



# **STATE OF THE MARKET REPORT: LARGE CABIN LONG-RANGE BUSINESS JET MARKET**

**Provided to respondents of the  
Supersonic Business Jet Survey  
November-December 2013**



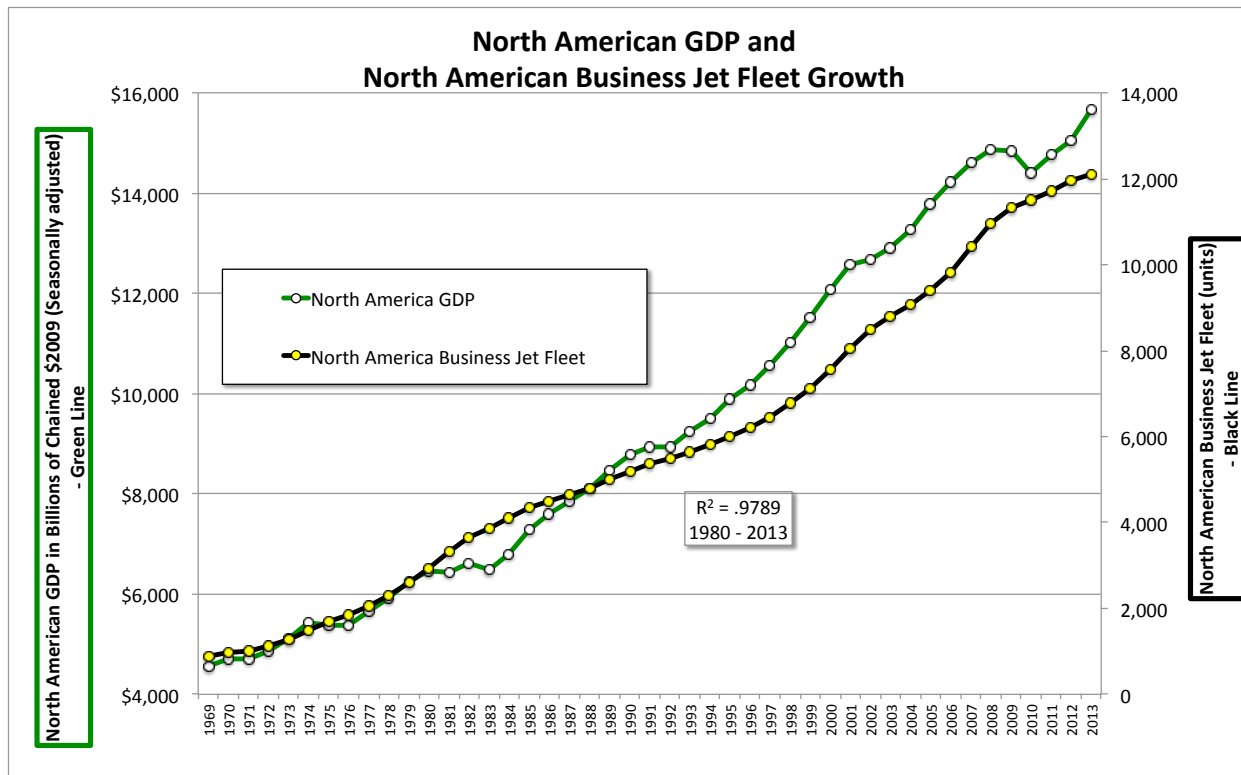
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# *Economic Outlook*

# The Economy

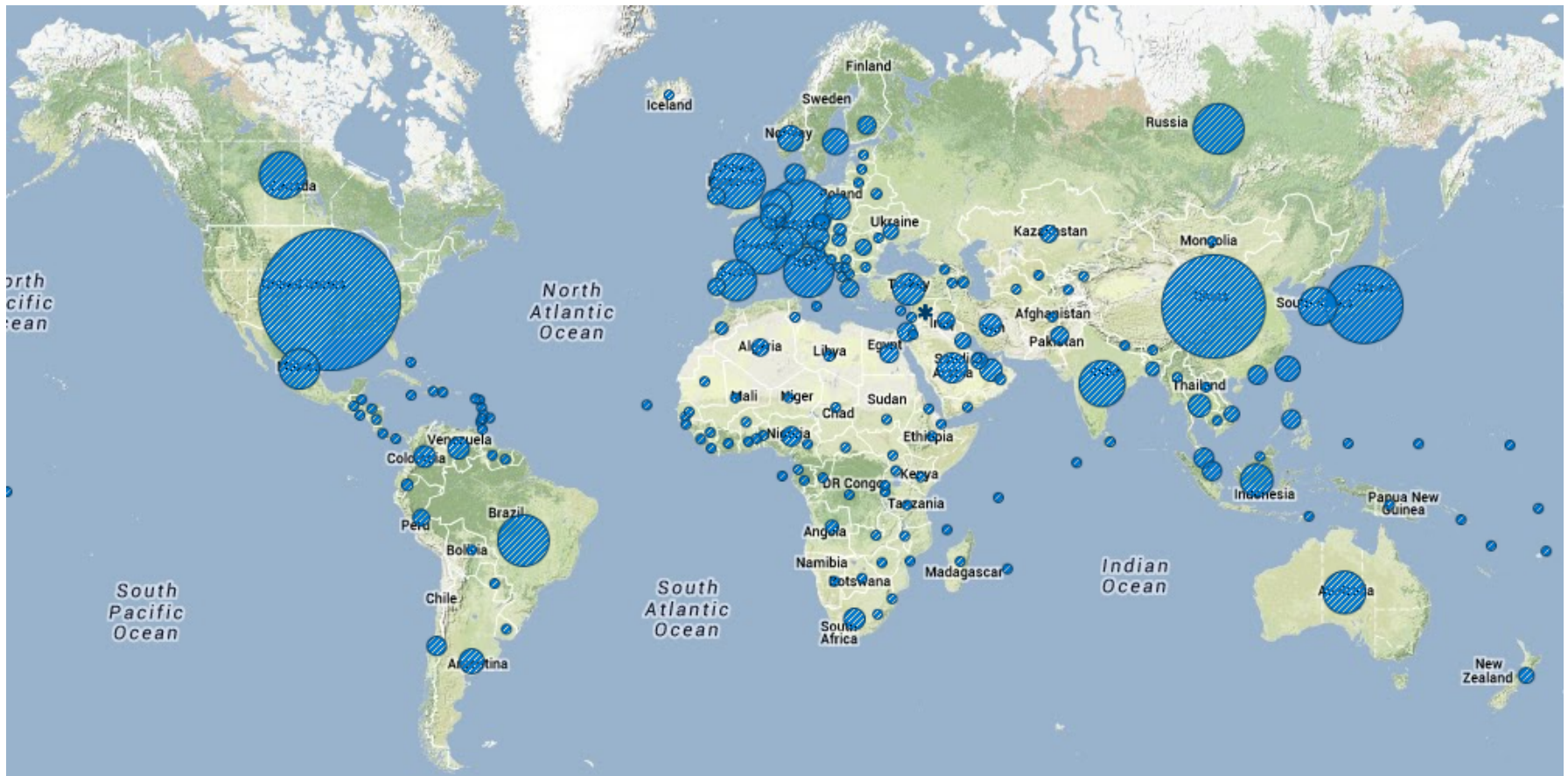


Real GDP growth is strongly correlated with the growth of the business jet fleet, although large differences in business jet penetration rates exist across world regions. Through Q3 2013, North America (USA and Canada) has 28% of the world's GDP but 63% of the

world's jet fleet. The Asia Pacific region has now surpassed both North America and Europe in terms of the size of the regional economy as measured by GDP, but has just 5% of the world business jet fleet on register (see chart on following page).

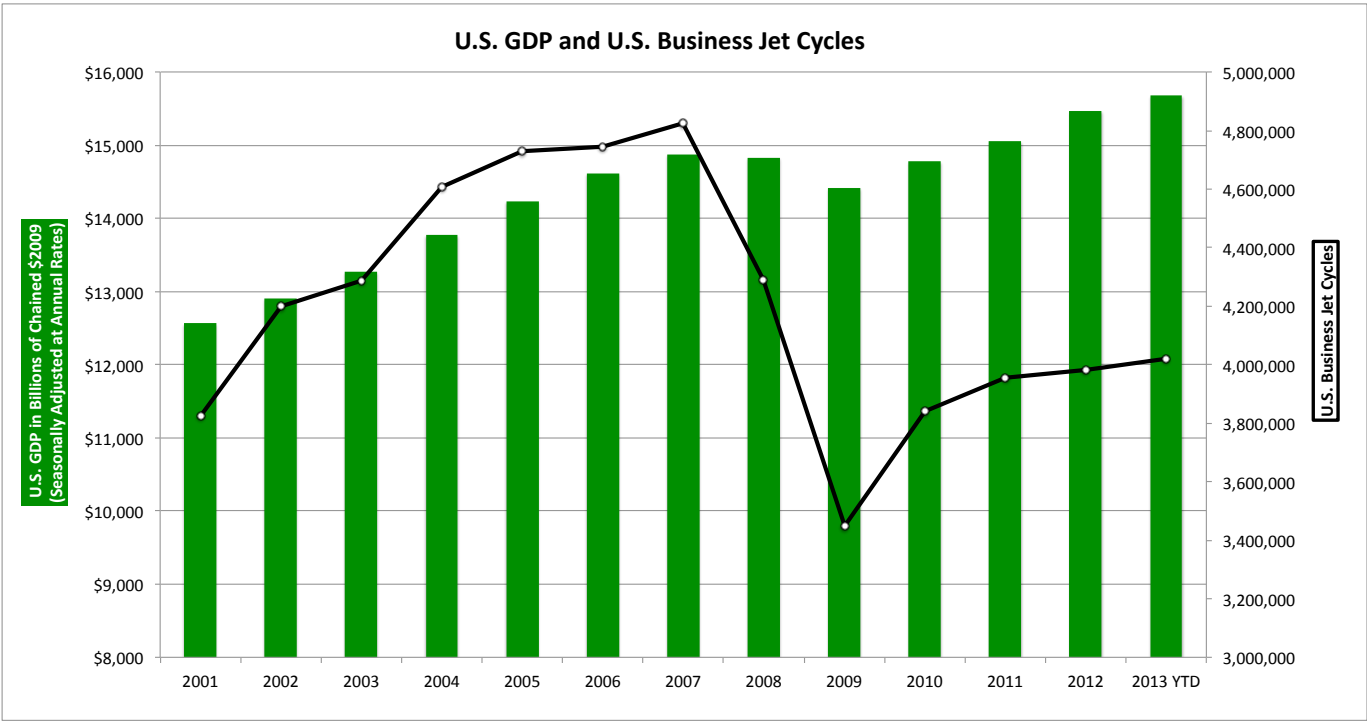
# Gross Domestic Product (GDP)

## GDP at Current Prices by Country – October 2013



Source: IMF – World Economic Outlook, October 2013

# U.S. GDP and U.S. Business Jet Cycles



Sources: U.S. BEA, FAA

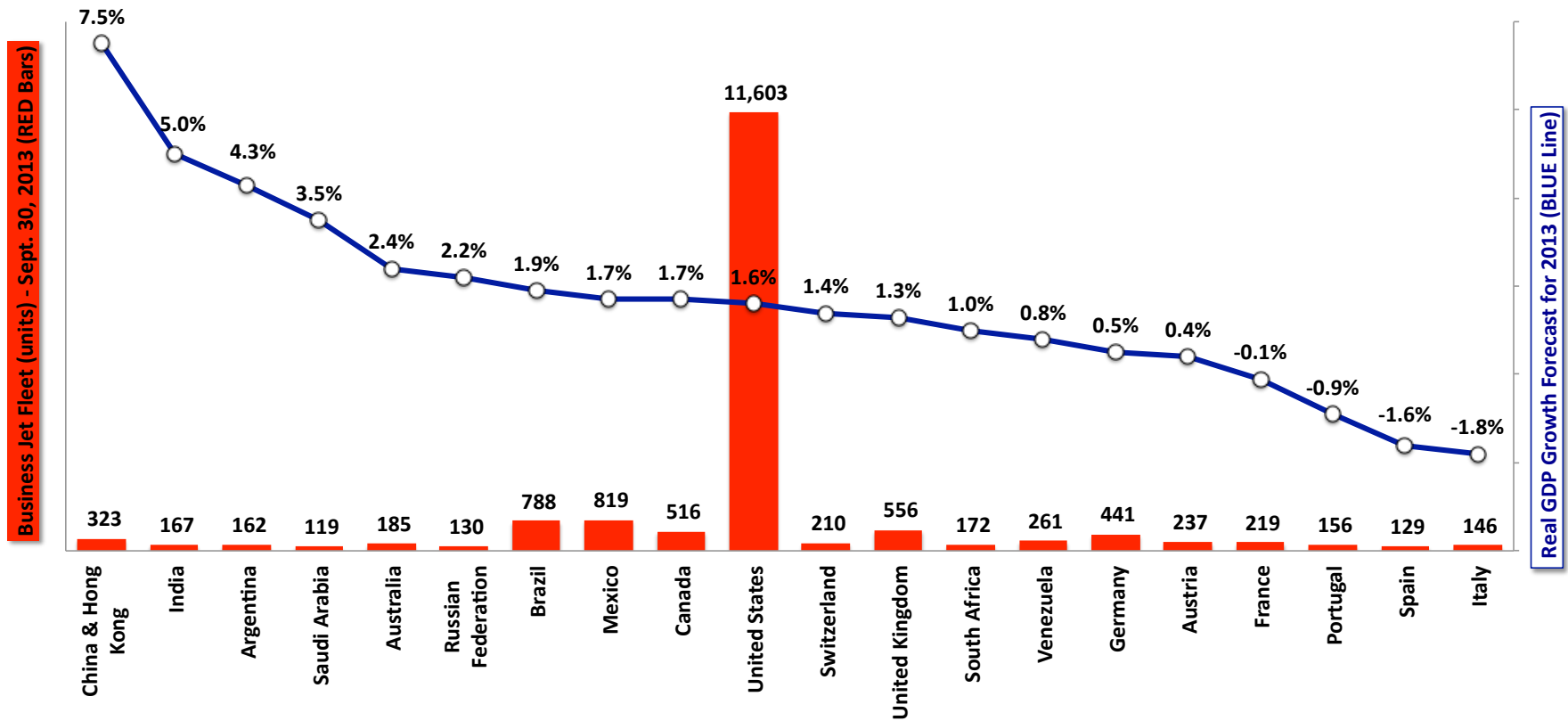
Growth in business jet cycles (referring to one takeoff or landing) were tracking closely with GDP in the United States up until the late 2007/2008 recession. Cycles fell sharply in 2008 and 2009 and have not yet recovered since that time, despite a rebounding U.S. economy (growing in 15 of the last 16 quarters). Cycles are 17%

below their pre-recession peak, despite the fact that the jet fleet grew by 15% from the end of 2007 to Q3 2013. This would imply that there is about 32% underutilized capacity in the U.S. business jet fleet based on pre-recession flying patterns, equivalent to 2,800 jets. (Sources: U.S. BEA, Sept. 26, 2013; FAA)

# GDP Growth Forecasts for 2013 and Business Jet Fleets

Markets with 3.0%+ GDP growth represent only 4% of the world business jet fleet

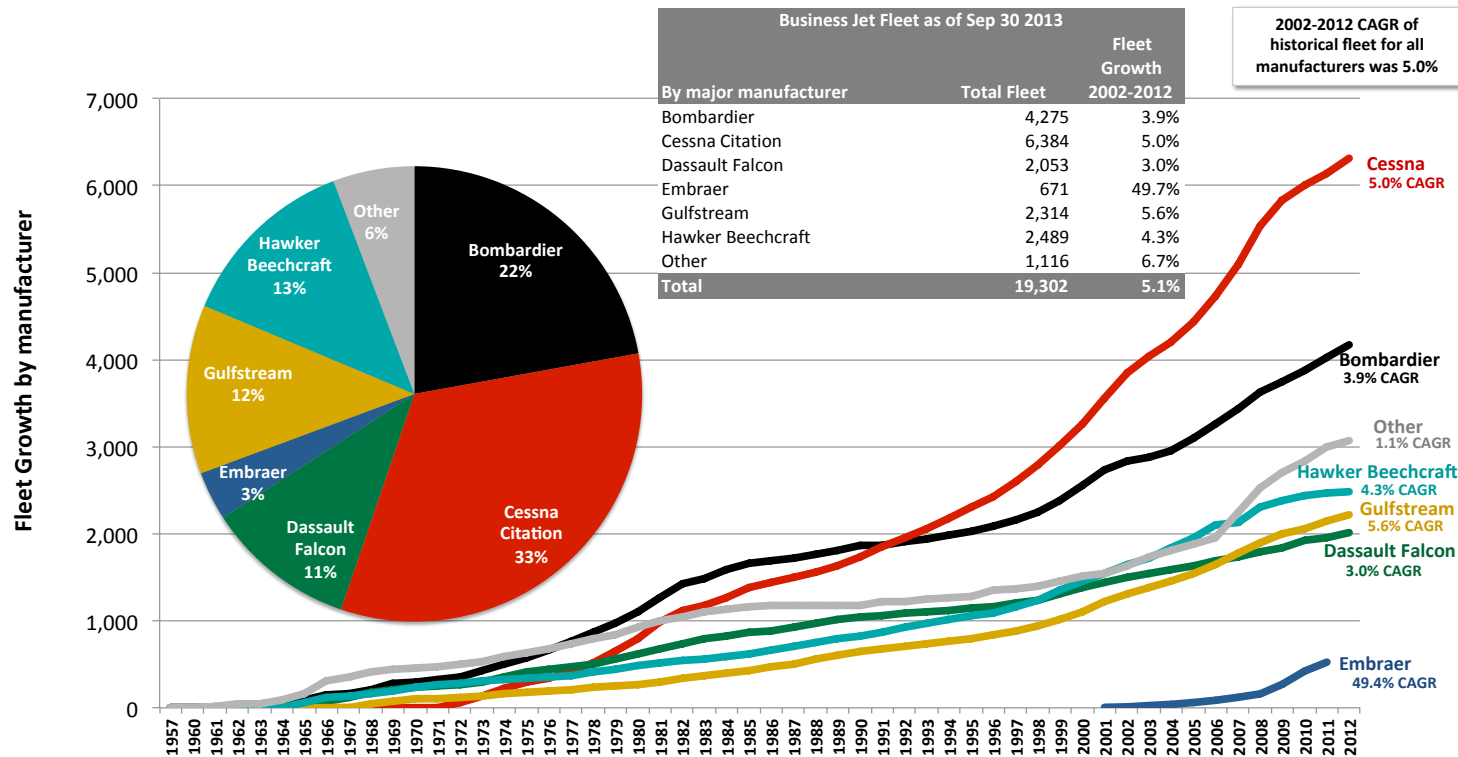
2013 GDP Forecasts and "Top 20" Business Jet Fleets





# *The Business Aviation Industry*

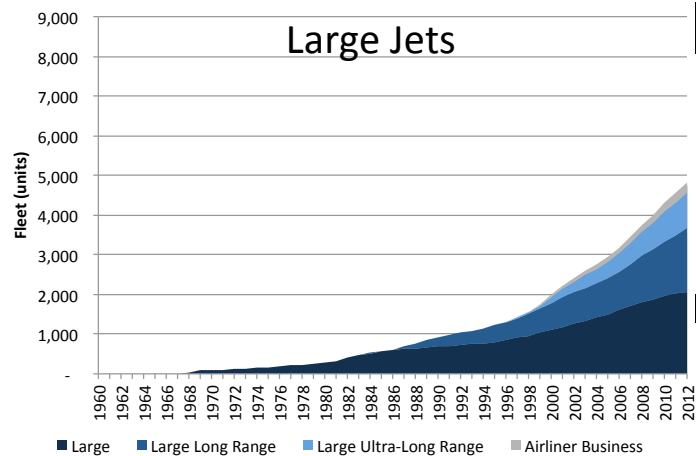
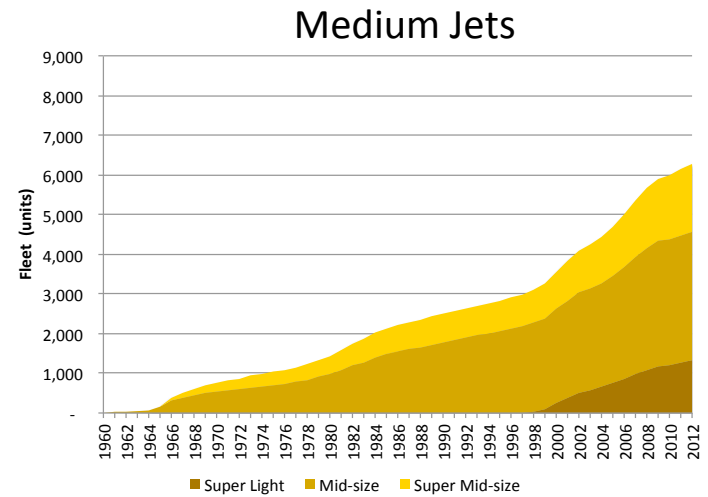
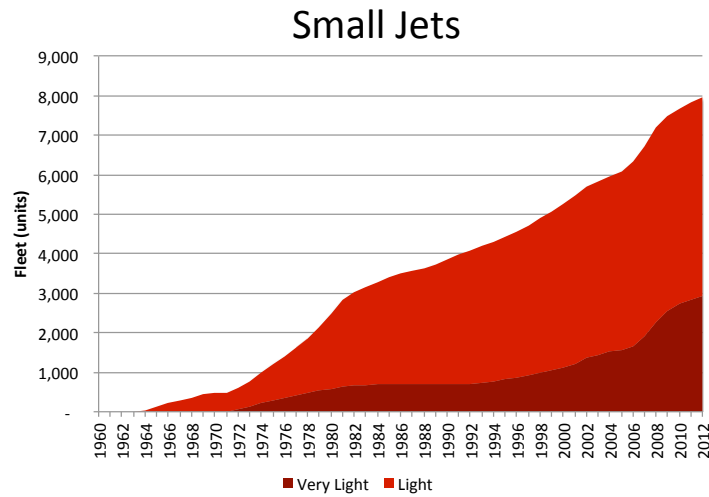
# Jet Fleet by Manufacturer



As of September 30, 2013, the world's business jet fleet was 19,302 aircraft, representing 91% of the fleet ever delivered. Cessna has been the volume leader for 20+ years, and 33% of business jets in the fleet are Cessna Citations. The world jet fleet grew at 5% CAGR from

2002-2012, with 94% of the fleet represented by just 6 manufacturers. Embraer is the first successful new jet entrant in the last 30 years, and is growing at an unprecedented rate - as Hawker exits the market, Honda Aircraft and Pilatus are poised to be the next.

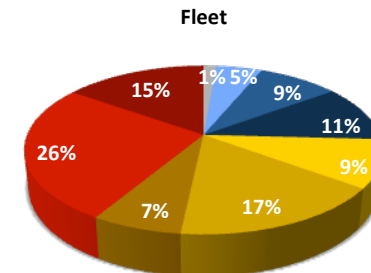
# Jet Fleet by Size Category



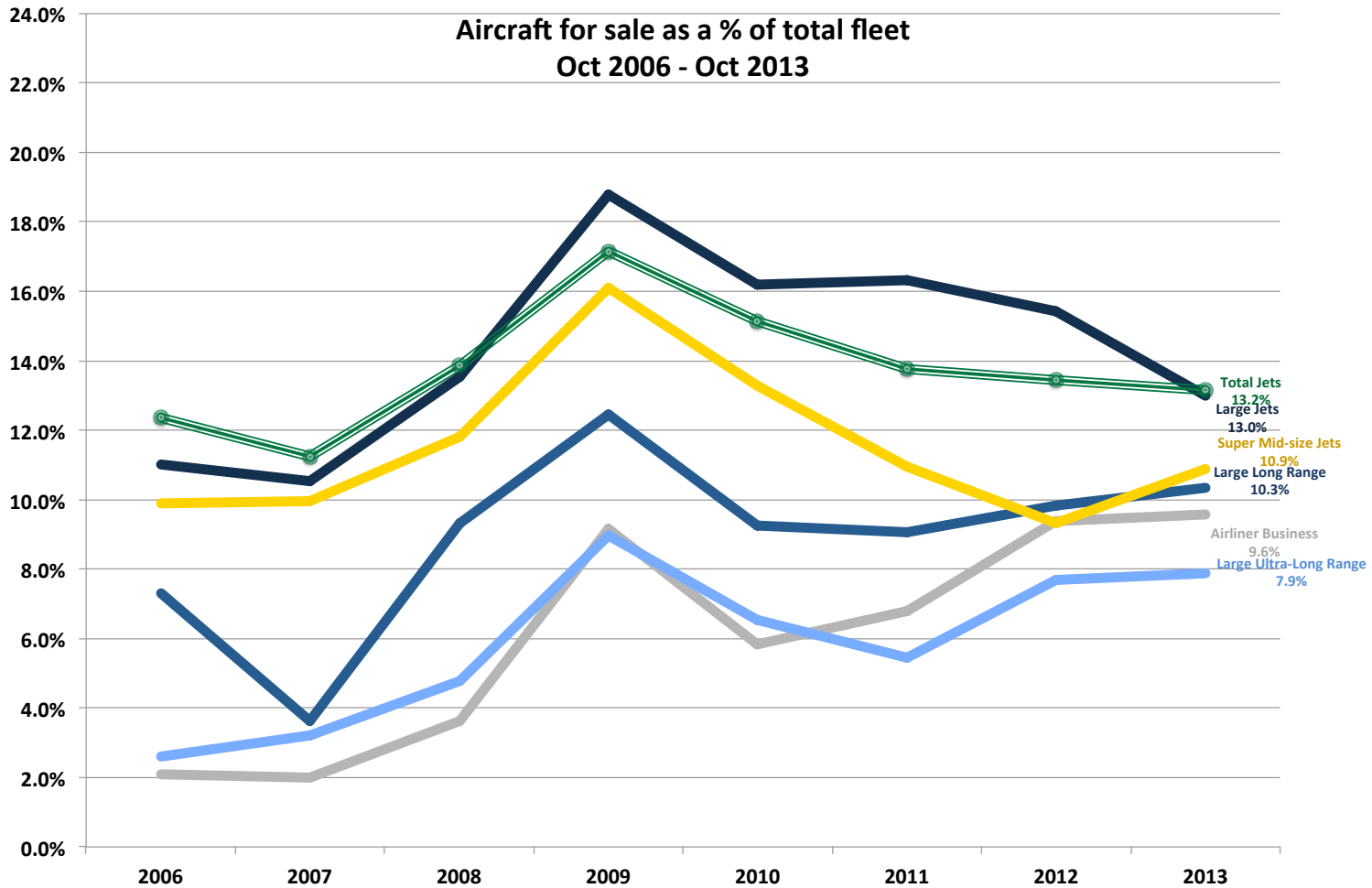
**Business Jet Fleet as of September 30 2013**

By size category

Airliner Business	261
Large Ultra-Long Range	952
Large Long Range	1,677
Large Jets	2,098
Super Mid-size Jets	1,774
Mid-size Jets	3,219
Super Light Jets	1,339
Light Jets	5,038
Very Light Jets	2,944
<b>Total</b>	<b>19,302</b>



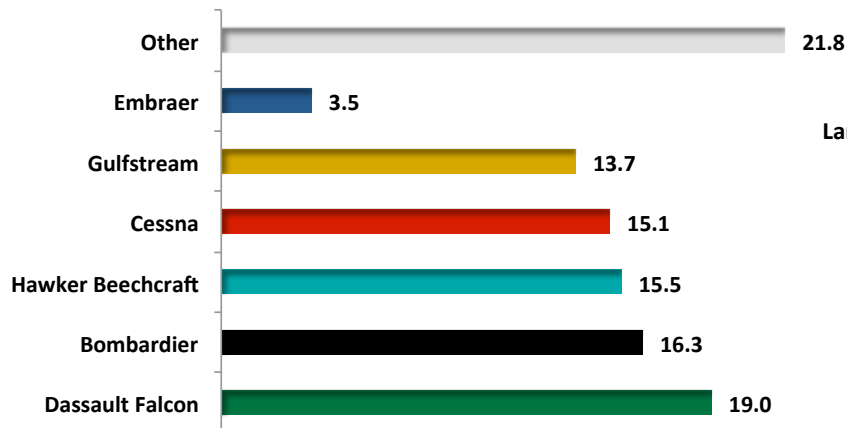
# Pre-Owned Business Aircraft Inventory



# Business Jet Fleet Aging

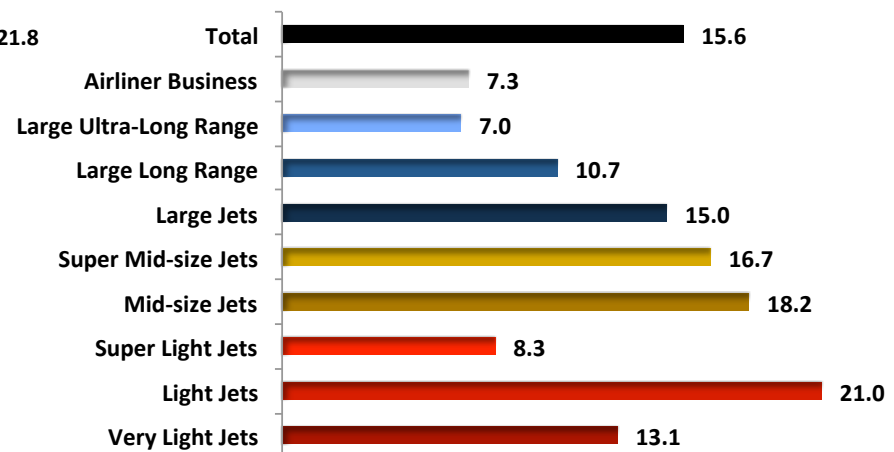
## By Manufacturer

Business aircraft average fleet age as of September 30, 2013



## By Size Category

Business aircraft average fleet age as of September 30, 2013



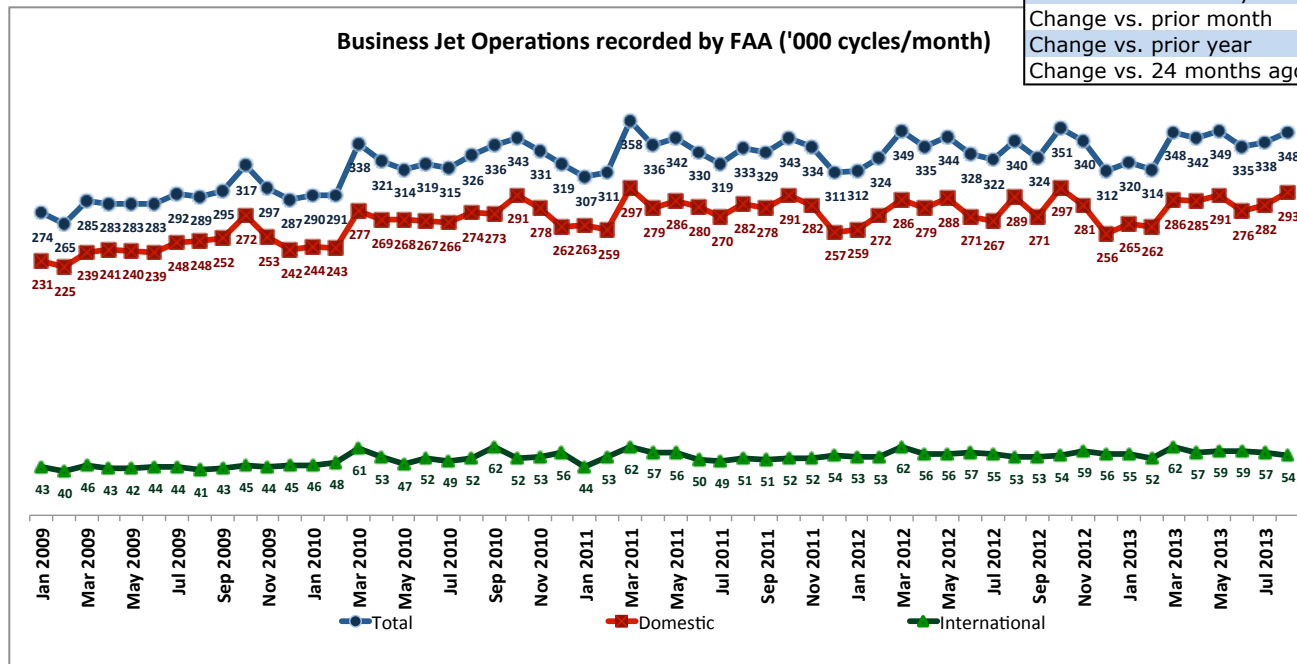
There is considerable variation in the age of the business jet fleet by manufacturer and by size category. As of September 30, 2013, the business jet fleet averaged 15.6 years of age. Dassault Falcon Jet has the oldest fleet of any of the large OEMs, with an average age of 19 years. The traditional Light Jet and Mid-size Jet categories have the oldest average fleet ages.

Limited sources of financing continue to stifle sales of older business aircraft regardless of size category. Aircraft more than 15 years old remain depressed in value and are increasingly likely to be retired rather than redeployed due to high maintenance and refurbishment costs.

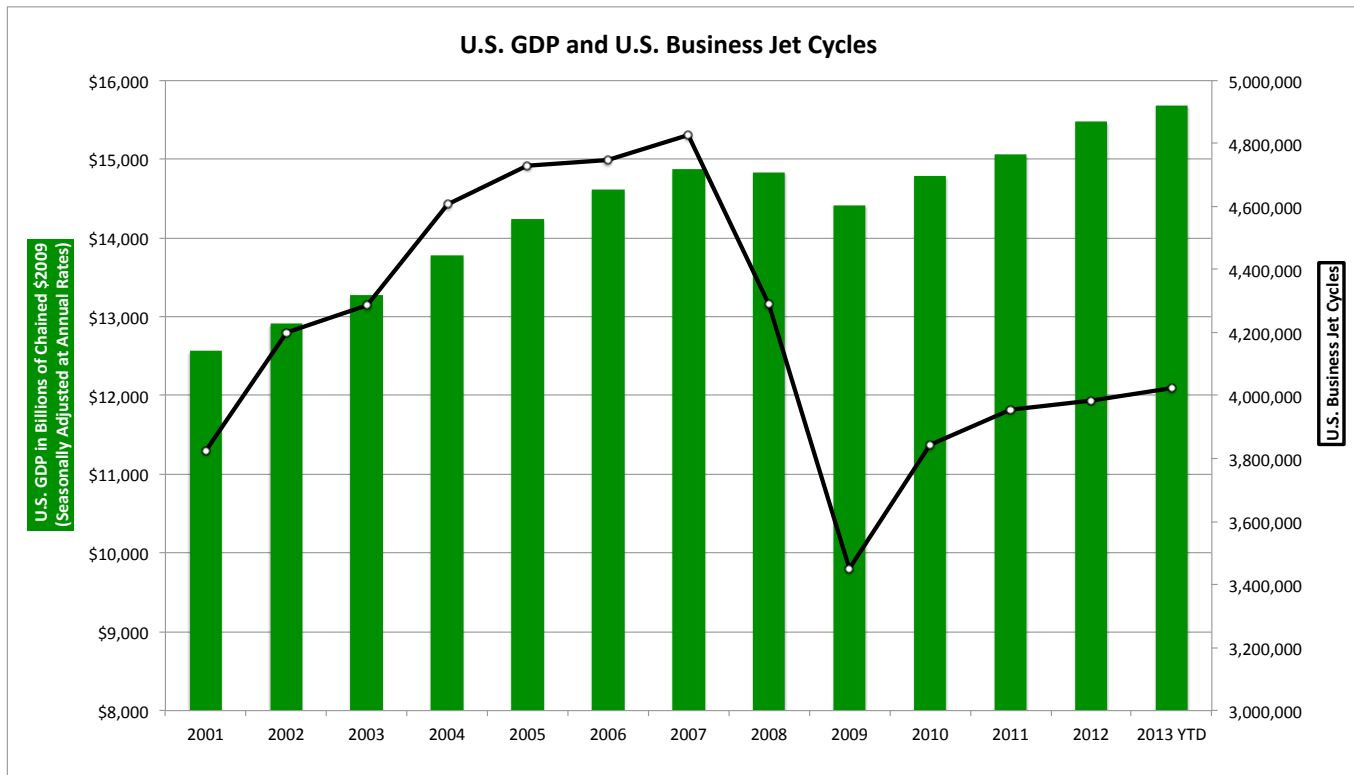
# U.S. Business Jet Utilization

U.S. business jet cycles increased 1.3% in August 2013 YOY on a TTM basis, the first time growth has been registered for several years. Utilization over the last 12 months remains 20% below the recent annual peak in 2007, despite the growth of the underlying fleet with new jet deliveries exceeding retirements each year since that time.

FAA BUSINESS JET OPERATIONS - AUG 2013		Trailing 12 Months
TOTAL CYCLES		
Total Cycles	347,666	4,021,982
Change vs. prior month	2.7%	0.2%
Change vs. prior year	2.4%	1.3%
Change vs. 24 months ago	4.3%	1.4%
DOMESTIC CYCLES		
Total Domestic Cycles	293,268	3,344,848
Change vs. prior month	4.1%	0.1%
Change vs. prior year	1.5%	0.8%
Change vs. 24 months ago	3.9%	0.8%
INTERNATIONAL CYCLES		
Total International Cycles	54,400	677,136
Change vs. prior month	-4.3%	0.3%
Change vs. prior year	3.4%	3.6%
Change vs. 24 months ago	6.3%	4.9%



# U.S. Business Jet Utilization



Sources: FAA, JETNET

The growth in total FAA business jet flight cycles tracked closely with the growth of the U.S. business jet fleet until the onset of the Great Recession in December 2007. Cycles fell sharply in 2008 and 2009, and remain well below prior

levels despite the growth of the underlying fleet. By September 30, 2013, excess (underutilized) capacity is estimated to be about 27%, representing the equivalent of 3,100 U.S. registered business jets.



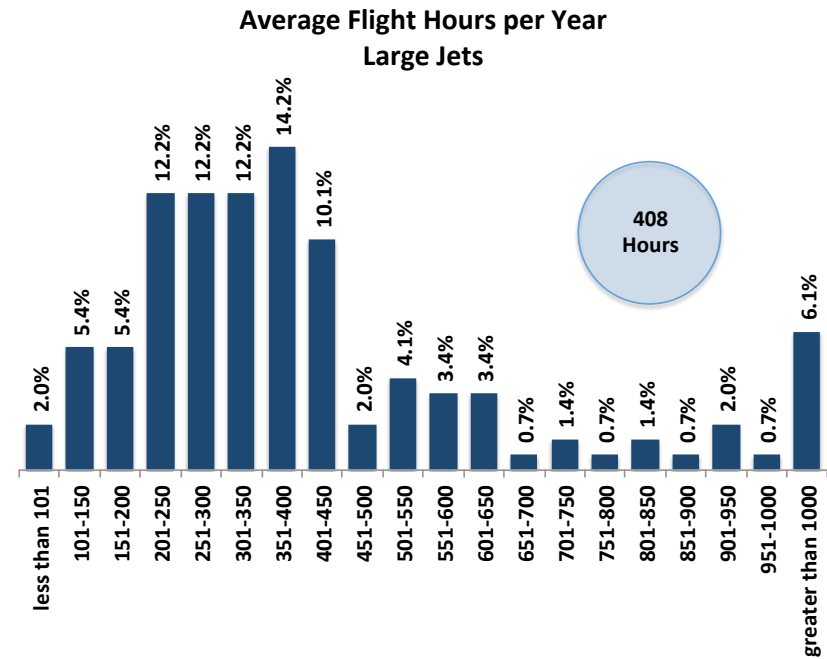
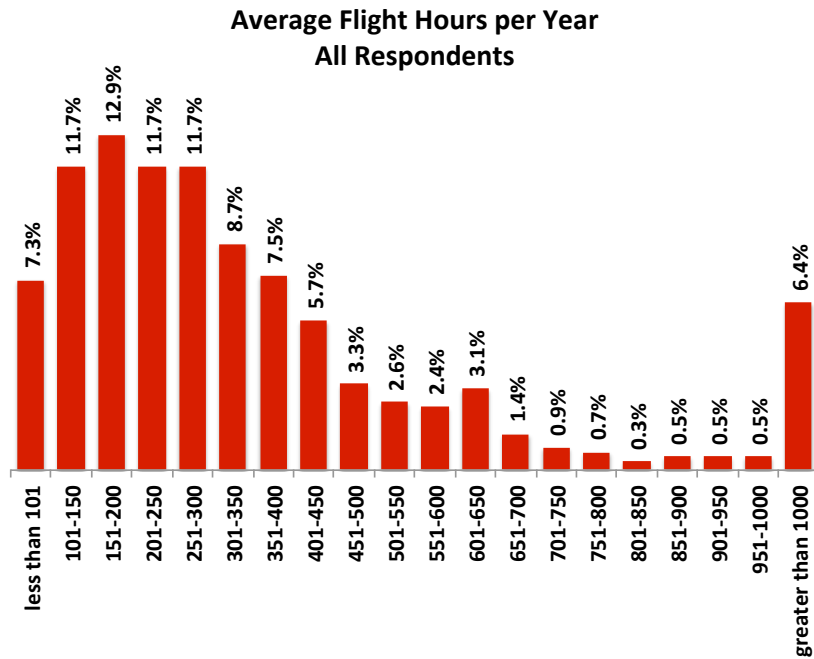
# *JETNET iQ Q3 2013 Survey*

## *Summary of Selected Results for Large Jet Operators*



# Flight Hour Utilization Profile

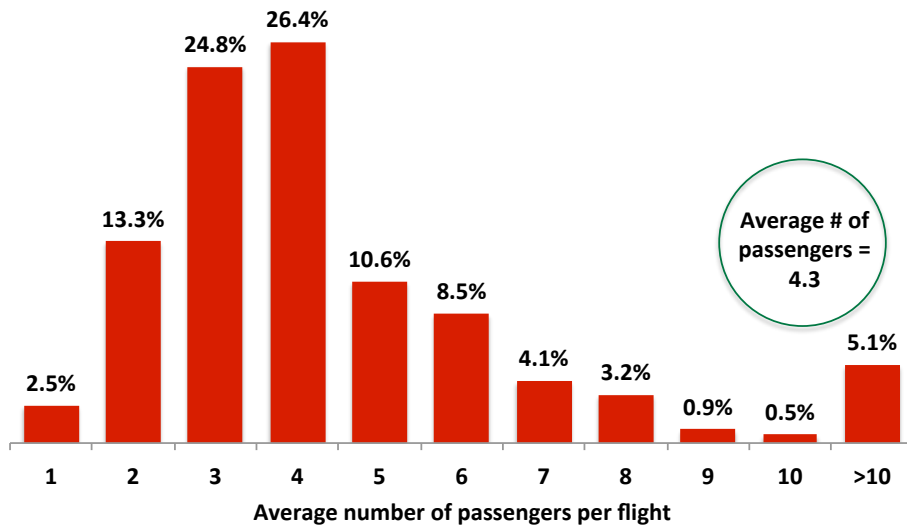
## Last 12 Months – Q3 2013 Survey



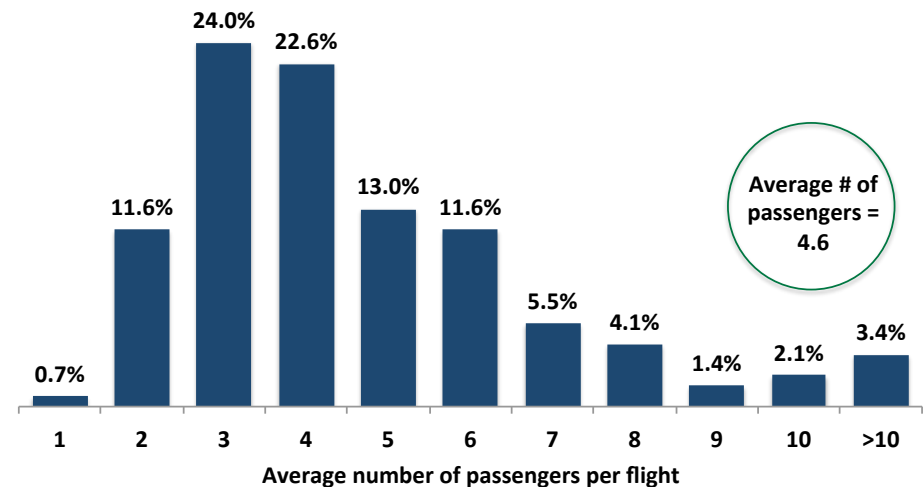
# Average Number of Passengers per Flight

## Last 12 Months – Q3 2013 Survey

Average Number of Passenger per Aircraft  
All Respondents

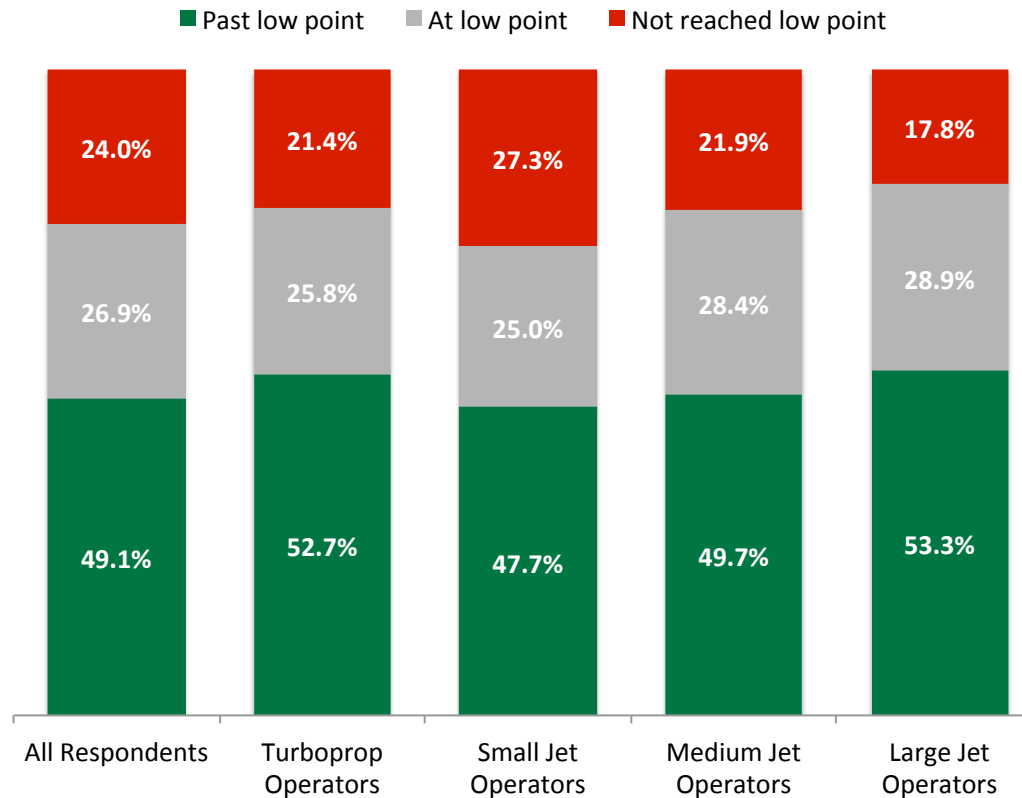


Average Number of Passenger per Aircraft  
Large Jet Operators



# Current Business Cycle Opinion by Aircraft Size Category in Operation

*Where is the Business Aviation Industry in the Current Business Cycle?*

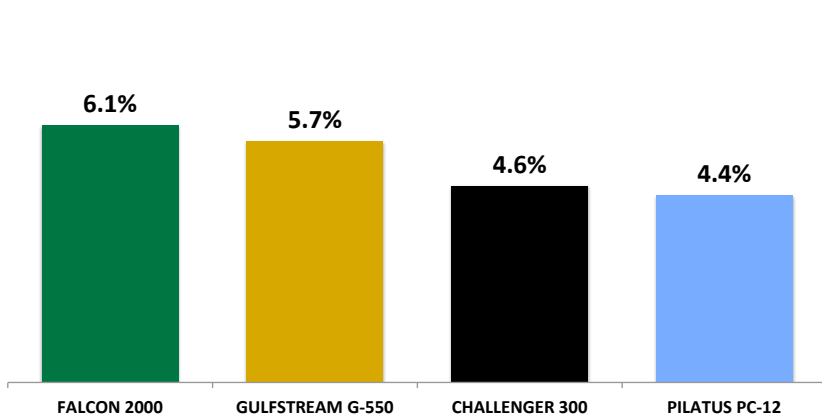


# Top 4 Models – Best Value for Dollar

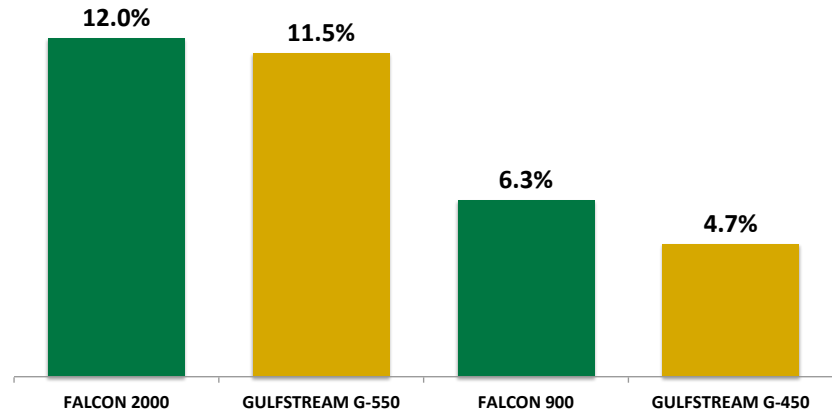
% of Total Votes – All Respondents (Q1 2013 – Q3 2013 Surveys)

“Which business aircraft model do you find has the best value for the dollar?”

Top 8 models - worldwide  
"Best value for dollar"

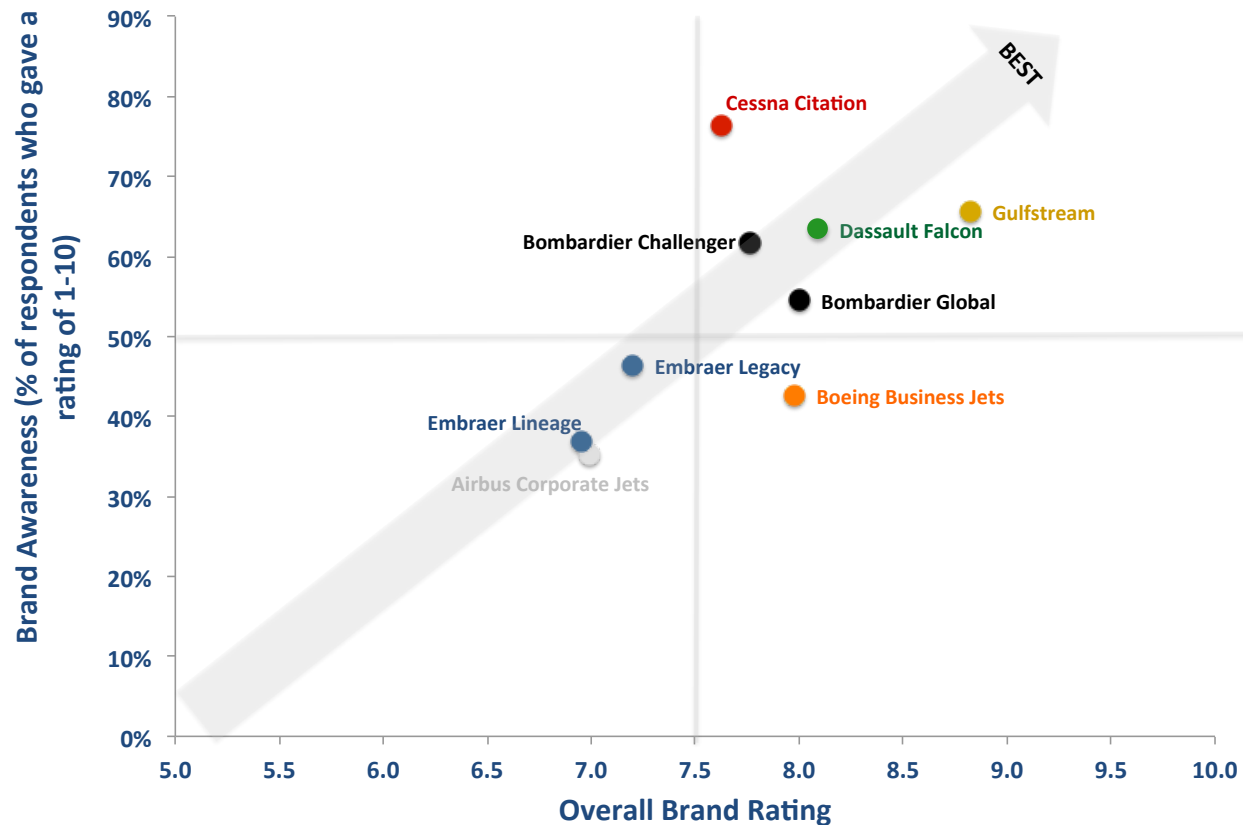


Top 4 models - Large Jet Operators  
"Best value for dollar"



# Aircraft Brand Ratings and Awareness - Manufacturers of Large Jets

Brand Awareness versus Overall Brand Rating



# Leading Engine Brands for 3 Key Customer Criteria

*“Based on the following brand elements, please select the one engine manufacturer brand that you would rank highest against its competitors for:*

- *Best Dispatch Reliability*
- *Best Support and Service Network*
- *Easiest to do business with*

## All Respondents

	1st	2nd	3rd	4th
Best dispatch reliability - Jets	Pratt & Whitney Canada	Rolls-Royce	Honeywell	General Electric
Best support and service network - Jets	Pratt & Whitney Canada	Honeywell	Rolls-Royce	General Electric
Easiest to do business with - Jets	Pratt & Whitney Canada	Honeywell	Rolls-Royce	Williams International

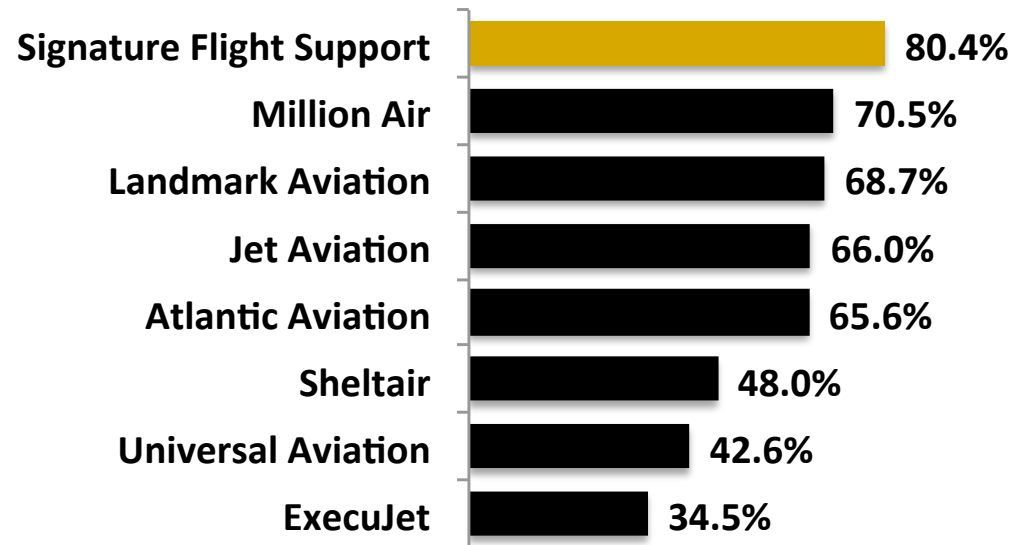
## Large Jet Operators

	1st	2nd	3rd	4th
Best dispatch reliability - Jets	Rolls-Royce	General Electric	Pratt & Whitney Canada	Honeywell
Best support and service network - Jets	Rolls-Royce	Honeywell	Pratt & Whitney Canada	General Electric
Easiest to do business with - Jets	Rolls-Royce	Pratt & Whitney Canada	Honeywell	General Electric

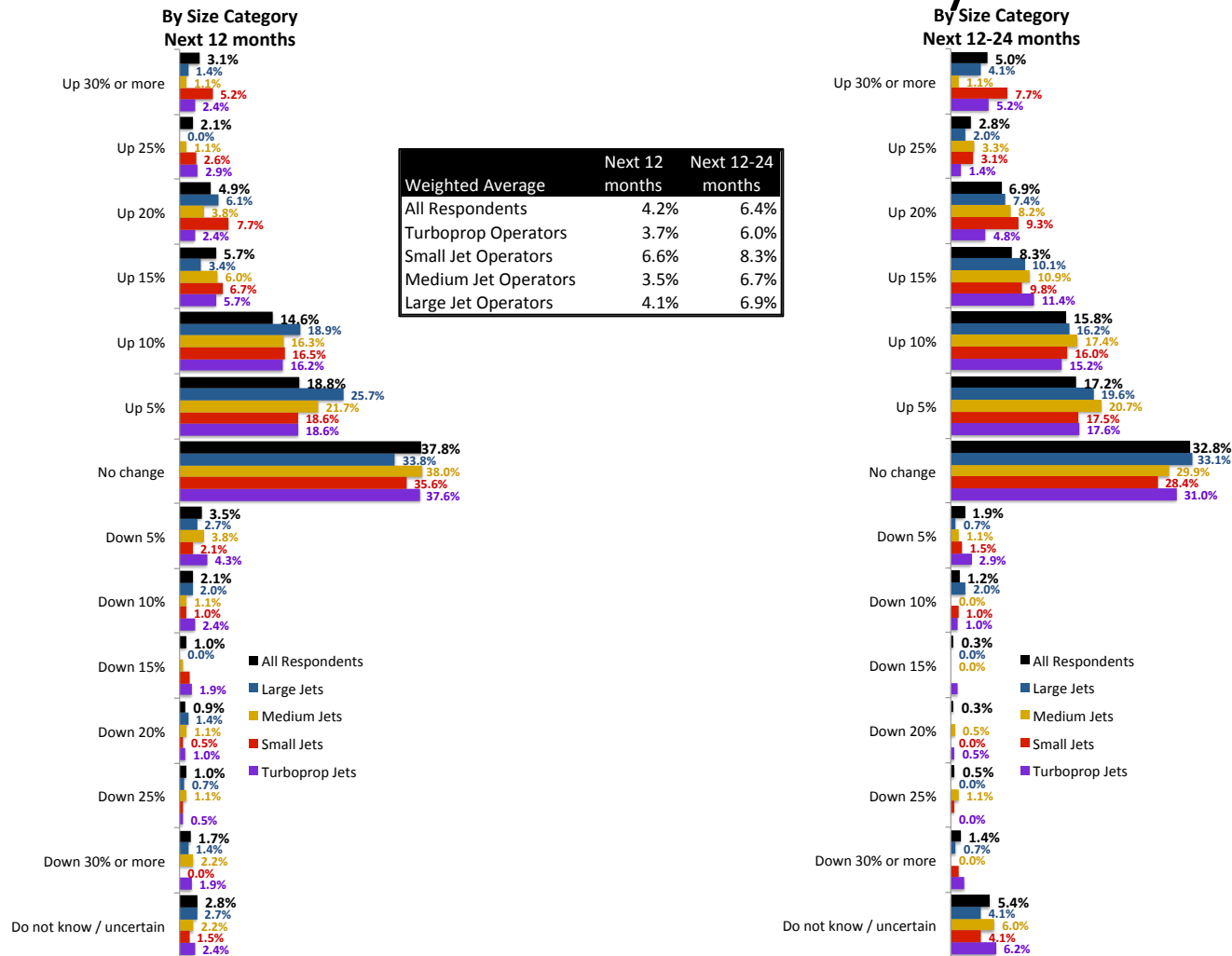
# Brand Awareness of Fixed Base Operators

% of Respondents Providing a 1-10 Numerical Score on an FBO Brand

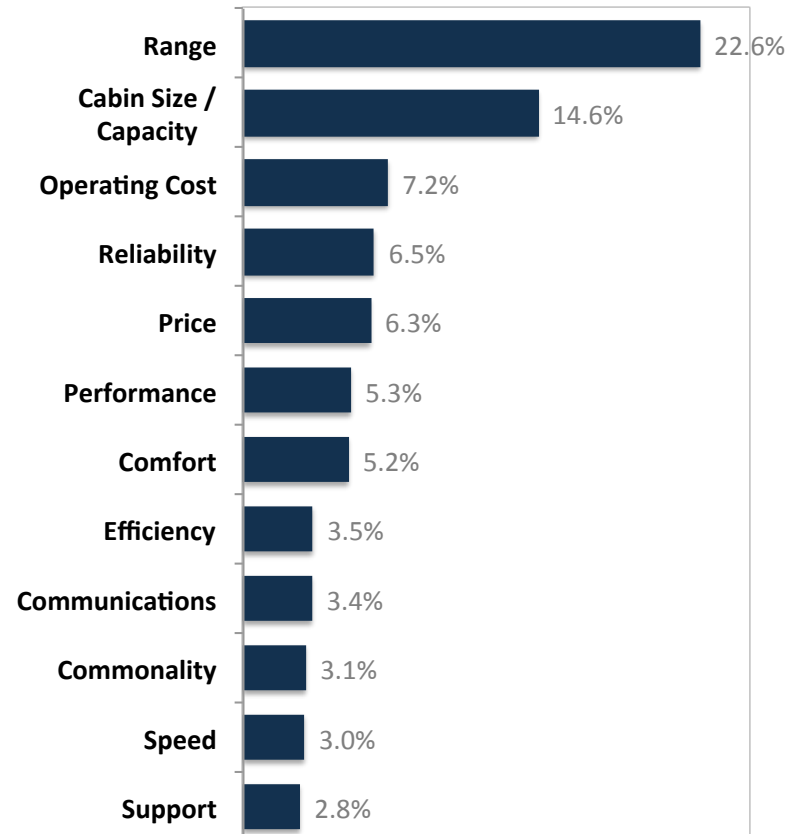
## FBO Brand Awareness All Respondents



# Expectations for Aircraft Utilization – by Size Category

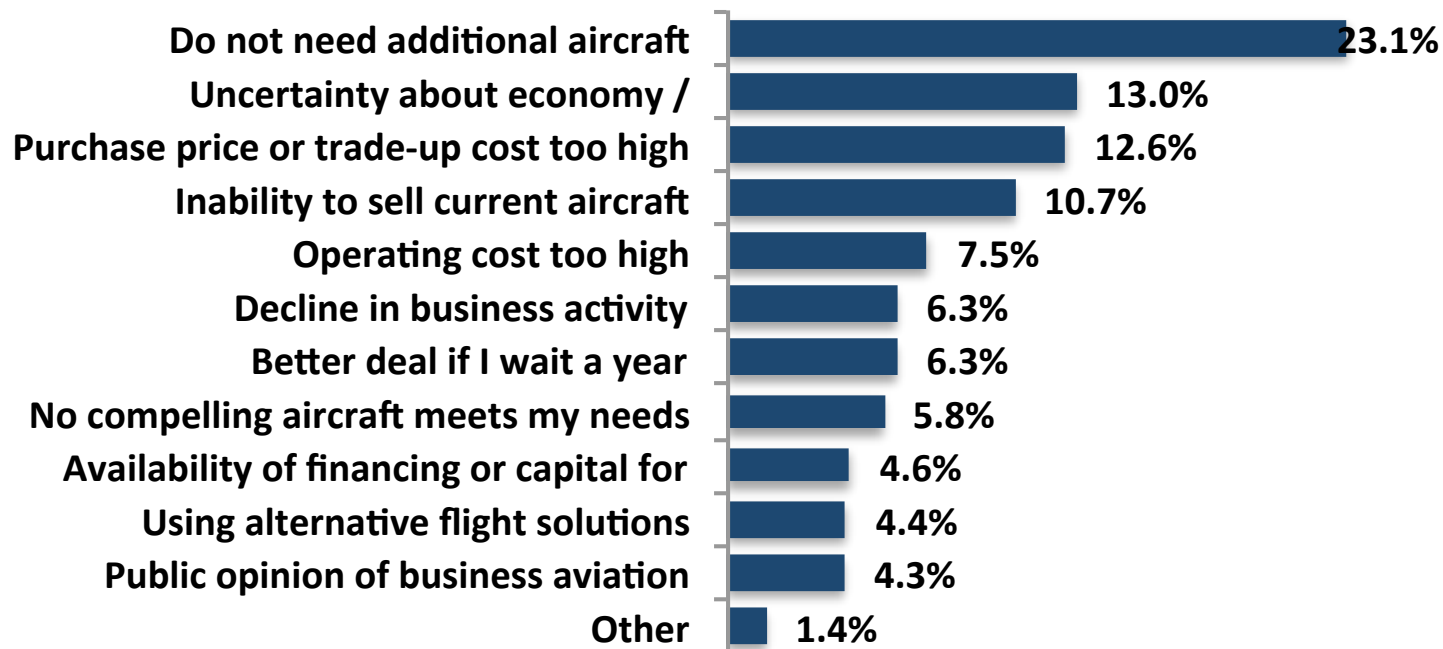


# Key Aircraft Purchase Criteria for Large Jet Operators



*"In the decision to purchase the [model indicated], what were the most important purchase criteria?"*

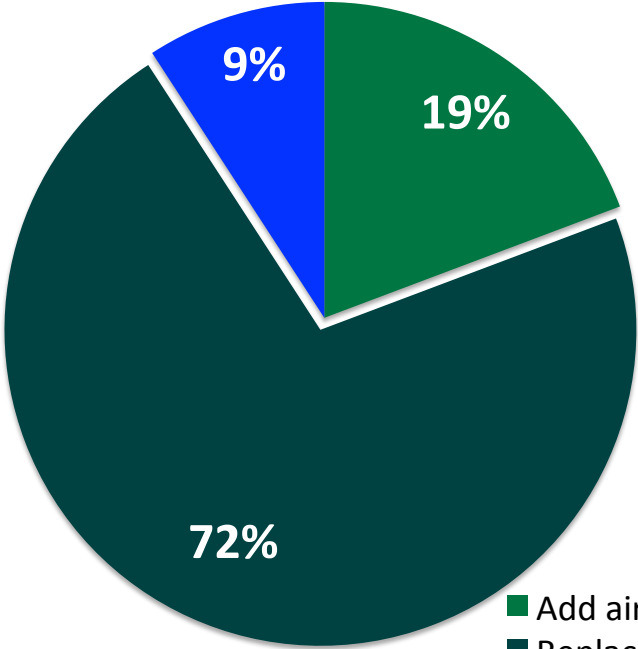
# Inhibitors to New Aircraft Purchase for Large Jet Operators



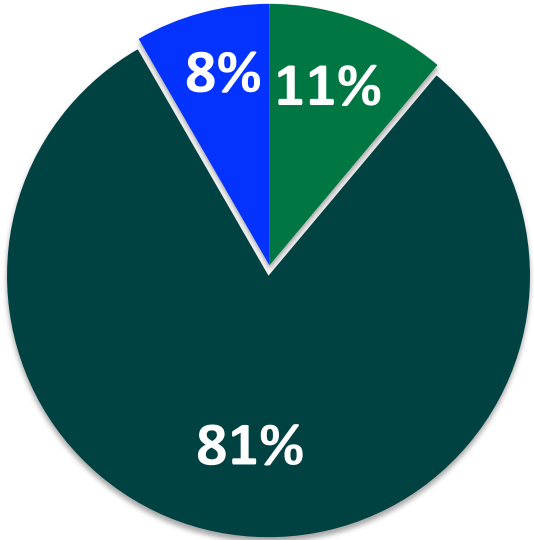
# New Aircraft Purchase Intentions

Reason for Purchasing New  
Next 12 months

All Respondents  
New Aircraft Purchases



Large Jet Operators

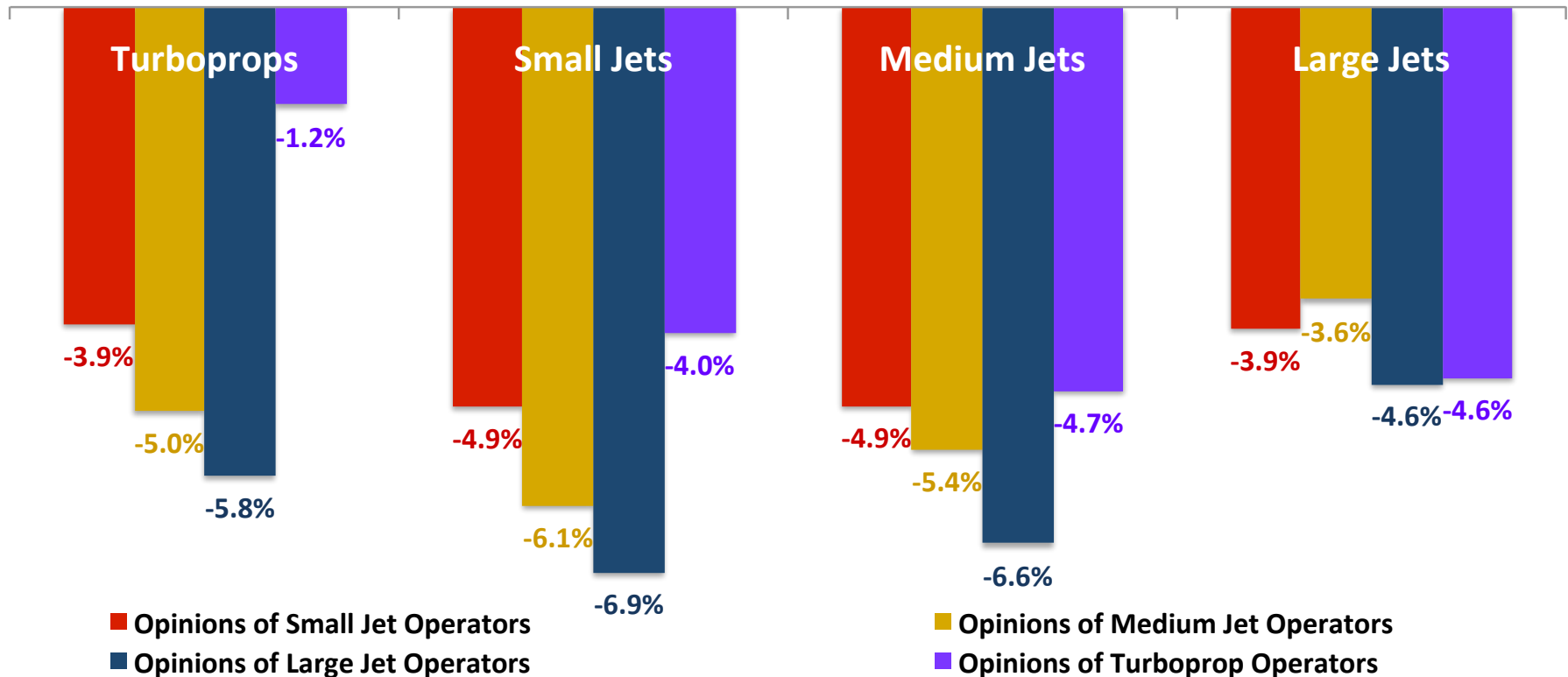


- Add aircraft to your fleet
- Replace existing aircraft in your fleet
- Both replace and add to existing fleet

# Pre-Owned Aircraft Selling Price Expectations

Over the next 24 months, what do you expect will happen to RE-SALE VALUES for aircraft that are 10-15 years old?

## Selling Price Expectations by Size Category Opinions by size of aircraft the respondent operates





## About JETNET iQ

Launched in January 2011, JETNET iQ is a forecasting and premium advisory service for the business aviation market, designed to help customers “Know More”. Available on an annual subscription basis, JETNET iQ consists of three main elements:

1. **JETNET iQ Reports** are designed to be the definitive analytical reference for the business aviation industry, incorporating quarterly state-of-the-industry analyses, voice-of-the-customer insights, and detailed delivery and fleet forecasts.
2. **JETNET iQ Summits** provide unique networking opportunities for members to learn more about emerging developments and to interact with other thought leaders in the industry.
3. **JETNET iQ Research** serves the needs of clients with customized research and analysis requirements on a project-by-project basis.

For more information on JETNET iQ, log on to [www.jetnetiq.com](http://www.jetnetiq.com) or contact Rolland Vincent, JETNET iQ Creator/Director at 1-972-439-2069 or [rollie@jetnet.com](mailto:rollie@jetnet.com).



## About JETNET

Since 1988, JETNET has delivered the most comprehensive and reliable business aircraft research to its exclusive clientele of aviation professionals worldwide. JETNET's portfolio of services includes JETNET iQ, JETNET Evolution, AERODEX, Aviation Business Index (ABI), AvData, JETNET CRM, Helidex, Rotodex and JETNET Evolution Mobile. JETNET is the ultimate source for information and intelligence on the worldwide business aircraft fleet and marketplace, comprised of some 60,000 airframes. The company offers services for both fixed wing and helicopter aircraft. Headquartered in its state-of-the-art facility in Utica, NY, JETNET offers comprehensive user-friendly aircraft data via real-time internet access or regular updates.

For more information on JETNET LLC, log on to [jetnet.com](http://jetnet.com) or contact Paul Cardarelli, JETNET Vice President of Sales, at 800-553-8638 (USA) or [paul@jetnet.com](mailto:paul@jetnet.com); International inquiries, contact Karim Derbala, JETNET Managing Director of Global Sales, at 41.0.43.243.7056 or [karim@jetnet.com](mailto:karim@jetnet.com).