

MARKETLINE

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2016 NEWSLETTER

MEASURING PAR IN BUSINESS AIRCRAFT ACTIVITY

By Carl Janssens, ASA  | Chief Appraiser | Aviation Week Network

Scoring a golf tournament based on par is relatively understandable to those who play the game on a particular course. Par is Latin for what the English rhetoric refers to as “average.” This is simple enough for the aviator’s number one leisure sport. Par in business aircraft activity is another story. One could list multiple concepts for par in the business aircraft transaction. Measuring total inventory available is one consideration, while measuring average days on market could be another. Then there is the actual transaction. Measuring the number of transactions as a result of par based on type, range, equipment for pre-owned aircraft or measuring the number of new sales from the manufacturer or distributor could be another definition of par. One could also find a par on cash versus finance, American sales versus everywhere else, and Part 135 activity or corporate flights. The list goes on and on while everything mentioned, and not mentioned, can be measured against par. So be specific. If business aviation is below par, then being “above par” doesn’t have much of a bite unless it refers to a specific segment of business aircraft activity.

Just as in golf, wind plays a factor in the underlying score as it relates to par. Wind also has a different meaning in reference to national politics and has an impact on our aircraft markets. All in all, how would you measure par in your business aircraft activity within your level of participation?

Within the Aircraft Bluebook, measurement of par based on values increasing or decreasing looked pretty average when compared to the previous reporting period. In the jet category, the majority of aircraft were considered stable while the turboprop market was in the “birdie” category faring better than average by having some stability in pricing. Multi-engine pistons, single-engine pistons and helicopters are also represented to be related to an “eagle” score when compared to the previous quarter. In all, activity was good, maybe robust with regard to the number of transactions in some categories while pricing remained on par with a bogie here and there.

God bless Arnold Palmer, who traded up for a better set of wings.

Noteworthy of attention (See page 2), Dennis Rousseau, AircraftPost, has highlighted the fractional business aircraft market and does a great analysis of establishing par as measured from a marketable standpoint when compared to sole ownership.

TABLE OF CONTENTS

- 01 Measuring Par
- 02 Value in [Total] Time
- 03 Around the Globe
- 03 Ask Aircraft Bluebook
- 03 Current Market Strength
- 03-09 Marketline Charts
- 10 Into the Blue
- 12 Roundtable-Residual Values
- 12 What’s New in ABB

BLUEBOOK-ATA-GLANCE

JET

INCREASED	11
DECREASED	494
STABLE	587

TURBOPROP

INCREASED	26
DECREASED	137
STABLE	500

MULTI

INCREASED	12
DECREASED	18
STABLE	664

SINGLE

INCREASED	0
DECREASED	208
STABLE	2519

HELICOPTER

INCREASED	1
DECREASED	117
STABLE	1122

VALUE IN [TOTAL] TIME PAR FOR FRACTIONAL VS SOLE OWNERSHIP

By Dennis Rousseau | President and Founder | AircraftPost.com

In part, fractional programs fill a niche between charter and whole ownership. An “aircraft share” will reduce the cost to buy a new aircraft due to the fact that you’re splitting the acquisition costs with approximately eight other owners. Further, the hourly rate for fractional aircraft is fixed and covers all direct costs as well as engine and airframe maintenance programs. However, it should be kept in mind that there’s little, if any, negotiation on the selling price of the aircraft new and they typically fly 1,000+ hours per year.

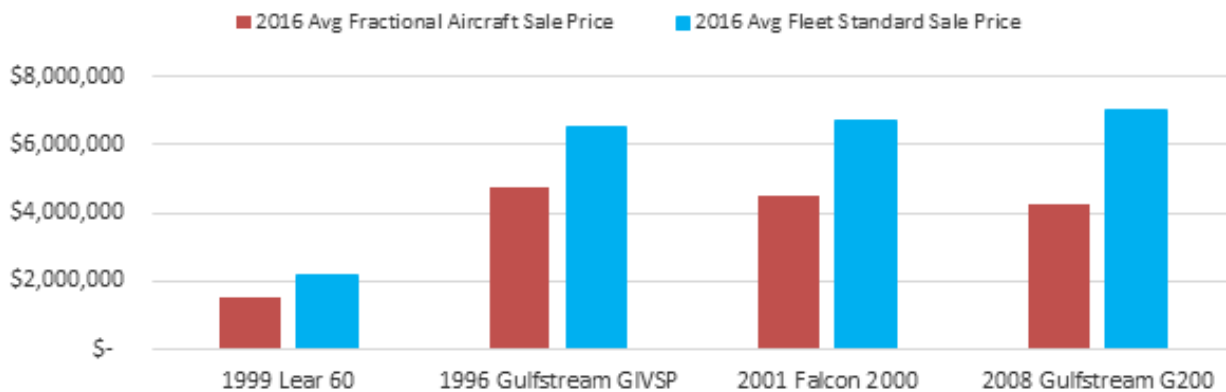
Over the last few years, fractional aircraft have been coming on the market as the providers/operators undergo fleet replacement. As a result, there has been considerable focus on the resale values of these aircraft and their corresponding effect on the overall market. Generally speaking, the aircraft cockpits are standard equipped with very few options. Likewise, the interiors for a given make model are fairly standard with few bells and whistles. The majority of all fractional aircraft are on engine programs. Conversely, the fleet standard aircraft tend to be heavily optioned with regard to avionics, interiors and cabin management systems. Other notable differences is the fact that the majority of the fractional aircraft are flown by multiple crews on an ongoing basis and incur more wear and tear by virtue of their increased flight activity and short repositioning flights.

In general, our aircraft market values have been on the decline since the 2008 economic debacle. Over the past 18-24 months, aircraft market depreciation has accelerated due to global economic contraction and market saturation with respect to the percentage of the fleet that is being offered for

sale. In most cases we’re seeing an excess of 10 percent of the available fleet on the market, which in and of itself does not sound too drastic until we look at the sheer number of available aircraft. By way of example, there is currently 12 percent of the Hawker 800XP fleet on the market, however that accounts for 56 aircraft . . . and this scenario is playing out with the majority of aircraft! Now let’s factor in that only 2 percent of the 800XP fleet, 12 aircraft, has sold in the last six months, yet 25 more came on the market in the same timeframe and we can better see the effects of market saturation/imbalance.

Consider all the above-mentioned coupled with more fractional aircraft coming on the market and we may be heading for the perfect storm. On average, a fractional aircraft will come on the market with twice the total time as a fleet standard aircraft and have an average asking price of about 35 percent lower than a fleet standard aircraft. When comparing selling prices between the two case scenarios and assuming the same vintage, the fractional aircraft will sell 27 to 43 percent (specific to make/model) under a fleet standard aircraft. However, when large numbers of fractional aircraft come on the market at the same time, they have a negative effect on the remaining market in that they are compared in equal light at a lower price point/higher time, and in effect reducing the value of the higher priced, lower time aircraft. This situation seems to be playing out with all mainstream aircraft, and factor in that we’ve never before been faced with such dire aircraft market conditions, coupled with further economic deterioration, and it’s anyone’s guess where our markets will be in the ensuing three to six months.

Fractional Aircraft vs Fleet Standard



AIRCRAFT BLUEBOOK AROUND THE GLOBE

National Business Aviation Assoc. (NBAA) Annual Meeting; Orlando, Florida; Nov. 1-3, 2016

Founded in 1947 and based in Washington D.C., the National Business Aviation Association (NBAA) is the leading organization for companies that rely on general aviation aircraft to help make their businesses more efficient, productive and successful.

ASK AIRCRAFT BLUEBOOK

If you have any questions about the Aircraft Bluebook, please feel free to give the editorial staff a call at 1-800-654-6776 or email us, info@aircraftbluebook.com.

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You can go to our website aircraftbluebook.com and click on the button that says "Click here to submit your aircraft sales reports" or you can email them to info@aircraftbluebook.com directly. All reports are kept confidential.

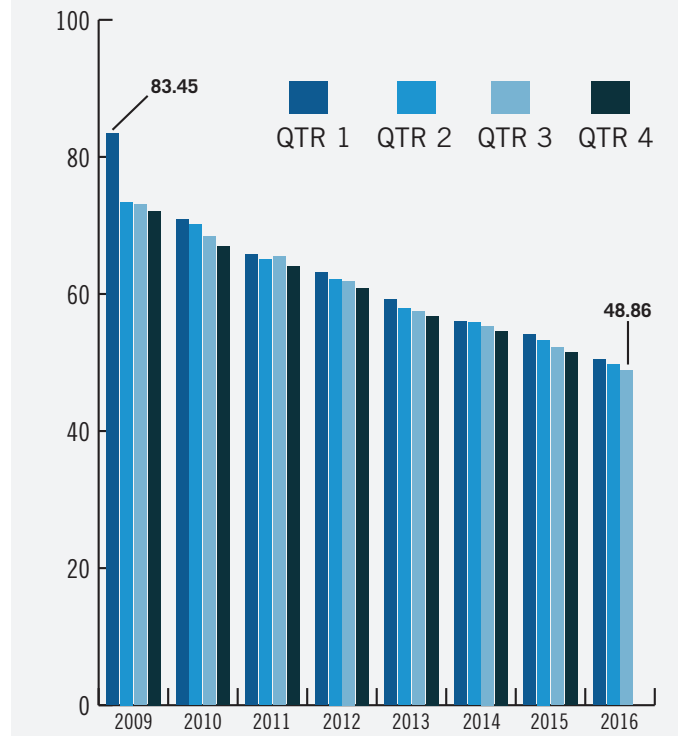
CURRENT MARKET STRENGTH

CMS represents an aircraft's current strength in the market. An A+ rating indicates the aircraft is enjoying a very firm market. Prices for an A+ aircraft are steadily rising, and holding times are very short or nonexistent. At the opposite end of the spectrum, a C- aircraft is one experiencing a very soft market. Its price is commonly discounted, and it often sets on the ramp in excess of eight months before selling. It is important to remember that Current Market Strength is not a forecast. It is valid only at Marketline's effective date of release. *See chart below.*

MARKETLINE CHARTS

All of the listed aircraft have a composite score that is presented in the Used Aircraft Market graph. Data points are represented in relationship to the respective new delivered historical price that is equal to 100%. The measure of change is reported in the actual percentage of value in relation to new. The delta between reporting periods can be concluded as the percentage of change.

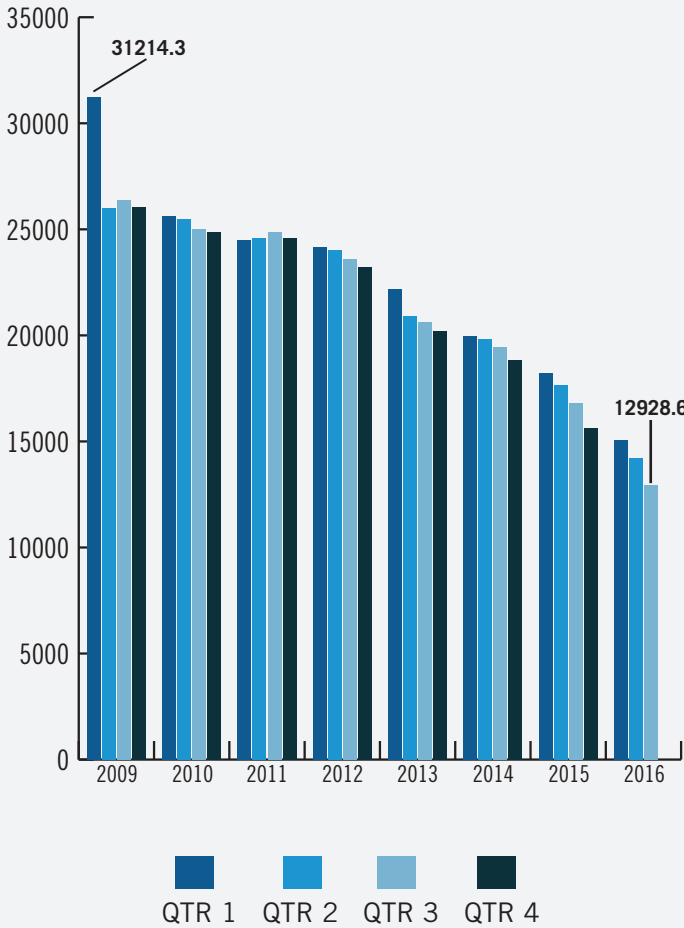
USED AIRCRAFT MARKET



CURRENT MARKET STRENGTH (CMS)

2007/2008 Model	CMS	2007/2008 Model	CMS	2007/2008 Model	CMS
Beech Premier 1A	B-	Gulfstream G-200	B	Cirrus SR22-G2	A-
Bombardier Global XRS	A	Gulfstream G150	B	Cirrus SR20-G2	B
Bombardier Challenger 604	B	Hawker 800XP	B	Diamond DA40-180XLS Star	B
Bombardier Challenger 300	A	Hawker 400XP	C	Diamond DA20-C1 Eclipse	B-
Bombardier LearJet 60XR	B-	Beech King Air 350	A	Mooney M20TN Acclaim	B-
Bombardier LearJet	A-	Beech King Air B200	A	Mooney M20R Ovation	B-
Cessna Citation X	B+	Beech King Air C90GT	A	Piper PA46-350P Mirage	B
Cessna Citation XLS	B+	Cessna 208B Grand Caravan	A	Piper PA34-220T Seneca V	B
Cessna Citation CJ3	A	Piaggio P180	B	Piper PA28R-201 Arrow	B
Cessna Citation CJ2	A	Pilatus PC-12/47	B	Piper PA28-181 Archer III	B
Dassault Falcon 900	A	Piper PA46-500TP Meridian	B+	Evektor Sportstar (LSA)	B-
Dassault Falcon 50EX	B-	Socata TBM850	B	Flight Design CTLS (LSA)	B-
Dassault Falcon 2000EX	A	Beech 58 Baron	B	Agusta A109 Grand	B+
Embraer EMB-135 Legacy	A-	Beech A36 Bonanza	A-	Bell 206 L-4	B+
Embraer Phenom 100	A	Cessna T206H Stationair	A-	Eurocopter AS350-B3	B
Gulfstream G550	A	Cessna 182T Skylane	A-	Robinson R44 Raven II	A
Gulfstream G450	A	Cessna 172S Skyhawk	A-	Sikorsky S-76C++	B-

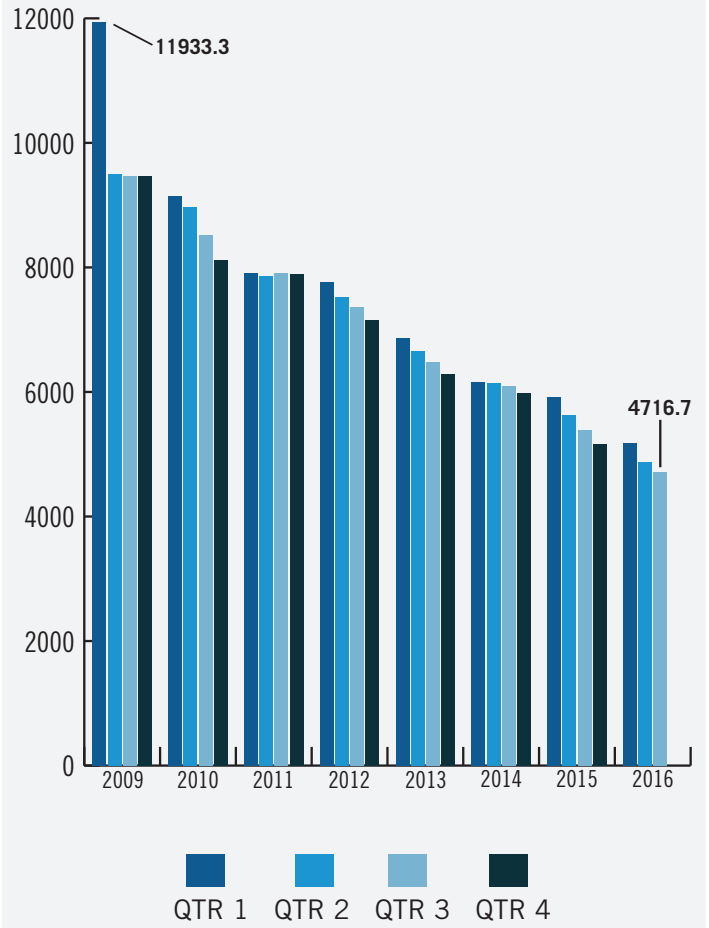
LARGE JET



The Large Jet chart depicts the average price (in thousands) of the seven jets listed. Each model's year will precede the name of the aircraft.

YEAR/MODEL	%CHANGE
2006 Bombardier Global Express	-2.4
2007 Bombardier Challenger 605	-5.3
2005 Dassault Falcon 900 EX Easy	-6.3
2005 Dassault Falcon 200EX Easy	-8.3
2005 Gulfstream G550	-13.6
2005 Gulfstream G450	-23.1
2005 Embraer EMB135 Legacy	0.0

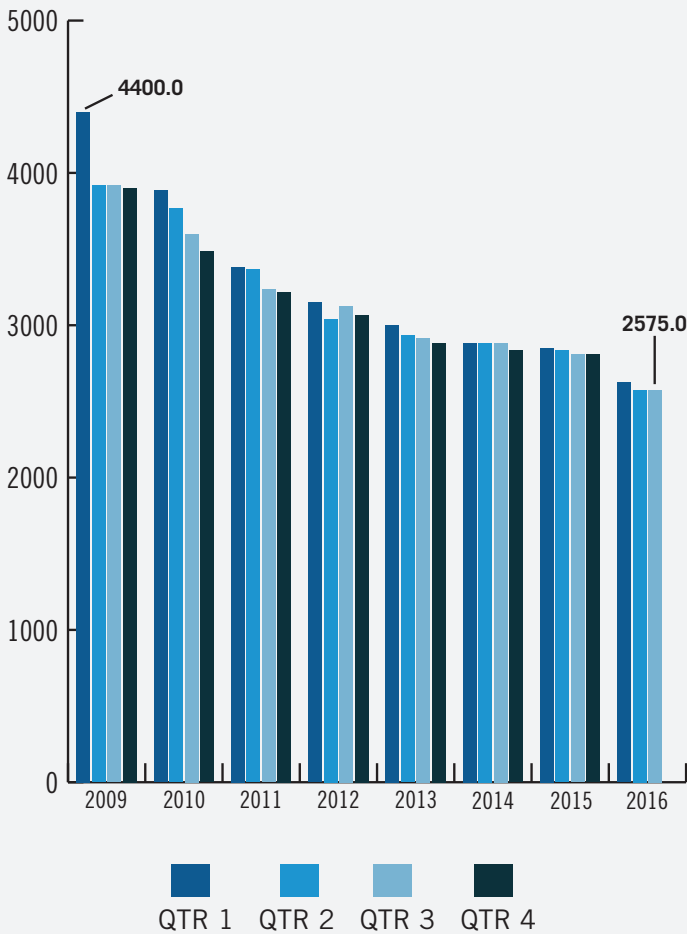
MEDIUM JET



The Medium Jet chart depicts the average price (in thousands) of the six jets listed. Each model's year will precede the name of the aircraft.

YEAR/MODEL	%CHANGE
2005 Bombardier Challenger 300	-5.9
2005 Bombardier Lear 45XR	-5.9
2005 Cessna Citation Sovereign	0.0
2005 Cessna Citation XLS	0.0
2006 Gulfstream G150	0.0
2005 Hawker 800XP	-7.1

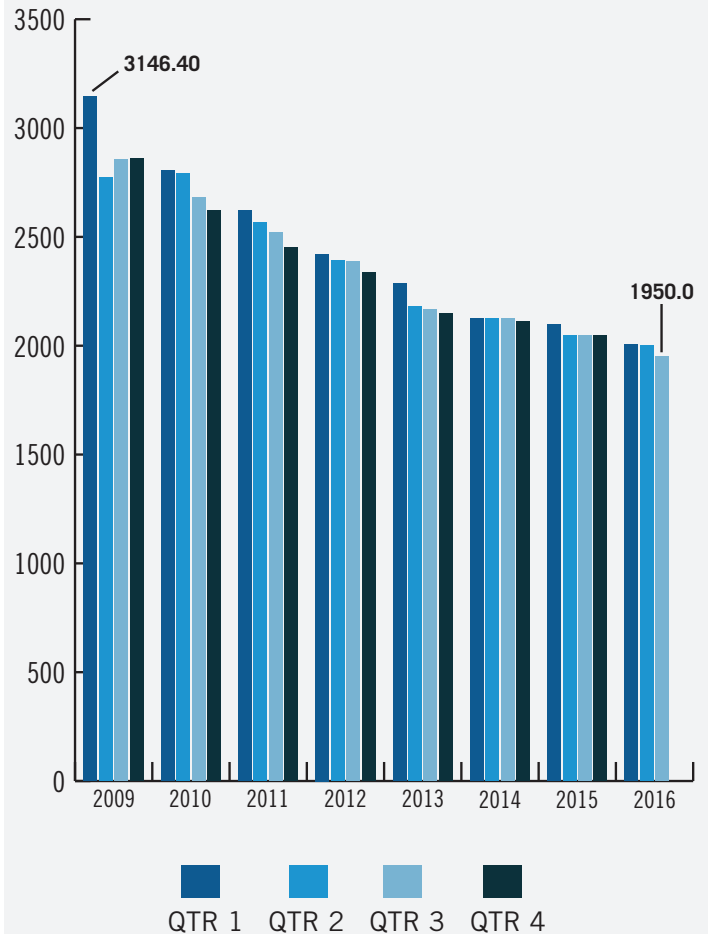
SMALL JET



The Small Jet chart depicts the average price (in thousands) of the six jets listed. Each model's year will precede the name of the aircraft.

YEAR/MODEL	%CHANGE
2005 Beech Premier 1	6.7
2005 Cessna Citation CJ2+	0.0
2006 Cessna 510 Mustang	0.0
2008 Embraer Phenom 100	0.0
2009 Embraer Phenom 300	0.0
2005 Hawker 400XP	-6.5

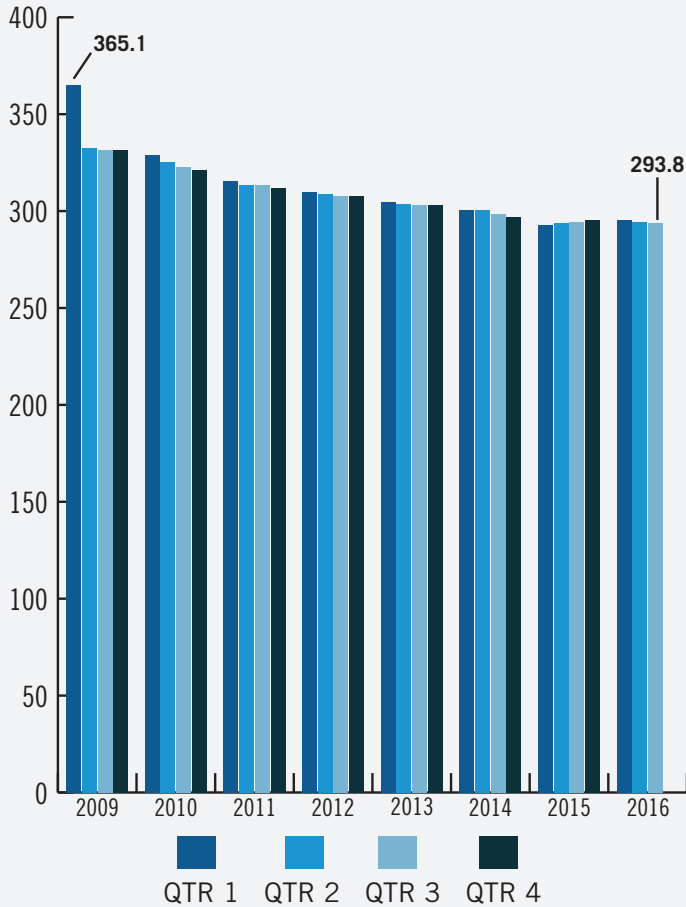
TURBOPROP



The Turboprop chart depicts the average price (in thousands) of the seven turboprops listed. Each model's year will precede the name of the aircraft.

YEAR/MODEL	%CHANGE
2005 Beech King Air350	-12.9
2005 Beech King AirB200	-6.3
2005 Beech King AirC-90B	0.0
2005 Cessna 208 Grand Caravan	0.0
2005 Piaggio AvantiP180	0.0
2005 Pilatus PC12/45	8.7
2005 Socata TBM700C2	0.0

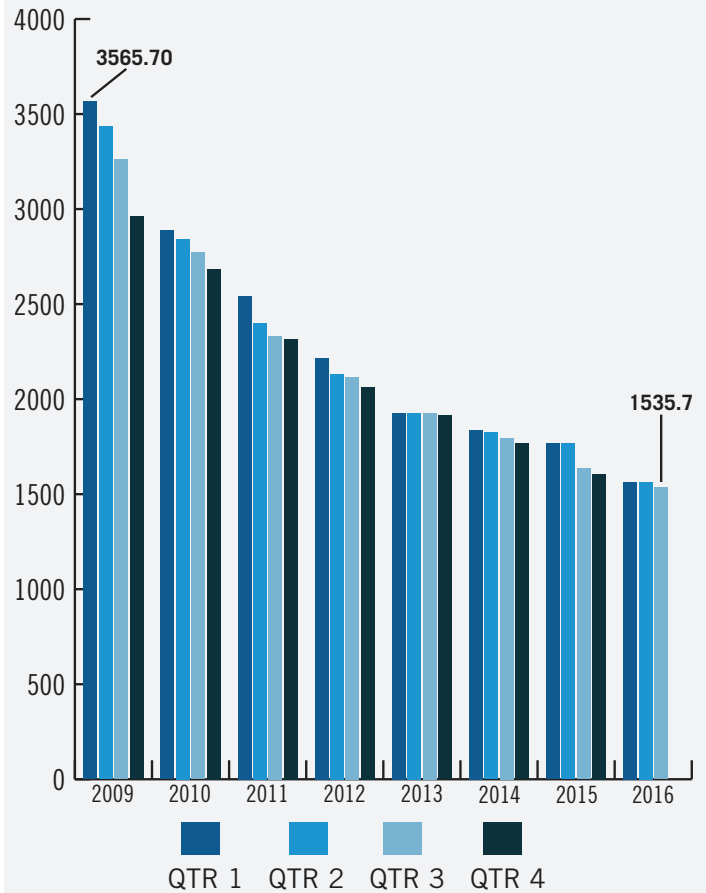
SINGLE/MULTI PISTON



The Single/Multi-Piston chart depicts the average price (in thousands) of the 12 aircraft listed. Each model's year will precede the name of the aircraft.

YEAR/MODEL	%CHANGE
2005 Beech 58 Baron	0.0
2005 Diamond DA42 Twin Star	0.0
2005 Piper PA34-220T Seneca V	0.0
2005 Beech A36 Bonanza	0.0
2005 Cessna/Columbia 400	0.0
2005 Cessna 182T Skylane	0.0
2005 Cessna T206H Turbo Stationair	-1.8
2005 Cessna 172S Skyhawk SP	0.0
2005 Cirrus SR22-G2	0.0
2005 Diamond DA40-180 Star	-4.0
2005 Piper PA46-350P Mirage	0.0
2005 Piper PA28R-201 Arrow	0.0

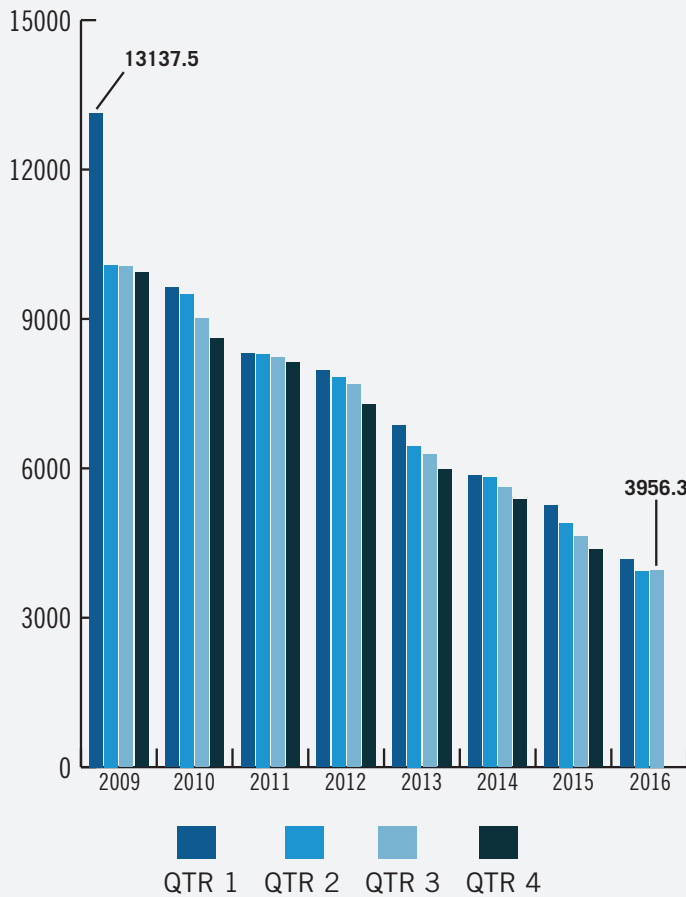
HELICOPTER



The Helicopter chart depicts the average price (in thousands) of the seven helicopters listed. Each model's year will precede the name of the aircraft.

YEAR/MODEL	%CHANGE
2005 Agusta A109E Power	0.0
2005 Bell 430	-9.5
2005 Eurocopter EC130B4	0.0
2005 Eurocopter AS350B-3 Ecureuil	0.0
2004 Enstrom 280FX	0.0
2005 Robinson R44 Raven	0.0
2005 Sikorsky S-76C+	0.0

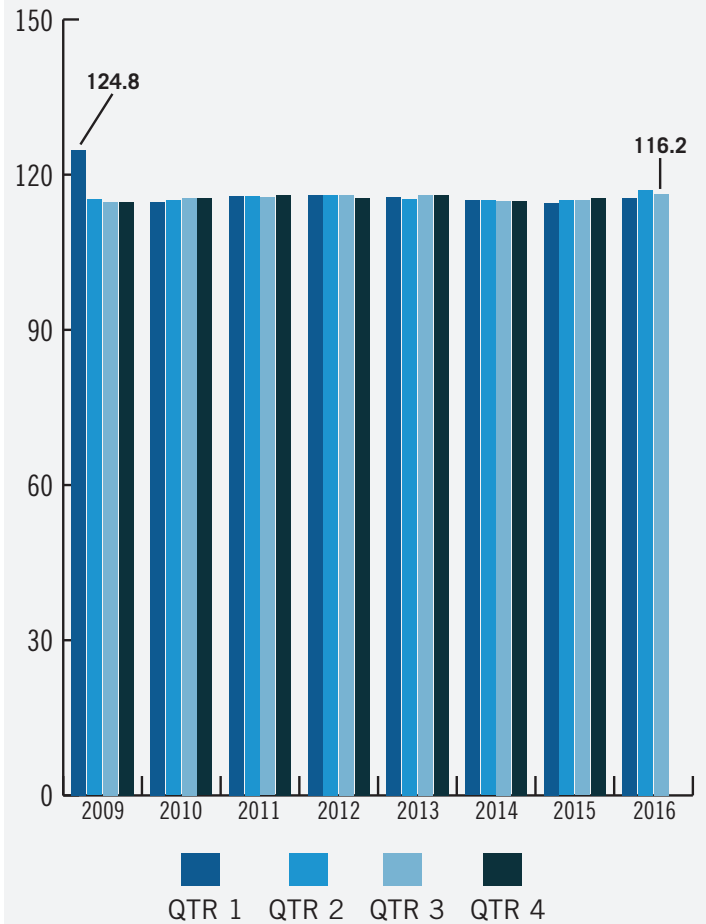
LEGACY JET



The Legacy Jet chart depicts the average price (in thousands) of the eight jets listed. Each model's year will precede the name of the aircraft. Legacy Aircraft are those produced prior to the year 2000.

YEAR/MODEL	%CHANGE
1996 Bombardier Challenger 604	0.0
1996 Bombardier Lear 31A	0.0
1996 Cessna Citation Ultra	0.0
1996 Dassault Falcon 900B	-4.9
1997 Dassault Falcon 50EX	0.0
1996 Gulfstream GV	5.3
1996 Gulfstream GIVSP	0.0
1996 Hawker800XP	-2.9

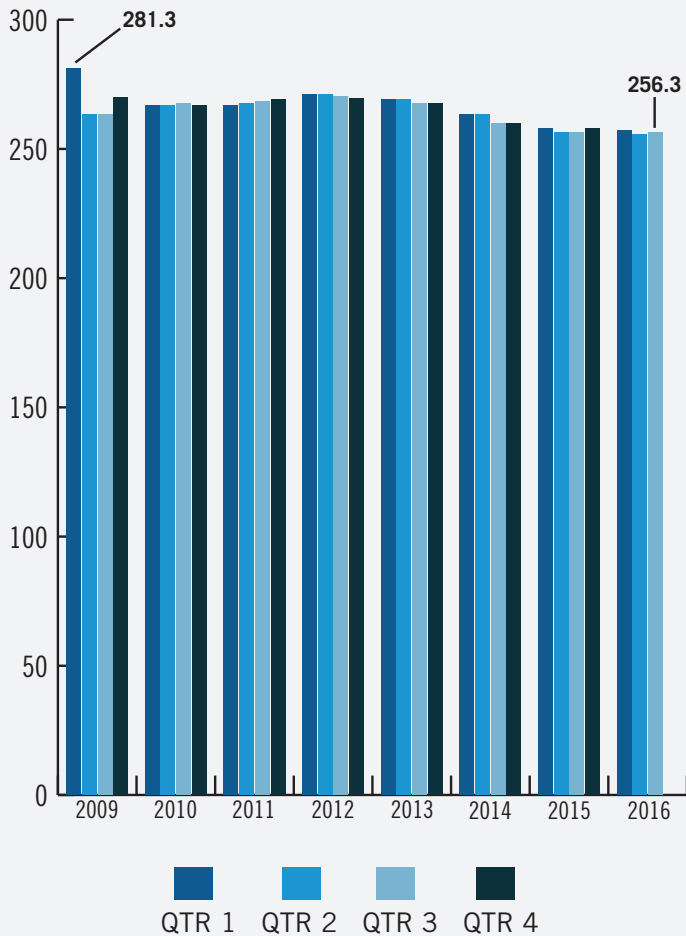
LEGACY PISTON



The Legacy Piston chart depicts the average price (in thousands) of the ten piston aircraft listed. Each model's year will precede the name of the aircraft. Legacy Aircraft are those produced prior to the year 2000.

YEAR/MODEL	%CHANGE
1990 Beech A36 Bonanza	0.0
1990 Beech F33 Bonanza	0.0
1986 Cessna 210 Centurion II	0.0
1986 Cessna 172P Skyhawk B	0.0
1985 Cessna 152 Commuter II	0.0
1990 Mooney 252 TSE	-3.1
1990 Piper PA-28-236 Dakota	0.0
1990 Piper PA-28R-201 Arrow	0.0
1990 Piper PA-28-181 Archer II	-2.9
1990 Piper PA-28-161 Warrior II	-2.1

LEGACY MULTI ENGINE PISTON

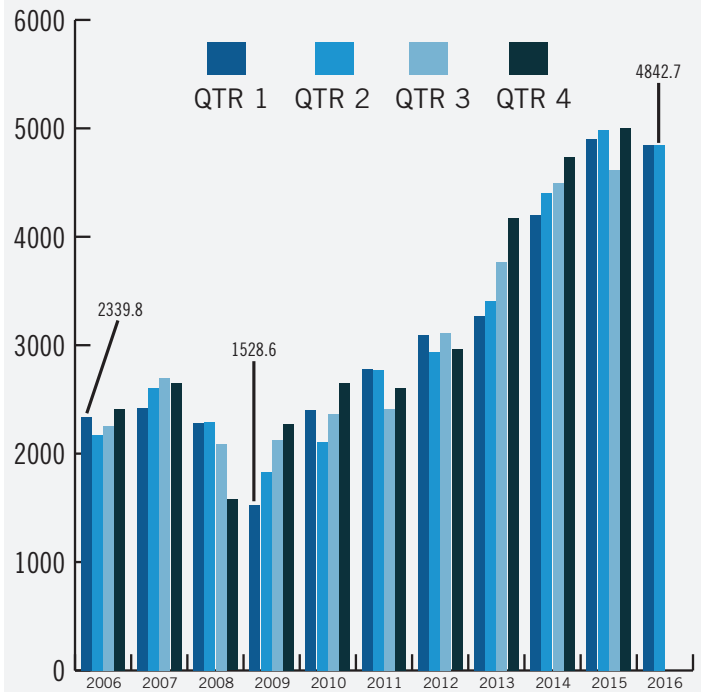


The Legacy Multi Engine Piston chart depicts the average price (in thousands) of the six aircraft listed. Each model's year will precede the name of the aircraft. Legacy Aircraft are those produced prior to the year 2000.

YEAR/MODEL	%CHANGE
1986 Beech 58P Pressurized Baron	0.0
1990 Beech 58 Baron	0.0
1985 Cessna 421 Eagle III	1.2
1981 Cessna 310R II	0.0
1982 Piper PA-310C Navajo	0.0
1990 Piper PA-34-220T Seneca III	0.0

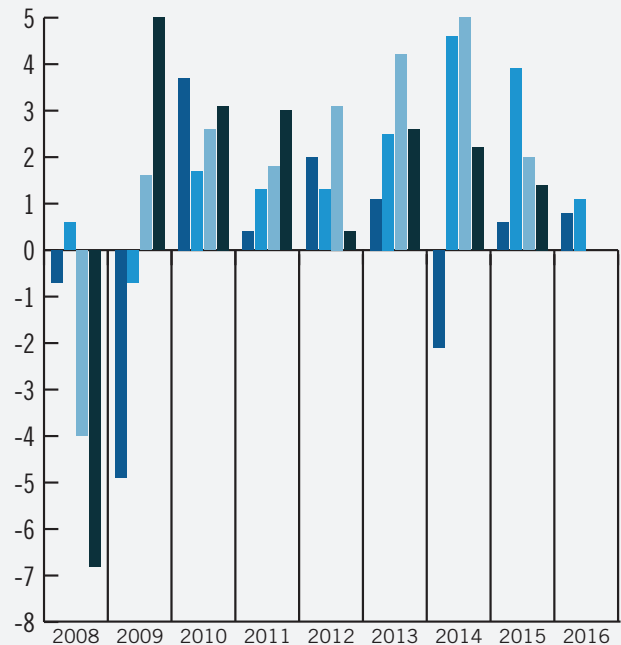
NASDAQ

Consider these graphs as crosschecks. The general aviation and business aircraft market does not operate in a vacuum but is a part of the bigger picture.



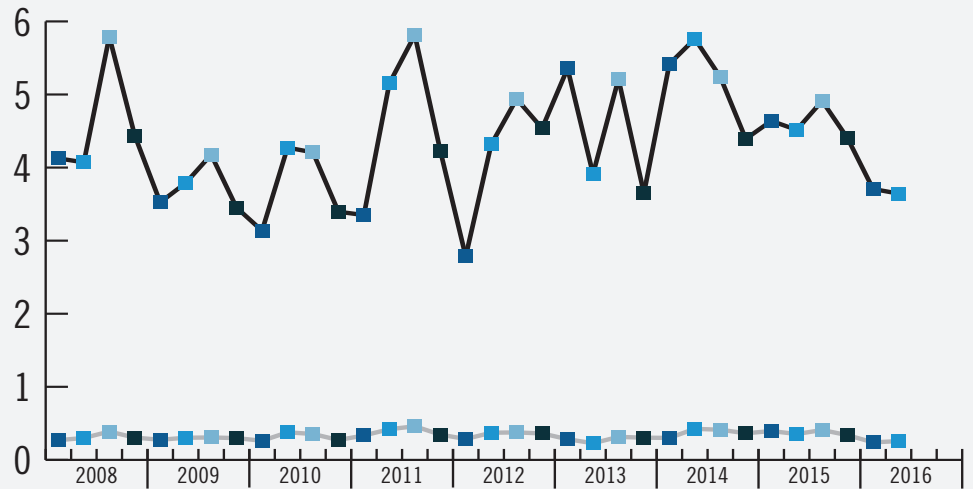
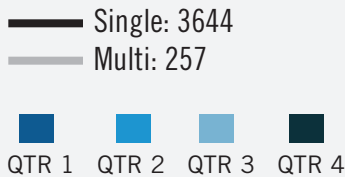
U.S. REAL GDP

Each data point represents the BEA's final figure or latest estimate of the quarter-to-quarter seasonally adjusted annual rates of change in real GDP "based on chained 2005 dollars." The study begins with the first quarter in 2006.



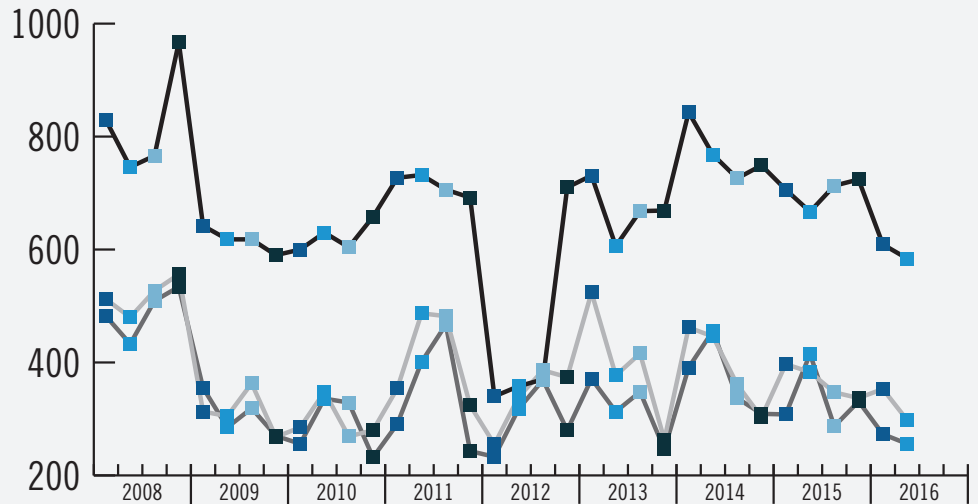
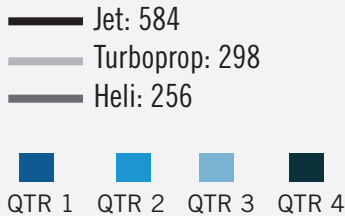
CHANGE OF STATUS: SINGLE/MULTI

The black line in the chart depicts change-of-status data for singles. The light gray line represents multi.



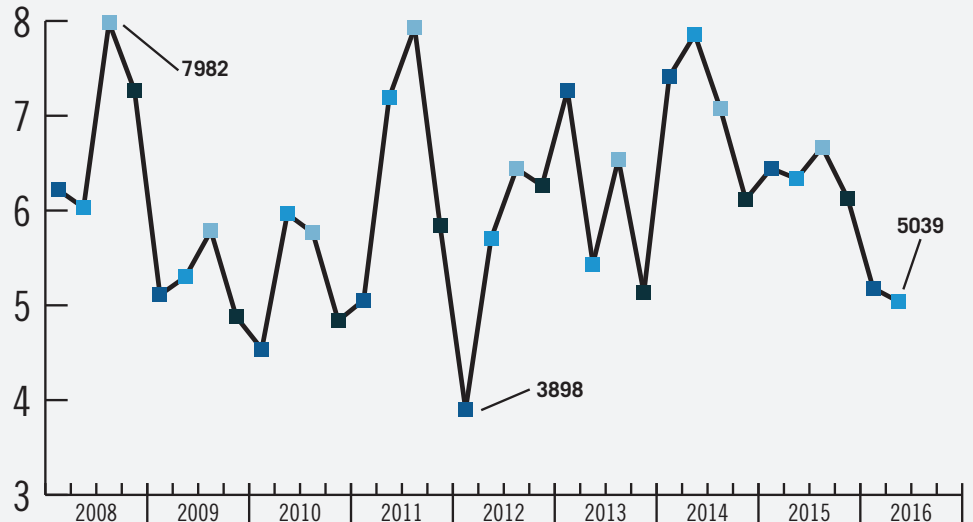
CHANGE OF STATUS: JET/TURBO/HELI

The black line in the chart represents change-of-status information for jets. The light gray line depicts turboprops, while the dark gray line represents helicopters.



CHANGE OF STATUS: TOTAL MARKET

Depicts change-of-status data for all aircraft included in the Aircraft Bluebook. The numbers are from the FAA Registry. Gliders, homebuilts, airliners and other aircraft not found in the Bluebook are not included in this study.



INTO THE BLUE

Aircraft Bluebook At-a-Glance

Cessna Citation CJ3 525B

By Chris Reynolds, ASA | Aircraft Bluebook

Aircraft Bluebook At-a-Glance has reviewed the current market status of the Cessna Citation CJ3 525B business jet. Research for this study was obtained in part from Aircraft Bluebook, Aircraft Bluebook's Historical Value Reference, the FAA's registry website and various trade services.

Demand

The current CJ3 fleet is reported at 411 aircraft with approximately 25 to 30 CJ3s, representing about 6 to 7 percent of the fleet, reported for sale. Over the last year, approximately 30 CJ3 transactions appear to have occurred.

Pricing

Current offerings for the CJ3 range from mid-\$3.5 million to \$6.5 million. Airframe time varies from several hundred hours to greater than 5,500 hours, depending on the year-model. Equipment, time/condition and engine maintenance programs can significantly affect time on market and marketable value (Aircraft Bluebook prices the CJ3 enrolled on the Williams Tap Elite engine

maintenance program). For the third quarter, Fall 2016 Aircraft Bluebook, a 2006 Cessna Citation CJ3 525B had a reported average retail value of \$3.65 million, which was a decrease of \$150K from the previous quarter's average retail value.

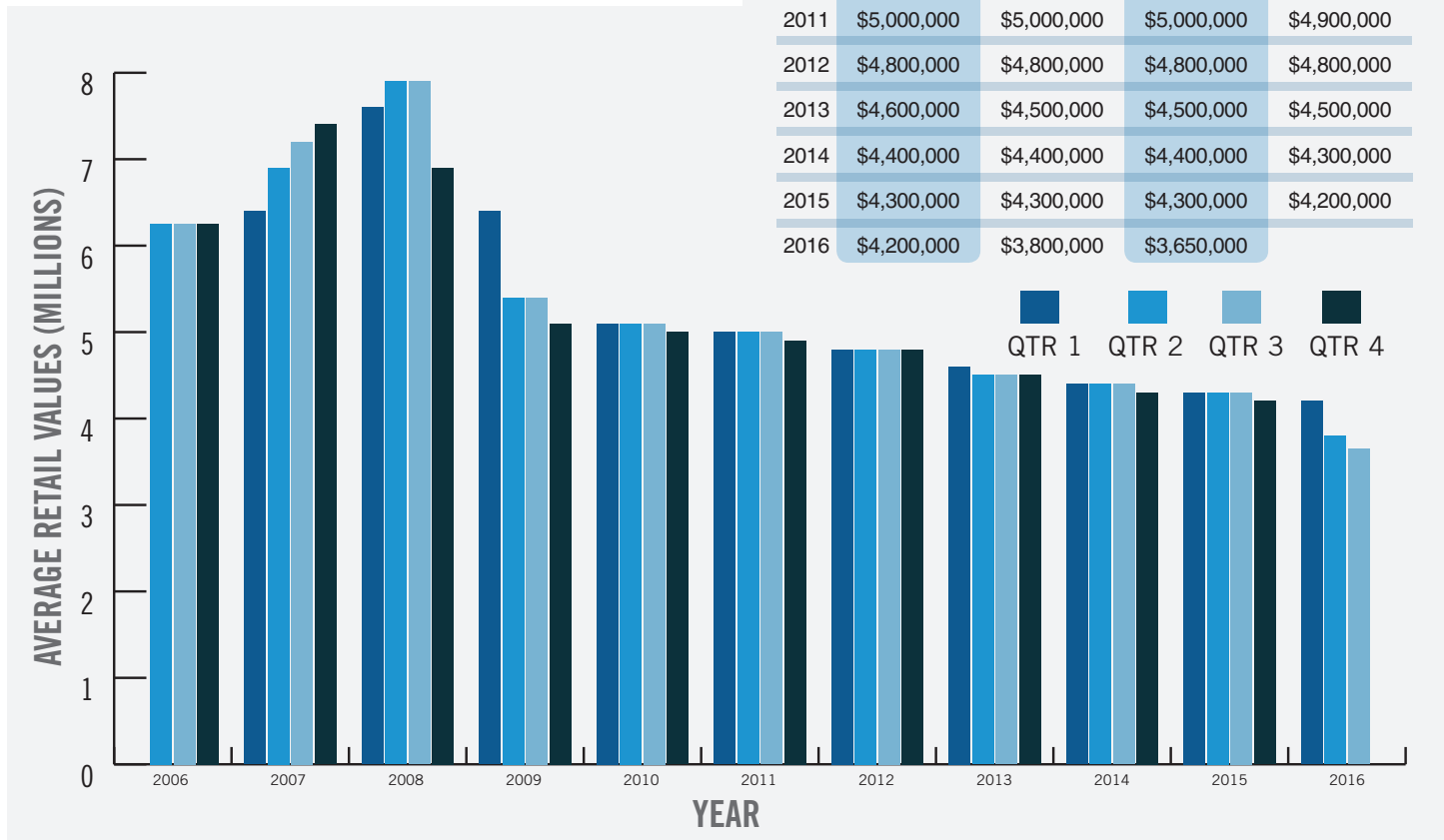
Historical Values

A 2006 Cessna Citation CJ3 525B, which market values have been tracked since the second quarter of 2006, was reported new with an average equipped price of \$6.255 million. Aircraft Bluebook's Historical Value Reference has demonstrated the Cessna CJ3 market value (performance by quarter) in the graph for this 2006 model.

Other historical values can be obtained at Aircraft Bluebook's website, www.aircraftbluebook.com.

AVERAGE RETAIL VALUES

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4
2006		\$6,255,000	\$6,255,000	\$6,255,000
2007	\$6,400,000	\$6,900,000	\$7,200,000	\$7,400,000
2008	\$7,600,000	\$7,900,000	\$7,900,000	\$6,900,000
2009	\$6,400,000	\$5,400,000	\$5,400,000	\$5,100,000
2010	\$5,100,000	\$5,100,000	\$5,100,000	\$5,000,000
2011	\$5,000,000	\$5,000,000	\$5,000,000	\$4,900,000
2012	\$4,800,000	\$4,800,000	\$4,800,000	\$4,800,000
2013	\$4,600,000	\$4,500,000	\$4,500,000	\$4,500,000
2014	\$4,400,000	\$4,400,000	\$4,400,000	\$4,300,000
2015	\$4,300,000	\$4,300,000	\$4,300,000	\$4,200,000
2016	\$4,200,000	\$3,800,000	\$3,650,000	



Aircraft **Bluebook**

Market Values Roundtable



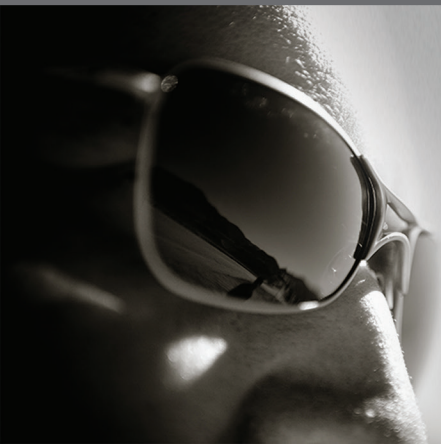
Oct. 5, 2016 | Los Angeles

Following SpeedNews 21st Annual Business & General
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**UNDERSTAND THE PRESSURE POINTS THAT
AFFECT RESIDUAL VALUES OF AIRCRAFT.**



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ROUNDTABLE TO EXPLORE FACTORS AFFECTING AIRCRAFT RESIDUAL VALUES

Aircraft Bluebook, the premier resource for business and general aviation aircraft values, is convening the inaugural Aircraft Bluebook Market Values Roundtable in Los Angeles on Oct. 5, 2016.

Aircraft Bluebook editors and other industry experts will weigh the elements that factor into aircraft market values, especially the pressure points that affect residual values of business jets.

Registration is open to aircraft OEMs, suppliers, financial institutions, attorneys, consultants, operators and others who are involved in the pre-owned aircraft community. Participants may expect to leave the meeting with unique insight to incorporate into their own forecasts of future values of aircraft, Frank Craven, Aviation Week Network managing director, business aviation, says.

Several key participants from the pre-owned aircraft community will provide that insight. Industry contributors scheduled to appear are:

- Rolland A. Vincent, president of Rolland Vincent Associates
- Anthony Kioussis, president of Asset Insight
- Dennis Rousseau, president and founder of AircraftPost.com
- Joe DiLallo, head of corporate aircraft finance and leasing at BMO Harris Equipment Finance Co.
- Thomas Fissellier, manager, market intelligence & analysis, market development & business planning at Bombardier Business Aircraft
- Carl Janssens, Chief Appraiser, Aircraft Bluebook

They will address how the big picture of the business aviation market, maintenance events and human perception of values factor into future values of aircraft. The event will also touch on forecasting trends and forecasting from a financial services perspective.

“The event will empower participants to feel more comfortable with asset planning and portfolio management,” Craven says.

This new event will occur in the afternoon of Oct. 5, following the SpeedNews 21st Annual Business & General Aviation Industry Suppliers Conference, which will be co-located at The Jonathan Club in L.A.

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“The Aircraft Bluebook Market Values Roundtable will give everyone concerned with aircraft values at all stages of the product life cycle the chance to understand more about the factors that affect values,” Craven says. “We are excited to host it and expect it to be a valuable complement to the SpeedNews Business & General Aviation Industry Suppliers Conference.”

Learn more about the Aircraft Bluebook Market Values Roundtable at <http://www.aircraftbluebookmarketline.com/aircraft-bluebook-market-value/>. Or at <http://secure.masseymedia.com/speednews/?cid=50>.

WHAT'S NEW IN ABB

- Updated Maintenance Programs
- Updated 2016 Models

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