



# JETNET iQ *Snap!*

## *Q3 2013 Summary Report*

Prepared for:  
JETNET iQ Global Business Survey Respondents

September 30, 2013

*JETNET iQ Snap!: 3rd Quarter 2013 - Private & Confidential*

## **Thank You, Merci, Obrigado, Muchas Gracias, תודה, Danke, ありがとう, Grazie, شكرا, спасибо, 謝謝**

Thank you for participating in our quarterly JETNET iQ Global Business Aviation Surveys. Your opinions and inputs are vital to the many people in the industry tasked with designing and developing aircraft, providing aviation services on the ground and in the air, financing / selling / and buying aircraft, and creating the operational framework for safe and efficient flight.

JETNET has been a trusted source of aviation market intelligence since 1988. From humble beginnings in Utica, NY, we have built one of the finest research teams and business aviation databases in the industry. Our people are professional and dedicated, and our data products and services are unique and innovative. We are committed to continuous improvement as

we provide you with unprecedented global coverage, data connectability, and market insights wherever you are.

The Year 2013 marks JETNET's 25<sup>th</sup> year of doing business, and we thank you for believing in us and sharing the journey. It has been an eventful year already, with our participation at ABACE, EBACE, NAFA, NARA, and TRB. We hosted our 3<sup>rd</sup> annual JETNET iQ Global Business Aviation Summit in New York City, and look forward to saying hello to you at NBAA2013 on October 22-24 in Las Vegas. Thank you for participating in our quarterly survey – as always, we hope this JETNET iQ *Snap!* Report helps you take your business to a higher altitude.

*Vincent Esposito*  
*President, JETNET LLC*

## Navigating by JETNET iQ

JETNET iQ *Snap!* is one of the ways we would like to say thanks for the time and opinions you provide us when participating in our quarterly JETNET iQ Global Business Aviation Surveys. With seemingly endless demands on your time, we appreciate your help and want to provide you something back in return. In the attached pages you will find some of the latest market intelligence that we have collected and analyzed. Our goal is to be a resource to identify and work the issues that matter to the business aviation community. As an industry leader and aviation professional, you make a difference by participating in these surveys, providing us with objective and subjective perspectives into the state of the worldwide business aviation industry.

JETNET iQ *Snap!* reflects the collaborative insights of you, our respondents, and our JETNET iQ research team. Collectively,

we have extensive experience in business aviation, from executive offices and boardrooms, to the office cubicles, factory floors, design centers, situation rooms, cockpits, service hangars and flight lines of the industry. Much like a magnifying glass concentrates light and energy, JETNET iQ draws from a diverse set of intelligence sources to bring the power of this experience into sharp focus.

Since early 2011, our JETNET iQ research team has been reaching out to you – fixed-wing turbine aircraft owners and operators - with our quarterly JETNET iQ Global Business Aviation Surveys. As always, we hope that this latest issue of JETNET iQ *Snap!* is useful and insightful to you.

*Rollie Vincent*  
*JETNET iQ Creator/Director*  
*rollie@jetnet.com*

# JETNET

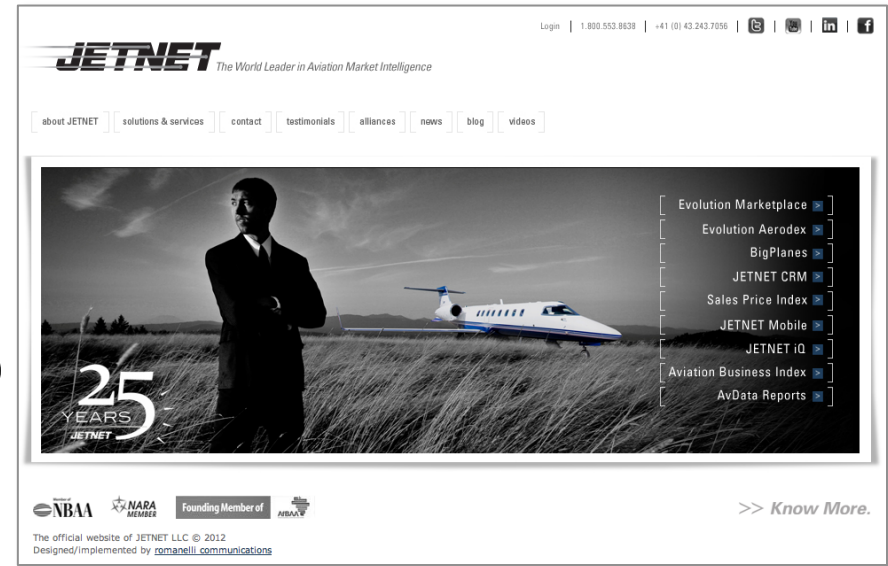
- Founded in 1988
- Privately-owned family business
- Headquarters in Utica, NY
- 70+ employees (47 in research)
- Daily contact with aircraft owners and operators globally



**JETNET: Worldwide leader in aviation market intelligence**

# JETNET

- Main products:
  - JETNET iQ
  - JETNET Evolution / Mobile
  - AERODEX
  - Aviation Business Index (ABI)
  - AvData
  - JETNET CRM
  - Helidex
  - Rotodex
  - BigPlanes - Commercial Airliner Database
  - Sales Price Index (SPI)
- Data coverage:
  - 60,000 business aircraft (fixed and rotary wing)
  - 50,000 commercial aircraft



**JETNET: Tracking more than 110,000 aircraft worldwide**

# JETNET iQ

- *Intelligence....quarterly*
- Focus: Business aviation research & forecasting
- Main features
  - Surveys – of aircraft owners and operators
  - Reports – of current and forecast market conditions
  - Summits – of industry thought leaders

# JETNET iQ Surveys

- Turbine business aircraft owners and operators
- Quarterly
- Global
- On-line
- Multilingual
- Password-protected
- Password-linked

JETNET iQ GLOBAL BUSINESS AVIATION SURVEY - Q1 2012 English

WELCOME



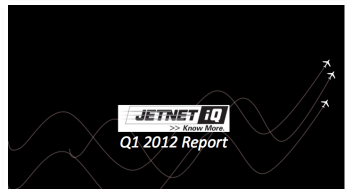
Thank you for agreeing to participate in this survey sponsored by JETNET LLC, the world's leading provider of business aviation market intelligence.

The objective of this survey is to monitor business aviation market sentiment on a quarterly basis. As an aviation professional, your insights are critical to product and service development that will better meet your evolving needs.

All responses will be **STRICTLY CONFIDENTIAL**. Survey results will be aggregated for analysis purposes. The information you provide will **NOT** be used in any way to directly market to you or your organization.

Please enter the **PASSWORD** that was provided to you in the space below:

# JETNET iQ Reports



### The Economy

There are 4 main drivers of demand for business aviation:

- Economic expansion
- Corporate profits and wealth
- Value of time
- Convenience and value vs. alternatives

There are large differences in business jet penetration rates across world regions. North America (USA and Canada) has about 29% of the world's GDP but 64% of the world's jet fleet. Fleets in the other two major economic regions of the world - Europe and Asia - are growing rapidly.

In the United States, where more than 60% of the business jet fleet is based, real GDP growth is strongly correlated with the growth of the U.S. business jet fleet (correlation: 0.95).

December 31, 2011 JETNET iQ REPORT: 4<sup>th</sup> Quarter 2011 - Private & Confidential 27

### Pre-Owned Business Jet Inventory

Pre-owned business jet inventory, measured as the % of the current fleet listed for sale, spiked sharply in 2009 and is beginning to show signs of stabilization. Pre-recession jet inventory levels in 2006-2007 ranged from 11-12% on average, lower for newer and larger models.

Date	%
Jan. 1, 2006	12.5%
Jan. 1, 2007	12.2%
Jan. 1, 2008	11.2%
Jan. 1, 2009	16.2%
Jan. 1, 2010	14.0%
Jan. 1, 2011	14.8%
Jan. 1, 2012	13.8%

December 31, 2011 JETNET iQ REPORT: 4<sup>th</sup> Quarter 2011 - Private & Confidential 89

### New Aircraft Purchase Intentions By Region

December 31, 2011 JETNET iQ REPORT: 4<sup>th</sup> Quarter 2011 - Private & Confidential 210

### Pre-Owned Aircraft Selling Intentions

Combined Results of Q1 2011 through Q4 2011 JETNET iQ Surveys

Pre-owned Aircraft Purchase Intentions (61-100% likely)

Region	Turboprops	Small Jets	Medium jets	Large Jets
North America	106	65	65	69
Europe	15	5	7	4
Latin America & Caribbean	69	29	61	23
Asia Pacific	14	8	5	8
Africa	5	3	6	8
Middle East	0	0	0	7
Former Soviet Union	0	0	0	1

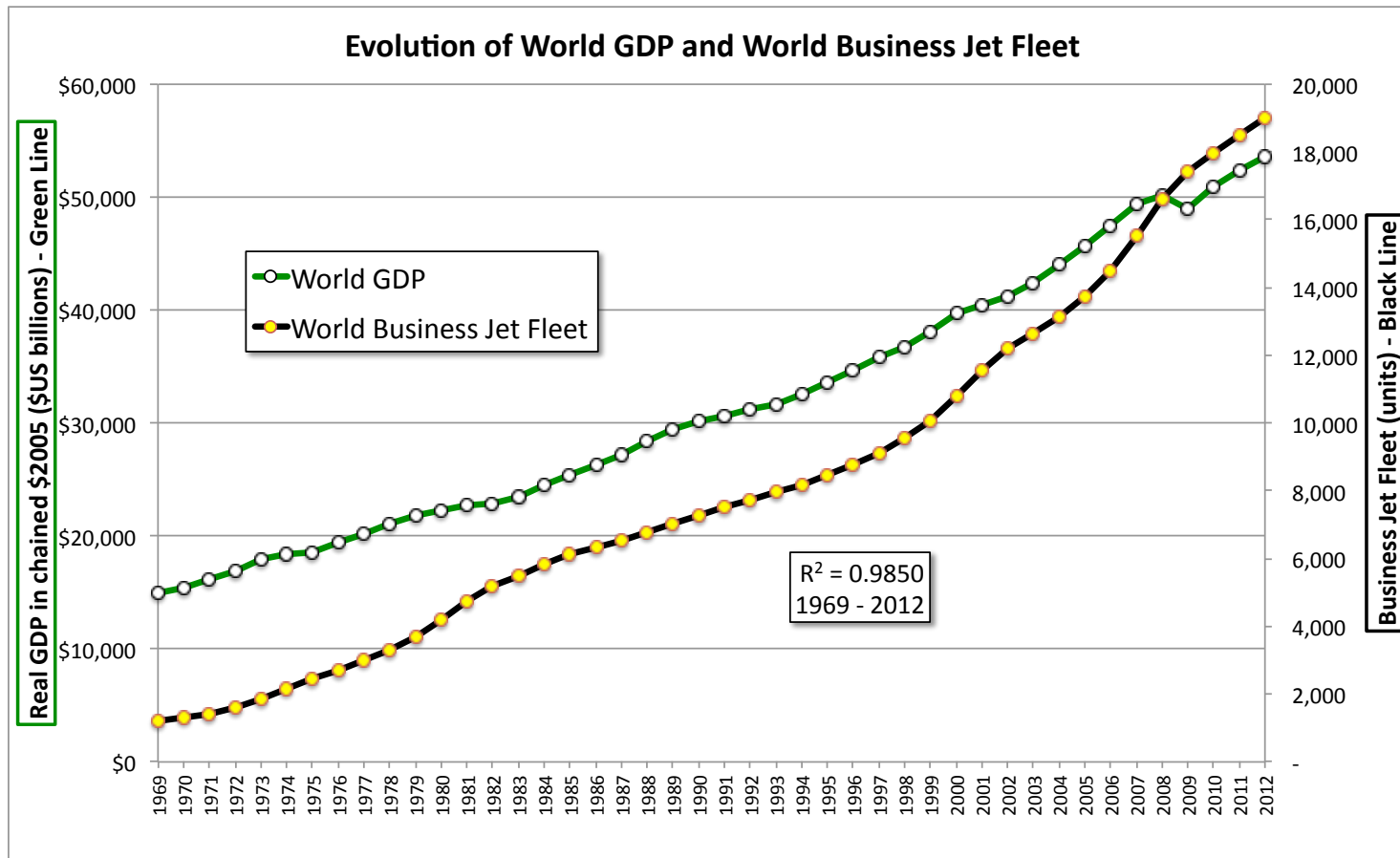
December 31, 2011 JETNET iQ REPORT: 4<sup>th</sup> Quarter 2011 - Private & Confidential 268

# JETNET iQ Summits

- Thought leadership and networking conferences
- 3rd Global Business Aviation Summit:
  - June 3-4, 2014 - New York City
  - <http://www.jetnetiq.com/summit.shtml>



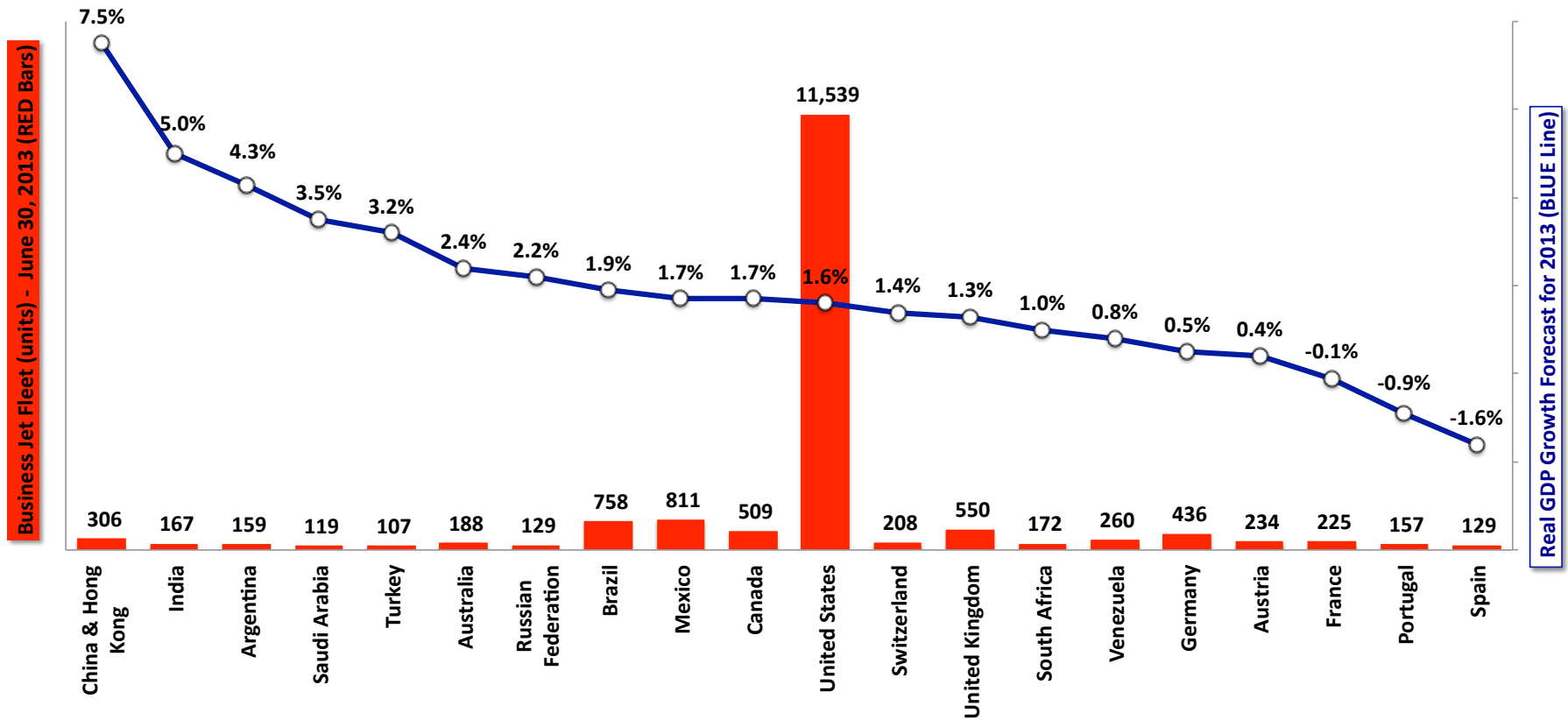
# The Economy



The business jet fleet continues to grow even faster than the world's economy

# The Economy

2013 GDP Forecasts and "Top 20" Business Jet Fleets

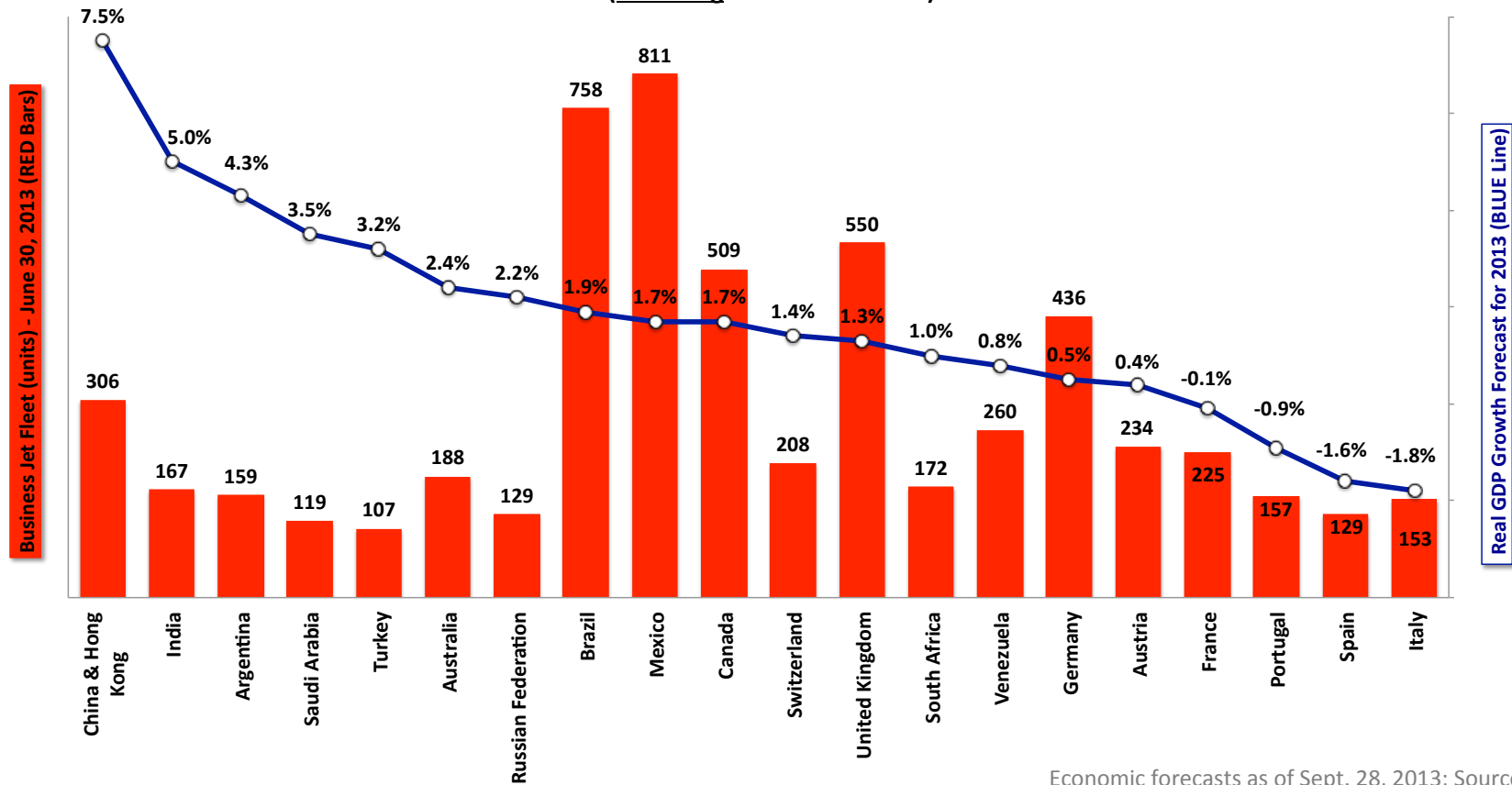


Economic forecasts as of Sept. 28, 2013; Source: EIU

**“Top 20” business aviation countries have widely divergent economic outlooks**

# The Economy

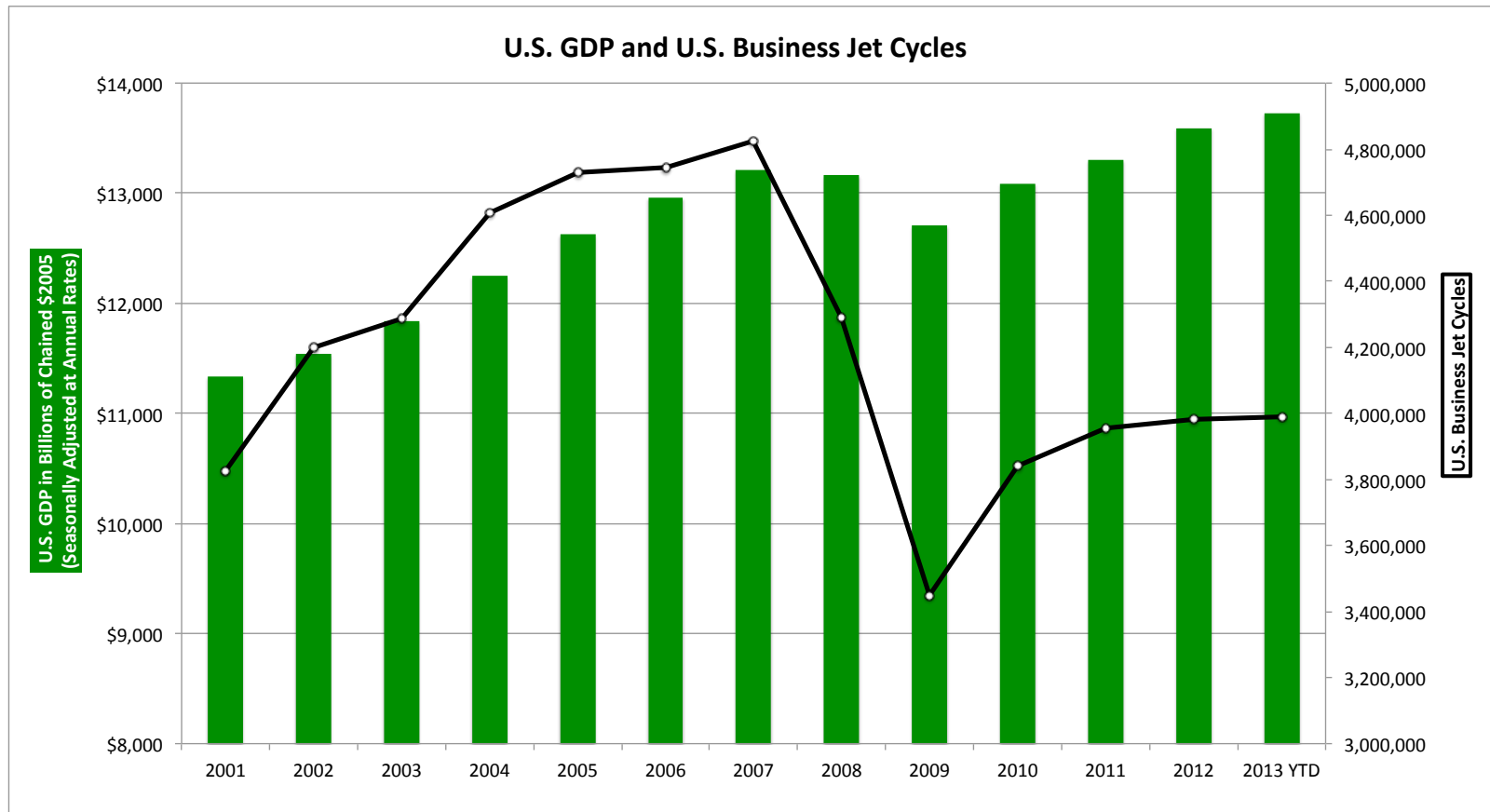
2013 GDP Forecasts and "Top 20" Business Jet Fleets  
 (excluding the United States)



Economic forecasts as of Sept. 28, 2013; Source: EIU

**Mexico and Brazil have the next largest fleets after the USA; China is fastest growing**

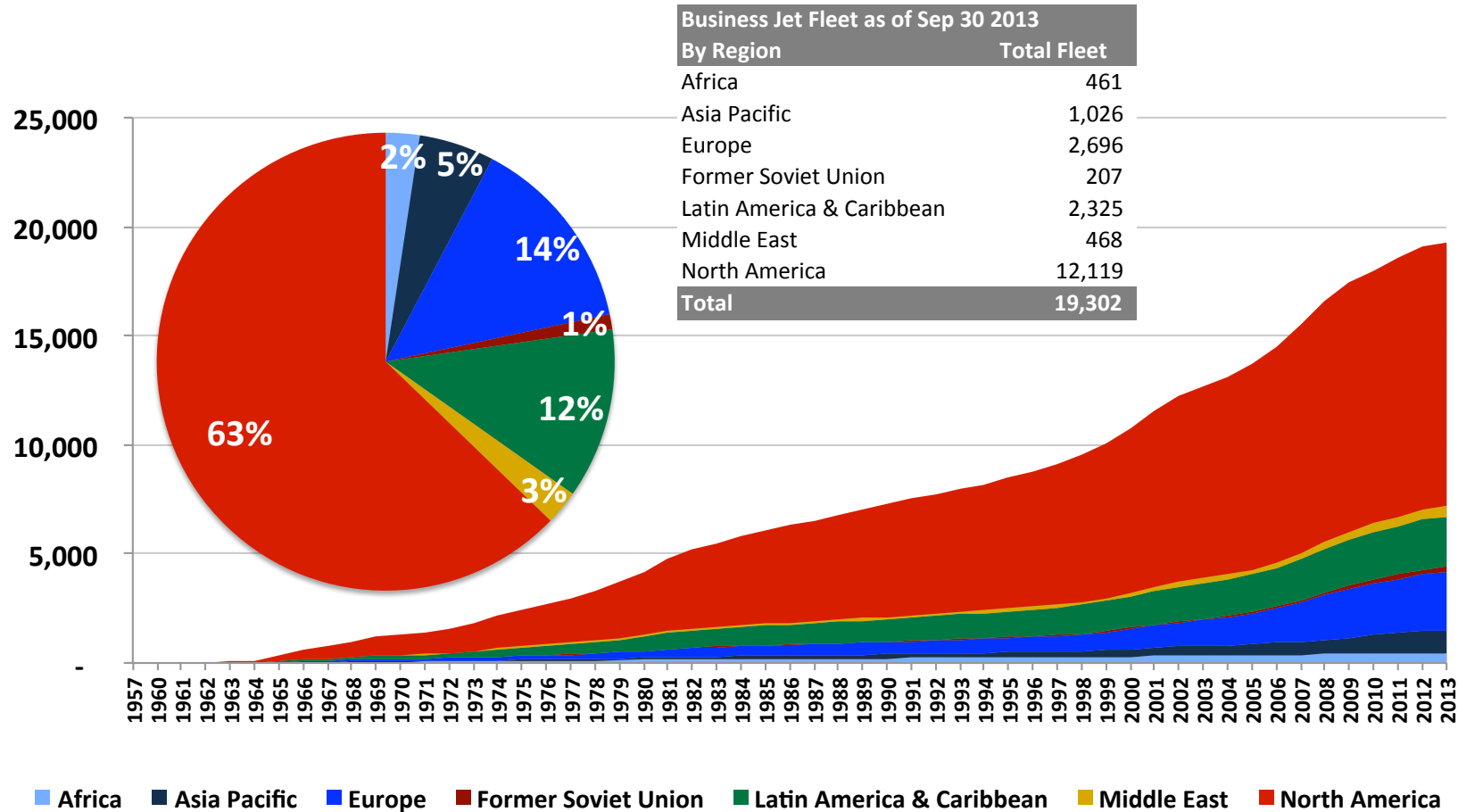
# The Economy



Sources: U.S. BEA, FAA

**U.S. business jet takeoffs and landings remain flat, 17% below pre-recession levels**

# Business Jet Fleet by Region



# Business Jet Fleet by Manufacturer

<b>NORTH AMERICA OEM</b>	<b>Fleet as of Sep 30 2013</b>
Bombardier	2,623
Cessna Citation	4,237
Dassault Falcon	1,207
Embraer	287
Gulfstream	1,585
Hawker Beechcraft	1,502
Other	678
<b>Total</b>	<b>12,119</b>

<b>EUROPE OEM</b>	<b>Fleet as of Sep 30 2013</b>
Bombardier	590
Cessna Citation	964
Dassault Falcon	474
Embraer	106
Gulfstream	203
Hawker Beechcraft	258
Other	101
<b>Total</b>	<b>2,696</b>

<b>FORMER SOVIET UNION OEM</b>	<b>Fleet as of Sep 30 2013</b>
Bombardier	63
Cessna Citation	19
Dassault Falcon	32
Embraer	21
Gulfstream	21
Hawker Beechcraft	33
Other	18
<b>Total</b>	<b>207</b>

<b>MIDDLE EAST OEM</b>	<b>Fleet as of Sep 30 2013</b>
Bombardier	95
Cessna Citation	61
Dassault Falcon	59
Embraer	34
Gulfstream	83
Hawker Beechcraft	67
Other	69
<b>Total</b>	<b>468</b>

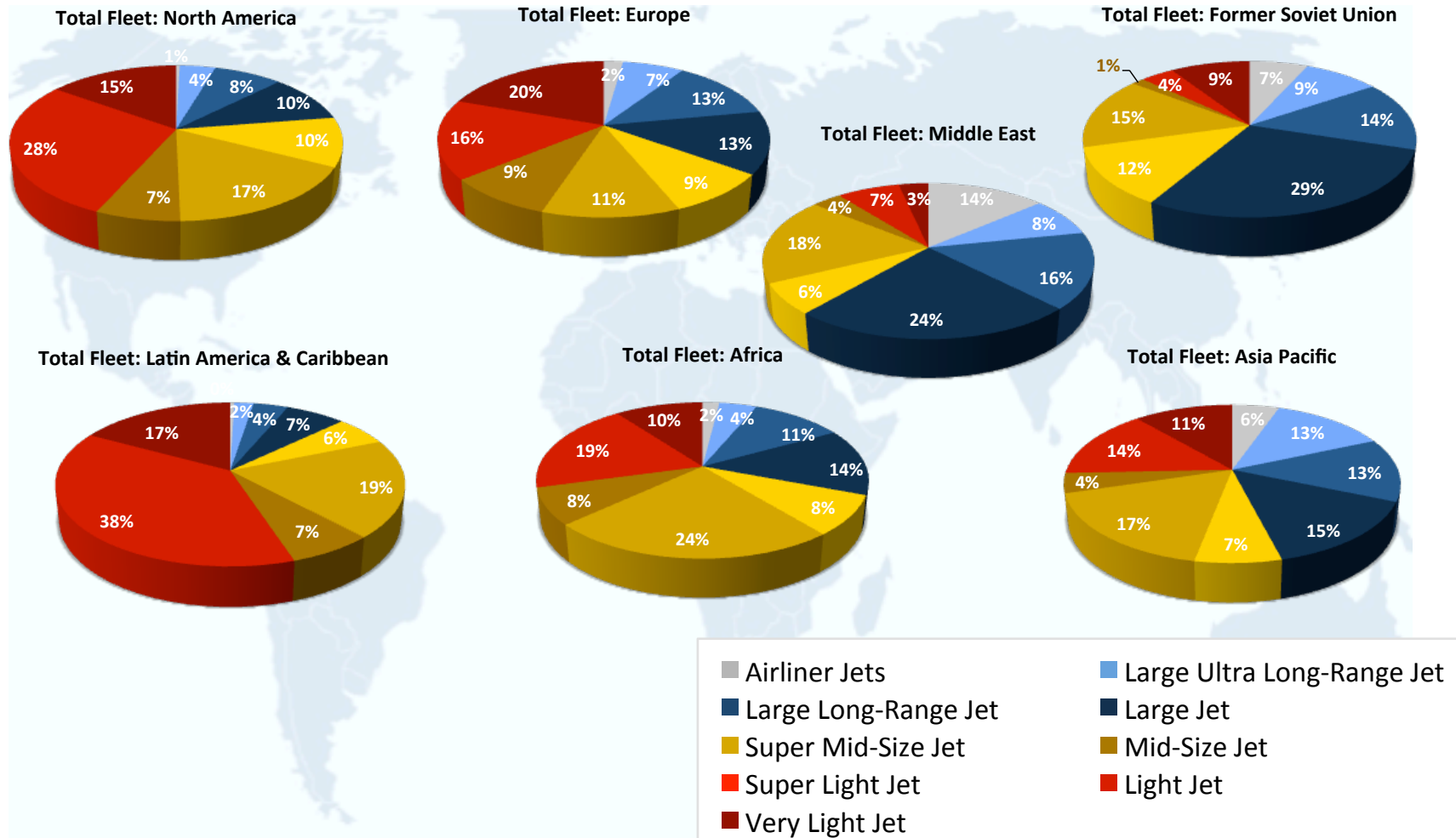
<b>LATIN AMERICA &amp; CARIB OEM</b>	<b>Fleet as of Sep 30 2013</b>
Bombardier	573
Cessna Citation	776
Dassault Falcon	146
Embraer	152
Gulfstream	159
Hawker Beechcraft	355
Other	164
<b>Total</b>	<b>2,325</b>

<b>AFRICA OEM</b>	<b>Fleet as of Sep 30 2013</b>
Bombardier	86
Cessna Citation	112
Dassault Falcon	62
Embraer	16
Gulfstream	56
Hawker Beechcraft	111
Other	18
<b>Total</b>	<b>461</b>

<b>ASIA PACIFIC OEM</b>	<b>Fleet as of Sep 30 2013</b>
Bombardier	245
Cessna Citation	215
Dassault Falcon	73
Embraer	55
Gulfstream	207
Hawker Beechcraft	163
Other	68
<b>Total</b>	<b>1,026</b>

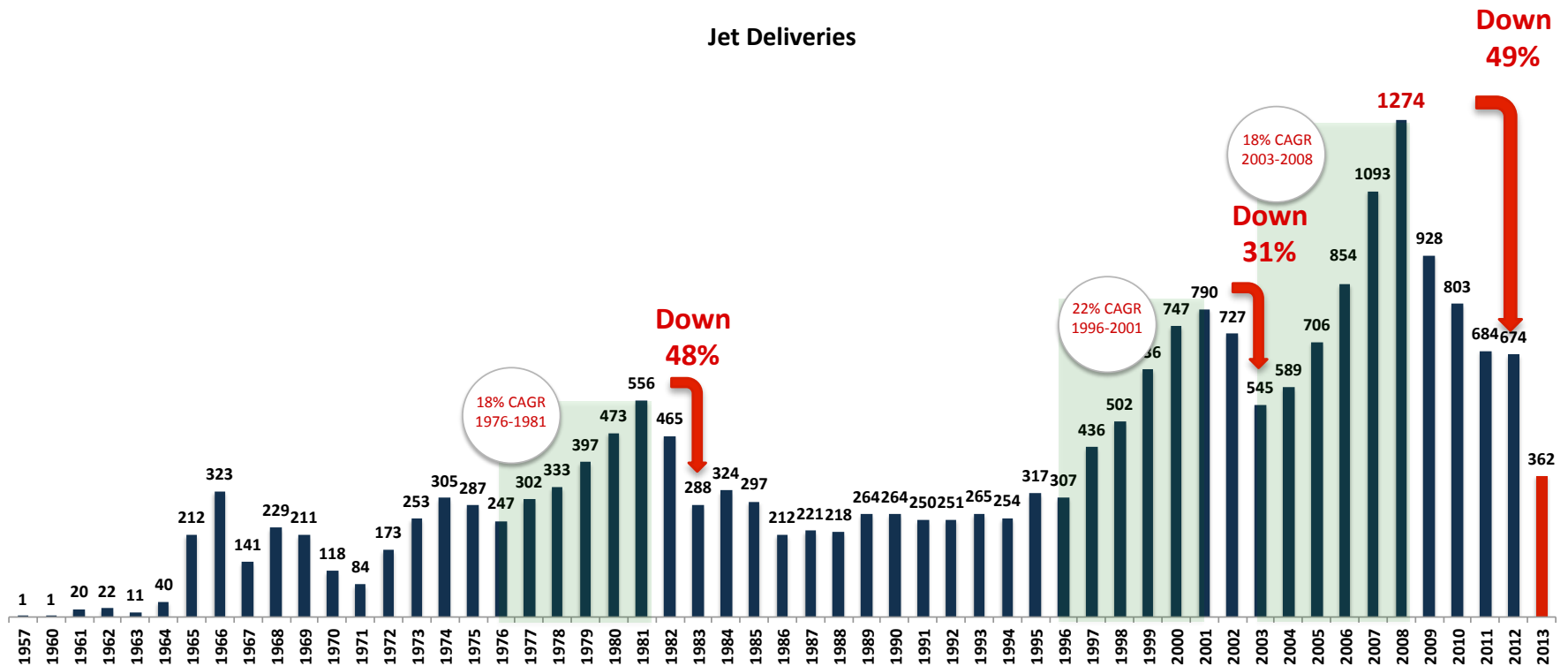
**World business jet fleet was 19,302 jets on September 30, 2013**

# Business Jet Fleet by Size Category



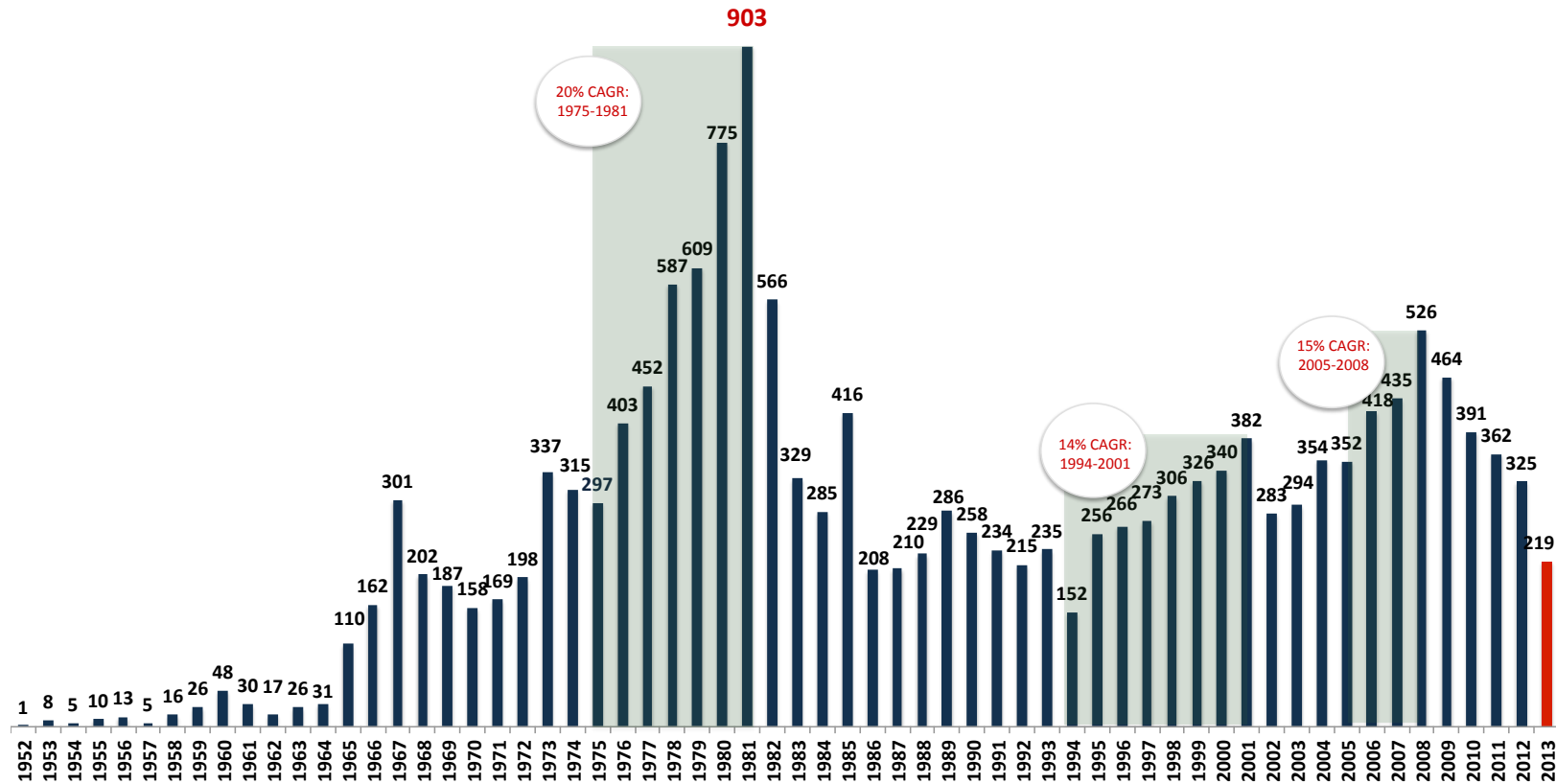
# Business Jet Deliveries (units)

Jet Deliveries



The 2009-2012 new jet delivery downturn was similar in amplitude to that of 1982-83

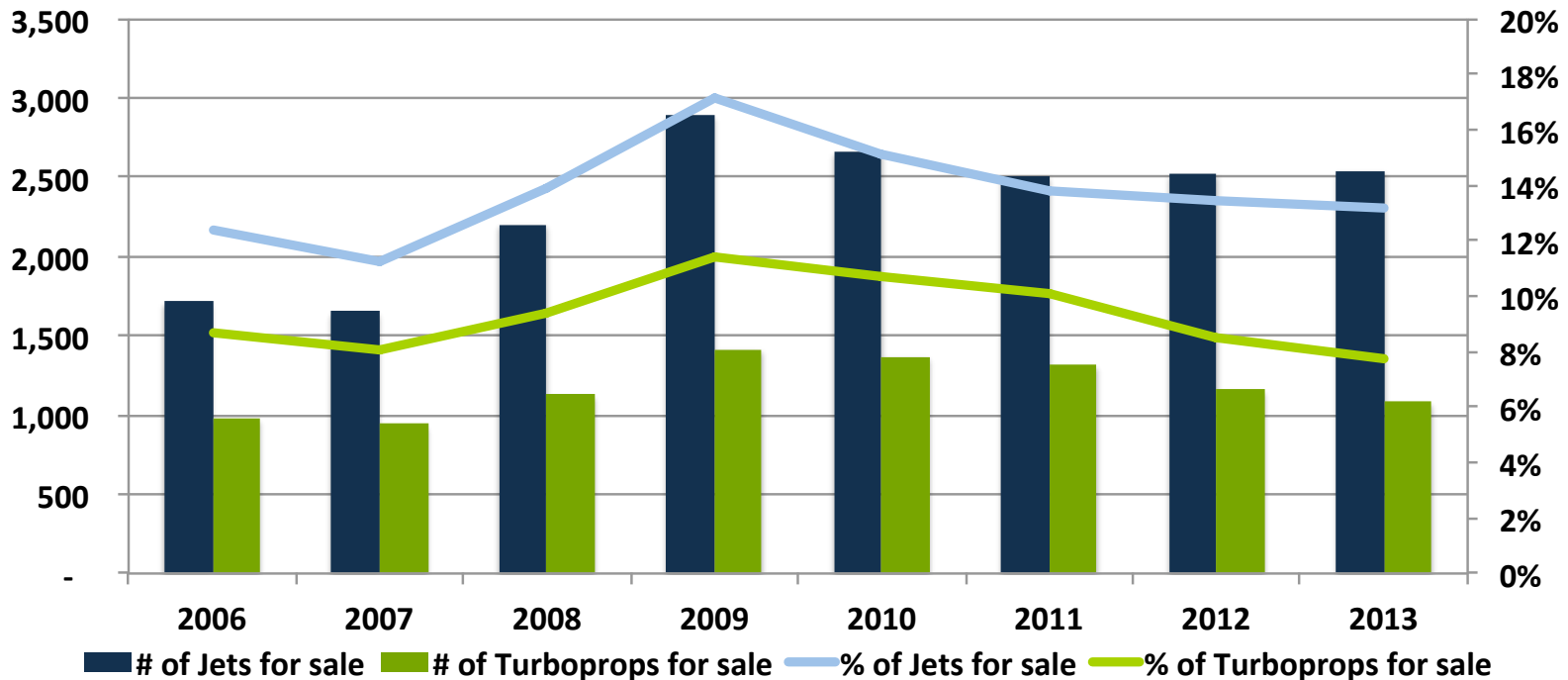
# Business Turboprop Deliveries (units)



Turboprop delivery swings have been less severe than for jets for almost 20 years

# Pre-Owned Business Aircraft Inventory

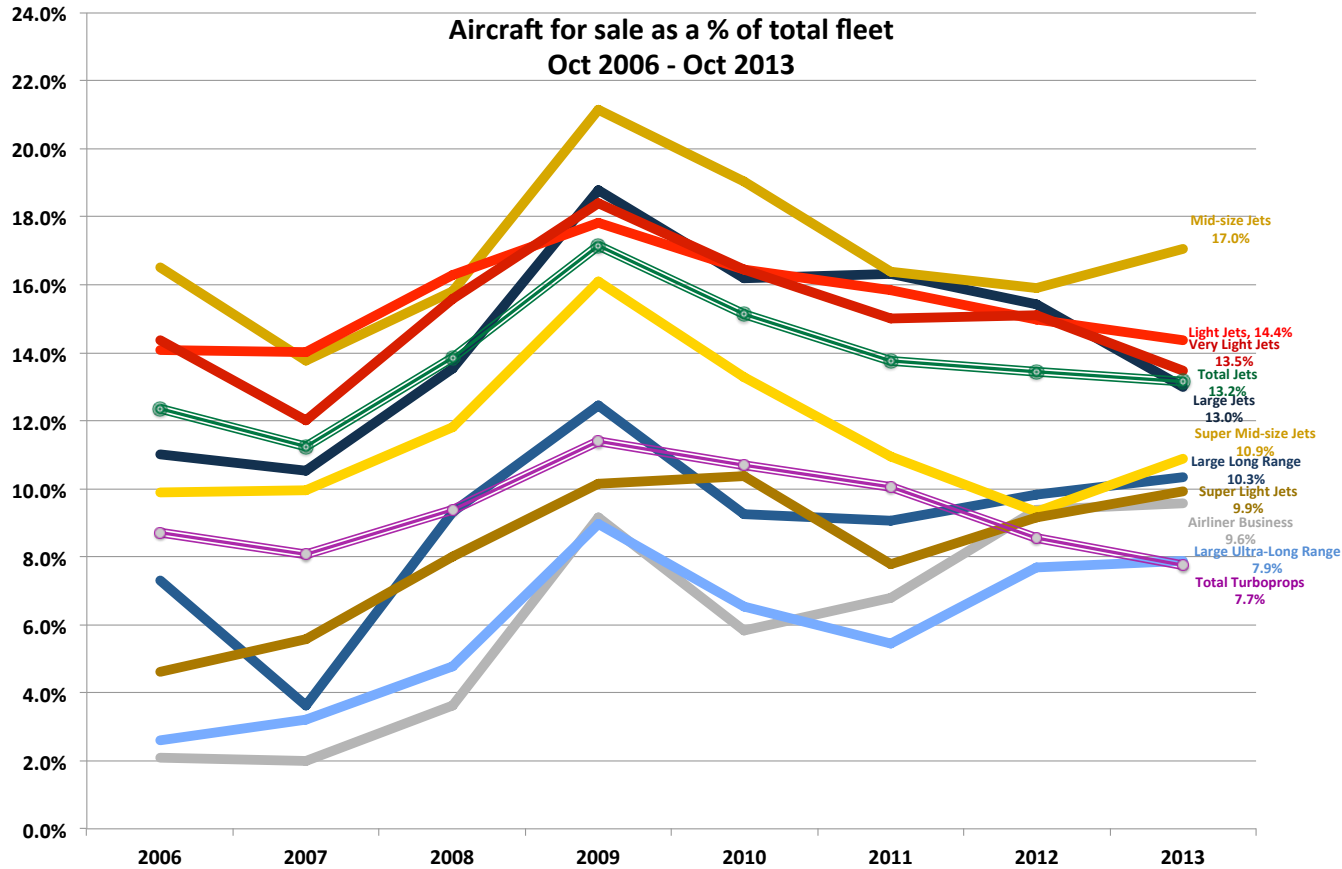
Business Jets and Turboprops for sale  
Oct 2006 - Oct 2013



	Jets Available for Sale as % of World Fleet (as of October 1)							
	2006	2007	2008	2009	2010	2011	2012	2013
Business Jets	12.4%	11.2%	13.8%	17.1%	15.1%	13.8%	13.5%	13.2%
Turboprop	8.7%	8.1%	9.4%	11.4%	10.7%	10.1%	8.5%	7.7%

The % of pre-owned jets for sale in 2013 is 2% points above 2007 levels

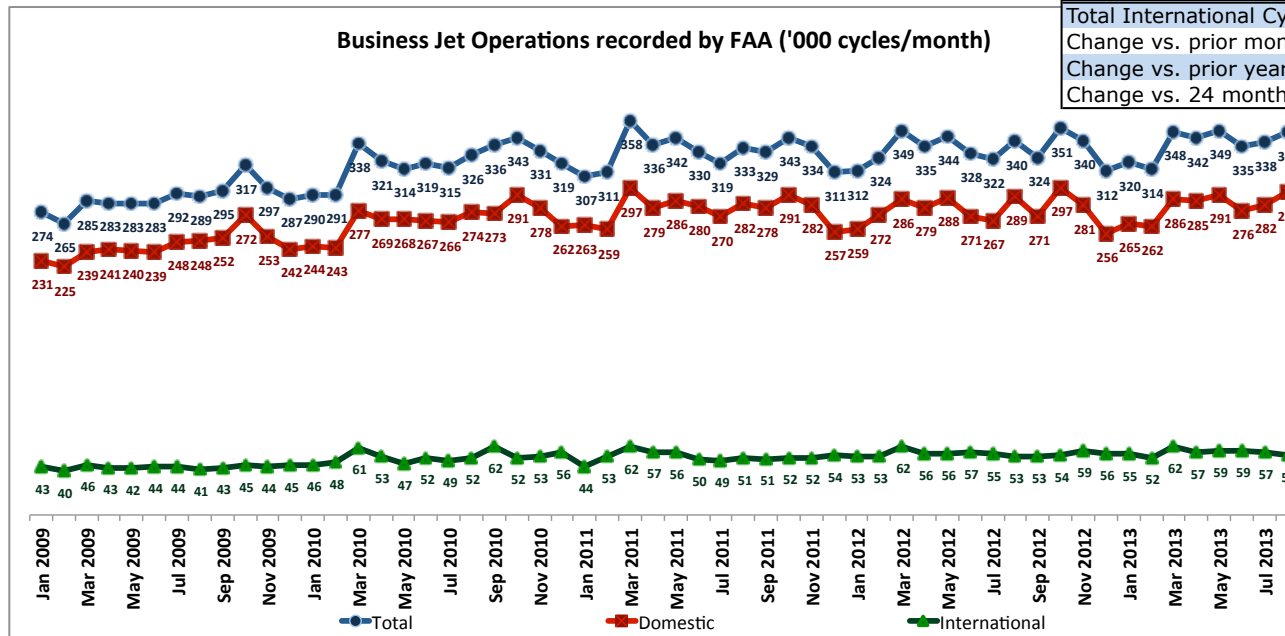
# Pre-Owned Business Jet Inventory



**The percentage of pre-owned jets for sale has yet to return to pre-2008 levels**

# U.S. Business Jet Utilization

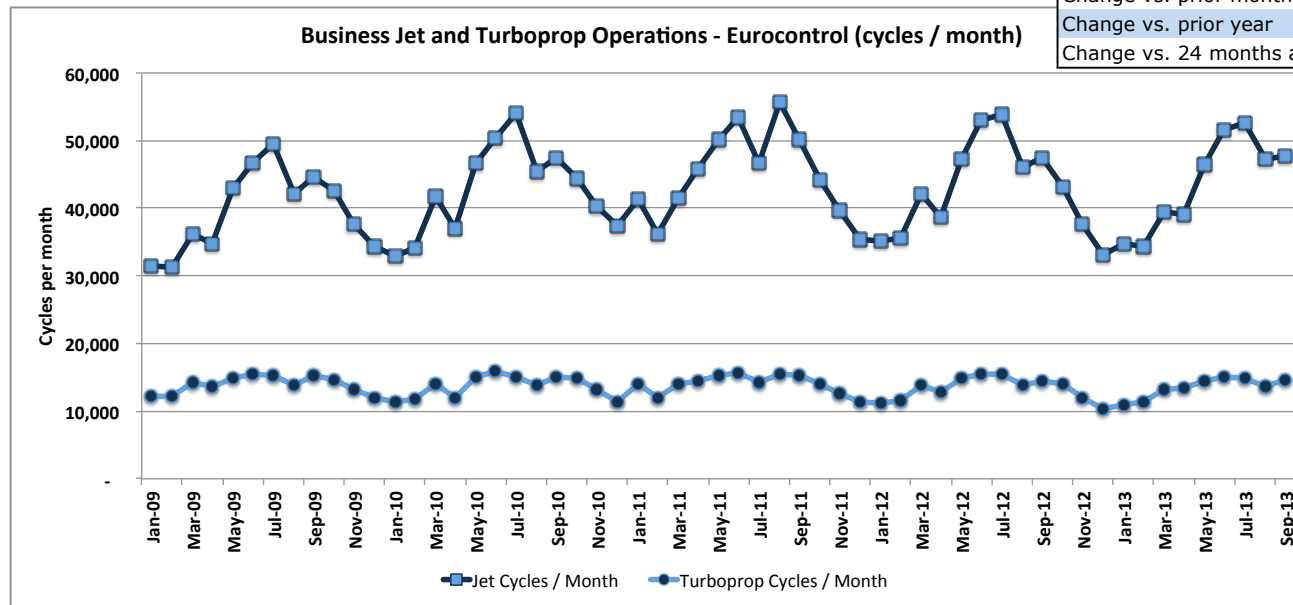
FAA BUSINESS JET OPERATIONS - AUG 2013		Trailing 12 Months
TOTAL CYCLES		
Total Cycles	347,666	4,021,982
Change vs. prior month	2.7%	0.2%
Change vs. prior year	2.4%	1.3%
Change vs. 24 months ago	4.3%	1.4%
DOMESTIC CYCLES		
Total Domestic Cycles	293,268	3,344,848
Change vs. prior month	4.1%	0.1%
Change 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. utilization: total business jet cycles are up only marginally over the prior year

# European Business Aircraft Utilization

EUROCONTROL BUSINESS JET & TURBOPROP OPERATIONS - SEP 2013		Trailing 12 Months
<b>BUSINESS JETS (EXCLUDING AIRLINERS)</b>		
Total Cycles	47,751	507,704
Change vs. prior month	1.0%	0.0%
Change vs. prior year	0.5%	-2.1%
Change vs. 24 months ago	-4.7%	-6.5%
<b>TURBOPROPS</b>		
Total Cycles	14,727	158,131
Change vs. prior month	8.4%	0.2%
Change vs. prior year	2.5%	-2.2%
Change vs. 24 months ago	-3.6%	-7.0%




**European utilization: cycles for business jets and turboprops are down 2.5% - 3.0% on a trailing 12-months basis**

# JETNET iQ Quarterly Surveys

- Multilingual owner / operator surveys
  - Utilization patterns and expectations
  - Brand perceptions
  - Purchase criteria / inhibitors
  - Purchase / selling intentions
  - New product preferences
  - Special topics of interest (examples)
    - New products
    - The environment
    - China, etc.

JETNET iQ GLOBAL BUSINESS AVIATION SURVEY - Q1 2012 English

WELCOME



WELCOME!

Thank you for agreeing to participate in this survey sponsored by JETNET LLC, the world's leading provider of business aviation market intelligence.

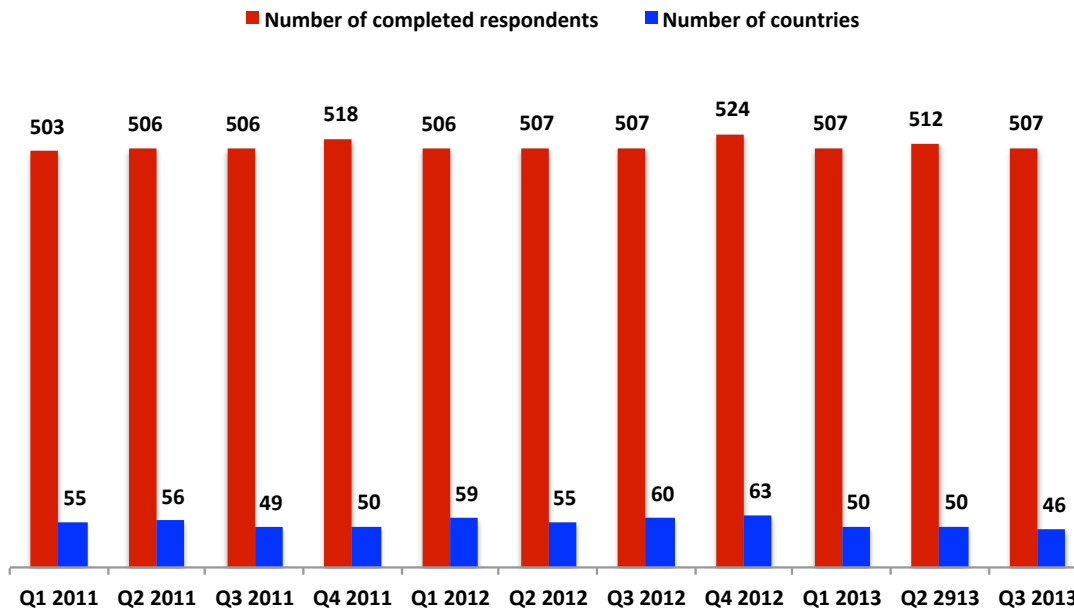
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JETNET iQ Surveys: Quarterly, multilingual, worldwide

## JETNET iQ Survey Respondents



Thank you for agreeing to participate in this survey sponsored by JETNET LLC, the world's leading provider of business aviation market intelligence. Your insights are critical to product and service development that will better meet your evolving needs.

**Survey responses:**

- 1) Will be strictly confidential
- 2) Will NOT be used in any way to directly market to you or your organization
- 3) Will take approximately 20-30 minutes to complete

PASSWORD:

For questions about this survey, please contact:

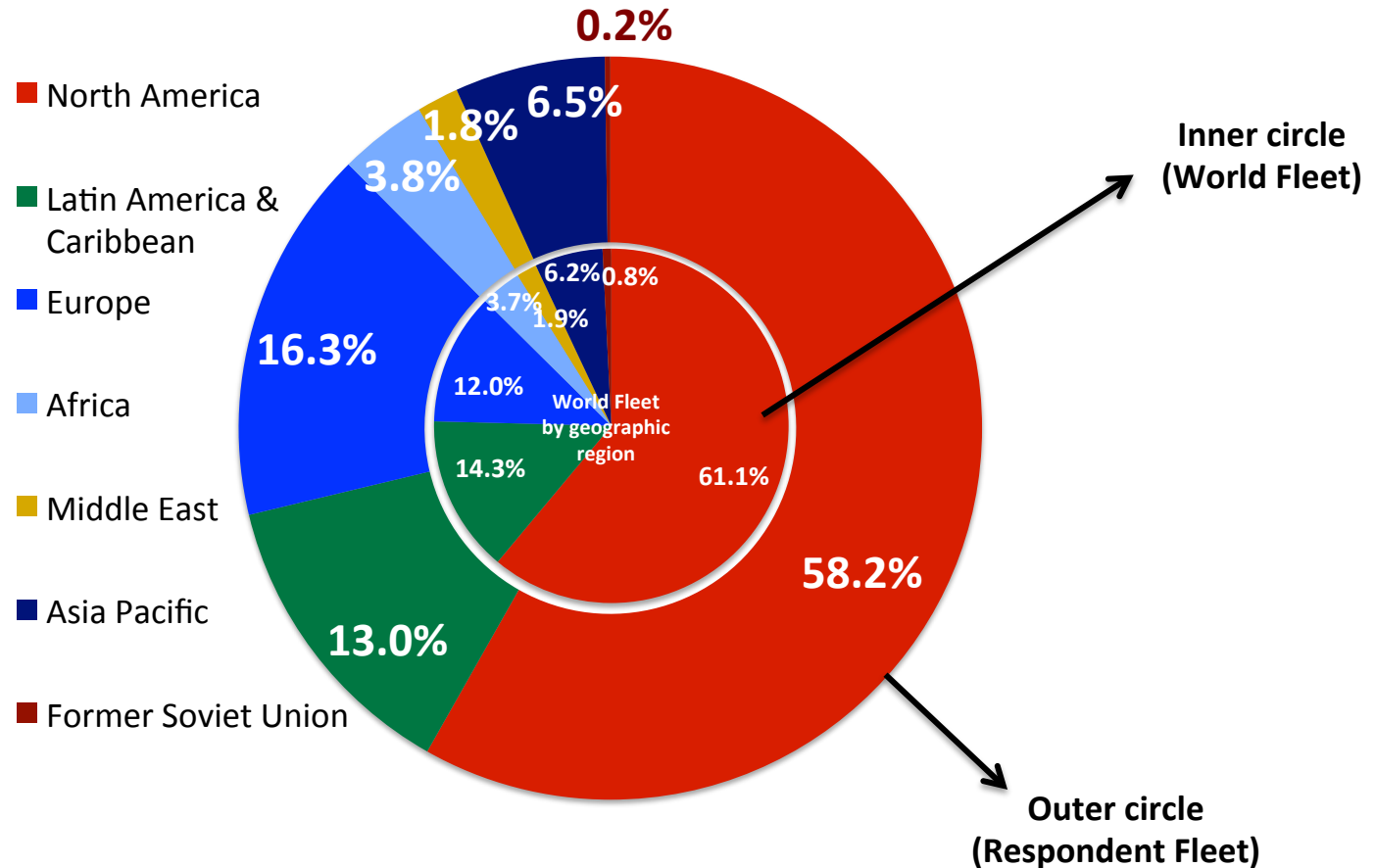
**ROLLAND VINCENT**  
 JETNET iQ Creator / Director  
 Phone: 1-972-439-2069 (U.S. Central Time)  
 Email: rollie@jetnet.com

JETNET iQ Surveys: Since Q1 2011, >5,500 respondents from 114 countries

# Survey Respondents' Location

By Aircraft Base Location

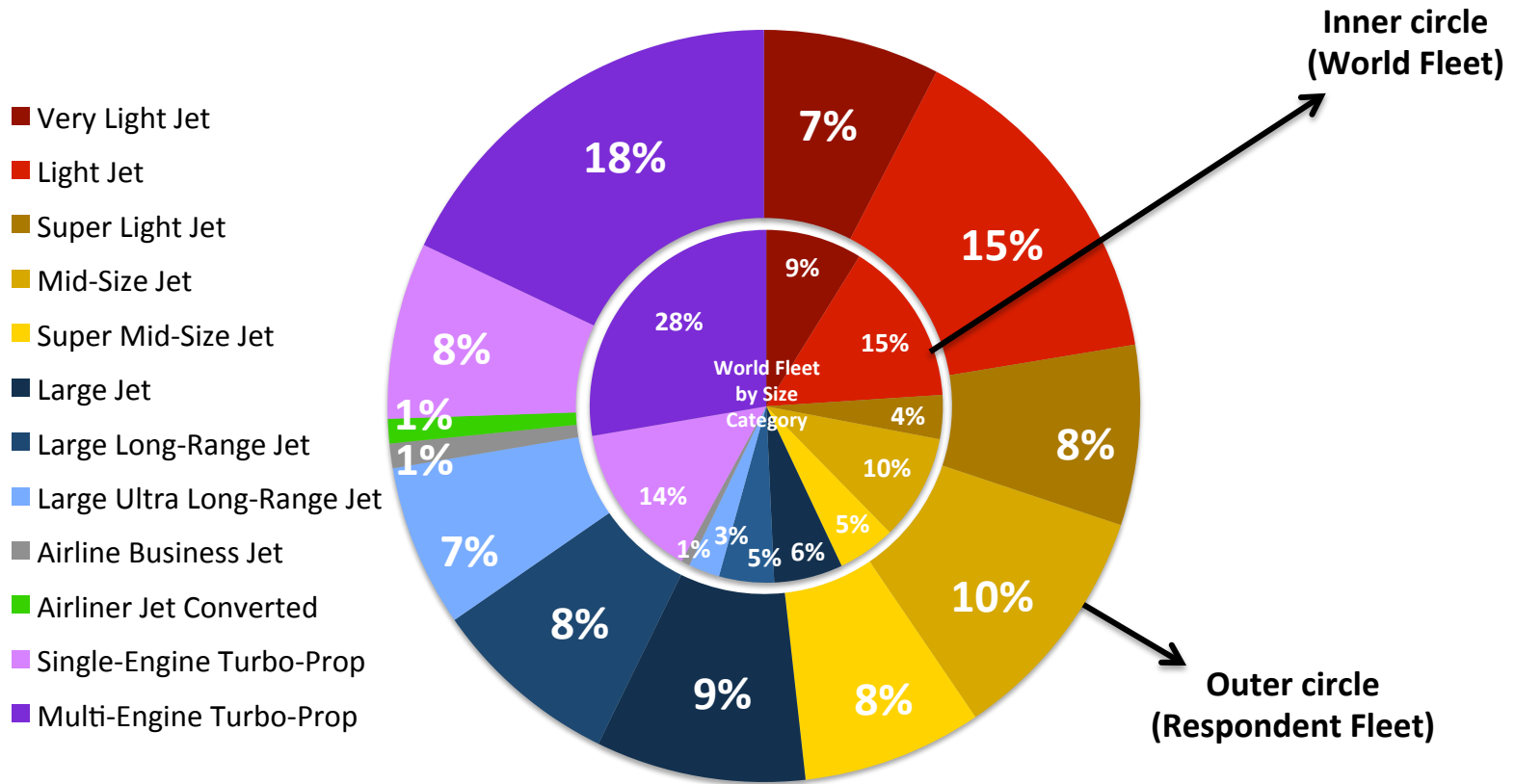
Q3 2013 Survey



# Survey Respondents' Fleet

By Aircraft Size Category

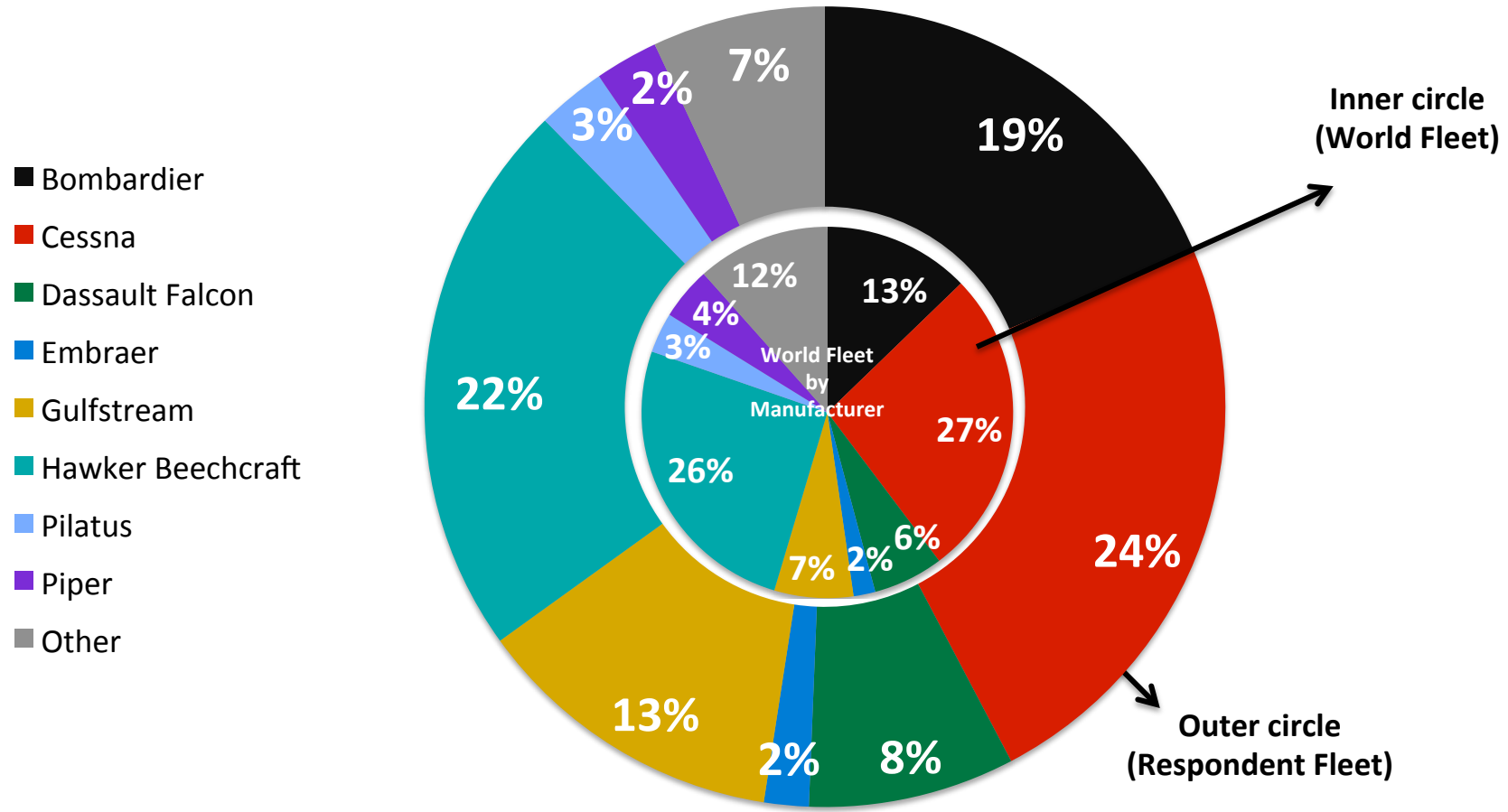
Q3 2013 Survey



# Survey Respondents' Fleet

By Aircraft Manufacturer

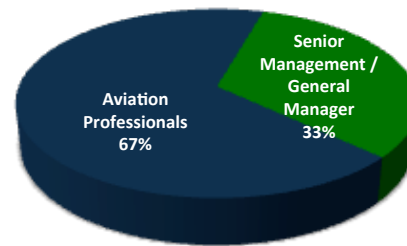
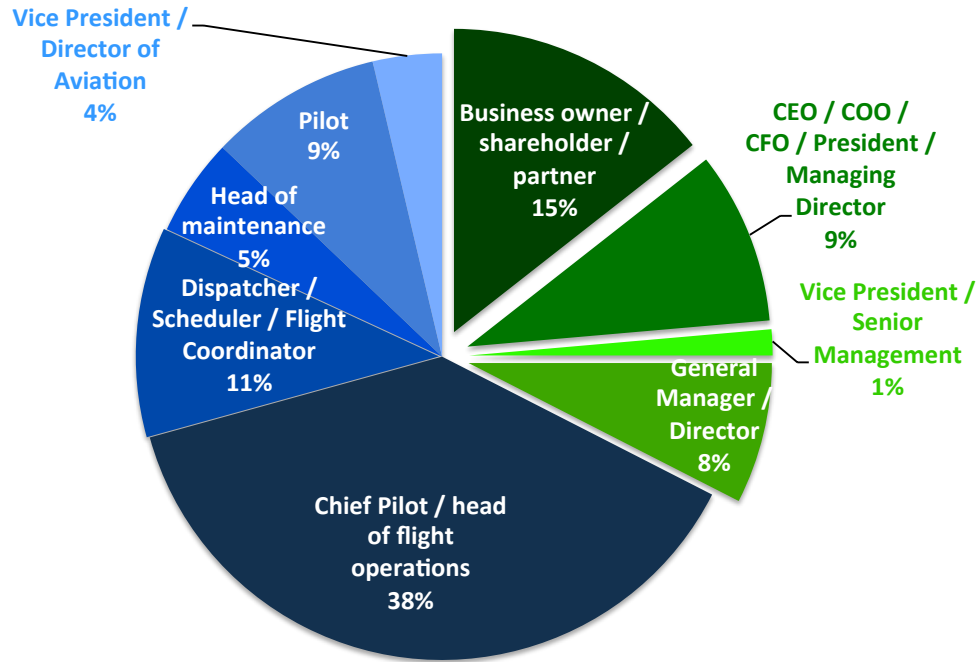
Q3 2013 Survey



## Survey Respondents' Roles

By Job Title

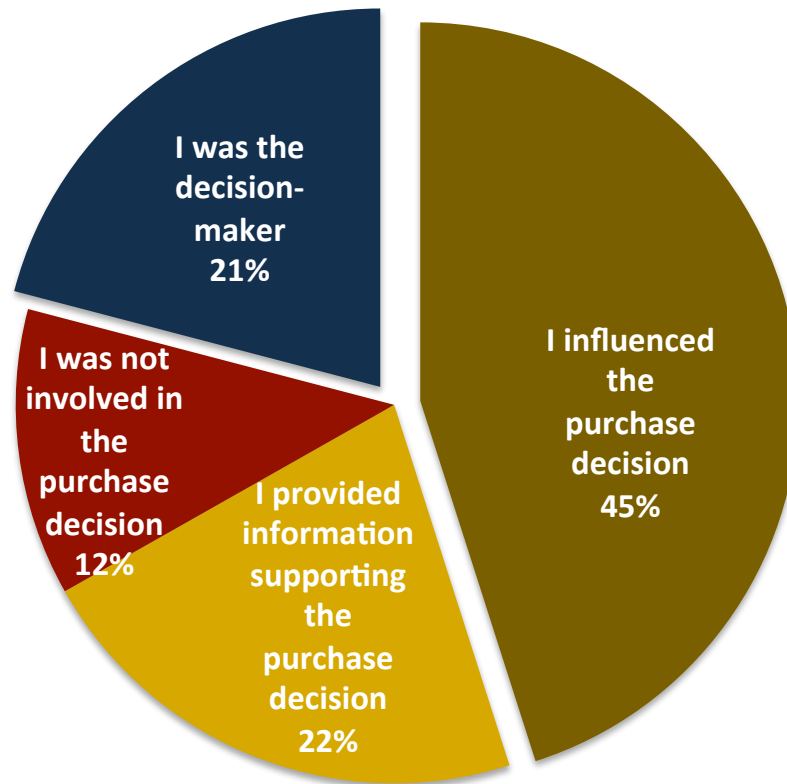
Q3 2013 Survey



# Survey Respondents' Roles

By Involvement in Last Fixed-Wing Turbine Aircraft Purchase

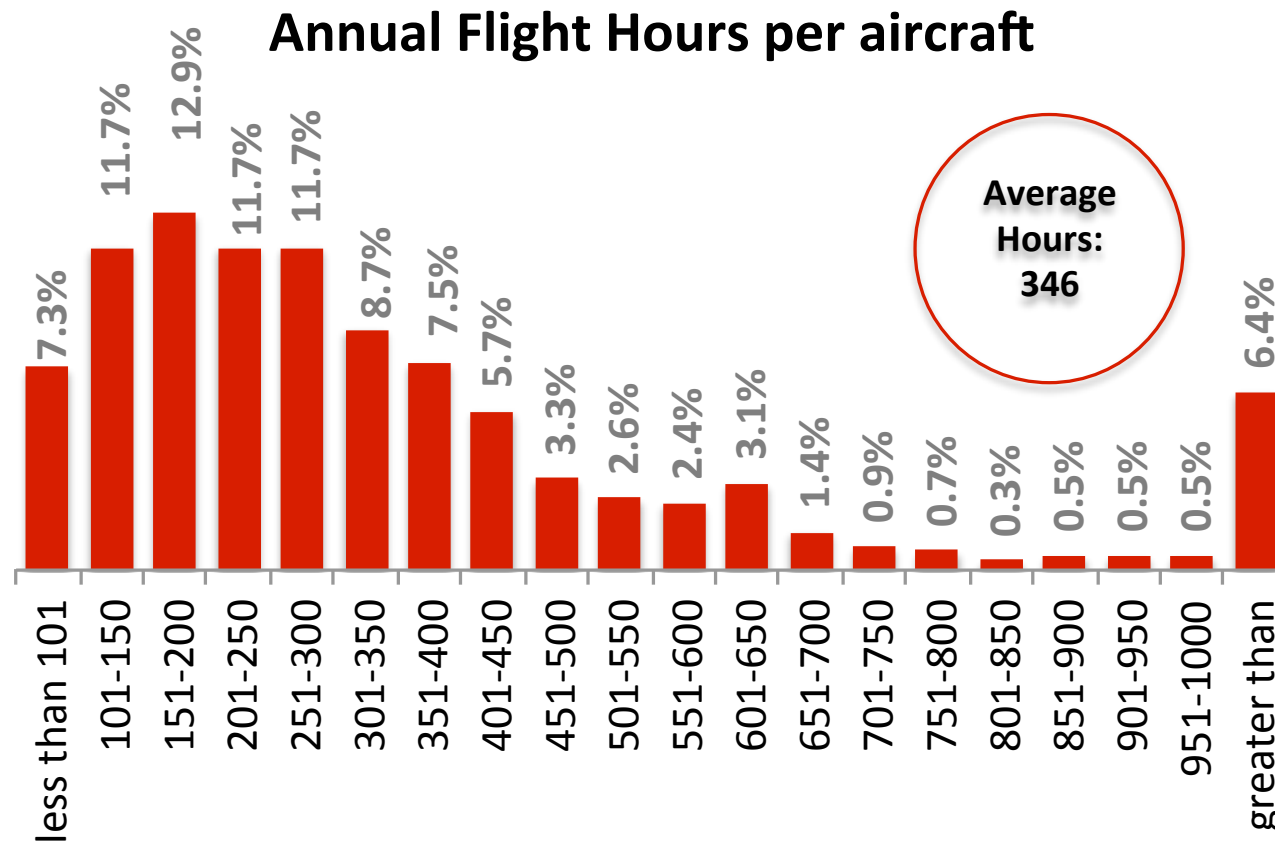
Q3 2013 Survey



# Survey Respondents' Flight Operations

By Average Utilization per Aircraft in Prior 12 Months

Q3 2013 Survey

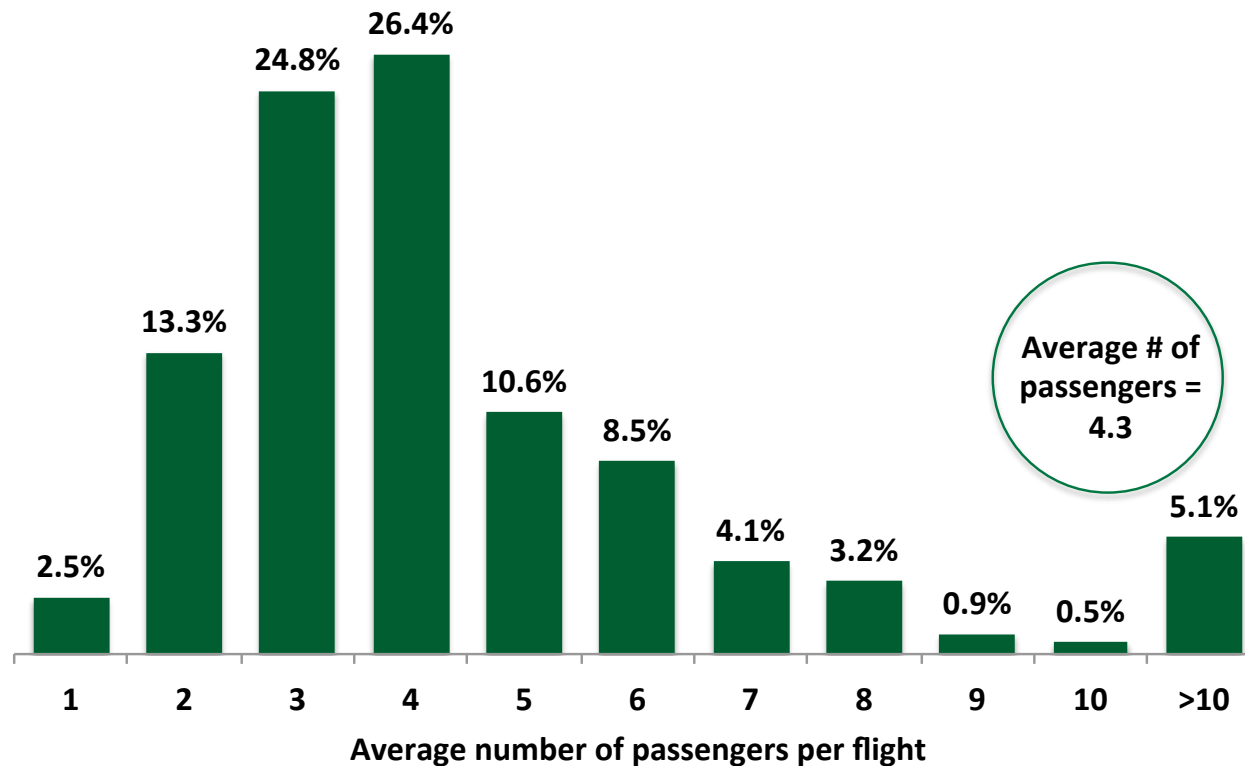


# Survey Respondents' Flight Operations

By Average Passengers per Aircraft in Prior 12 Months

Q3 2013 Survey

Average Number of Passenger per Aircraft

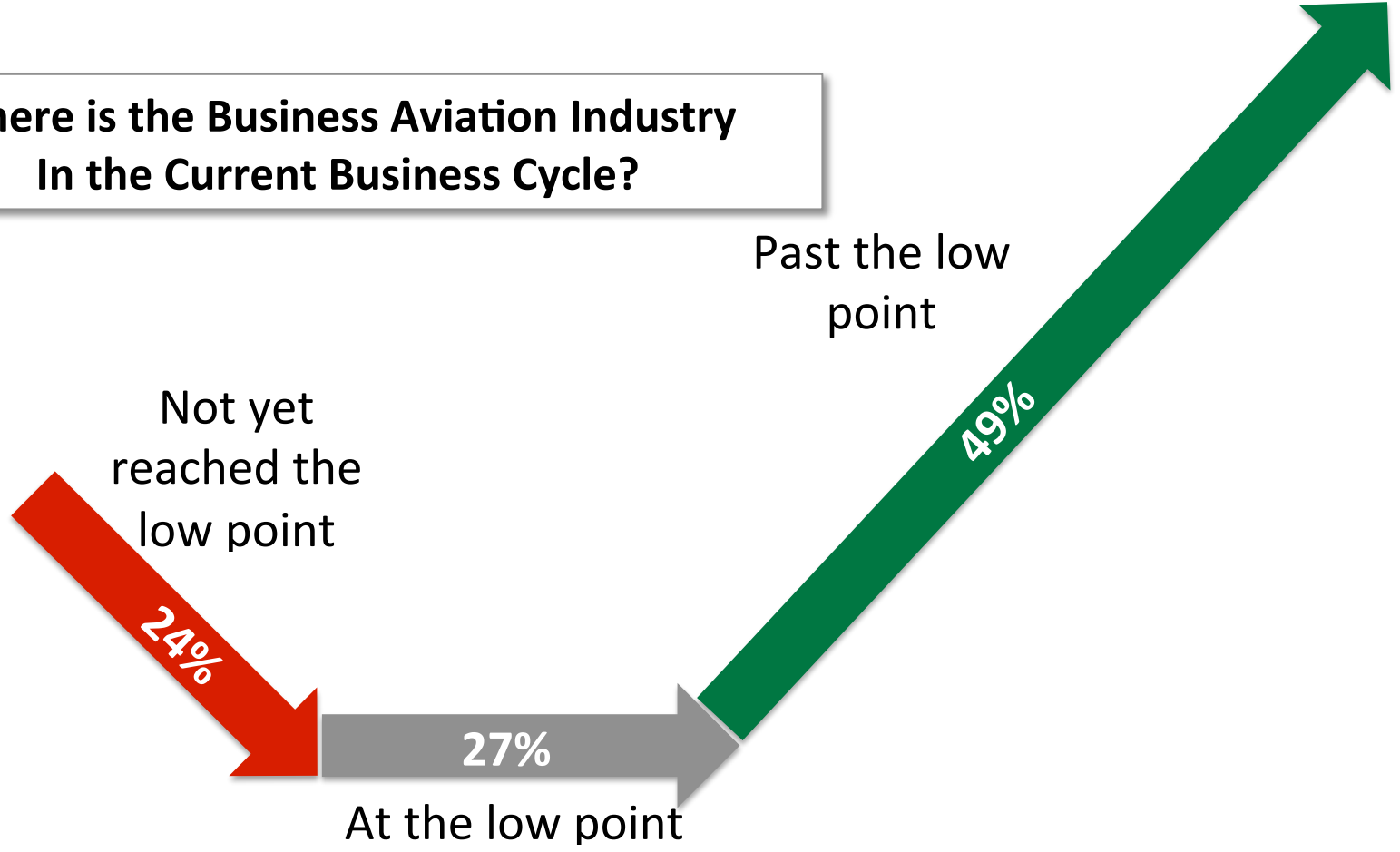


# Survey Respondents' Sentiment

Current Market Sentiment

Q3 2013 Survey

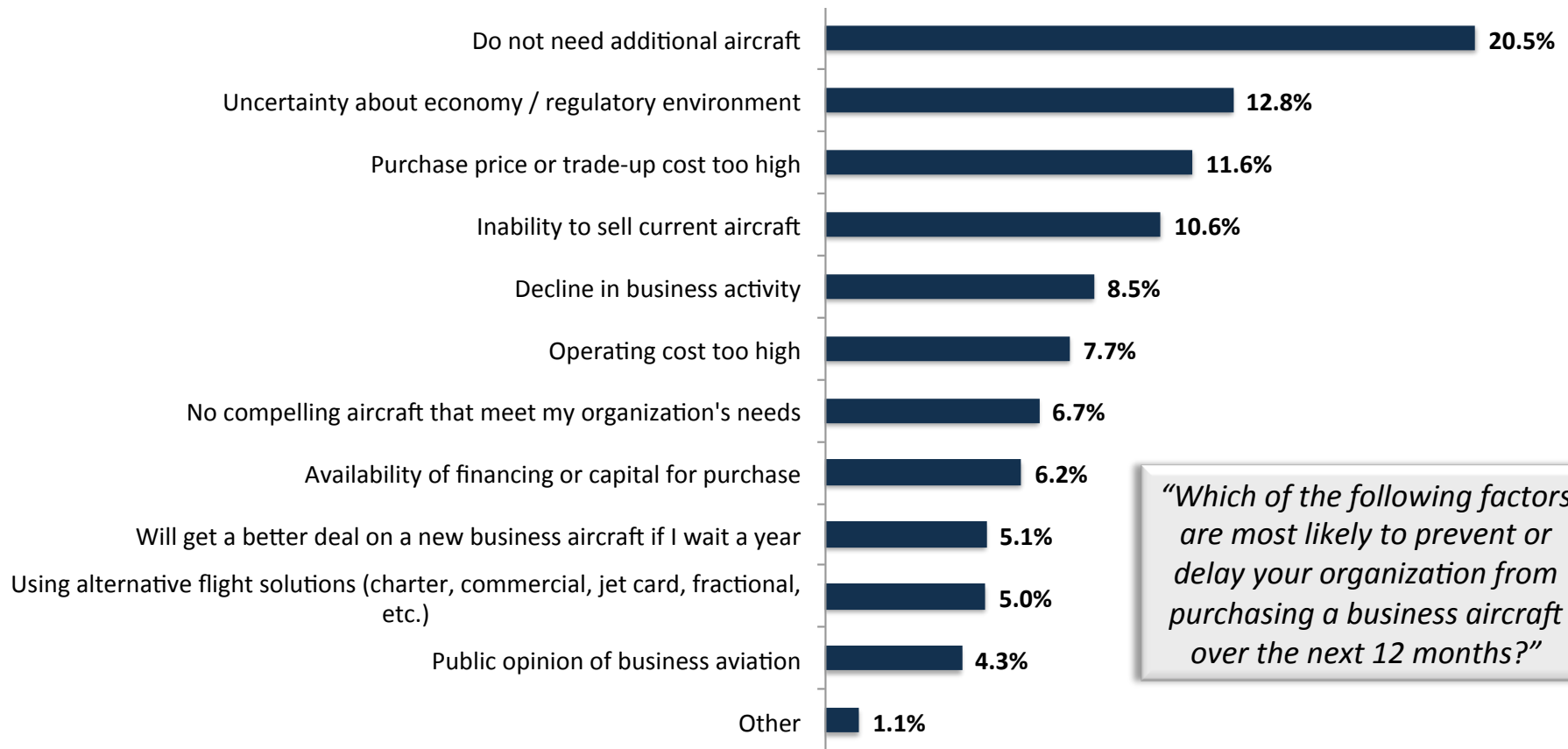
Where is the Business Aviation Industry  
In the Current Business Cycle?



# Aircraft Purchase Inhibitors

## Top 3 Inhibitors – Weighted Average

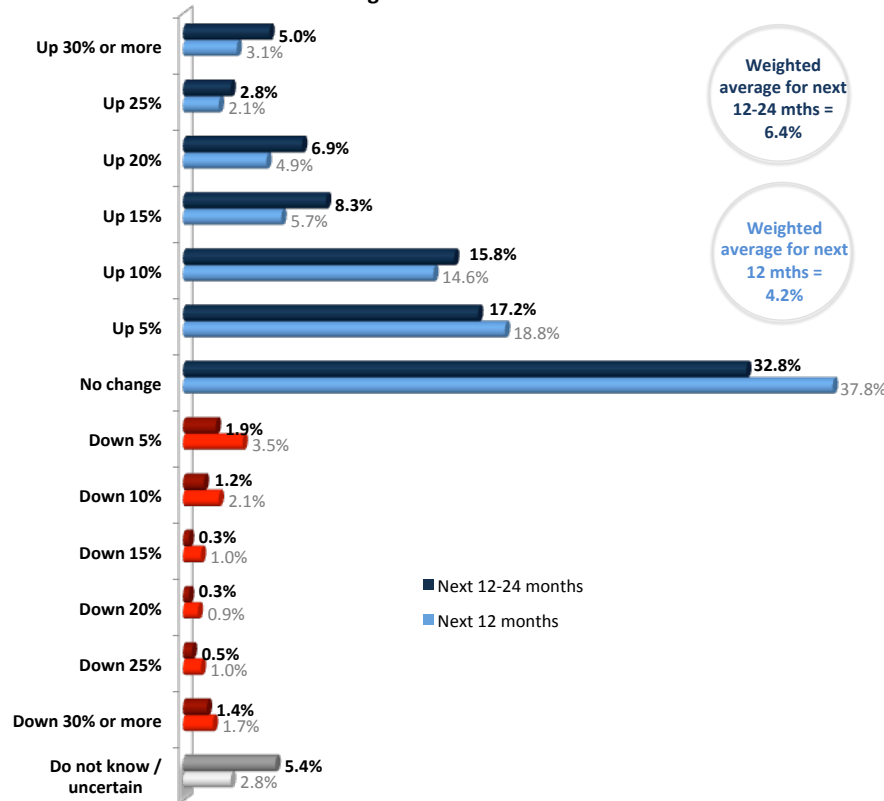
Q3 2013 Survey



# Aircraft Utilization

## Next 12 and 12-24 Months versus Prior 12 Months

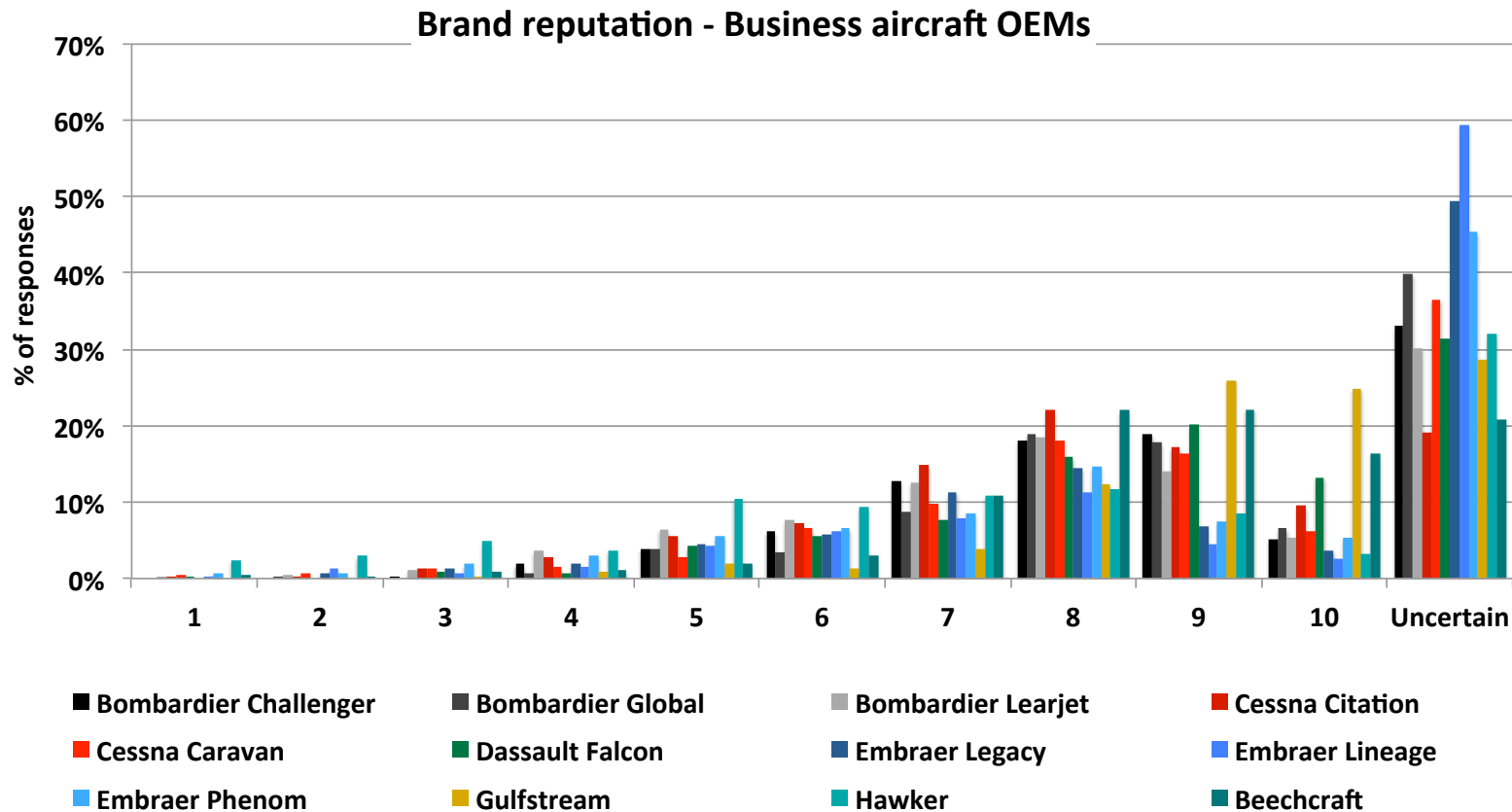
Compared with your past 12 months, what changes do you expect in your total annual flight hours over the next 24 months?



Respondents expect to fly 4.2% more hours in the next 12 months vs. prior 12 months

# Brand Reputations

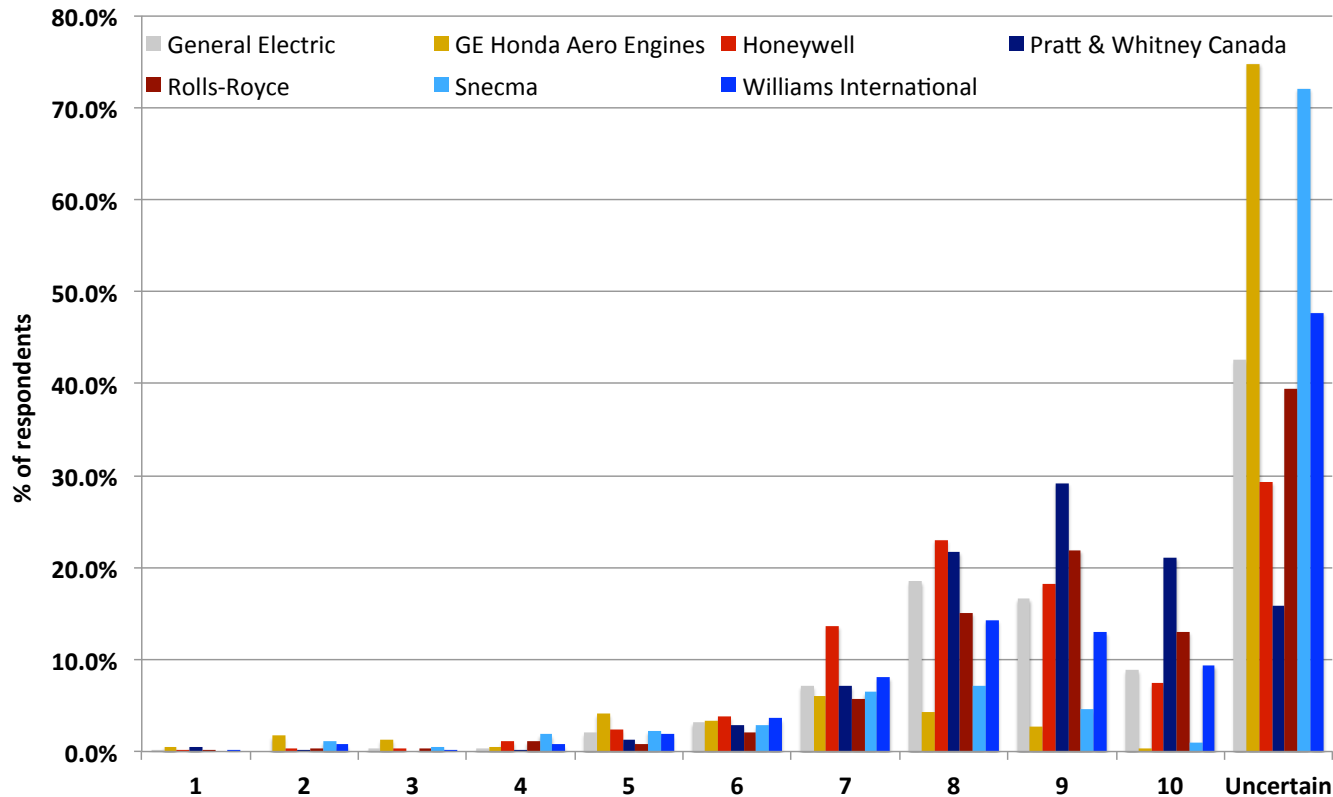
Aircraft Manufacturers on a 1-10 Scale, where “10” = Highest



Gulfstream is the leading brand amongst business aircraft manufacturers

# Brand Reputations

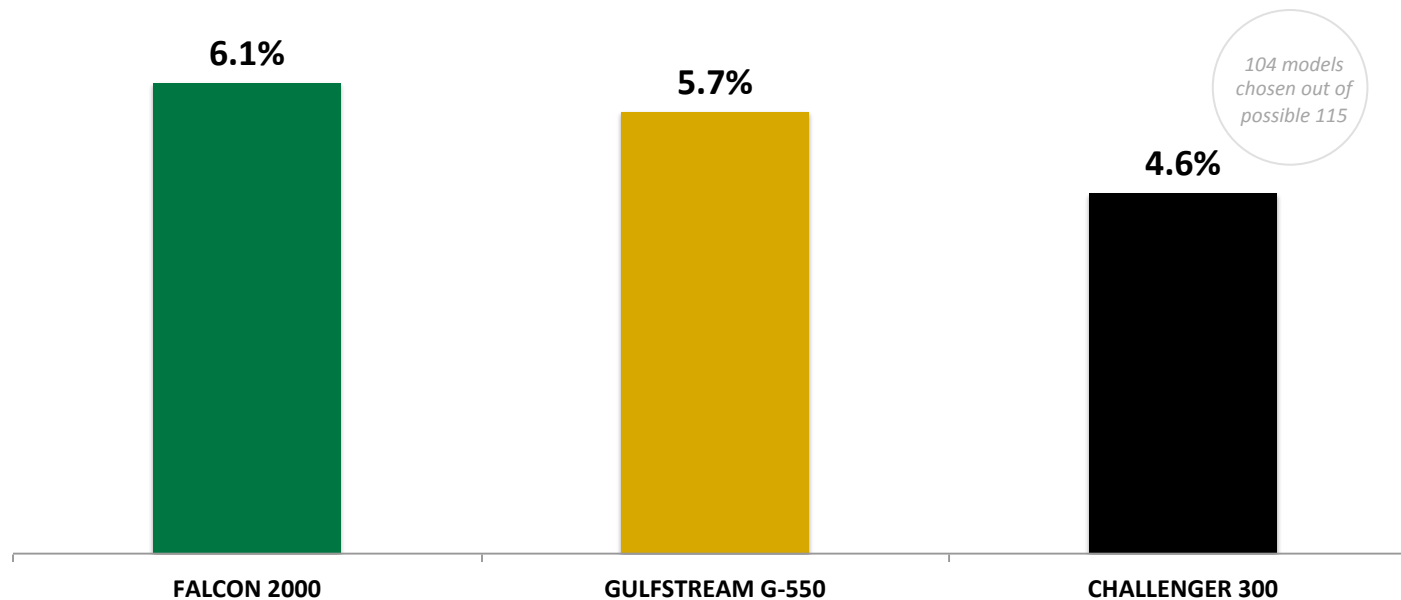
Jet Engine Manufacturers on a 1-10 Scale, where “10” = Highest



**Pratt & Whitney Canada is the top-rated jet engine manufacturer brand, followed by Rolls-Royce**

# Top 3 Models “providing best value”

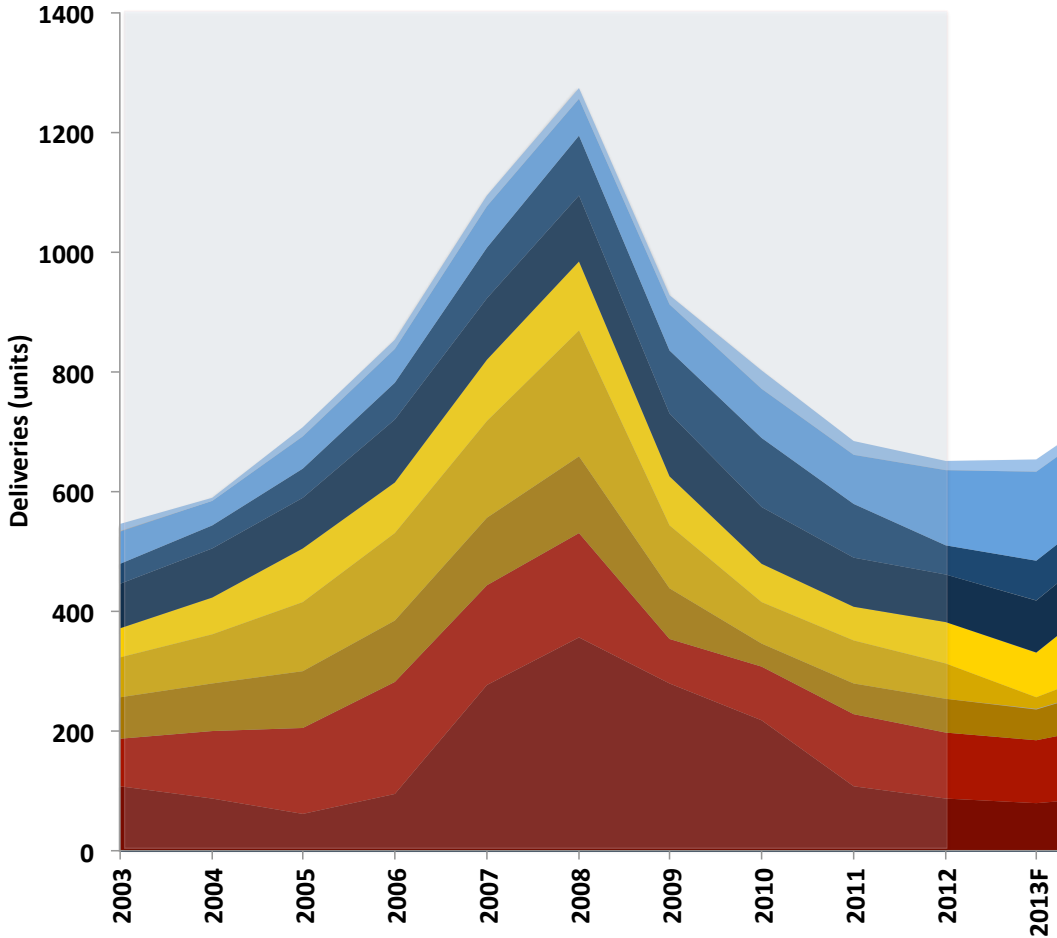
Top 3 models - worldwide  
"Best value for dollar"



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

Based on 3 quarters of survey data (Q1 – Q3 2013), Falcon 2000, Gulfstream G-550 and Challenger 300 account for 16.4% (from possible 115 choices)

# Business Jet Delivery History & Forecast



- Personal Jet
- Very Light Jet
- Light Jet
- Super Light Jet
- Mid-Size Jet
- Super Mid-Size Jet
- Large Jet
- Large Long-Range Jet
- Large Ultra Long-Range Jet
- Airline Business Jet

## 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 has 3 main elements:

- 1) JETNET iQ REPORTS are the definitive analytical reference for the business aviation industry, incorporating state-of-the-industry analyses, proprietary aircraft owner/operator surveys, and detailed 10-year delivery and fleet forecasts, updated quarterly.
- 2) JETNET iQ SUMMITS provide fast-paced thought-provoking insights into the state of the industry, and unique networking opportunities.
- 3) JETNET iQ RESEARCH serves the needs of members 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 is the ultimate source for information and intelligence on the worldwide business, commercial, and helicopter aircraft fleet and marketplace, comprised of some 100,000 airframes. 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 Director of Sales and Marketing, at 800-553-8638 (USA) or [paul@jetnet.com](mailto:paul@jetnet.com); International inquiries, contact Karim Derbala, JETNET Exclusive Agent, EMEA, at 41.0.43.243.7056 or [karim@jetnet.com](mailto:karim@jetnet.com)