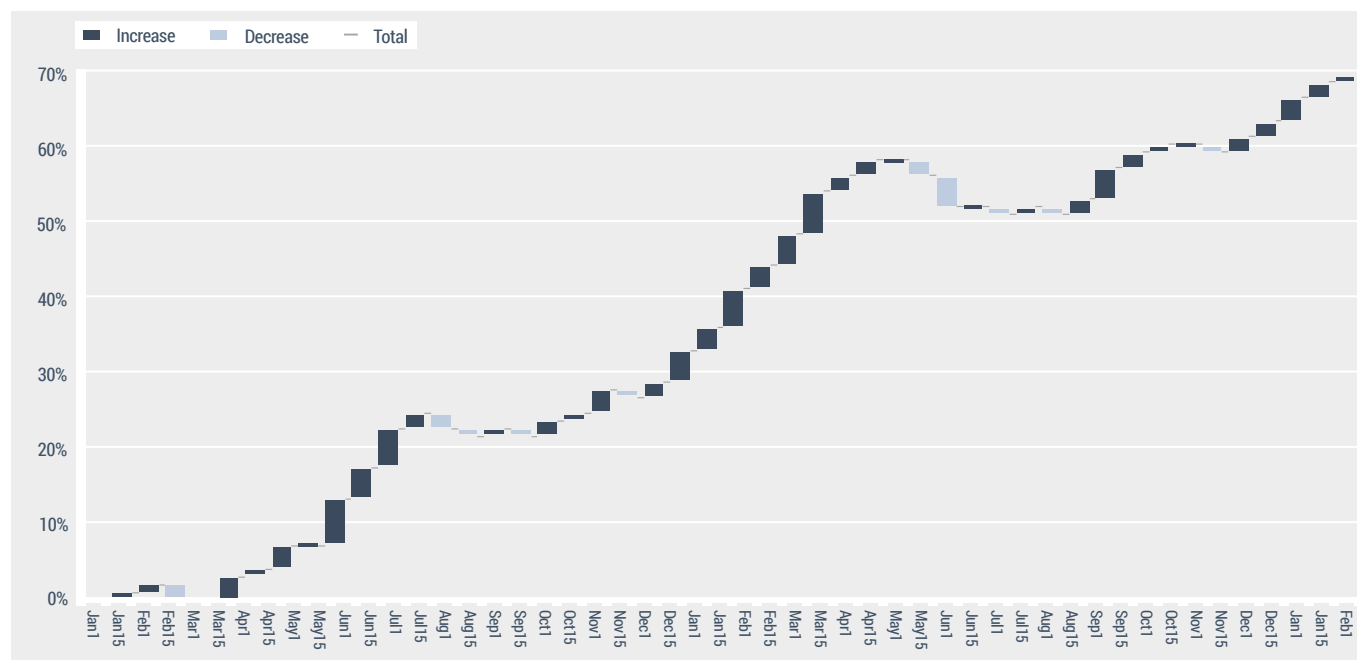
## SUPER-MID JETS - SHORT TERM MEDIAN VALUE CHANGE



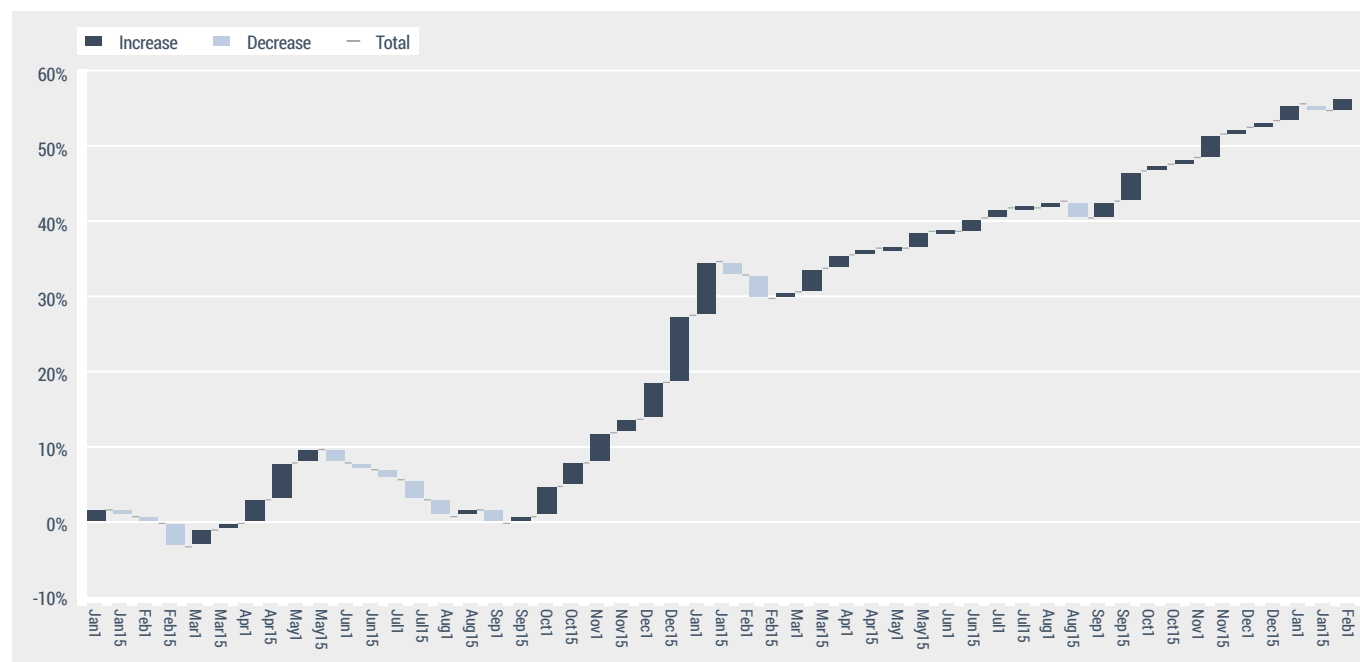
Unlike the Heavy Jets, the rate of increase in the median value of pre-owned Super-Mid Jets was modestly higher in 2022 than in 2021, resulting in a year-over-year increase of 37%. Since the start of 2022, there has been some pullback with this metric, decreasing by 1%. Super-Mid Jets remain in demand, with resale retail transactions in 2022 only falling 4% below 2021 levels but ending a robust 33% above 2020 levels and 71% ahead of 2019 levels. The Super-Mid segment is

one of the smallest of those markets tracked by AMSTAT, and a few data points can certainly swing the trend. Availability in this market is up 98% year-over-year, but with 4.7% of the fleet for sale, availability remains well below the 10-year moving average of 8.2%. Recent changes in the median value change metric suggest that, despite high transaction activity and low supply, values may be peaking.

## MEDIUM JETS - SHORT TERM MEDIAN VALUE CHANGE



## TURBOPROPS - SHORT TERM MEDIAN VALUE CHANGE



The median value of pre-owned Turboprops has risen 27% year-over-year. As with the jet segments above, pre-owned transactions in the Turboprop market were lower than in 2021 (-9%) but still significantly

ahead of 2020 (20%) and 2019 (19%). The inventory of Turboprops is only 4% higher today than a year ago but still way below the 7.2% 10-year average of what is available in this pre-owned segment.

Data Source: AMSTAT  
Commentary by Andrew Young

**IMPORTANT NOTE:** The chart above uses aggregated data. The changes in values this year within individual make and model markets, and for specific serial numbers, may vary to a greater or lesser degree from these trends.





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Flexjet, the fractional jet provider, will be opening three private terminals in 2023 at Opa Locka Executive Airport (Florida), Bozeman Yellowstone International Airport (Montana) and Scottsdale Airport (Arizona).

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## Modern Aviation Kicks off Hangar Construction in Puerto Rico

FBO network company Modern Aviation has started a new hangar development project in San Juan, Puerto Rico to expand its capability for heavy business jets.

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## UAE-based DCAF Adds Global 7500

DC Aviation Al-Futtaim (DCAF) has added a Bombardier Global 7500 to its existing fleet, bringing its total number of aircraft to nine. The new aircraft will be based at Al Maktoum International Airport.

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# GLOBAL BUSINESS AVIATION MARKET UPDATE

By Global Jet Capital

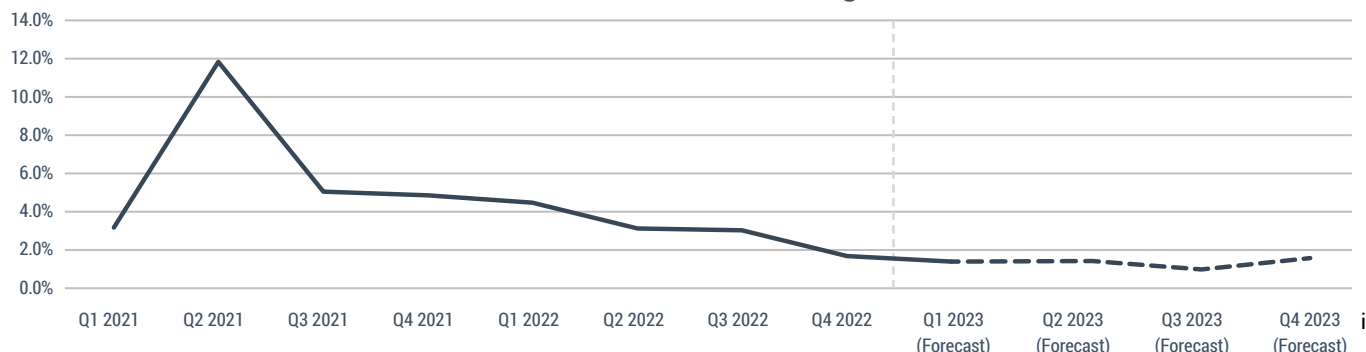
Flight operations improved on a year-over-year basis and manufacturers received a high level of orders. Transactions were down compared to a brisk 2021 but were higher than pre-COVID levels. Aircraft listings increased, although pricing remained stable as overall inventory levels were still low. The biggest question going forward is the health of the global economy, with many economists expecting a recession in 2023. Due to business aviation's unique value proposition, the business jet market has remained resilient but will likely be tested this year.

- While many economists forecast the global economy to experience a recession in 2023, Q4 2022 data indicates that the contraction may be less severe than originally expected
- While flight operations dipped slightly in Q4 2022, they remained nearly 18 percent above 2019 levels, demonstrating that the broadening of the business aviation user base has endured.
- OEMs experienced robust demand in 2022, driving up backlogs. Strong deliveries and normalizing order intake during Q4 resulted in lower book-to-bill ratios.
- Pre-owned transaction levels were down in 2022 compared to a red-hot 2021 but were higher than pre-COVID levels.
- Inventory levels increased along with aircraft listings in 2022 but remained well below historical levels.
- With demand strong and supply remaining low, business jet bluebook values increased in Q4, but signs that the market is normalizing began to emerge.



## GLOBAL ECONOMY

### Global GDP YoY Percent Change



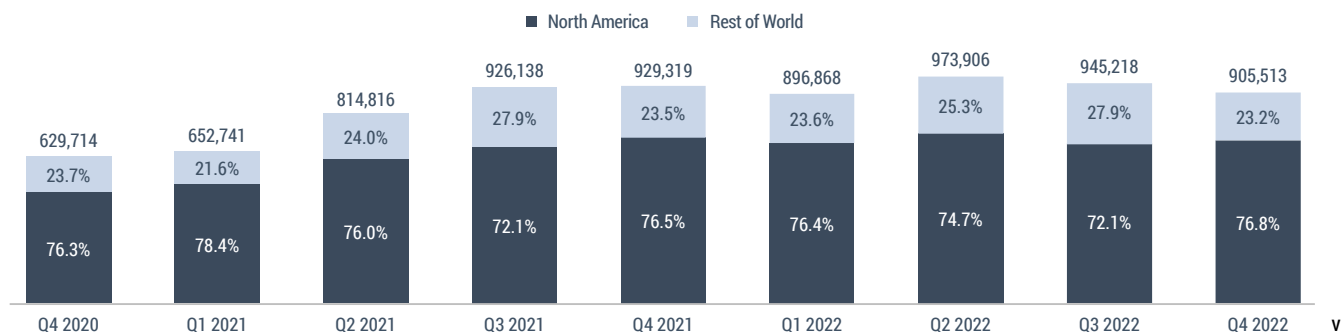
Supply chain disruptions and high inflation drove central banks around the world to raise interest rates in 2022, creating uncertainty. The war in Ukraine and the ensuing energy instability in Europe, in addition to zero-COVID policies in China through much of the year, contributed to economic headwinds. As a result, economic growth slowed, and stock prices and wealth declined.<sup>ii</sup>

Heading into 2023, economists expect economic headwinds to persist. There is a consensus that most major economies will experience a recession during the year due to higher interest

rates.<sup>iii</sup> However, there is also agreement that any recession that does occur will be a moderate one. The International Monetary Fund recently increased its 2023 growth forecasts citing slowing inflation, an opening of China's economy, the strong labor market in the U.S., and the better-than-expected response to the energy crisis in Europe. The report indicates there are still risks to economic growth, which will be slower in 2023 than 2022, but the overall global economy is weathering tough conditions better than expected so far, which will promote higher growth than previously forecast.<sup>iv</sup>

## FLIGHT OPERATIONS

### Global Business Jet Flights



Flight operations were a bright spot for the business aviation market in 2022. Flights were 12 percent higher than in 2021 and 19.1 percent higher than in 2019. Increases were driven by existing customers returning to business aviation even as new customers who had entered the market during COVID-19 continued to utilize business aviation throughout the year. The strong value proposition of business aviation (including flexibility, productivity, and comfort) during a period of continued COVID-19 outbreaks and disruptions to commercial travel drove customers to the market.<sup>vi</sup>

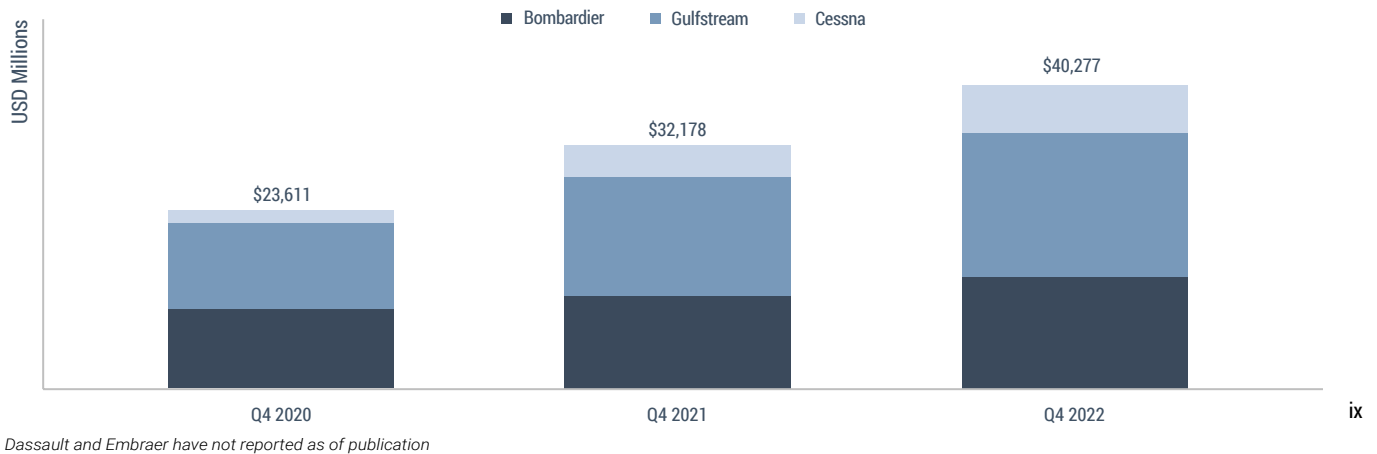
The number of flights during Q4 declined slightly, dropping 2.6 percent compared to Q4 2021 and 4.2 percent from Q3 2022.

The number of flights was 17.8 percent above 2019, however, demonstrating that the demand for business aviation has continued at a higher plateau than pre-COVID levels. Much of the decline was driven by operations in Europe, as consumers and businesses cut travel in the face of high energy prices. In addition, many business aircraft fleet operators reached full capacity in 2022, capping how many additional flights they were able to make.<sup>vii</sup>

Heading into 2023, areas of potential growth for flight operations include increased private and business usage and increasing demand in Asia Pacific and the Middle East.<sup>viii</sup>

## OEM BACKLOGS

### Q4 Backlog at Major Business Jet OEMs

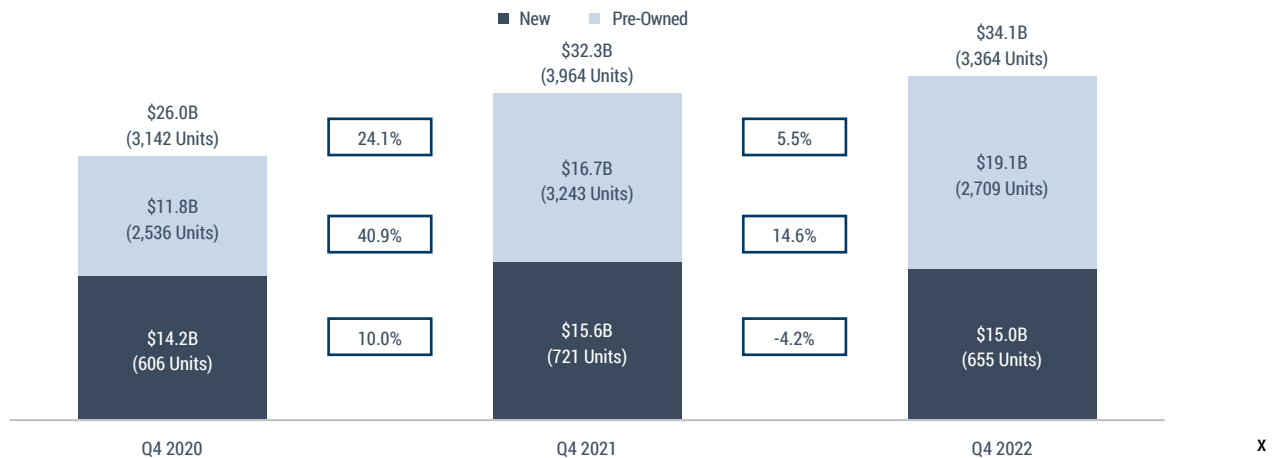


OEMs had a strong year in 2022, with orders from new users entering the business jet market, habitual pre-owned buyers electing to order new aircraft due to low pre-owned inventory, typical replacement and trade up orders, and fleet operators experiencing increased demand for their services. Despite slowing a bit in Q4 2022, growth continued. The industry-wide book-to-bill

ratio remained above 1-to-1 in the quarter. While orders were not as strong as in the beginning of 2022, they hovered around historical norms. At the same time, year-end deliveries were high, a normal practice for the industry. The result of normalizing orders and high deliveries was a decline in the book-to-bill ratio in the quarter.

## TRANSACTIONS (\$ VOLUME)

### Full Year Business Jet Transactions

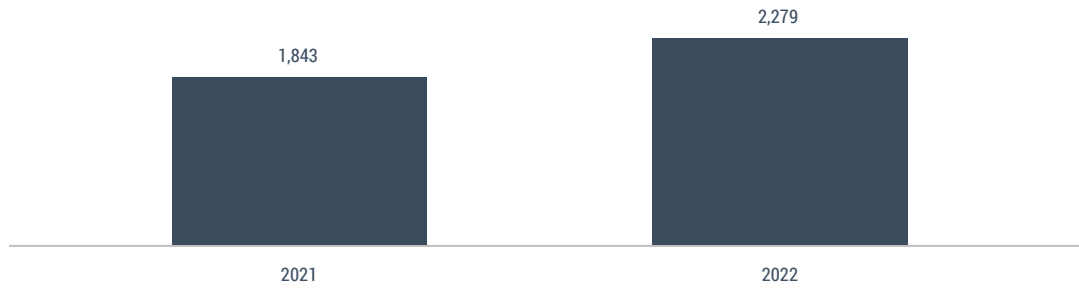


Throughout 2022, buyers acquired new and pre-owned aircraft at a strong pace. The total number of new deliveries and pre-owned transactions declined 15.1 percent in 2022 compared to 2021. However, 2022 transactions were 7.1 percent higher than 2020 and 7.5 percent higher than 2019. The pace of transactions in 2021 was not sustainable, given the substantial decline in pre-owned inventory and continued supply chain disruptions affecting new

aircraft production. The strength of the market in 2022 compared to previous years, however, demonstrated the continued demand for business jets among fleet operators and individual users.

Even as unit volume declined in 2022, dollar volume increased 5.5 percent due to rising aircraft prices. The increase in dollar volume was largely in the pre-owned market, driven by increases in trading.

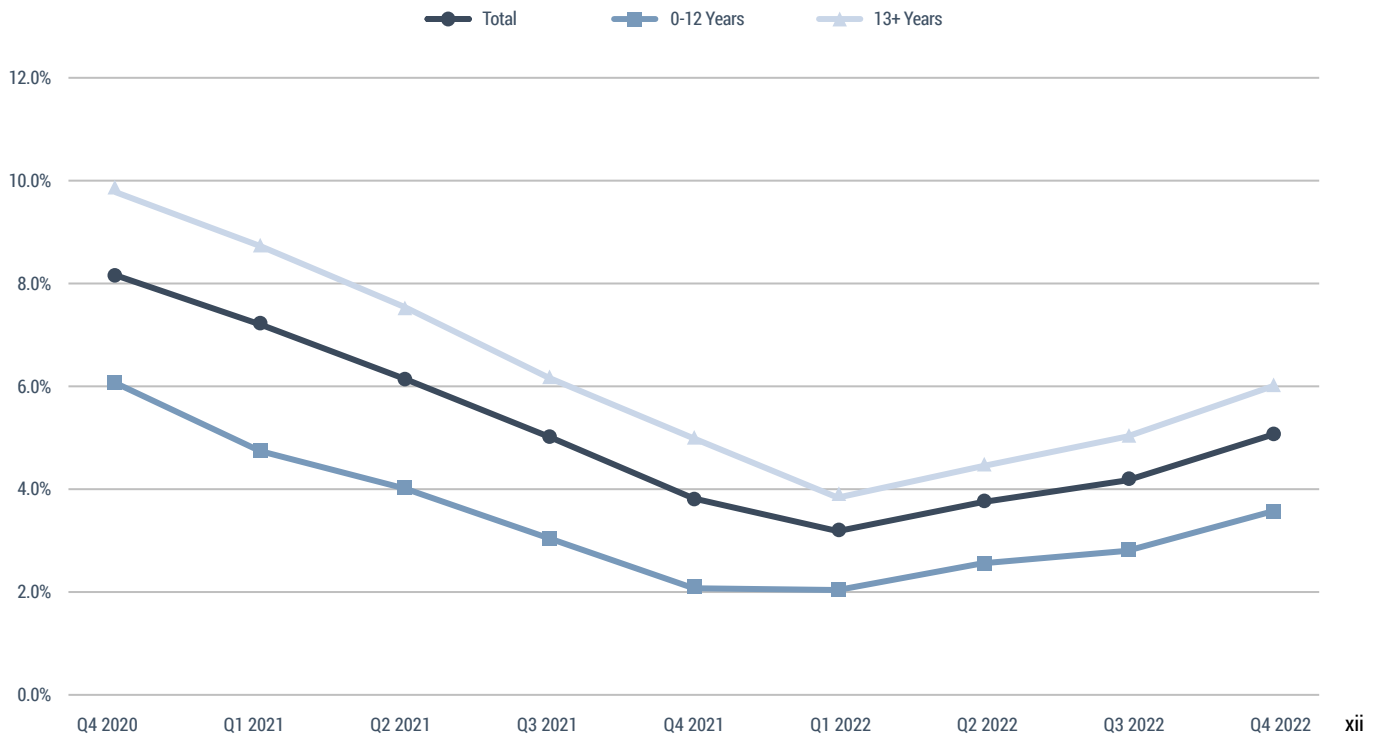


**FOR SALE INVENTORY****Cumulative # of Aircraft Listed for Sale**

xi

After declining throughout 2020 and 2021, total aircraft listings during 2022 were 23.7 percent higher than 2021. It is important to note, however, that the increase is partly due to comparison with a low level in 2021. Listings in 2022 were 6.3 percent lower than levels in 2019. Reports from industry observers indicate that some aircraft owners may have been motivated to sell their aircraft to take advantage of the pricing environment. In addition, many

aircraft sales in 2021 involved unlisted aircraft, while aircraft sellers in 2022 returned to publicly listing their aircraft for sale. Listings may increase in 2023 when new deliveries begin to pick up, with owners marketing their current aircraft after taking delivery of new aircraft. This was in evidence when listings increased in Q4 2022 as deliveries increased.

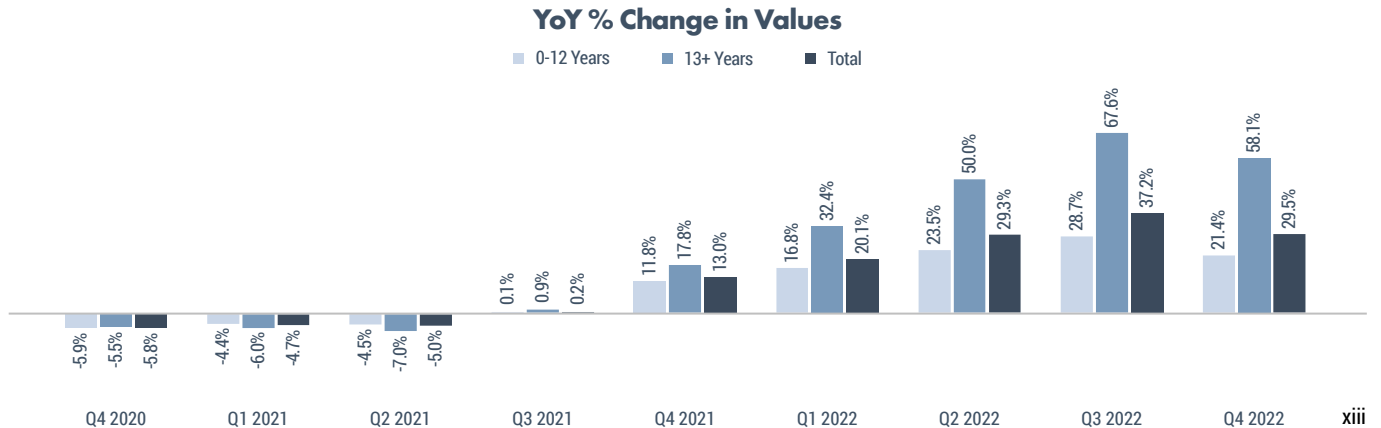
**Percent of Business Jet Fleet Available for Sale**

xii

As aircraft listings increased, inventory levels also began to gradually build. By the end of 2022, inventory stood at 5 percent of the total fleet, higher than the 3.1 percent at the end of Q1 2022 but still well below levels over the last decade. The inventory of aircraft younger than 13 years old (typically seen as more desirable) stood at 3.5 percent of the global fleet, an increase from the 1.8 percent seen at the end of Q1 2022.

Inventory is expected to continue to gradually increase throughout 2023 as the market returns to more normal conditions. Increased OEM production rates along with increased listings are likely to drive up inventory. Considering the brisk Q4 transaction activity in the pre-owned market, higher inventory should provide buyers with more options when purchasing aircraft moving forward.

## RESIDUAL VALUE



The above chart compares the year-over-year percentage change in the bluebook value of like-aged aircraft over time (e.g., the difference between the value of an eight-year-old aircraft from one year to the next). Global Jet Capital analyzes a basket of aircraft as a proxy for the overall market. Observed increases or decreases in value are not necessarily applicable to any specific aircraft make/model. For the value of a specific aircraft, please contact a licensed aircraft appraiser.

With high demand and relatively low supply, business jet bluebook values increased in Q4 2022. Average bluebook values climbed 29.5 percent compared to Q4 2021, with prices appreciating even more in some cases. Values varied on a model-by-model basis, with some aircraft outperforming others in the market. Older aircraft, in particular, appreciated in value faster than newer aircraft as many buyers chose to acquire older aircraft during the peak of the market, rising 58.1 percent. These aircraft provided attractive value to buyers even at elevated prices given the relatively low usage and long useful lives of business jets.

Although prices began to increase in Q4 2021, overall values were still depressed at that time due to COVID-19 disruptions. Accordingly, the higher prices in Q4 2022 must be considered in the context of the lower prices in 2021. Still, the strong market conditions described above drove a significant increase and many aircraft bluebook values exceeded pre-COVID levels at the end of Q4.

There were signs in Q4 that values were beginning to stabilize. The increase in average bluebook values of 29.5 percent represented a slower increase than the 37.2 percent experienced in Q3. While listings at the end of Q4 were still high, the rate of increase began to slow during the quarter, and even decline in some cases, as more inventory was added to the market. With more choice, price negotiations between buyers and sellers were also more balanced than in 2021 and much of 2022. It's worth noting that business jets are depreciating assets and a steady decline in the price of an aircraft over its lifespan is to be expected. The consensus among industry players is that a stable pricing environment will reemerge as demand and supply come into balance.

## CONCLUSION

Flight operations increased from already high levels in 2021. While transactions declined and inventory rose compared to 2021, both remained at historically healthy levels. Manufacturers ended the year with strong backlogs. Finally, aircraft values remained at high levels, demonstrating continued demand.

Looking toward 2023, the overall macroeconomic environment remains the biggest concern, with many economists expecting a recession. While the business jet market has seen a substantial expansion of its user base and has been resilient to economic volatility, this resilience may be tested in 2023.

### Notes

<sup>i</sup>Oxford Economics, <sup>ii</sup>Wells Fargo, <sup>iii</sup>Oxford Economics, <sup>iv</sup>International Monetary Fund World Economic Outlook Update, 1/31/2023, <sup>v</sup>WingX and Global Jet Capital Analysis, <sup>vi</sup>WingX, <sup>vii</sup>WingX and Global Jet Capital Analysis, <sup>viii</sup>Company financial reports. Dassault and Embraer have not reported as of the time of publication and therefore data is based on reports from Cessna, Bombardier, and Gulfstream. <sup>ix</sup>JetNet and Global Jet Capital Analysis. Units are in parentheses. <sup>x</sup>JetNet and Global Jet Capital Analysis, <sup>xi</sup>JetNet and Global Jet Capital Analysis <sup>xii</sup>Aircraft Bluebook and Global Jet Capital Analysis



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# MARKET DYNAMICS

BUSINESS JET AND  
CIVIL HELICOPTER  
PRE-OWNED MARKET  
2022 Q4

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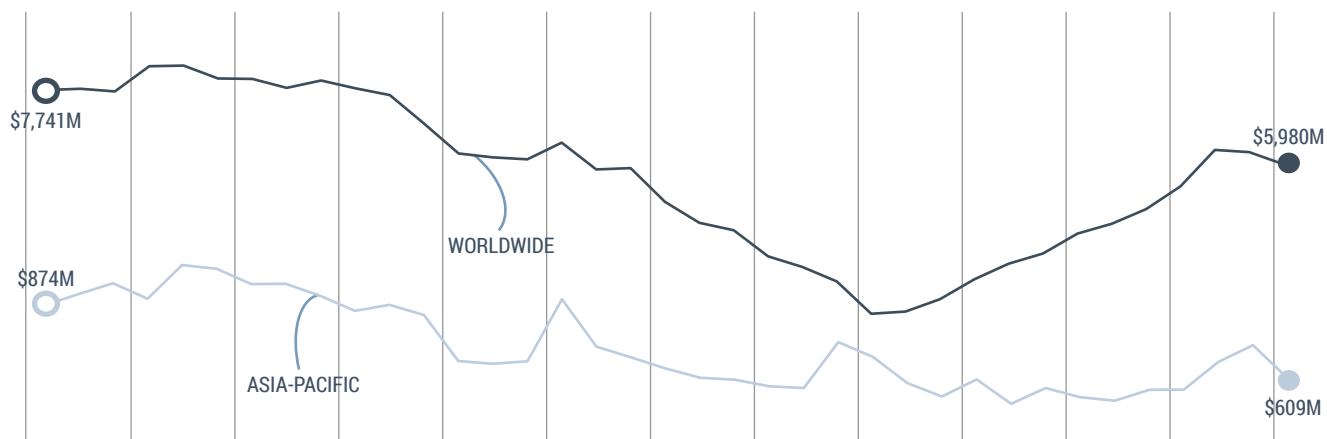


# PRE-OWNED BUSINESS JET MARKET Q4 2022

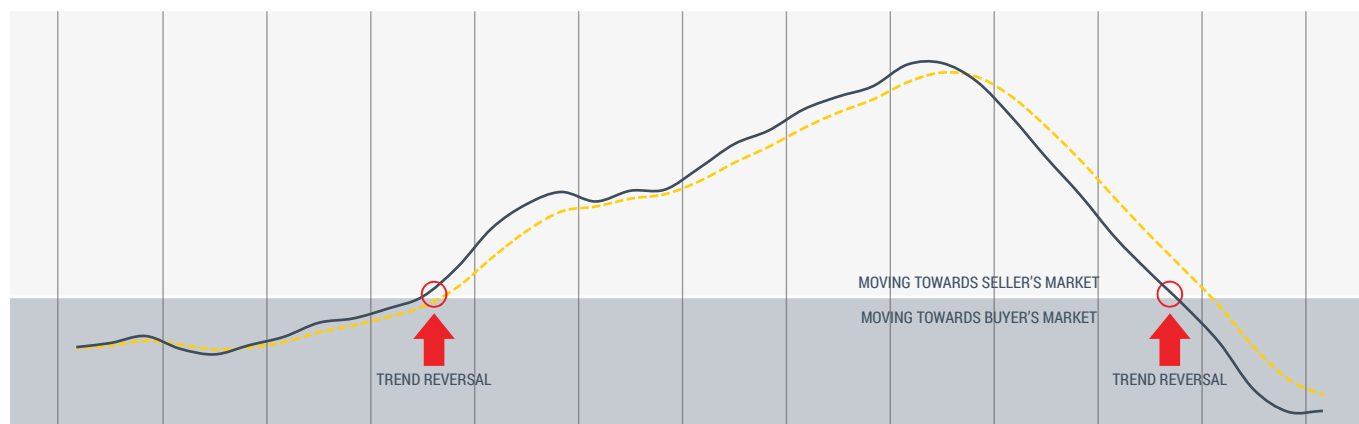
## Understanding the market dynamics graphs:

- The Inventory Value Line represents the number of aircraft actively being marketed for sale.<sup>1</sup>
- The Signal Line represents an indication of where the market's direction may be heading in the future.

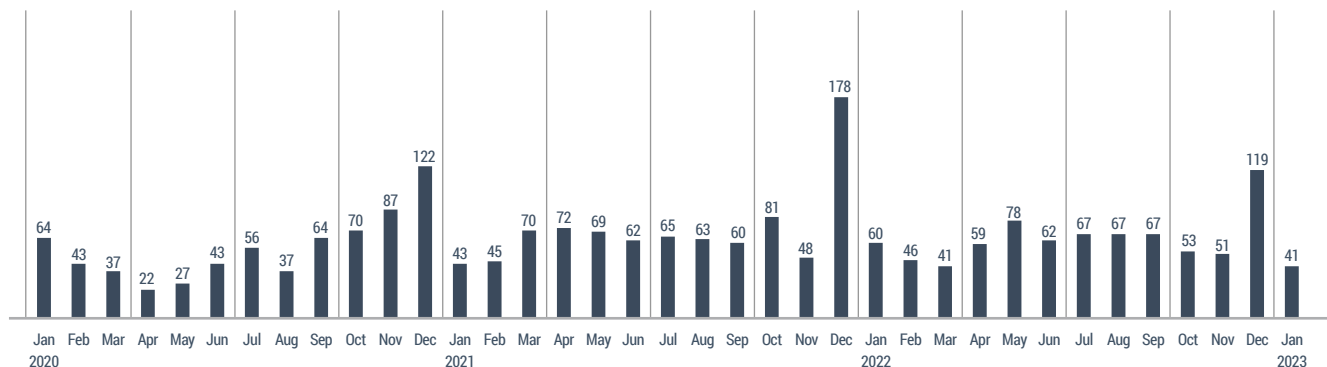
## INVENTORY VALUE (USD)<sup>2</sup>



## MARKET TREND<sup>2</sup> WORLDWIDE



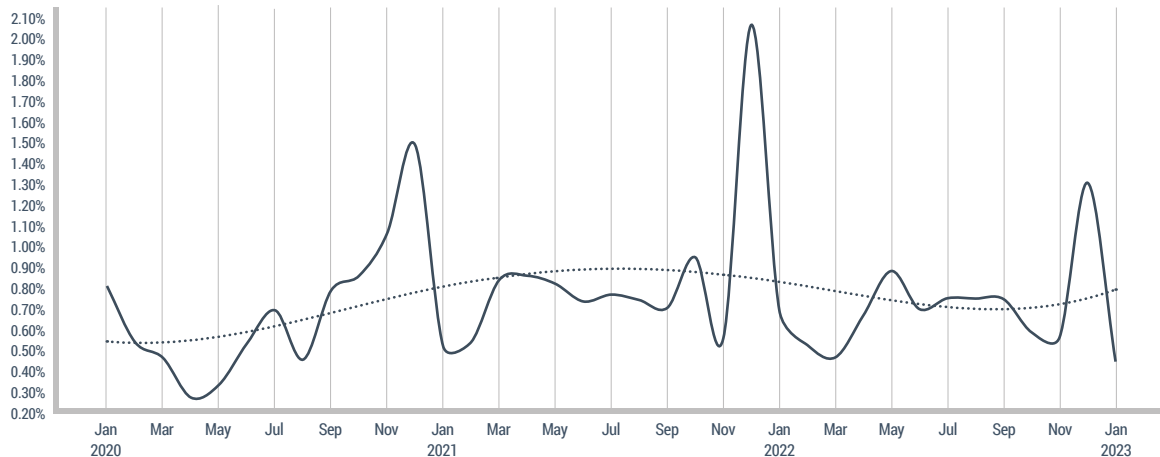
## AIRCRAFT TRANSACTIONS<sup>2</sup> WORLDWIDE



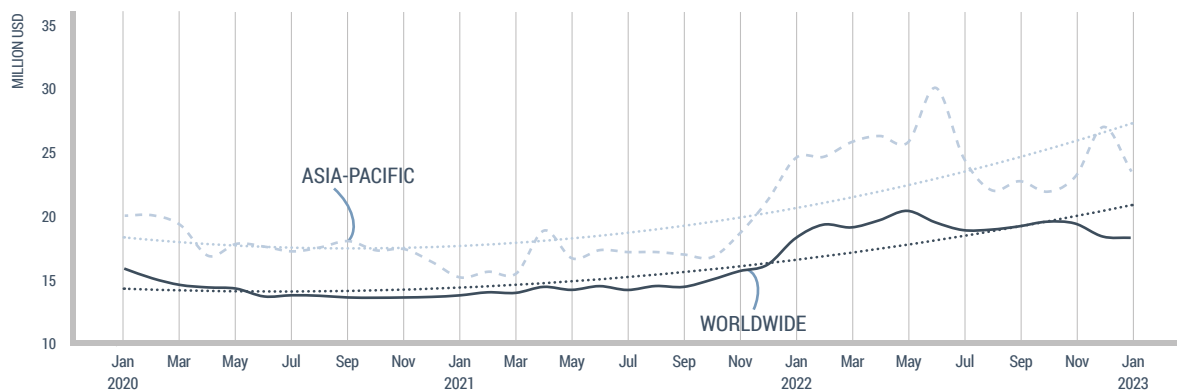
<sup>1</sup> Global Sky Media's Inventory Value line is calculated by taking the total number of aircraft for sale from a selection of 39 different models, multiplied by their average asking prices.

<sup>2</sup> Historical inventory value and transactions are subject to change based on latest market information updates.

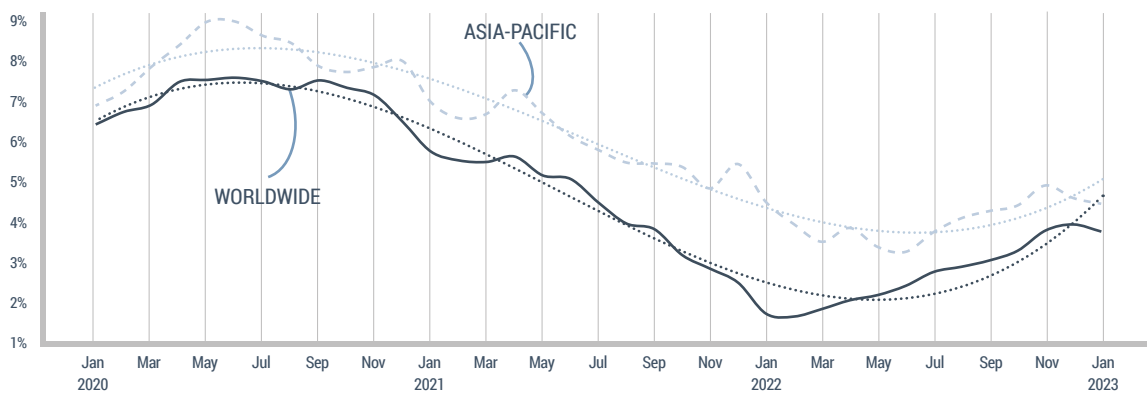
## WORLDWIDE % OF FLEET SOLD



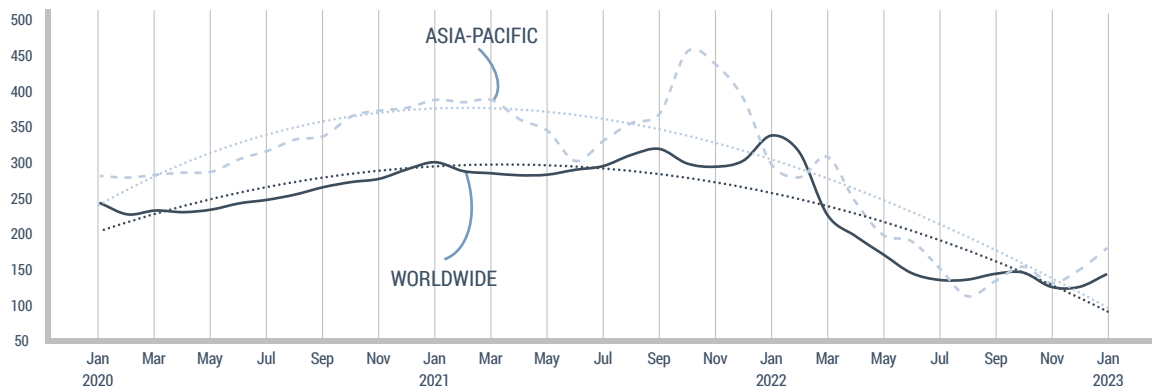
## AVERAGE ASKING PRICE



## % OF FLEET FOR SALE



## AVERAGE DAYS ON MARKET

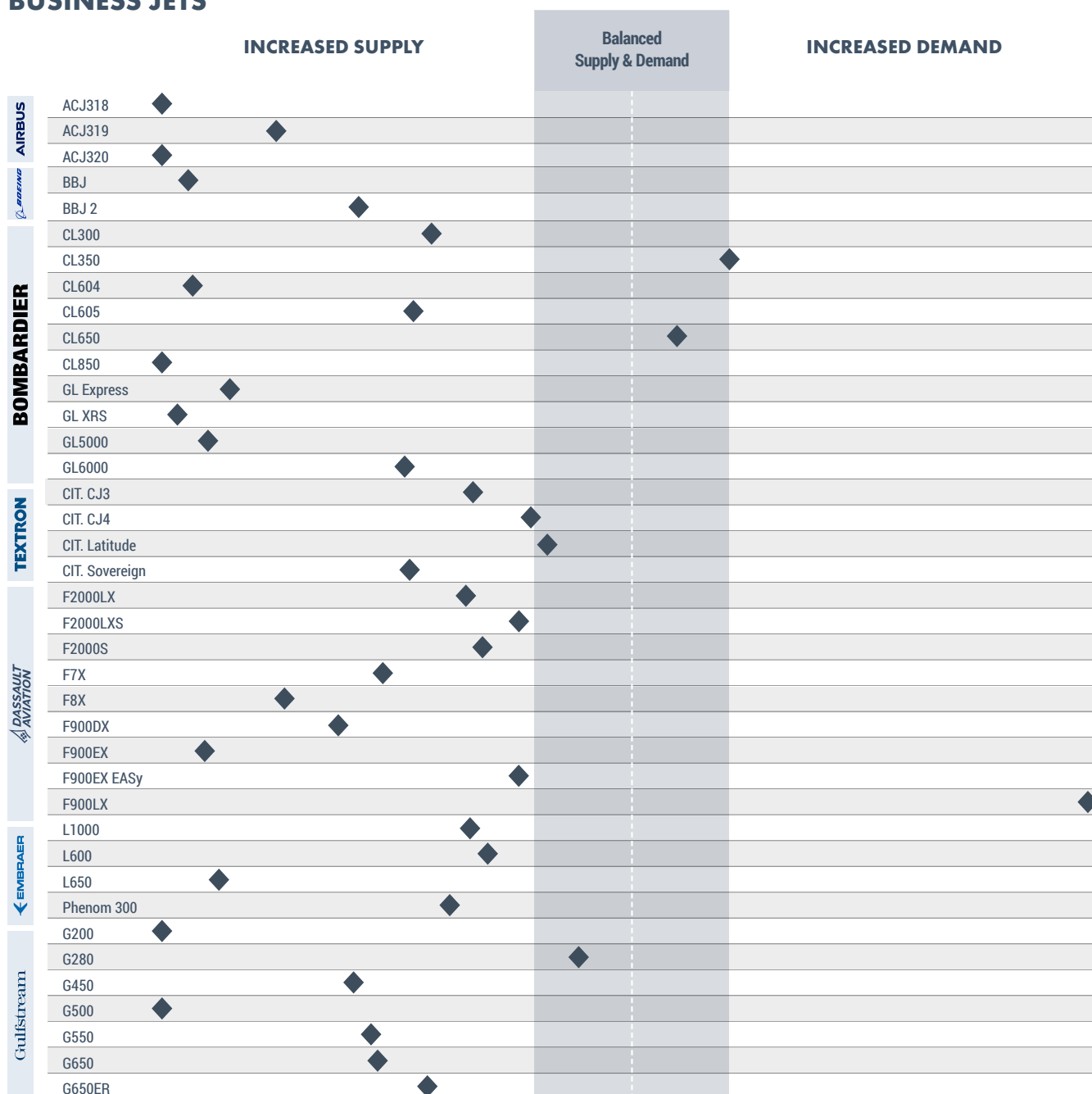






# MARKET POSITIONING

## BUSINESS JETS



The above chart provides a visual representation of the supply / demand ratio of each aircraft model relative to the overall market, and is based on a "Marketability" calculation for each particular model including the following four market indicators:



1. The percentage of aircraft for sale relative to its fleet size.
2. The number of aircraft sold relative to the average number for sale.
3. The average days for sale relative to the overall market average.
4. The momentum of the marketplace (represented by the trend towards supply and demand market equilibrium portrayed earlier).

When taking into account these four factors, most of the large and medium sized jets, such as the Challenger 600, Falcon 2000 & 900 Series, as well as various Gulfstream models, appear better positioned to find buyers available, compared to corporate airliner models.

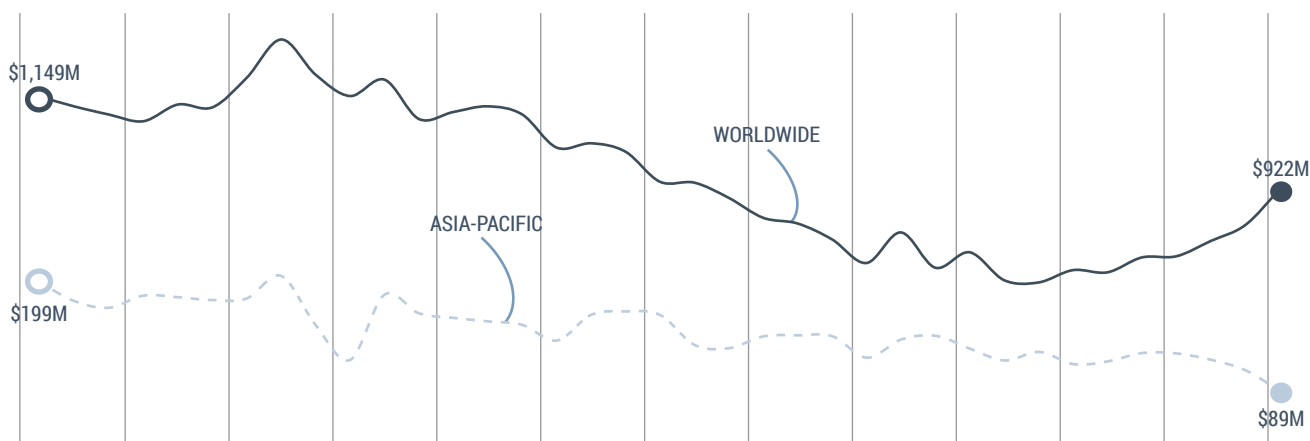
Global Sky Media expanded its market research scope in Q3 2019 to include 39 business jet models including light jet models as described in the report.

# PRE-OWNED HELICOPTERS MARKET Q4 2022

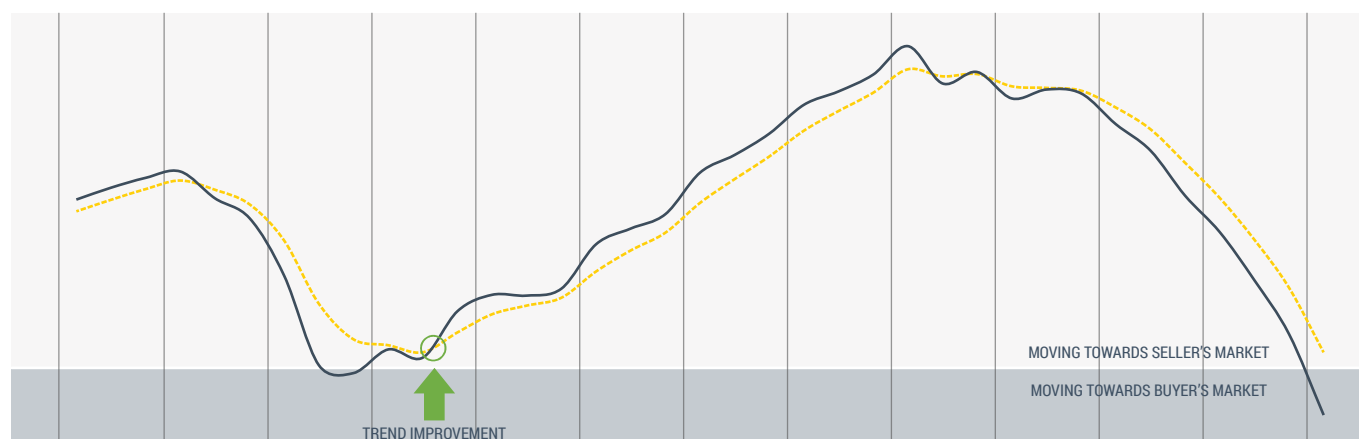
## Understanding the market dynamics graphs:

-  The Inventory Value Line represents the number of aircraft actively being marketed for sale.<sup>1</sup>
-  The Signal Line represents an indication of where the market's direction may be heading in the future.

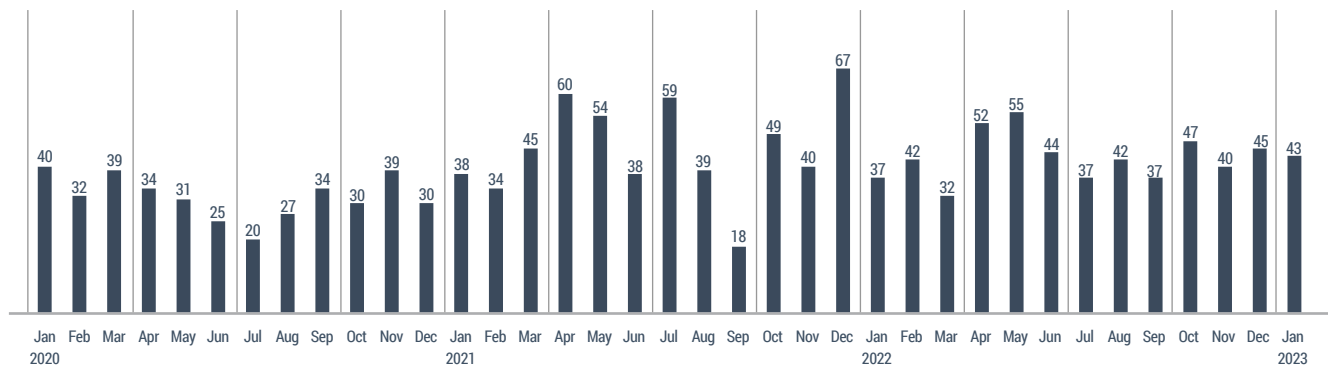
## INVENTORY VALUE (USD)<sup>2</sup>



## MARKET TREND<sup>2</sup> WORLDWIDE



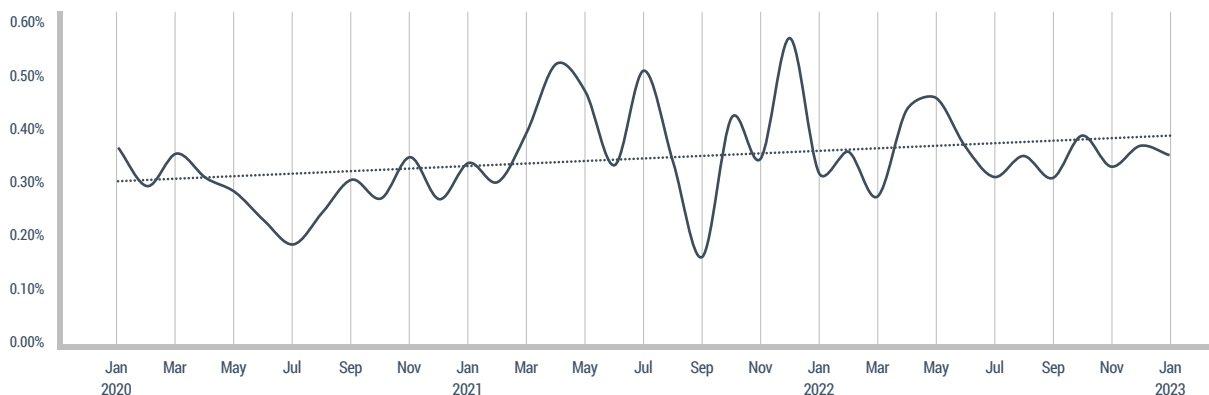
## AIRCRAFT TRANSACTIONS<sup>2</sup> WORLDWIDE



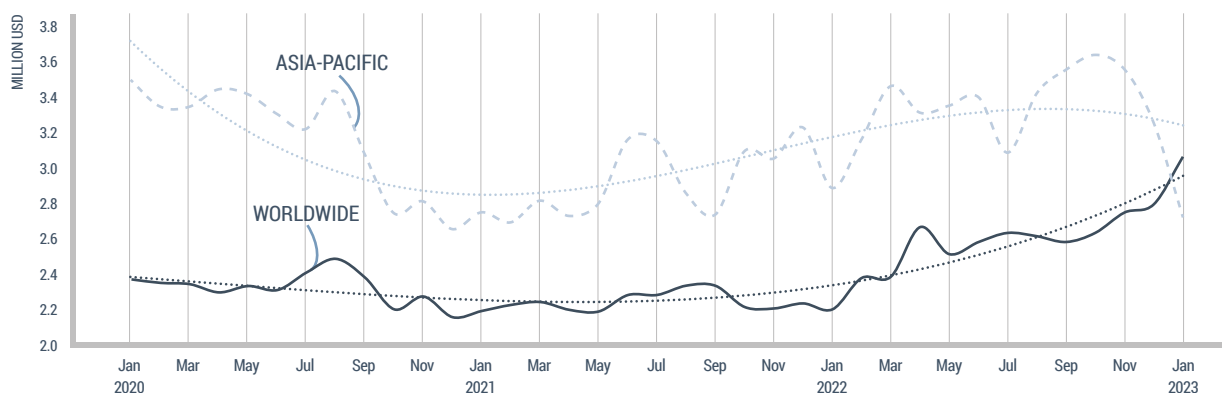
<sup>1</sup> Global Sky Media's Inventory Value line is calculated by taking the total number of aircraft for sale from a selection of 39 different models, multiplied by their average asking prices.

<sup>2</sup> Historical inventory value and transactions are subject to change based on latest market information updates.

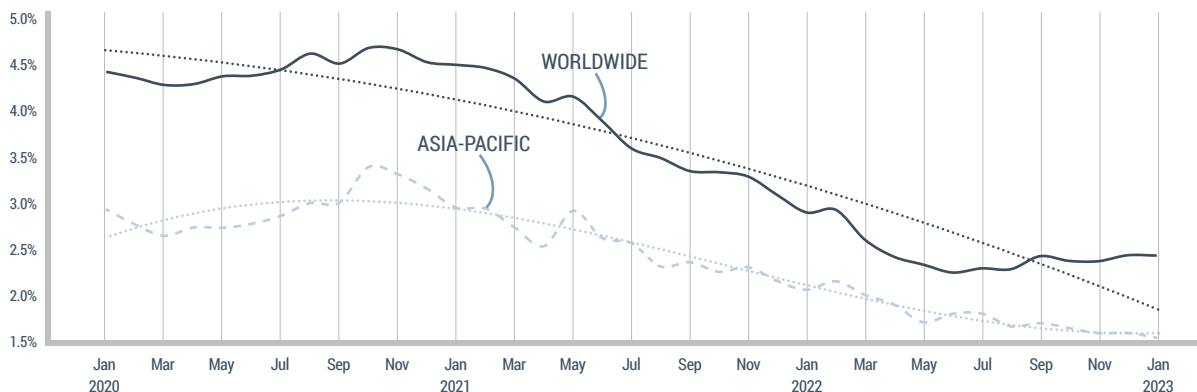
## % OF AIRCRAFT SOLD / TOTAL AIRCRAFT IN OPERATION



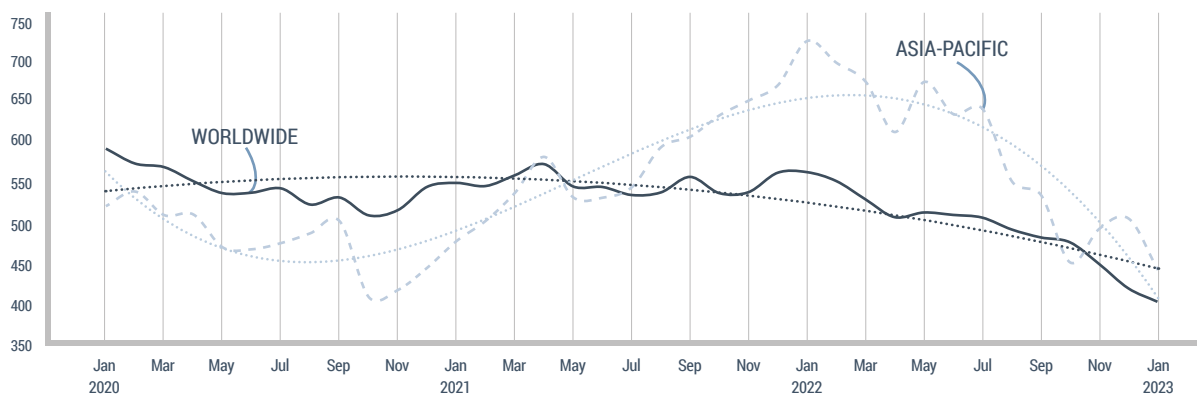
## AVERAGE ASKING PRICE



## % OF AIRCRAFT FOR SALE

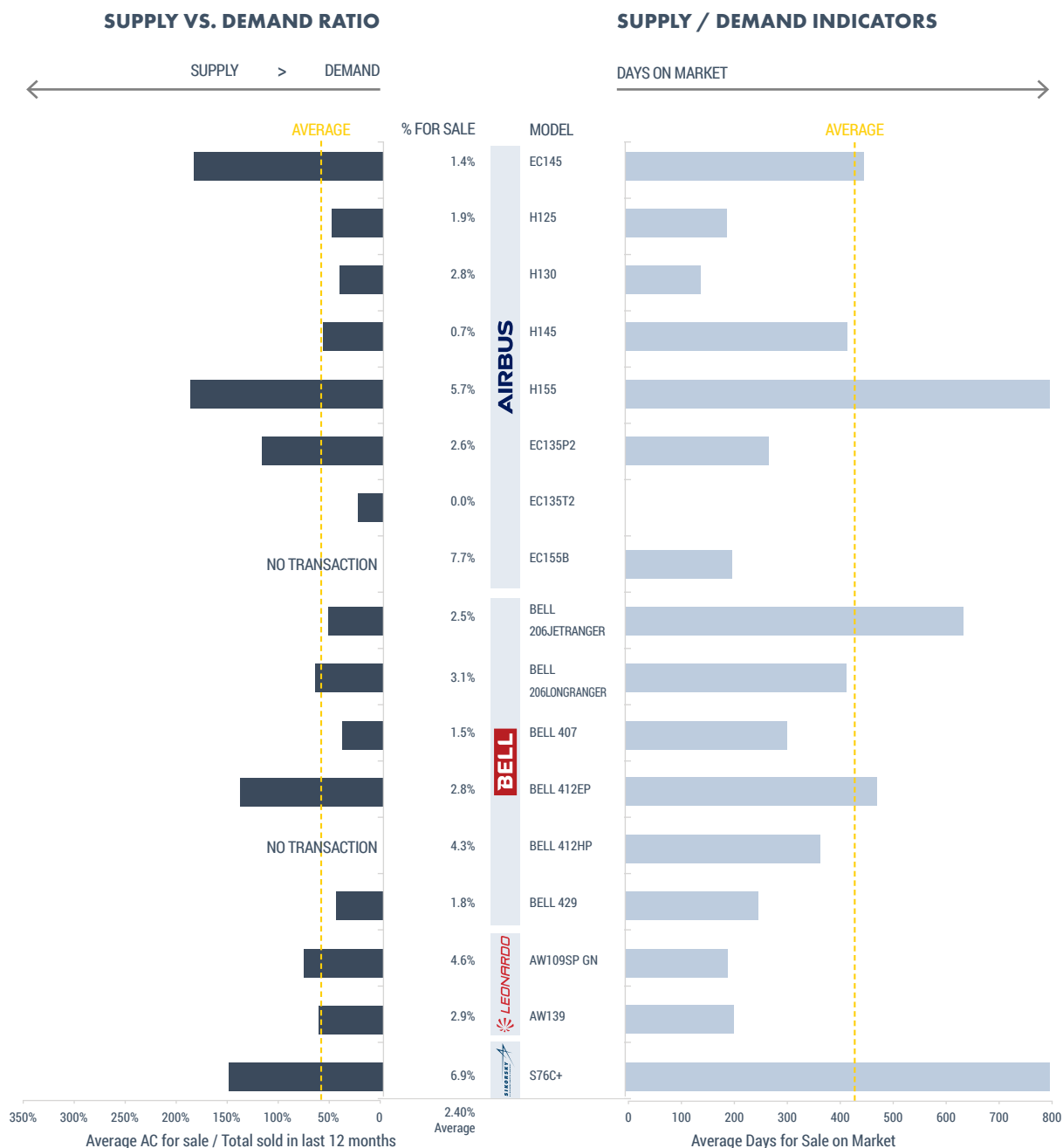


## AVERAGE DAYS ON MARKET



# SUPPLY / DEMAND INDICATORS

## HELICOPTERS



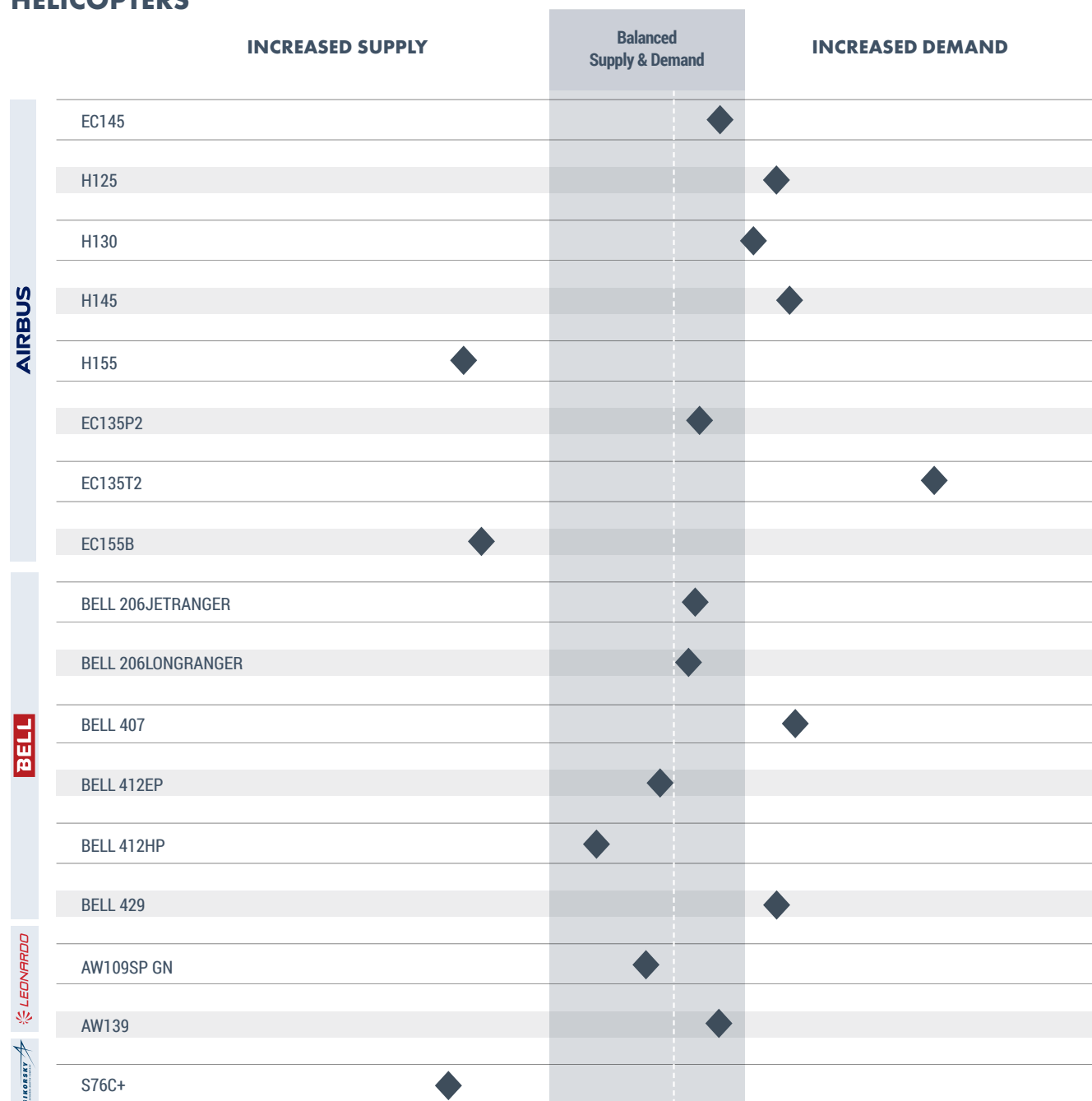
The above chart reflects where certain aircraft models are positioned in terms of supply and demand (based on a ratio of completed

transactions compared to the number of sellers, and average number of days on the market for a transaction to take place).



# MARKET POSITIONING

## HELICOPTERS



The above chart provides a visual representation of the supply / demand ratio of each aircraft model relative to the overall market, resulting in a "Marketability" calculation of each particular model based on the following four market indicators:

1. The percentage of aircraft for sale relative to its fleet size.
2. The number of aircraft sold relative to the average number for sale.
3. The average days for sale relative to the overall market average.
4. The momentum of the marketplace (represented by the trend towards supply and demand market equilibrium portrayed earlier).



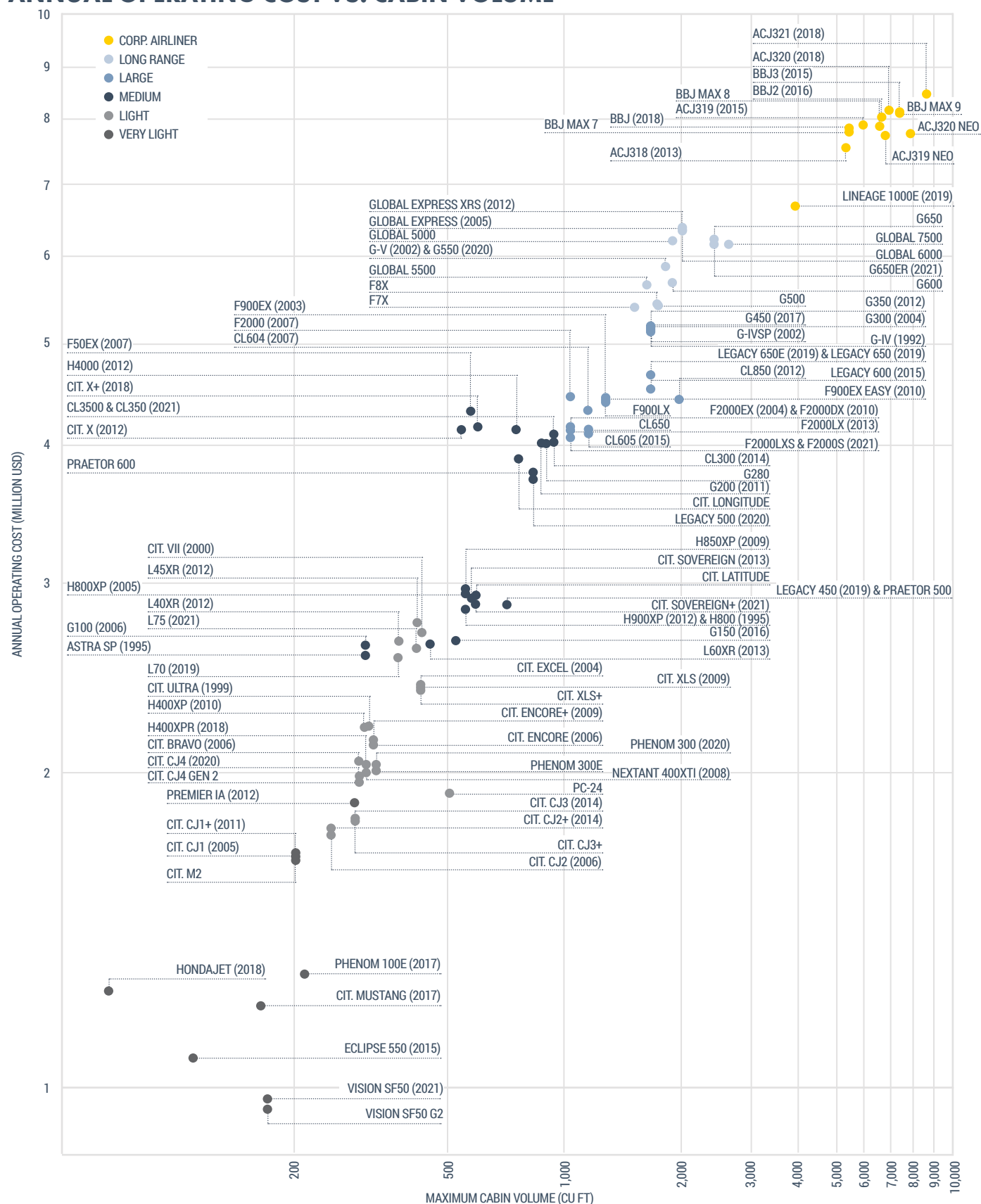
# MARKET SUMMARY

BUSINESS JETS  
2022 Q4

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# AIRCRAFT POSITIONING

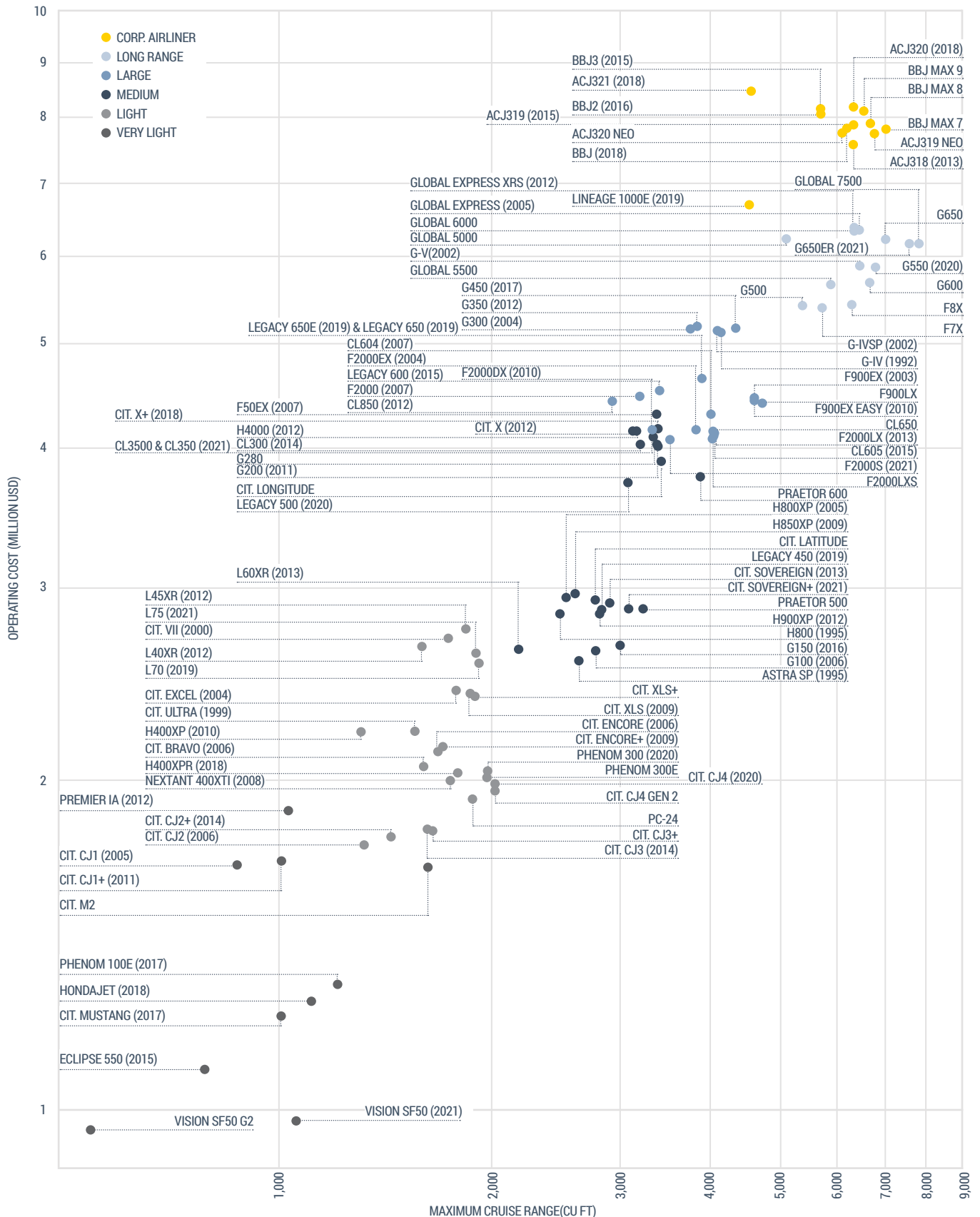
## ANNUAL OPERATING COST VS. CABIN VOLUME



\*Using data from Conklin & de Decker. Annual Operating Cost consist of Yearly Fixed Cost and Variable Cost under the assumption of 400 hours flight hours per year.  
 (\*Year) - Year aircraft model ceased production.

# AIRCRAFT POSITIONING

## ANNUAL OPERATING COST VS. MAX RANGE



Max Range data source: Conklin & de Decker, this has adopted NBAA IFR rules and under Long Range Cruise Speed with maximum fuel on board, and four passengers with fuel reserve calculation for a 200 NM (365 Km) alternate.



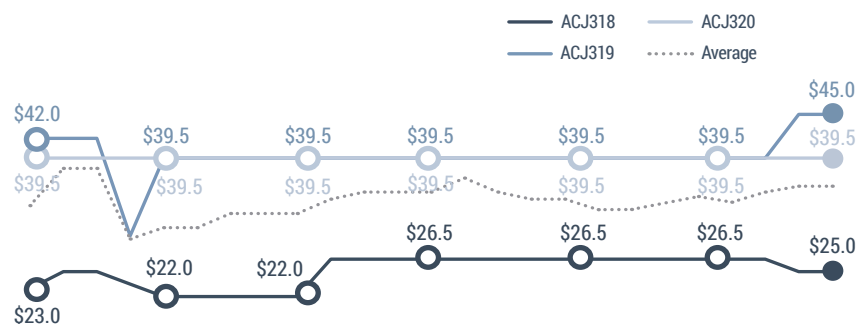
# MARKET SUMMARY PER MODEL

## INVENTORY LEVEL, PRICE TREND & TRANSACTIONS

### ACJ318, ACJ319 & ACJ320

| PERFORMANCE | ACJ318                |  | ACJ319                 |  | ACJ320                |  |
|-------------|-----------------------|--|------------------------|--|-----------------------|--|
|             | Max Range             |  | Max Range              |  | Max Range             |  |
|             | 4,253 N.M. / 7,877 km |  | 6,000 N.M. / 11,112 km |  | 5,250 N.M. / 9,723 km |  |
|             | Max Speed             |  | Max Speed              |  | Max Speed             |  |
| SUPPLY      | Typ. Passengers       |  | Typ. Passengers        |  | Typ. Passengers       |  |
|             | 19                    |  | 19                     |  | 19                    |  |
|             | No. for Sale          |  | No. for Sale           |  | No. for Sale          |  |
|             | 2 (11.1%)             |  | 2 (2.8%)               |  | 1 (4.8%)              |  |
| TRANSACTION | Avg Asking Price      |  | Avg Asking Price       |  | Avg Asking Price      |  |
|             | 25.0M USD             |  | 45.0M USD              |  | 39.5M USD             |  |
|             | Avg Days on Market    |  | Avg Days on Market     |  | Avg Days on Market    |  |
|             | 181                   |  | 252                    |  | 1,602                 |  |

### Average Asking Price (Million USD)



### For Sale vs. Sold

■ Sold ■ For Sale



### Market Indicators (vs. Last Quarter)

#### ACJ318

- Transaction Level (Past 12 Months)
- Inventory Level
- Average Asking Price
- Average Days on Market

#### ACJ319

- Transaction Level (Past 12 Months)
- Inventory Level
- Average Asking Price
- Average Days on Market

#### ACJ320

- Transaction Level (Past 12 Months)
- Inventory Level
- Average Asking Price
- Average Days on Market

Source: AMSTAT & ASG



**BBJ & BBJ2****PERFORMANCE**

Max Range  
Max Speed  
Typ. Passengers

**BBJ**

6,235 N.M. / 11,547 km  
Mach 0.82  
19

**BBJ2**

5,620 N.M. / 10,408 km  
Mach 0.82  
19

**SUPPLY**

No. for Sale  
Avg Asking Price  
Avg Days on Market

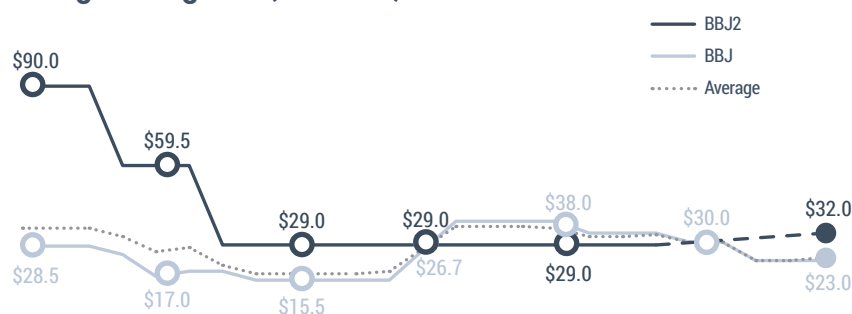
| Jan       | Oct       |
|-----------|-----------|
| 7 (5.4%)  | 8 (6.1%)  |
| 23.0M USD | 30.0M USD |
| 210       | 288       |

| Jan       | Oct      |
|-----------|----------|
| 1 (4.8%)  | 0 (0.0%) |
| 32.0M USD | 0.0M USD |
| 5         | 0        |

**TRANSACTION**

Past 12 Months  
Past 3 Months

| Jan | Oct | Jan | Oct |
|-----|-----|-----|-----|
| 8   | 12  | 2   | 3   |
| 1   | 2   | 0   | 1   |

**Average Asking Price (Million USD)****Market Indicators (vs. Last Quarter)****BBJ**

- ↓ Transaction Level (Past 12 Months)
- ↓ Inventory Level
- ↓ Average Asking Price
- ↓ Average Days on Market

**BBJ2**

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- = Average Asking Price
- ↑ Average Days on Market

**For Sale vs. Sold**

■ Sold ■ For Sale



Source: AMSTAT &amp; ASG

**FEATURED AIRCRAFT****BBJ MAX8****TOTAL HOURS: DELIVERY HOURS**

- Green Delivery
- Delivered Dec 2020
- Valid Trasferable OEM Warranty
- FAA N-registered
- Located in the U.S.
- 7 Auxiliary Fuel Tanks Installed
- FAA Type Certificate and Certificate of Airworthiness
- Valuable Goods, Services & Additional Training Credit

## CHALLENGER 300 & 350

### PERFORMANCE

**CL300**  
 Max Range 3,340 N.M. / 6,185 km  
 Max Speed Mach 0.82  
 Typ. Passengers 19

### CL350

3,421 N.M. / 6,335 km  
 Mach 0.82  
 19

### SUPPLY

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 13 (2.9%) | 17 (3.8%) |
| Avg Asking Price   | 13.6M USD | 13.0M USD |
| Avg Days on Market | 134       | 141       |

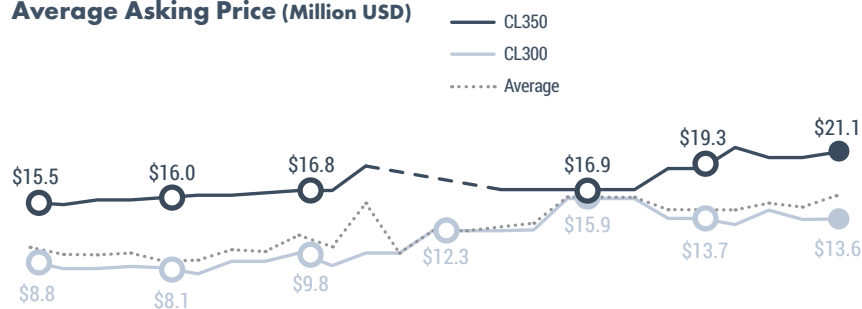
|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 7 (1.6%)  | 4 (1.0%)  |
| Avg Asking Price   | 21.1M USD | 21.6M USD |
| Avg Days on Market | 38        | 76        |

### TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 40  | 33  |
| Past 3 Months  | 13  | 11  |

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 25  | 23  |
| Past 3 Months  | 8   | 9   |

### Average Asking Price (Million USD)



### Market Indicators (vs. Last Quarter)

#### CL300

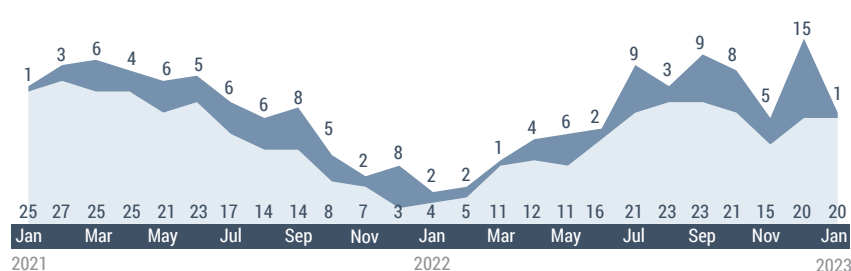
- ↑ Transaction Level (Past 12 Months)
- ↓ Inventory Level
- ↑ Average Asking Price
- ↓ Average Days on Market

#### CL350

- ↑ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↓ Average Asking Price
- ↓ Average Days on Market

### For Sale vs. Sold

■ Sold ■ For Sale



Source: AMSTAT & ASG



## CHALLENGER 604, 605 & 650

### PERFORMANCE

Max Range  
Max Speed  
Typ. Passengers

#### CL604

4,027 N.M. / 7,458 km  
Mach 0.82  
9

#### CL605

4,123 N.M. / 7,635 km  
Mach 0.82  
9

#### CL650

4,123 N.M. / 7,635 km  
Mach 0.82  
10

### SUPPLY

No. for Sale  
Avg Asking Price  
Avg Days on Market

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 26 (7.4%) | 19 (5.4%) |
| Avg Asking Price   | 8.0M USD  | 8.2M USD  |
| Avg Days on Market | 111       | 93        |

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 10 (3.5%) | 9 (3.1%)  |
| Avg Asking Price   | 15.1M USD | 14.9M USD |
| Avg Days on Market | 143       | 146       |

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 2 (1.5%)  | 2 (1.6%)  |
| Avg Asking Price   | 28.0M USD | 21.0M USD |
| Avg Days on Market | 65        | 88        |

### TRANSACTION

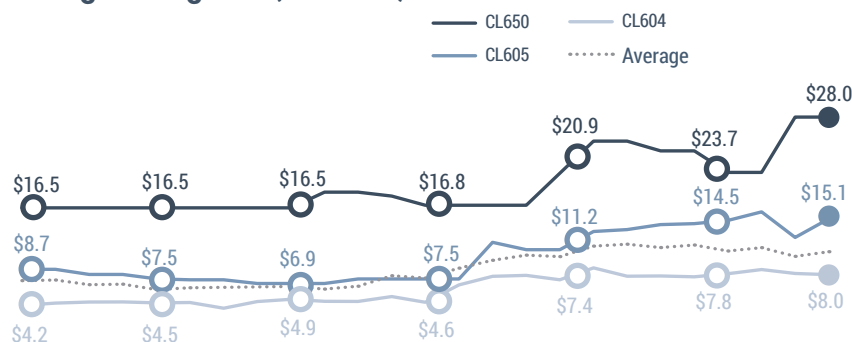
Past 12 Months  
Past 3 Months

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 43  | 44  |
| Past 3 Months  | 9   | 12  |

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 28  | 29  |
| Past 3 Months  | 7   | 9   |

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 19  | 17  |
| Past 3 Months  | 3   | 2   |

### Average Asking Price (Million USD)



### Market Indicators (vs. Last Quarter)

#### CL604

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↓ Average Asking Price
- ↑ Average Days on Market

#### CL605

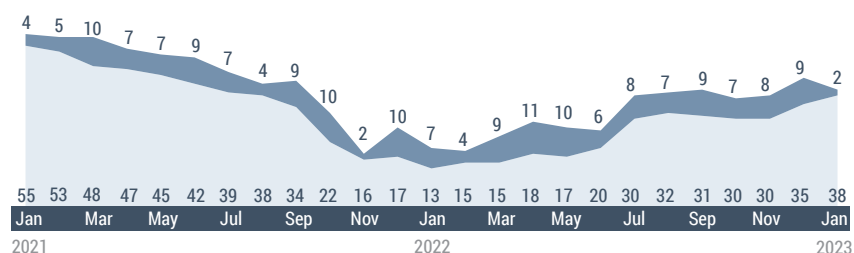
- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- ↓ Average Days on Market

#### CL650

- ↑ Transaction Level (Past 12 Months)
- = Inventory Level
- ↑ Average Asking Price
- ↓ Average Days on Market

### For Sale vs. Sold

■ Sold ■ For Sale



Source: AMSTAT &amp; ASG





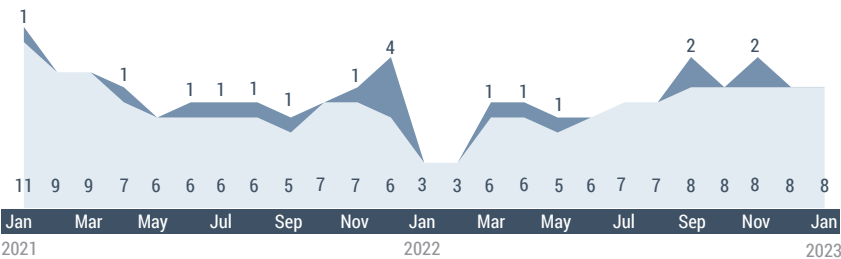
CHALLENGER 850

Average Asking Price (Million USD)



For Sale vs. Sold

Sold For Sale



Market Indicators (vs. Last Quarter)

- Transaction Level (Past 12 Months)
- Inventory Level
- Average Asking Price
- Average Days on Market

PERFORMANCE

|                 |                        |
|-----------------|------------------------|
| Max Range       | 6,750 N.M. / 12,501 km |
| Max Speed       | Mach 0.87              |
| Typ. Passengers | 18                     |

SUPPLY

|                    | Jan      | Oct      |
|--------------------|----------|----------|
| No. for Sale       | 8 (8.9%) | 8 (8.9%) |
| Avg Asking Price   | 7.0M USD | 7.0M USD |
| Avg Days on Market | 267      | 194      |

TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 7   | 10  |
| Past 3 Months  | 2   | 2   |

Source: AMSTAT & ASG



## GLOBAL EXPRESS, 5000, XRS & 6000

### PERFORMANCE

Max Range  
Max Speed  
Typ. Passengers

#### GLOBAL 5000

5,350 N.M. / 9,908 km  
Mach 0.82  
13

#### GLOBAL EXPRESS

6,125 N.M. / 11,343 km  
Mach 0.82  
13

#### GLOBAL XRS

6,226 N.M. / 11,520 km  
Mach 0.82  
13

#### GLOBAL 6000

6,080 N.M. / 11,260 km  
Mach 0.82  
13

### SUPPLY

No. for Sale  
Avg Asking Price  
Avg Days on Market

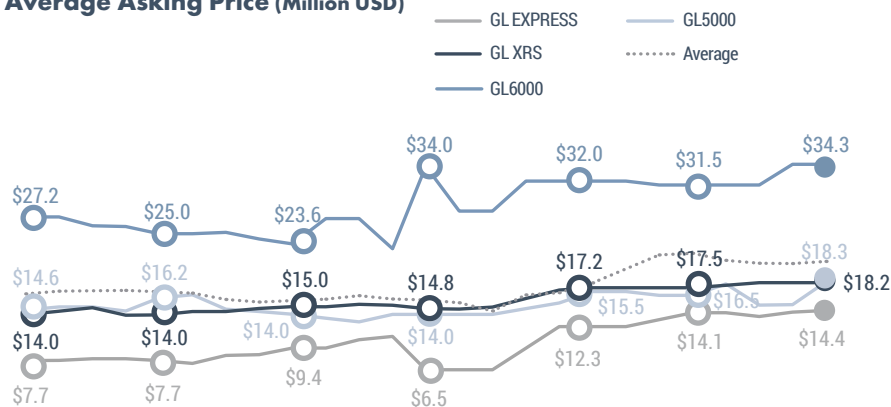
|                    | Jan       | Oct       | Jan       | Oct       | Jan       | Oct       | Jan       | Oct       |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| No. for Sale       | 17 (7.3%) | 8 (3.4%)  | 10 (7.2%) | 7 (5.1%)  | 6 (3.7%)  | 8 (4.9%)  | 10 (3.1%) | 10 (3.1%) |
| Avg Asking Price   | 18.3M USD | 18.0M USD | 14.4M USD | 14.1M USD | 18.2M USD | 17.8M USD | 34.3M USD | 31.5M USD |
| Avg Days on Market | 111       | 155       | 87        | 353       | 432       | 331       | 174       | 103       |

### TRANSACTION

Past 12 Months  
Past 3 Months

|                | Jan | Oct | Jan | Oct | Jan | Oct | Jan | Oct |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Past 12 Months | 25  | 24  | 20  | 29  | 19  | 26  | 28  | 38  |
| Past 3 Months  | 8   | 4   | 3   | 7   | 3   | 6   | 8   | 7   |

### Average Asking Price (Million USD)



### Market Indicators (vs. Last Quarter)

#### GLOBAL 5000

- ↑ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- ↓ Average Days on Market

#### GLOBAL EXPRESS

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- ↓ Average Days on Market

#### GLOBAL XRS

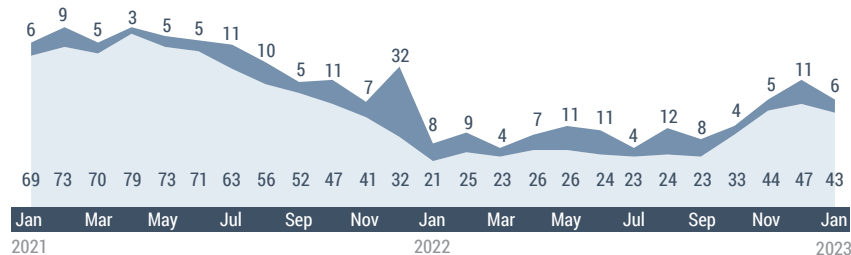
- ↓ Transaction Level (Past 12 Months)
- ↓ Inventory Level
- ↑ Average Asking Price
- ↑ Average Days on Market

#### GLOBAL 6000

- ↓ Transaction Level (Past 12 Months)
- = Inventory Level
- ↑ Average Asking Price
- ↑ Average Days on Market

### For Sale vs. Sold

■ Sold ■ For Sale



Source: AMSTAT &amp; ASG



## CITATION CJ3 &amp; CJ4

## PERFORMANCE

**Cit. CJ3**  
 Max Range 1,891 N.M. / 3,502 km  
 Max Speed Mach 0.73  
 Typ. Passengers 6

## Cit. CJ4

1,991 N.M. / 3,687 km  
 Mach 0.77  
 7

## SUPPLY

No. for Sale 21 (3.3%)  
 Avg Asking Price 6.9M USD  
 Avg Days on Market 95

Jan 21 (3.3%)  
 Oct 22 (3.5%)  
 6.9M USD  
 6.7M USD  
 95 76

Jan 10 (2.6%)  
 Oct 10 (2.6%)  
 8.1M USD  
 8.1M USD  
 91 65

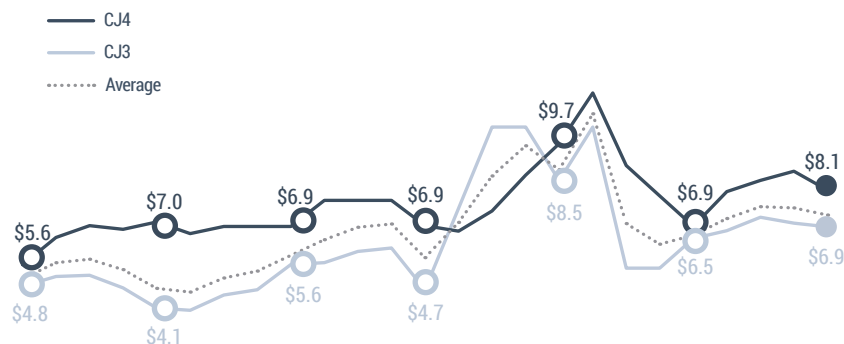
## TRANSACTION

Past 12 Months 71  
 Past 3 Months 22

Jan 71  
 Oct 74  
 20

Jan 42  
 Oct 44  
 8

## Average Asking Price (Million USD)



## Market Indicators (vs. Last Quarter)

## Cit. CJ3

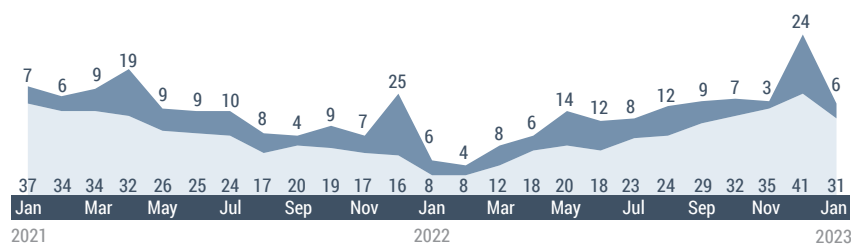
- ↓ Transaction Level (Past 12 Months)
- ↓ Inventory Level
- ↑ Average Asking Price
- ↑ Average Days on Market

## Cit. CJ4

- ↓ Transaction Level (Past 12 Months)
- = Inventory Level
- ↑ Average Asking Price
- ↑ Average Days on Market

## For Sale vs. Sold

■ Sold ■ For Sale

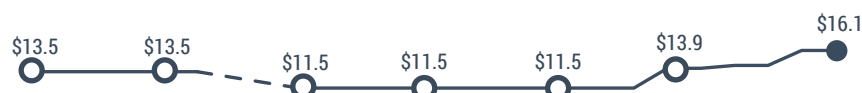


Source: AMSTAT &amp; ASG



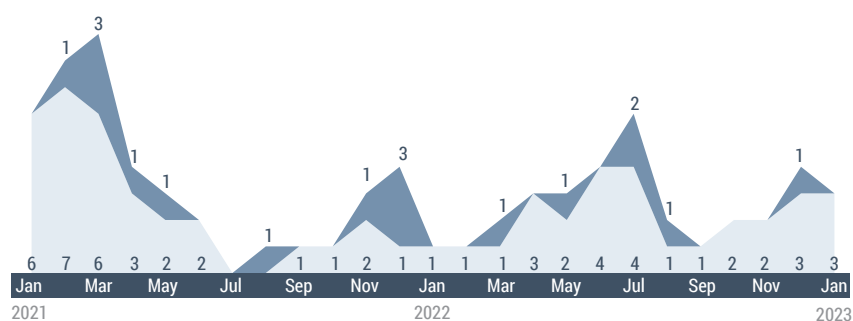
## CITATION LATITUDE

## Average Asking Price (Million USD)



## For Sale vs. Sold

■ Sold ■ For Sale



## Market Indicators (vs. Last Quarter)

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- ↑ Average Days on Market

## PERFORMANCE

|                 |                      |
|-----------------|----------------------|
| Max Range       | 2,870N.M. / 5,315 km |
| Max Speed       | Mach 0.80            |
| Typ. Passengers | 9                    |

## SUPPLY

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 3 (0.9%)  | 2 (0.6%)  |
| Avg Asking Price   | 16.1M USD | 14.3M USD |
| Avg Days on Market | 102       | 46        |

## TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 6   | 9   |
| Past 3 Months  | 1   | 1   |

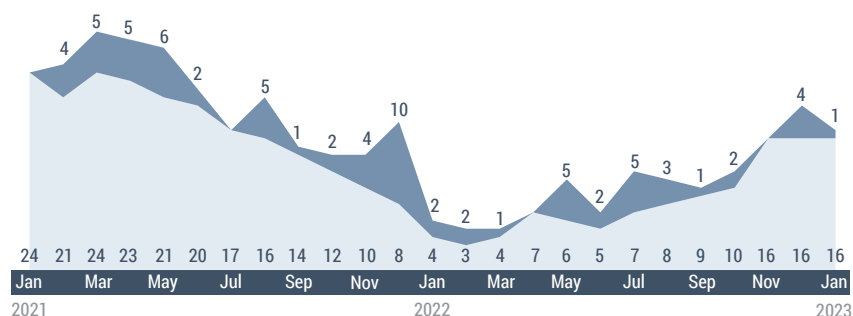
## CITATION SOVEREIGN

## Average Asking Price (Million USD)



## For Sale vs. Sold

■ Sold ■ For Sale



## Market Indicators (vs. Last Quarter)

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- ↑ Average Days on Market

## PERFORMANCE

|                 |                      |
|-----------------|----------------------|
| Max Range       | 3,010N.M. / 5,574 km |
| Max Speed       | Mach 0.80            |
| Typ. Passengers | 9                    |

## SUPPLY

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 16 (3.6%) | 10 (2.2%) |
| Avg Asking Price   | 10.4M USD | 10.3M USD |
| Avg Days on Market | 94        | 82        |

## TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 26  | 37  |
| Past 3 Months  | 5   | 6   |

Source: AMSTAT &amp; ASG



**FALCON 900DX/EX/EX EASY/LX****PERFORMANCE**

Max Range

Max Speed

Typ. Passengers

**F900DX**

4,100 N.M. / 7,593 km

Mach 0.83

12

**F900EX**

4,500 N.M. / 8,334 km

Mach 0.83

12

**F900EX EASy**

4,500 N.M. / 8,334 km

Mach 0.83

12

**F900LX**

4,750 N.M. / 8,800 km

Mach 0.83

12

**SUPPLY**

No. for Sale

Avg Asking Price

Avg Days on Market

Jan

Oct

1 (4.3%)

0 (0.0%)

15.6M USD

0.0M USD

5

0

Jan

Oct

9 (7.6%)

4 (3.4%)

12.0M USD

12.5M USD

105

86

Jan

Oct

4 (3.4%)

4 (3.4%)

15.5M USD

15.9M USD

61

53

Jan

Oct

0 (0.0%)

0 (0.0%)

0.0M USD

0.0M USD

0

0

**TRANSACTION**

Past 12 Months

Past 3 Months

Jan

Oct

0

1

0

0

Jan

Oct

12

15

4

0

Jan

Oct

18

17

5

6

Jan

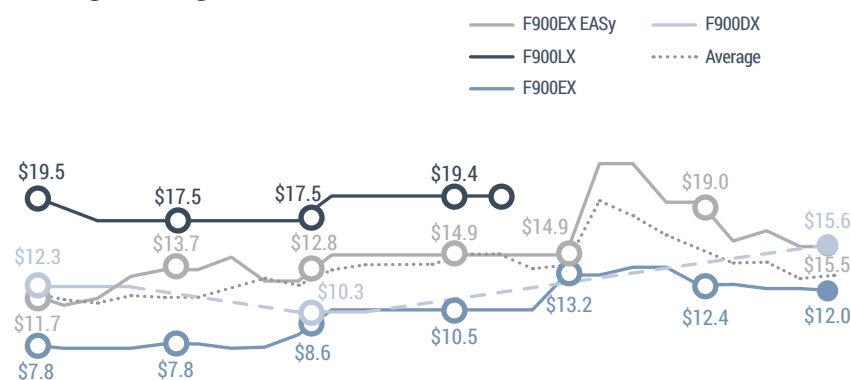
Oct

3

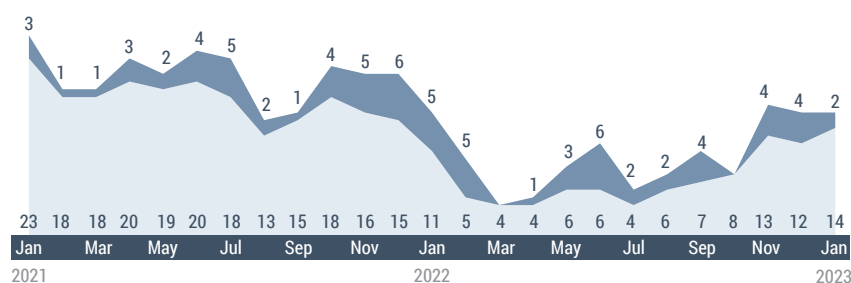
6

1

0

**Average Asking Price (Million USD)****For Sale vs. Sold**

■ Sold ■ For Sale

**Market Indicators (vs. Last Quarter)****F900DX**

- Transaction Level (Past 12 Months) ↓
- Inventory Level ↑
- Average Asking Price =
- Average Days on Market ↑

**F900EX**

- Transaction Level (Past 12 Months) ↓
- Inventory Level ↑
- Average Asking Price ↓
- Average Days on Market ↑

**F900EX EASy**

- Transaction Level (Past 12 Months) ↑
- Inventory Level =
- Average Asking Price ↓
- Average Days on Market ↑

**F900LX**

- Transaction Level (Past 12 Months) ↓
- Inventory Level =
- Average Asking Price =
- Average Days on Market =

Source: AMSTAT &amp; ASG



## FALCON 2000LX/LXS/S

### PERFORMANCE

**F2000LX**  
 Max Range 4,000 N.M. / 7,408 km  
 Max Speed Mach 0.83  
 Typ. Passengers 10

**F2000LXS**  
 Max Range 4,000 N.M. / 7,408 km  
 Max Speed Mach 0.83  
 Typ. Passengers 10

**F2000S**  
 Max Range 3,350 N.M. / 6,208 km  
 Max Speed Mach 0.83  
 Typ. Passengers 10

### SUPPLY

No. for Sale  
 Avg Asking Price  
 Avg Days on Market

Jan Oct  
 2 (1.5%) 2 (1.5%)  
 15.8M USD 11.9M USD  
 46 62

Jan Oct  
 3 (2.4%) 2 (1.6%)  
 24.3M USD 22.3M USD  
 45 92

Jan Oct  
 1 (2.1%) 0 (0.0%)  
 18.0M USD 0.0M USD  
 79 0

### TRANSACTION

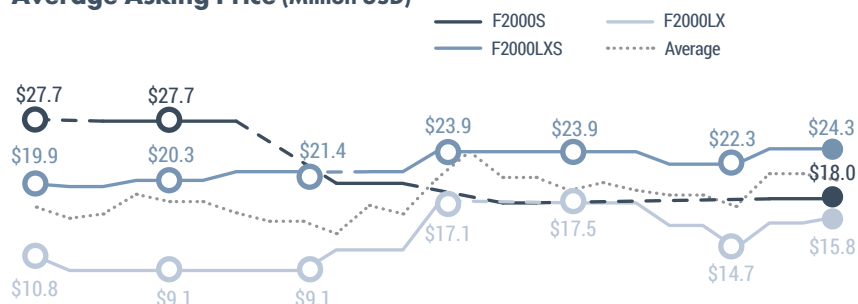
Past 12 Months  
 Past 3 Months

Jan Oct  
 10 9  
 2 2

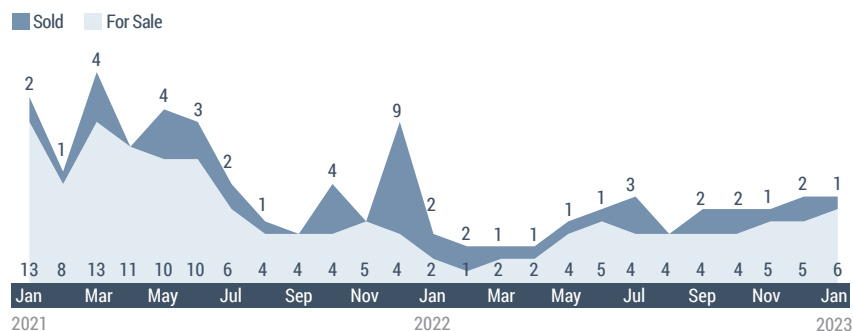
Jan Oct  
 6 12  
 2 1

Jan Oct  
 1 3  
 0 1

### Average Asking Price (Million USD)



### For Sale vs. Sold



### Market Indicators (vs. Last Quarter)

#### F2000LX

- ↑ Transaction Level (Past 12 Months)
- = Inventory Level
- ↑ Average Asking Price
- ↓ Average Days on Market

#### F2000LXS

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- ↓ Average Days on Market

#### F2000S

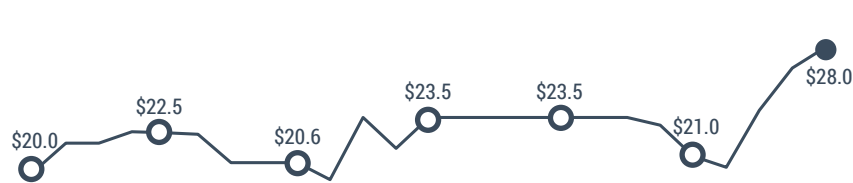
- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- = Average Asking Price
- ↑ Average Days on Market

Source: AMSTAT &amp; ASG



FALCON 7X

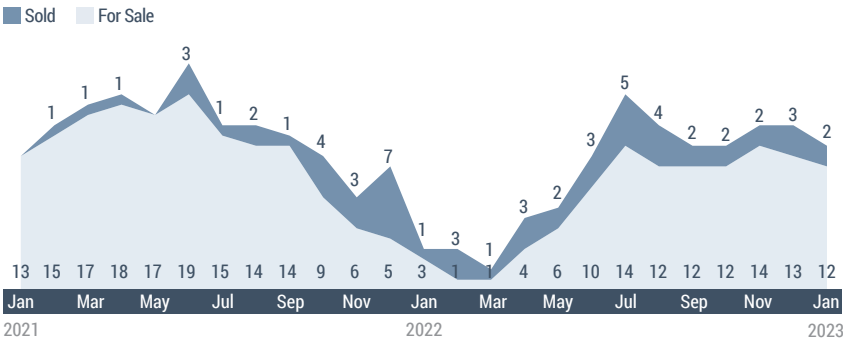
Average Asking Price (Million USD)



Market Indicators (vs. Last Quarter)

Transaction Level (Past 12 Months) ↓  
Inventory Level =  
Average Asking Price ↑  
Average Days on Market ↑

For Sale vs. Sold



PERFORMANCE

|                 |                        |
|-----------------|------------------------|
| Max Range       | 5,950 N.M. / 11,018 km |
| Max Speed       | Mach 0.90              |
| Typ. Passengers | 12                     |

SUPPLY

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 12 (4.0%) | 12 (4.0%) |
| Avg Asking Price   | 28.0M USD | 20.3M USD |
| Avg Days on Market | 123       | 103       |

TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 32  | 36  |
| Past 3 Months  | 7   | 8   |

Source: AMSTAT & ASG

FEATURED AIRCRAFT

**EMBRAER - PHENOM 300 50500159**  
**TOTAL HOURS: 2,147 SINCE NEW**  
**TOTAL CYCLES: 2,433 SINCE NEW**

- Medivac Configuration retrofit by Spectrum Aeromed Single Patient System
- Aircraft Enrolled on Embraer Executive Care Standard (EEC Enhanced)

## PHENOM 300

### Average Asking Price (Million USD)



### Market Indicators (vs. Last Quarter)

- ↑ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- ↑ Average Days on Market

### PERFORMANCE

|                 |                       |
|-----------------|-----------------------|
| Max Range       | 1,242 N.M. / 2,300 km |
| Max Speed       | Mach 0.78             |
| Typ. Passengers | 5                     |

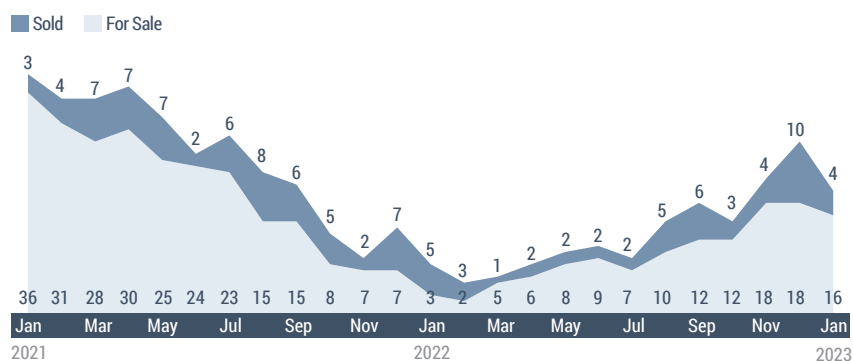
### SUPPLY

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 16 (2.3%) | 12 (1.8%) |
| Avg Asking Price   | 8.5M USD  | 8.1M USD  |
| Avg Days on Market | 198       | 172       |

### TRANSACTION

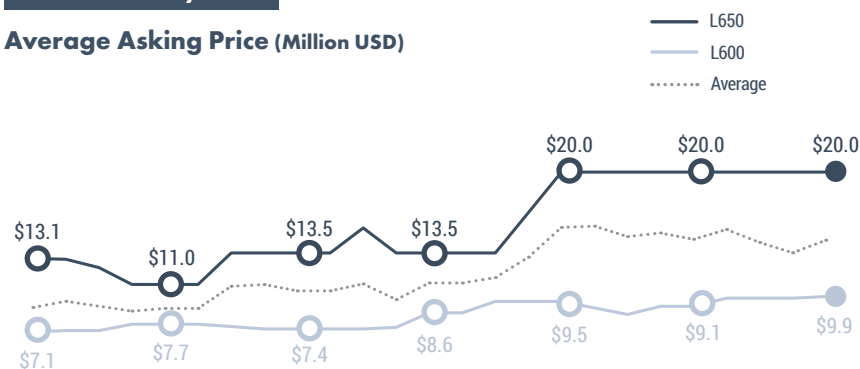
|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 44  | 40  |
| Past 3 Months  | 18  | 14  |

### For Sale vs. Sold



## LEGACY 600/650

### Average Asking Price (Million USD)



### Market Indicators (vs. Last Quarter)

|                                    | L600 | L650 |
|------------------------------------|------|------|
| Transaction Level (Past 12 Months) | ↑    | ↑    |
| Inventory Level                    | ↑    | ↓    |
| Average Asking Price               | ↑    | =    |
| Average Days on Market             | ↑    | ↑    |

### PERFORMANCE

|                 | L600       | L650       |
|-----------------|------------|------------|
| Max Range       | 3,400 N.M. | 3,640 N.M. |
| Max Speed       | 6,297 km   | 7,112 km   |
| Typ. Passengers | 13         | 13         |

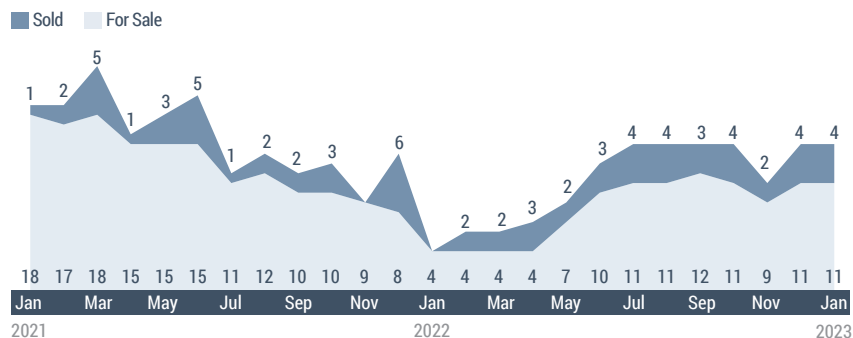
### SUPPLY

|                    | Jan   Oct | Jan   Oct |
|--------------------|-----------|-----------|
| No. for Sale       | 6   5     | 5   6     |
| Avg Asking Price   | 9.9M USD  | 20.0M USD |
| Avg Days on Market | 100   96  | 339   294 |

### TRANSACTION

|                | Jan   Oct | Jan   Oct |
|----------------|-----------|-----------|
| Past 12 Months | 21   20   | 16   13   |
| Past 3 Months  | 5   7     | 5   4     |

### For Sale vs. Sold

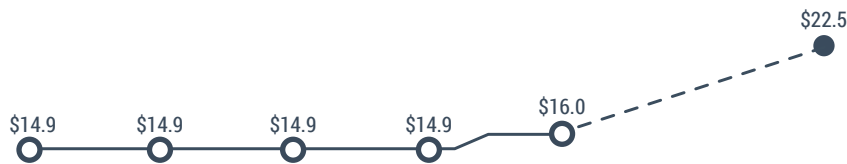


Source: AMSTAT &amp; ASG



LINEAGE 1000/E

Average Asking Price (Million USD)

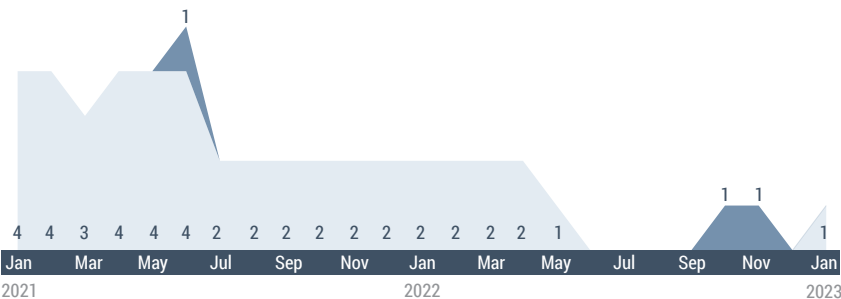


Market Indicators (vs. Last Quarter)

- Transaction Level (Past 12 Months)
- Inventory Level
- Average Asking Price
- Average Days on Market

For Sale vs. Sold

Sold For Sale



PERFORMANCE

|                 |                       |
|-----------------|-----------------------|
| Max Range       | 4,400 N.M. / 8,149 km |
| Max Speed       | Mach 0.82             |
| Typ. Passengers | 19                    |

SUPPLY

|                    | Jan       | Oct      |
|--------------------|-----------|----------|
| No. for Sale       | 1 (3.3%)  | 0 (0.0%) |
| Avg Asking Price   | 22.5M USD | 0.0M USD |
| Avg Days on Market | 26        | 0        |

TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 2   | 1   |
| Past 3 Months  | 1   | 1   |

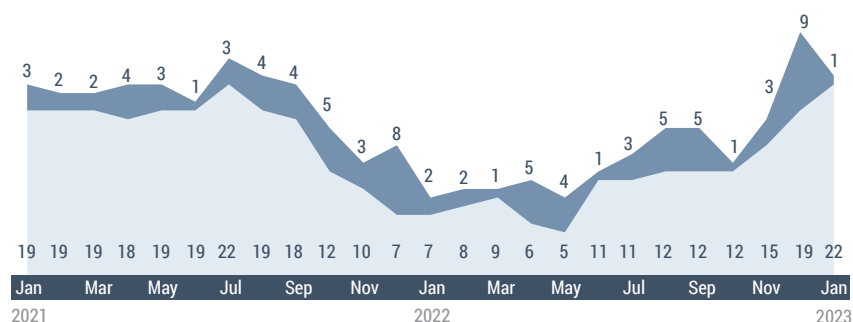
Source: AMSTAT & ASG

FEATURED AIRCRAFT



**G200****Average Asking Price (Million USD)****For Sale vs. Sold**

■ Sold ■ For Sale

**Market Indicators (vs. Last Quarter)**

- Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- ↑ Average Days on Market

**PERFORMANCE**

|                 |                       |
|-----------------|-----------------------|
| Max Range       | 3,050 N.M. / 5,651 km |
| Max Speed       | Mach 0.81             |
| Typ. Passengers | 8                     |

**SUPPLY**

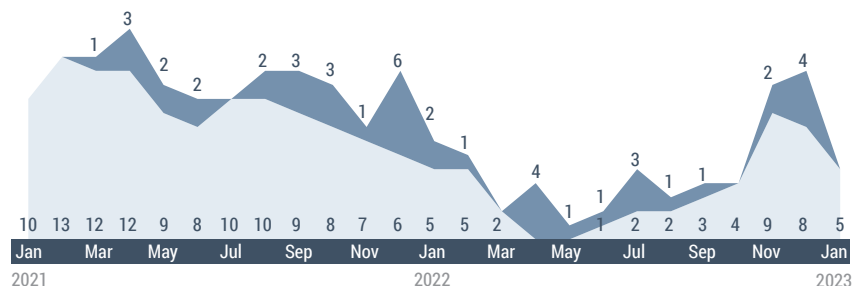
|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 22 (9.2%) | 12 (5.0%) |
| Avg Asking Price   | 6.5M USD  | 5.8M USD  |
| Avg Days on Market | 99        | 77        |

**TRANSACTION**

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 40  | 40  |
| Past 3 Months  | 13  | 11  |

**G280****Average Asking Price (Million USD)****For Sale vs. Sold**

■ Sold ■ For Sale

**Market Indicators (vs. Last Quarter)**

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↓ Average Asking Price
- ↑ Average Days on Market

**PERFORMANCE**

|                 |                       |
|-----------------|-----------------------|
| Max Range       | 3,600 N.M. / 6,667 km |
| Max Speed       | Mach 0.84             |
| Typ. Passengers | 8                     |

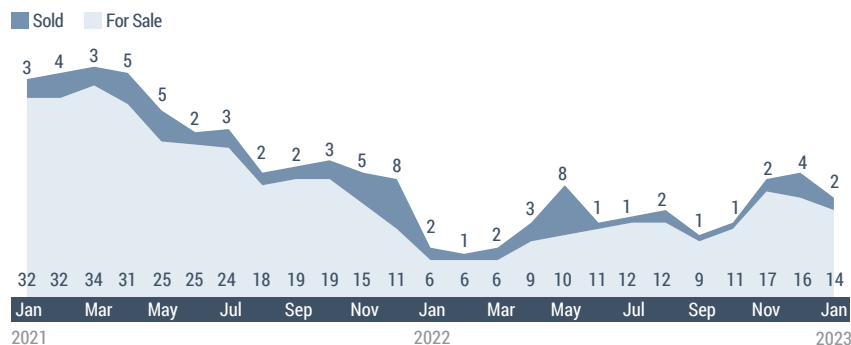
**SUPPLY**

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 5 (2.0%)  | 4 (1.7%)  |
| Avg Asking Price   | 19.4M USD | 21.3M USD |
| Avg Days on Market | 76        | 56        |

**TRANSACTION**

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 18  | 21  |
| Past 3 Months  | 6   | 2   |

Source: AMSTAT &amp; ASG

**G450****Average Asking Price (Million USD)****For Sale vs. Sold****Market Indicators (vs. Last Quarter)**

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- = Average Days on Market

**PERFORMANCE**

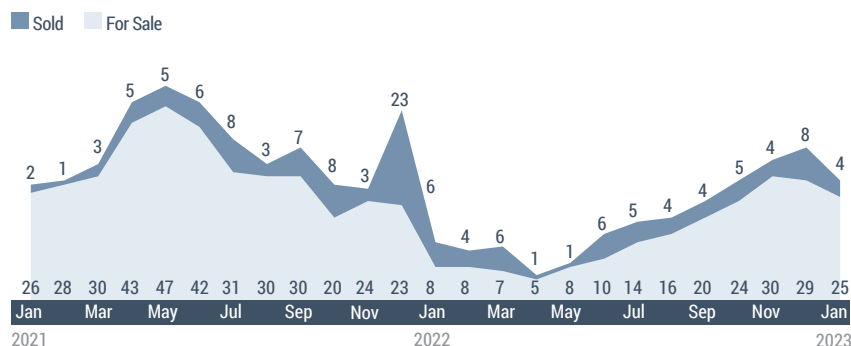
|                 |                       |
|-----------------|-----------------------|
| Max Range       | 4,350 N.M. / 8,056 km |
| Max Speed       | Mach 0.85             |
| Typ. Passengers | 13                    |

**SUPPLY**

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 14 (4.0%) | 11 (3.1%) |
| Avg Asking Price   | 18.4M USD | 16.6M USD |
| Avg Days on Market | 128       | 128       |

**TRANSACTION**

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 28  | 35  |
| Past 3 Months  | 8   | 4   |

**G550****Average Asking Price (Million USD)****For Sale vs. Sold****Market Indicators (vs. Last Quarter)**

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↓ Average Asking Price
- ↑ Average Days on Market

**PERFORMANCE**

|                 |                        |
|-----------------|------------------------|
| Max Range       | 6,750 N.M. / 12,501 km |
| Max Speed       | Mach 0.87              |
| Typ. Passengers | 18                     |

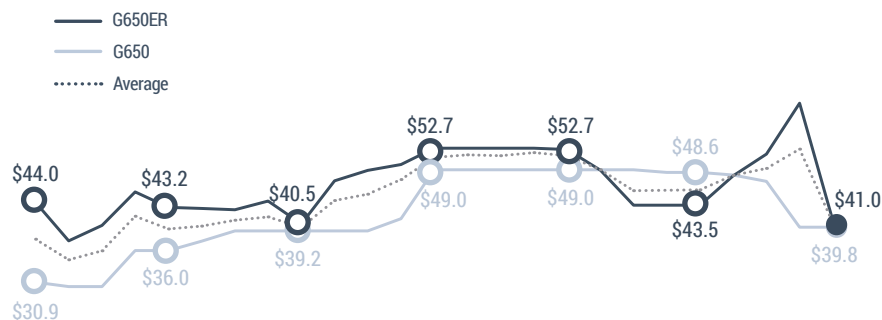
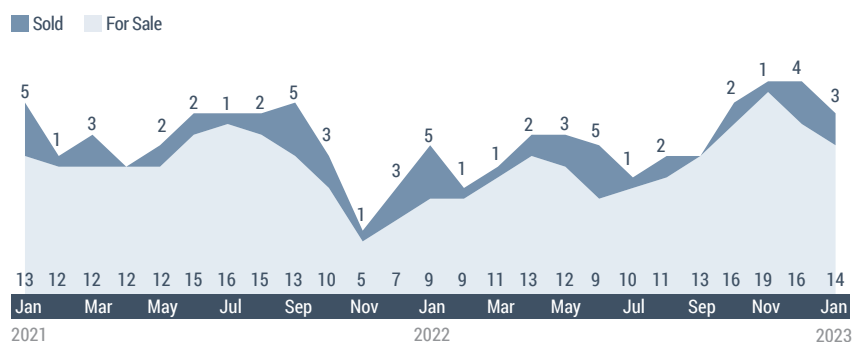
**SUPPLY**

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 25 (4.1%) | 24 (3.9%) |
| Avg Asking Price   | 23.0M USD | 25.0M USD |
| Avg Days on Market | 123       | 84        |

**TRANSACTION**

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 52  | 68  |
| Past 3 Months  | 16  | 13  |

Source: AMSTAT &amp; ASG

**G650 & G650 ER****Average Asking Price (Million USD)****For Sale vs. Sold****Market Indicators (vs. Last Quarter)**

|                                    | G650 | G650ER |
|------------------------------------|------|--------|
| Transaction Level (Past 12 Months) | =    | ↓      |
| Inventory Level                    | ↓    | ↑      |
| Average Asking Price               | ↓    | ↓      |
| Average Days on Market             | ↑    | ↑      |

**PERFORMANCE**

|                 | G650                    | G650ER                  |
|-----------------|-------------------------|-------------------------|
| Max Range       | 7,000 N.M.<br>12,964 km | 7,500 N.M.<br>13,890 km |
| Max Speed       | Mach 0.90               | Mach 0.90               |
| Typ. Passengers | 18                      | 18                      |

**SUPPLY**

|                    | Jan   Oct              | Jan   Oct              |
|--------------------|------------------------|------------------------|
| No. for Sale       | 5   8                  | 9   8                  |
| Avg Asking Price   | 39.8M USD<br>48.1M USD | 41.0M USD<br>48.2M USD |
| Avg Days on Market | 130   111              | 110   102              |

**TRANSACTION**

|                | Jan   Oct | Jan   Oct |
|----------------|-----------|-----------|
| Past 12 Months | 7   7     | 18   19   |
| Past 3 Months  | 3   1     | 5   3     |

Source: AMSTAT &amp; ASG

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ASIAN SKY GROUP





# MARKET SUMMARY

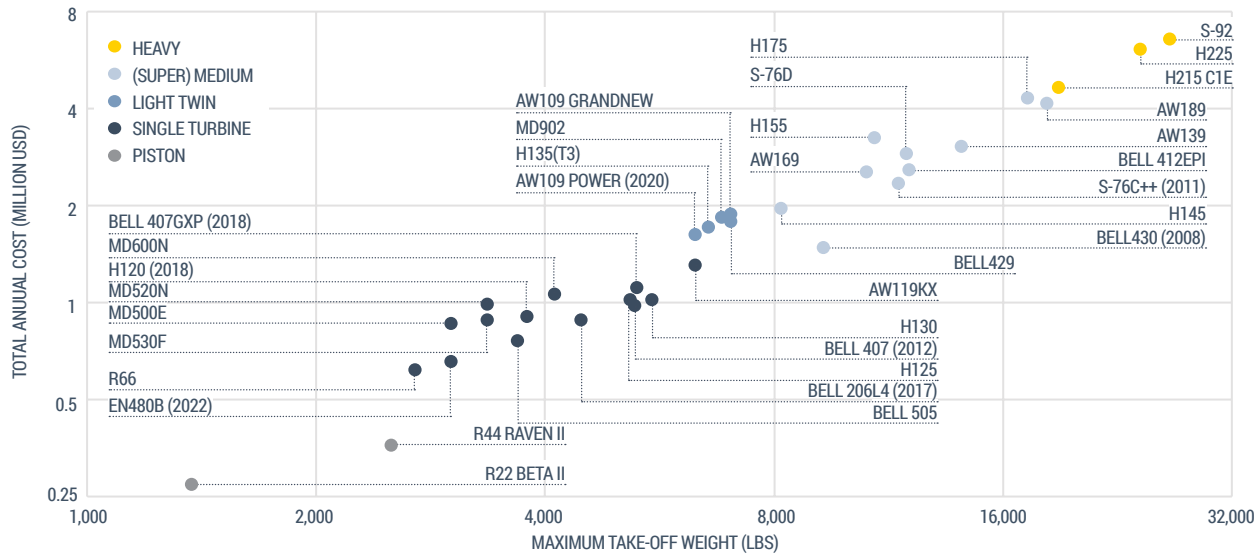
## CIVIL HELICOPTERS

### 2022 Q4

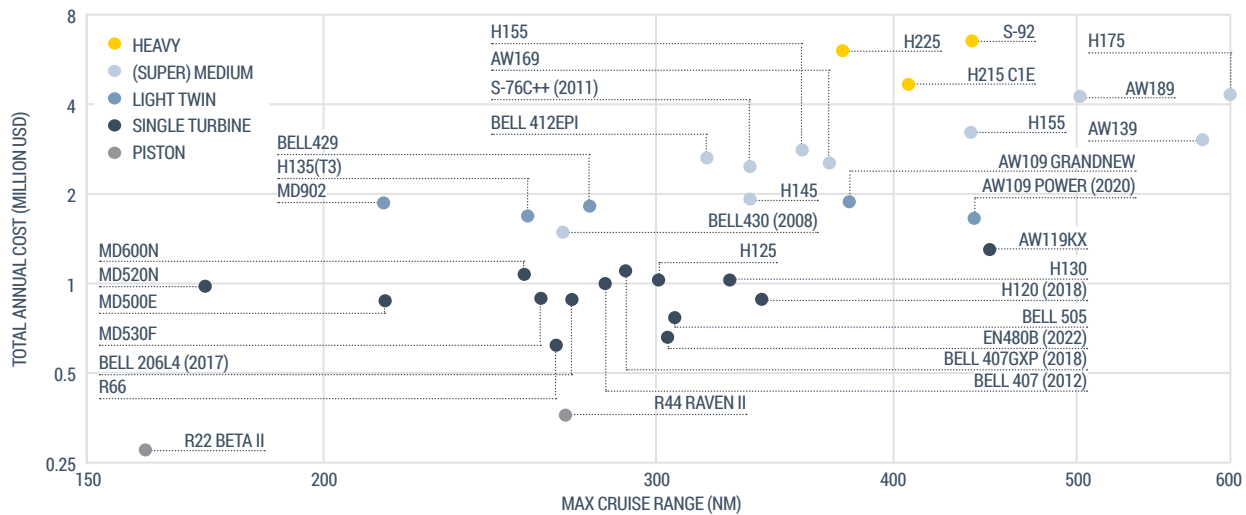
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# AIRCRAFT POSITIONING

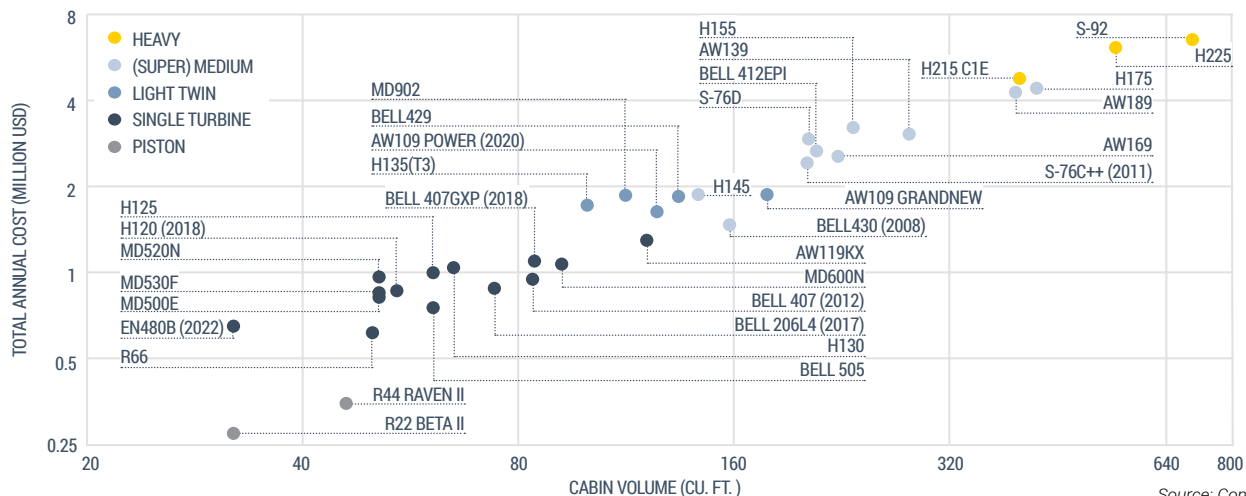
## TOTAL ANNUAL COST VS. MAX TAKEOFF WEIGHT



## TOTAL ANNUAL COST VS. MAX RANGE



## TOTAL ANNUAL COST VS. CABIN VOLUME



Source: Conklin &amp; de Decker

# MARKET SUMMARY PER MODEL

## INVENTORY LEVEL, PRICE TREND & TRANSACTIONS

### H125

#### Average Asking Price (Million USD)



#### Market Indicators (vs. Last Quarter)

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↑ Average Asking Price
- ↓ Average Days on Market

#### PERFORMANCE

|                 |                   |
|-----------------|-------------------|
| Max Range       | 340 N.M. / 630 km |
| Max Speed       | 140 Knots         |
| Typ. Passengers | 6                 |

#### SUPPLY

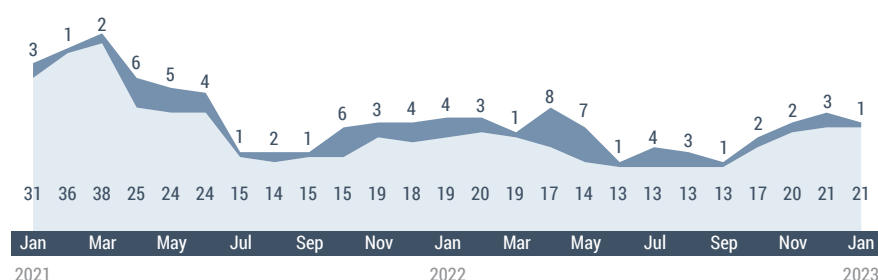
|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 21 (1.9%) | 17 (1.6%) |
| Avg Asking Price   | 3.3M USD  | 2.8M USD  |
| Avg Days on Market | 187       | 252       |

#### TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 36  | 41  |
| Past 3 Months  | 6   | 6   |

#### For Sale vs. Sold

■ Sold ■ For Sale



### H130

#### Average Asking Price (Million USD)



#### Market Indicators (vs. Last Quarter)

- ↑ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- ↓ Average Asking Price
- ↑ Average Days on Market

#### PERFORMANCE

|                 |                  |
|-----------------|------------------|
| Max Range       | 333 N.M. / 606km |
| Max Speed       | 128 Knots        |
| Typ. Passengers | 7                |

#### SUPPLY

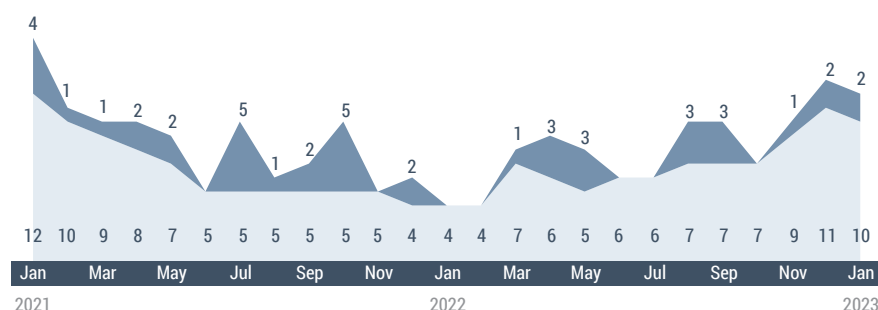
|                    | Jan       | Oct      |
|--------------------|-----------|----------|
| No. for Sale       | 10 (2.8%) | 7 (2.0%) |
| Avg Asking Price   | 2.8M USD  | 3.6M USD |
| Avg Days on Market | 138       | 73       |

#### TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 18  | 15  |
| Past 3 Months  | 5   | 6   |

#### For Sale vs. Sold

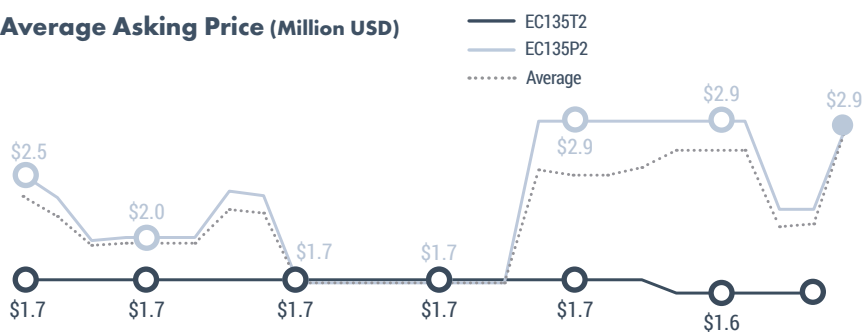
■ Sold ■ For Sale



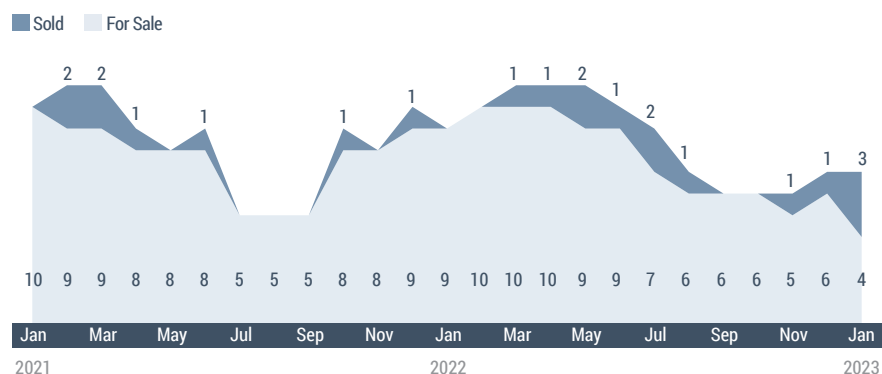
Source: AMSTAT & ASG

## EC135P2 & T2

### Average Asking Price (Million USD)



### For Sale vs. Sold



### Market Indicators (vs. Last Quarter)

|                                    | EC135P2 | EC135T2 |
|------------------------------------|---------|---------|
| Transaction Level (Past 12 Months) | =       | ↑       |
| Inventory Level                    | ↓       | ↓       |
| Average Asking Price               | =       | ↓       |
| Average Days on Market             | ↓       | ↓       |

### PERFORMANCE

|                 | EC135P2   | EC135T2   |
|-----------------|-----------|-----------|
| Max Range       | 332 N.M.  | 332 N.M.  |
| Max Speed       | 614 km    | 614 km    |
| Typ. Passengers | 127 Knots | 127 Knots |
|                 | 6         | 6         |

### SUPPLY

|                    | Jan   Oct | Jan   Oct |
|--------------------|-----------|-----------|
| No. for Sale       | 4   5     | 0   1     |
| Avg Asking Price   | 2.9M USD  | 0.0M USD  |
|                    | 2.9M USD  | 1.6M USD  |
| Avg Days on Market | 265   467 | 0   389   |

### TRANSACTION

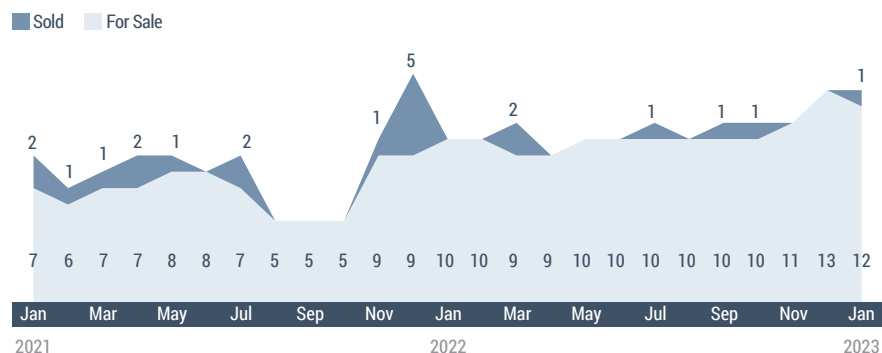
|                | Jan   Oct | Jan   Oct |
|----------------|-----------|-----------|
| Past 12 Months | 5   5     | 8   4     |
| Past 3 Months  | 1   0     | 4   1     |

## EC145

### Average Asking Price (Million USD)



### For Sale vs. Sold



### Market Indicators (vs. Last Quarter)

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- = Average Asking Price
- ↑ Average Days on Market

### PERFORMANCE

|                 |                   |
|-----------------|-------------------|
| Max Range       | 461 N.M. / 855 km |
| Max Speed       | 131 Knots         |
| Typ. Passengers | 9                 |

### SUPPLY

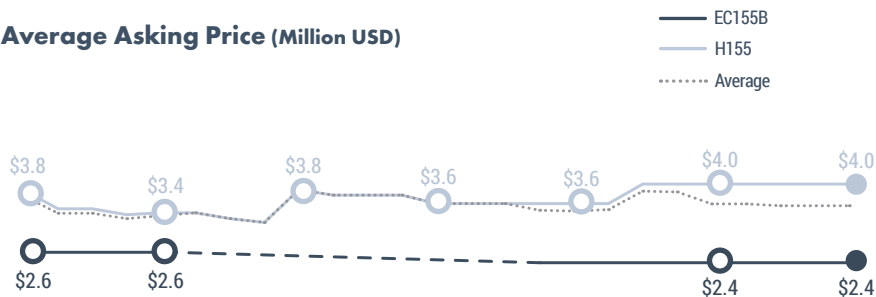
|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 12 (1.4%) | 10 (1.2%) |
| Avg Asking Price   | 2.2M USD  | 2.2M USD  |
| Avg Days on Market | 443       | 426       |

### TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 6   | 11  |
| Past 3 Months  | 1   | 2   |

Source: AMSTAT &amp; ASG



**H155 & EC155B****Average Asking Price (Million USD)****Market Indicators (vs. Last Quarter)**

|                                    | H155 | EC155B |
|------------------------------------|------|--------|
| Transaction Level (Past 12 Months) | ↓    | =      |
| Inventory Level                    | ↓    | =      |
| Average Asking Price               | =    | =      |
| Average Days on Market             | ↑    | ↑      |

**PERFORMANCE**

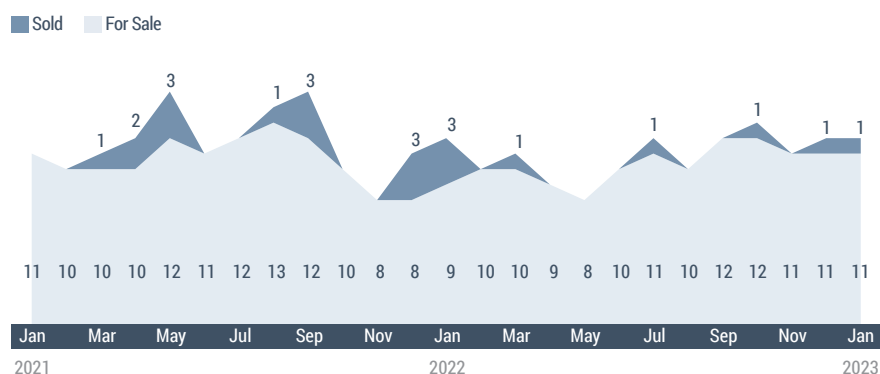
|                 | H155               | EC155B             |
|-----------------|--------------------|--------------------|
| Max Range       | 516 N.M.<br>955 km | 516 N.M.<br>955 km |
| Max Speed       | 150 Knots          | 135 Knots          |
| Typ. Passengers | 13                 | 13                 |

**SUPPLY**

|                    | Jan   Oct   | Jan   Oct |
|--------------------|-------------|-----------|
| No. for Sale       | 8   9       | 3   3     |
| Avg Asking Price   | 4.0M USD    | 2.4M USD  |
|                    | 4.0M USD    | 2.4M USD  |
| Avg Days on Market | 1,199   998 | 198   106 |

**TRANSACTION**

|                | Jan   Oct | Jan   Oct |
|----------------|-----------|-----------|
| Past 12 Months | 5   9     | 0   0     |
| Past 3 Months  | 2   1     | 0   0     |

**For Sale vs. Sold****H225****Average Asking Price (Million USD)****Market Indicators (vs. Last Quarter)**

|   |                                    |
|---|------------------------------------|
| ↑ | Transaction Level (Past 12 Months) |
| ↓ | Inventory Level                    |
| ↑ | Average Asking Price               |
| ↓ | Average Days on Market             |

**PERFORMANCE**

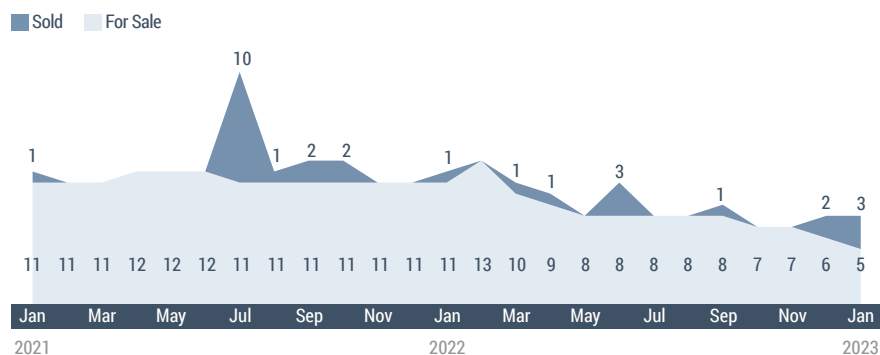
|                 |                   |
|-----------------|-------------------|
| Max Range       | 452 N.M. / 837 km |
| Max Speed       | 142 Knots         |
| Typ. Passengers | 19                |

**SUPPLY**

|                   | Jan      | Oct      |
|-------------------|----------|----------|
| No. for Sale      | 5 (2.8%) | 7 (4.0%) |
| Avg Asking Price  | 9.0M USD | 3.8M USD |
| Avg Days onMarket | 279      | 695      |

**TRANSACTION**

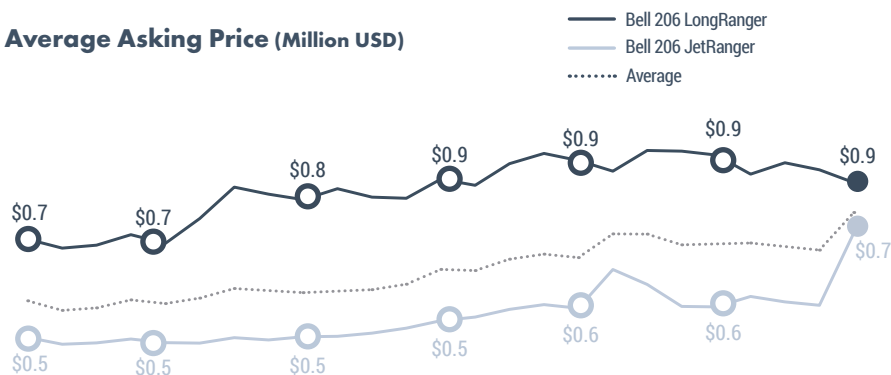
|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 11  | 7   |
| Past 3 Months  | 5   | 1   |

**For Sale vs. Sold**

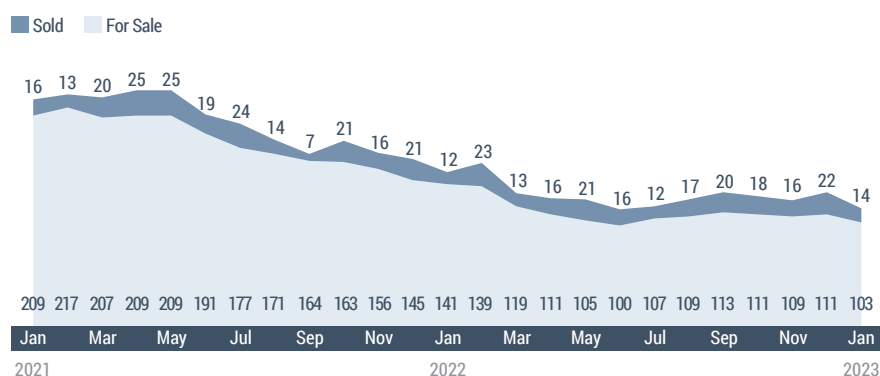
Source: AMSTAT &amp; ASG

## BELL 206 JETRANGER / LONGRANGER

### Average Asking Price (Million USD)



### For Sale vs. Sold



### Market Indicators (vs. Last Quarter)

|                                    | Bell 206J | Bell 206L |
|------------------------------------|-----------|-----------|
| Transaction Level (Past 12 Months) | ↑         | =         |
| Inventory Level                    | ↓         | ↓         |
| Average Asking Price               | ↑         | ↓         |
| Average Days on Market             | ↓         | ↑         |

### PERFORMANCE

|                 | Bell 206J          | Bell 206L          |
|-----------------|--------------------|--------------------|
| Max Range       | 374 N.M.<br>693 km | 270 N.M.<br>500 km |
| Max Speed       | 121 Knots          | 105 Knots          |
| Typ. Passengers | 4                  | 6                  |

### SUPPLY

|                    | Jan   Oct            | Jan   Oct            |
|--------------------|----------------------|----------------------|
| No. for Sale       | 62   63              | 41   48              |
| Avg Asking Price   | 0.7M USD<br>0.6M USD | 0.9M USD<br>0.9M USD |
| Avg Days on Market | 627   741            | 409   405            |

### TRANSACTION

|                | Jan   Oct | Jan   Oct |
|----------------|-----------|-----------|
| Past 12 Months | 140   137 | 68   68   |
| Past 3 Months  | 36   36   | 16   19   |

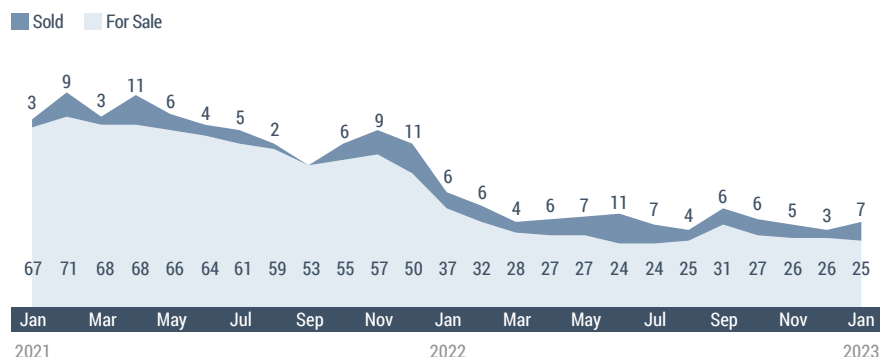
NOTE: Bell 206 transactions revised in Q4.

## BELL 407

### Average Asking Price (Million USD)



### For Sale vs. Sold



### Market Indicators (vs. Last Quarter)

- ↓ Transaction Level (Past 12 Months)
- ↓ Inventory Level
- ↑ Average Asking Price
- ↓ Average Days on Market

### PERFORMANCE

|                 |                   |
|-----------------|-------------------|
| Max Range       | 323 N.M. / 598 km |
| Max Speed       | 132 Knots         |
| Typ. Passengers | 7                 |

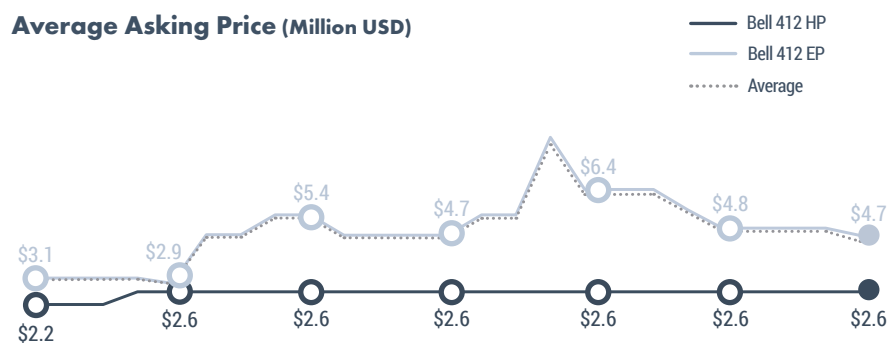
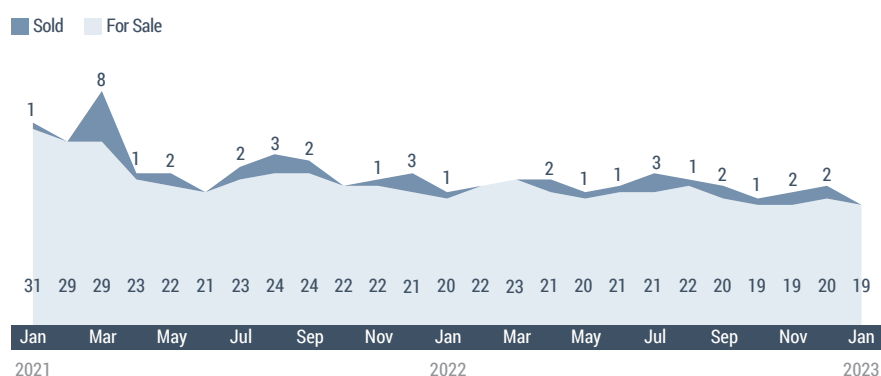
### SUPPLY

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 25 (1.5%) | 27 (1.6%) |
| Avg Asking Price   | 3.1M USD  | 2.5M USD  |
| Avg Days on Market | 299       | 358       |

### TRANSACTION

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 72  | 83  |
| Past 3 Months  | 15  | 16  |

Source: AMSTAT &amp; ASG

**BELL 412EP/412HP****Average Asking Price (Million USD)****For Sale vs. Sold****Market Indicators (vs. Last Quarter)**

|                                    | Bell 412EP | Bell 412HP |
|------------------------------------|------------|------------|
| Transaction Level (Past 12 Months) | ↓          | =          |
| Inventory Level                    | ↓          | ↑          |
| Average Asking Price               | ↓          | =          |
| Average Days on Market             | ↑          | ↓          |

**PERFORMANCE**

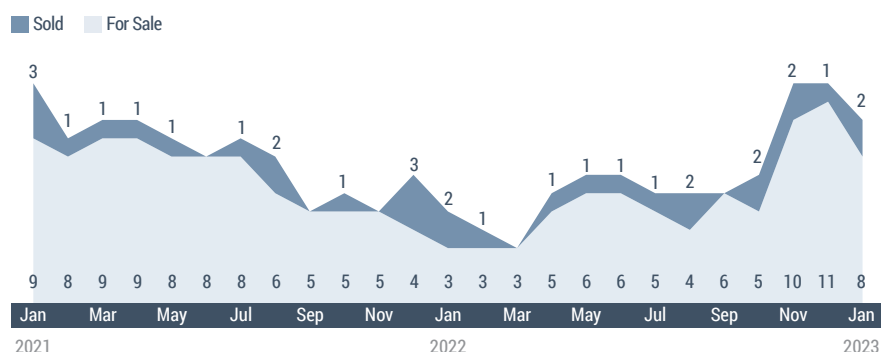
|                 | Bell 412EP        | Bell 412HP        |
|-----------------|-------------------|-------------------|
| Max Range       | 356 N.M. / 659 km | 349 N.M. / 646 km |
| Max Speed       | 140 Knots         | 133 Knots         |
| Typ. Passengers | 9                 | 14                |

**SUPPLY**

|                    | Jan   Oct | Jan   Oct |
|--------------------|-----------|-----------|
| No. for Sale       | 17   18   | 2   1     |
| Avg Asking Price   | 4.7M USD  | 2.6M USD  |
| Avg Days on Market | 467   404 | 361   610 |

**TRANSACTION**

|                | Jan   Oct | Jan   Oct |
|----------------|-----------|-----------|
| Past 12 Months | 15   16   | 0   0     |
| Past 3 Months  | 4   4     | 0   0     |

**BELL 429****Average Asking Price (Million USD)****For Sale vs. Sold****Market Indicators (vs. Last Quarter)**

|   |                                    |
|---|------------------------------------|
| = | Transaction Level (Past 12 Months) |
| ↑ | Inventory Level                    |
| ↑ | Average Asking Price               |
| ↓ | Average Days on Market             |

**PERFORMANCE**

|                 |                   |
|-----------------|-------------------|
| Max Range       | 368 N.M. / 681 km |
| Max Speed       | 130 Knots         |
| Typ. Passengers | 7                 |

**SUPPLY**

|                    | Jan      | Oct      |
|--------------------|----------|----------|
| No. for Sale       | 8 (1.8%) | 5 (1.2%) |
| Avg Asking Price   | 6.7M USD | 6.2M USD |
| Avg Days on Market | 246      | 272      |

**TRANSACTION**

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 14  | 14  |
| Past 3 Months  | 5   | 4   |

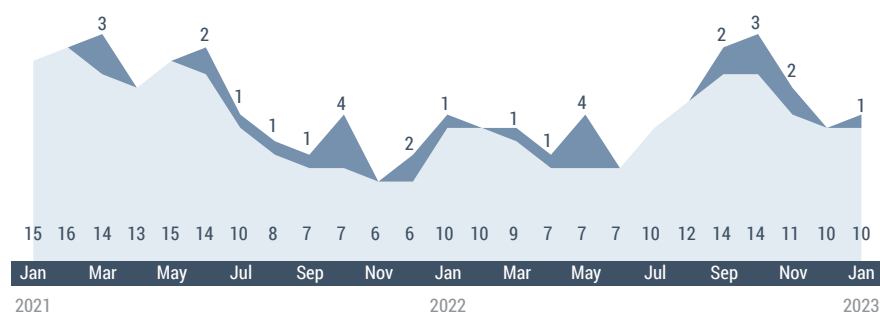
Source: AMSTAT &amp; ASG

**AW109SP GRANDNEW****Average Asking Price (Million USD)****Market Indicators (vs. Last Quarter)**

- Transaction Level (Past 12 Months)
- ↓ Inventory Level
- Average Asking Price
- ↑ Average Days on Market

**For Sale vs. Sold**

■ Sold ■ For Sale

**PERFORMANCE**

|                 |                   |
|-----------------|-------------------|
| Max Range       | 480 N.M. / 889 km |
| Max Speed       | 130 Knots         |
| Typ. Passengers | 7                 |

**SUPPLY**

|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 10 (4.6%) | 14 (6.6%) |
| Avg Asking Price   | 3.9M USD  | 3.9M USD  |
| Avg Days on Market | 189       | 154       |

**TRANSACTION**

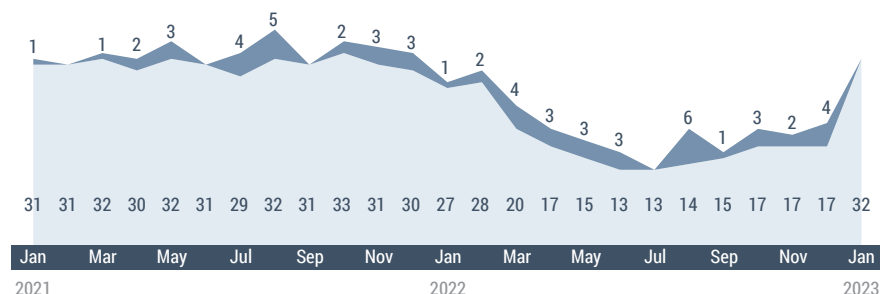
|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 14  | 14  |
| Past 3 Months  | 3   | 5   |

**AW139****Average Asking Price (Million USD)****Market Indicators (vs. Last Quarter)**

- ↓ Transaction Level (Past 12 Months)
- ↑ Inventory Level
- Average Asking Price
- ↓ Average Days on Market

**For Sale vs. Sold**

■ Sold ■ For Sale

**PERFORMANCE**

|                 |                     |
|-----------------|---------------------|
| Max Range       | 568 N.M. / 1,052 km |
| Max Speed       | 140 Knots           |
| Typ. Passengers | 15                  |

**SUPPLY**

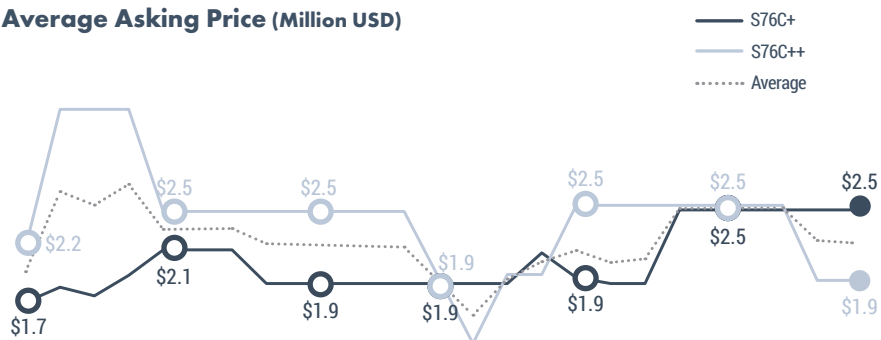
|                    | Jan       | Oct       |
|--------------------|-----------|-----------|
| No. for Sale       | 32 (2.9%) | 17 (1.6%) |
| Avg Asking Price   | 7.5M USD  | 7.5M USD  |
| Avg Days on Market | 201       | 403       |

**TRANSACTION**

|                | Jan | Oct |
|----------------|-----|-----|
| Past 12 Months | 31  | 32  |
| Past 3 Months  | 6   | 10  |

Source: AMSTAT &amp; ASG

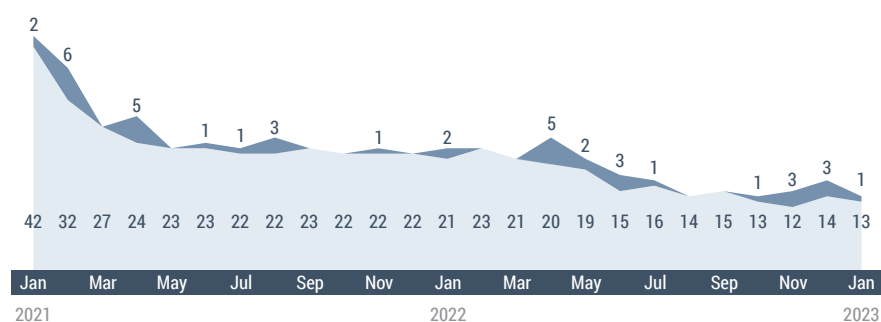


**S-76C+ / S-76C++****Average Asking Price (Million USD)****Market Indicators (vs. Last Quarter)**

|                                    | S76C+ | S76C++ |
|------------------------------------|-------|--------|
| Transaction Level (Past 12 Months) | ↑     | ↑      |
| Inventory Level                    | ↓     | ↑      |
| Average Asking Price               | =     | ↓      |
| Average Days on Market             | ↓     | ↓      |

**For Sale vs. Sold**

■ Sold ■ For Sale

**PERFORMANCE**

|                 | S-76C+            | S-76C++           |
|-----------------|-------------------|-------------------|
| Max Range       | 335 N.M. / 620 km | 335 N.M. / 620 km |
| Max Speed       | 155 Knots         | 155 Knots         |
| Typ. Passengers | 12                | 12                |

**SUPPLY**

|                    | Jan   Oct | Jan   Oct |
|--------------------|-----------|-----------|
| No. for Sale       | 7   9     | 6   4     |
| Avg Asking Price   | 2.5M USD  | 1.9M USD  |
|                    | 2.5M USD  | 2.5M USD  |
| Avg Days on Market | 936   979 | 415   622 |

**TRANSACTION**

|                | Jan   Oct | Jan   Oct |
|----------------|-----------|-----------|
| Past 12 Months | 7   5     | 12   10   |
| Past 3 Months  | 2   1     | 5   0     |

Source: AMSTAT &amp; ASG

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