

## 2014, THE YEAR IN REVIEW

With only a few weeks remaining in 2014, the pre-owned business aircraft market has definitely experienced recovery from the 2009 recession. Sales are up, days on market have been more refined and the opportunities for finding discounted pricing are increasing. The recovery appears to be in full bloom; however, depreciation still remains unchecked. What was said last year is true: "flat is the new recovery." Prices for the most part have not returned to the good old days of a bull market. Granted, the Gulfstream 650 has been an exception to the otherwise flat trend pattern, but the G650 is new technology and design that has been well received in the global jet market. And, looking forward to the new G500 and G600, this will no doubt follow in the same footprint of the G650. As for their legacy brethren, the G-IV and G-V, one can expect values to decline as the new technology enters the labor force.

And speaking for the labor force, one should expect to find business aviation in the trenches of making good business happen. Where else can you find oneself on the east coast and about eight hours later on location somewhere in Europe? Consider the advantage that business aviation provides in allowing companies to deploy that in-person human factor, which is at the core of what makes an economy grow and business flourish.

Medium jets, such as the Lear 75XR and the Citation Sovereign+ have been respectful in maintaining minimal depreciation in the value equation. Mission, capability and operating costs have been examples of defining better value retention when compared to predecessor models. Light jets, such as the Phenom 300 and Citation CJ4 have likewise demonstrated favorable stability in the marketplace with limited numbers of inventory being offered for sale.

The turboprop market has likewise been on a stable path of recovery. Late model King Air 350, 250 and 90GT series are nearly at a premium, with value retention the best it has experienced in the last few years. The Pilatus PC12 has also had a remarkable year. Mission, technology and capability have been a PC12 choice platform for operations and in doing so as demonstrated stabilized values in 2014.

The piston market in the twin category likewise is proving to have a better year in retaining value. For the most part, limited airframes being manufactured are indirectly helping the retention level of values.

For legacy pistons, those aircraft that are 20-years-old or more are all selling at competitive days on market. A market priced aircraft in this category won't last long.

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### BLUEBOOK-AT-A-GLANCE

#### JET

INCREASED	3
DECREASED	471
STABLE	553

#### TURBOPROP

INCREASED	0
DECREASED	51
STABLE	588

#### MULTI

INCREASED	18
DECREASED	15
STABLE	652

#### SINGLE

INCREASED	72
DECREASED	37
STABLE	2559

#### HELICOPTER

INCREASED	0
DECREASED	253
STABLE	931

Some buyers prefer the former “steam gauge” technology over the expansion of glass in the cockpit. This also equates into not only stable values, but also possibly leaning toward a premium value for the well-equipped, maintained and priced piston in this configuration.

The helicopter market continues to draw its strength from competition on a global level. Time and condition along with remaining useful life on components are significant factors driving this market.

In all, 2014 will go down in the books as a year for recovery in the pre-owned aircraft market.

- Carl Janssens, ASA  
Chief Appraiser  
Penton Aviation



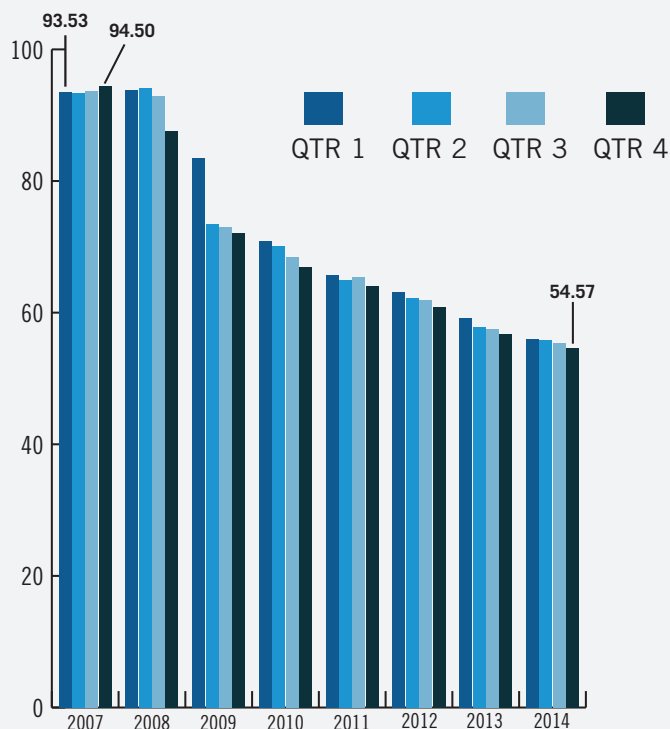
## CURRENT MARKET STRENGTH

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.

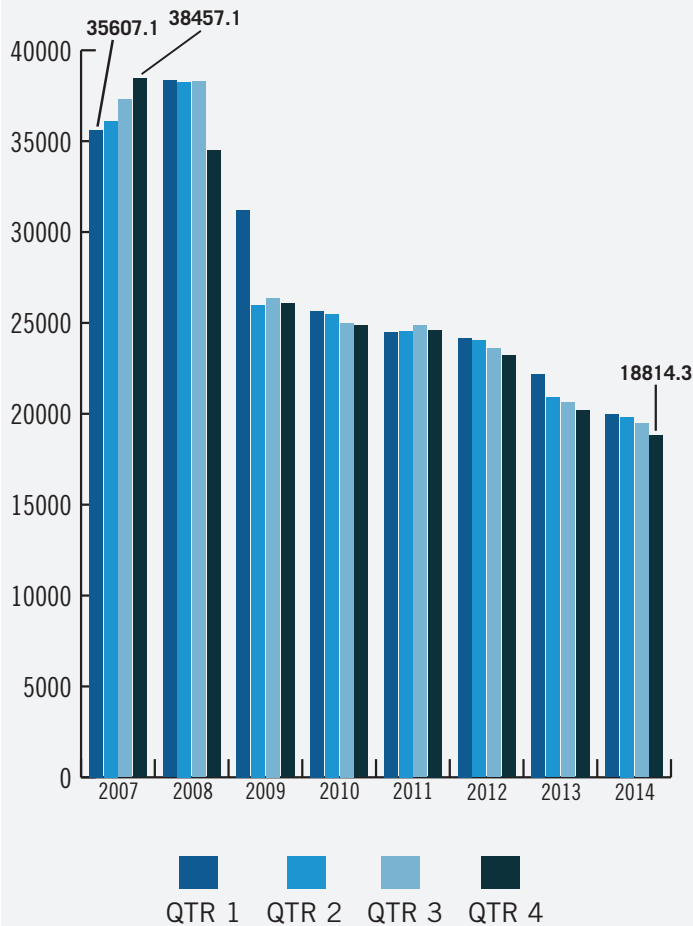
### USED AIRCRAFT MARKET



## CURRENT MARKET STRENGTH (CMS)

2007/2008 Model	CMS	2007/2008 Model	CMS	2007/2008 Model	CMS
Beech Premier 1A	B-	Gulfstream G200	B-	Cirrus SR22-G2	B+
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 45XR	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 900EX Easy	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	A-
Embraer EMB-135 Legacy	A-	Beech A36 Bonanza	B+	Bell 206 L-4	A
Embraer Phenom 100	A	Cessna T206H Stationair	B	Eurocopter AS350-B3	A
Gulfstream G550	A	Cessna 182T Skylane	B	Robinson R44 Raven II	A
Gulfstream G450	A	Cessna 172S Skyhawk	B+	Sikorsky S-76C++	A-

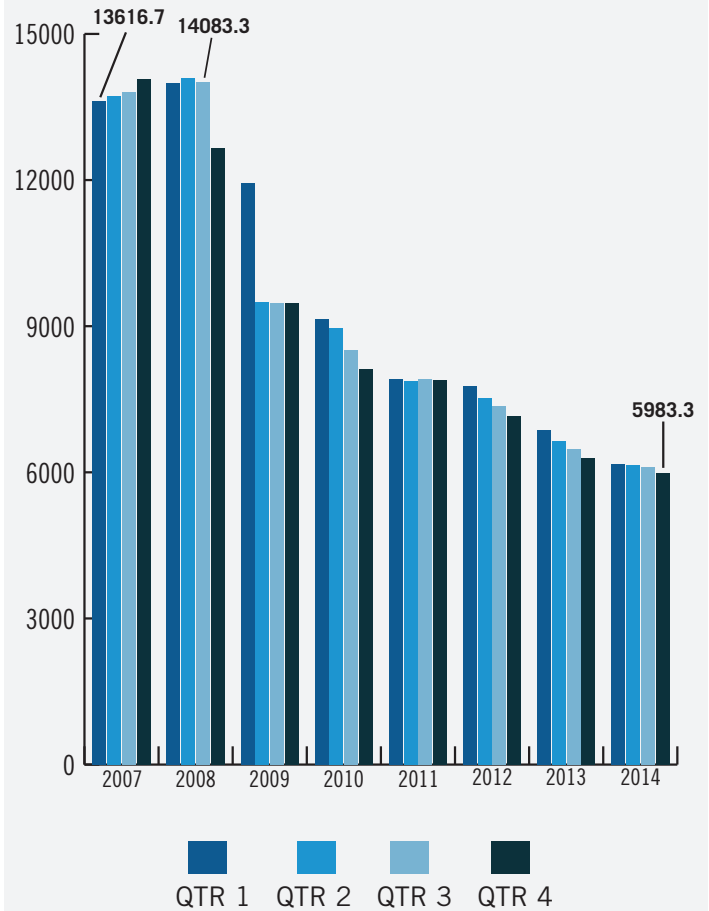
## LARGE JET



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	-3.6
2007 Bombardier Challenger 605	-3.6
2005 Dassault Falcon 900 EX Easy	-2.4
2005 Dassault Falcon 200EX Easy	-2.0
2005 Gulfstream G550	-3.1
2005 Gulfstream G450	-5.6
2005 Embraer EMB135 Legacy	-2.3

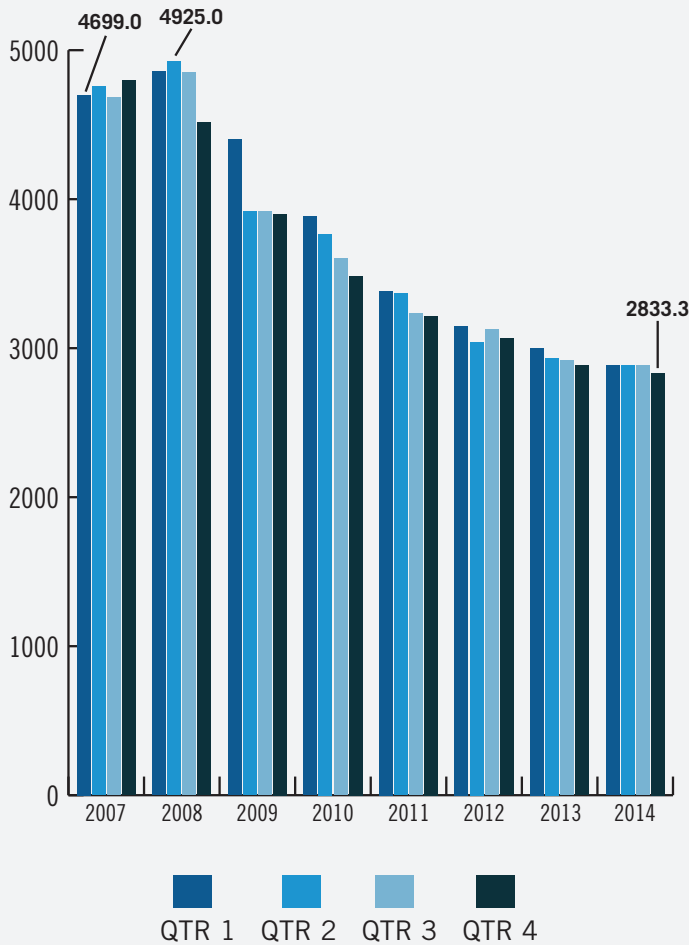
## MEDIUM JET



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	0.0
2005 Bombardier Lear 45XR	-4.8
2005 Cessna Citation Sovereign	0.0
2005 Cessna Citation XLS	0.0
2006 Gulfstream G150	-7.7
2005 Hawker 800XP	0.0

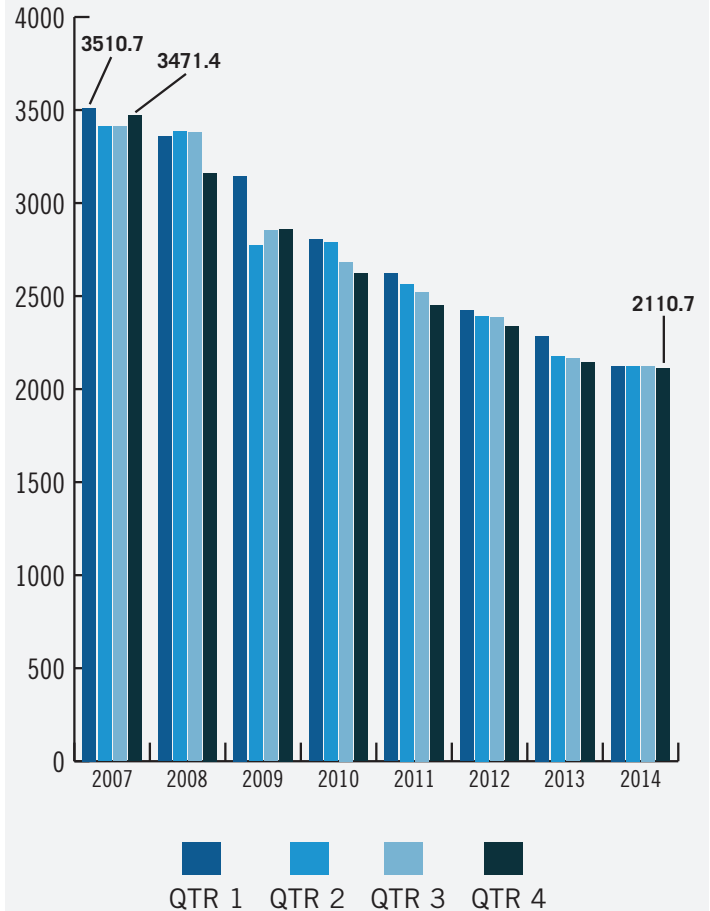
## SMALL JET



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	0.0
2005 Cessna Citation CJ2+	0.0
2006 Cessna 510 Mustang	-5.6
2008 Embraer Phenom 100	0.0
2009 Embraer Phenom 300	-2.9
2005 Hawker 400XP	0.0

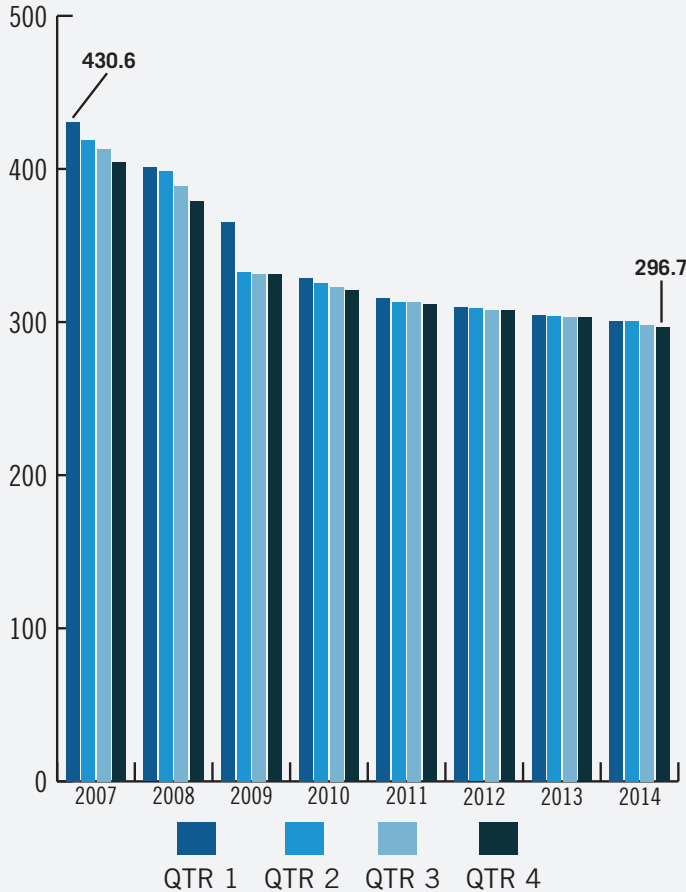
## TURBOPROP



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	0.0
2005 Beech King AirB200	0.0
2005 Beech King AirC-90B	0.0
2005 Cessna 208 Grand Caravan	0.0
2005 Piaggio AvantiP180	-4.0
2005 Pilatus PC12/45	0.0
2005 Socata TBM700C2	0.0

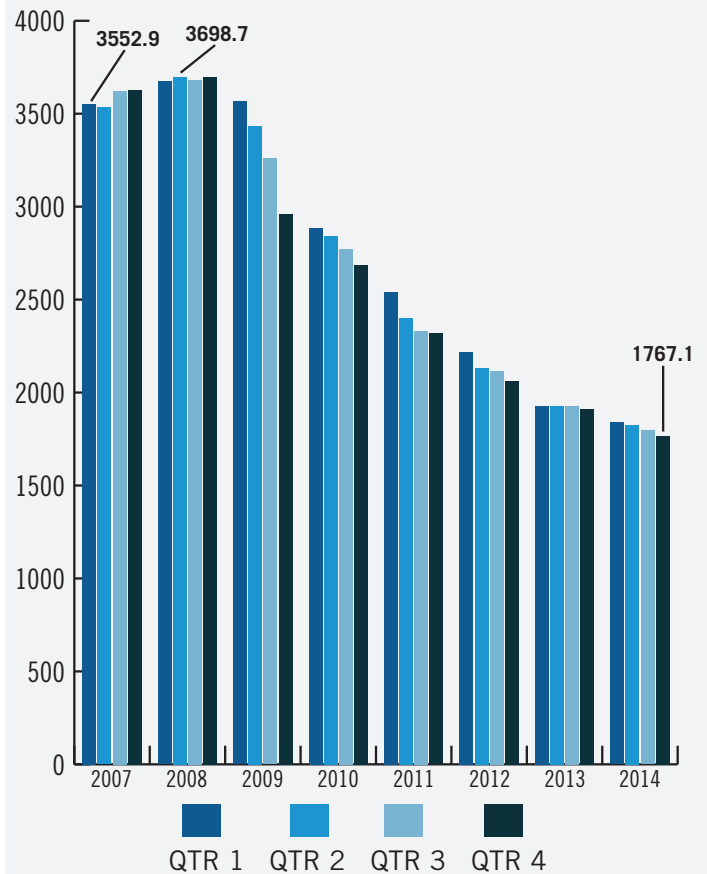
## SINGLE/MULTI PISTON



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	-6.2
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	0.0
2005 Cessna 172S Skyhawk SP	0.0
2005 Cirrus SR22-G2	0.0
2005 Diamond DA40-180 Star	0.0
2005 Piper PA46-350P Mirage	0.0
2005 Piper PA28R-201 Arrow	0.0

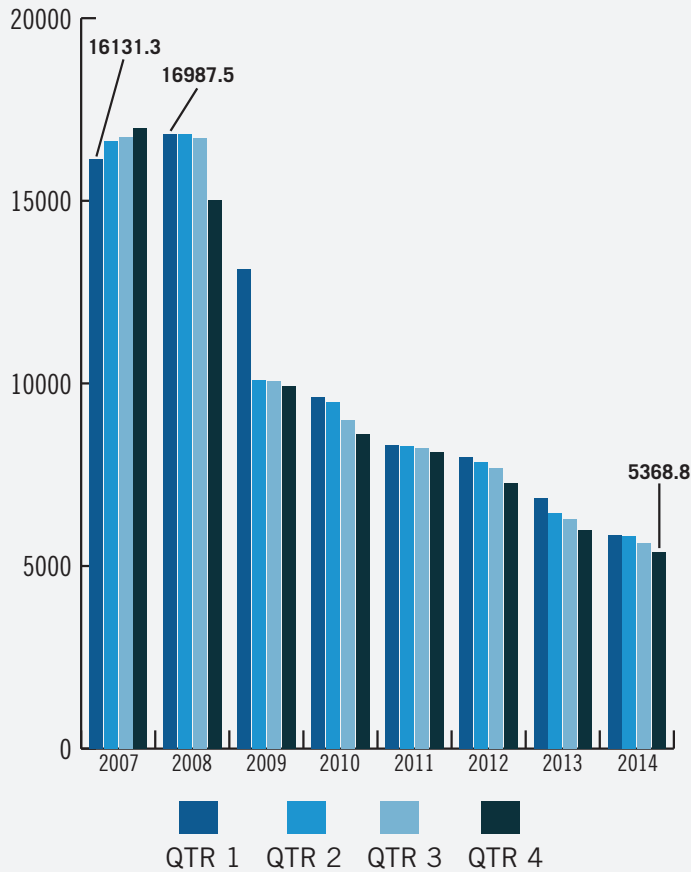
## HELICOPTER



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	0.0
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+	-4.4

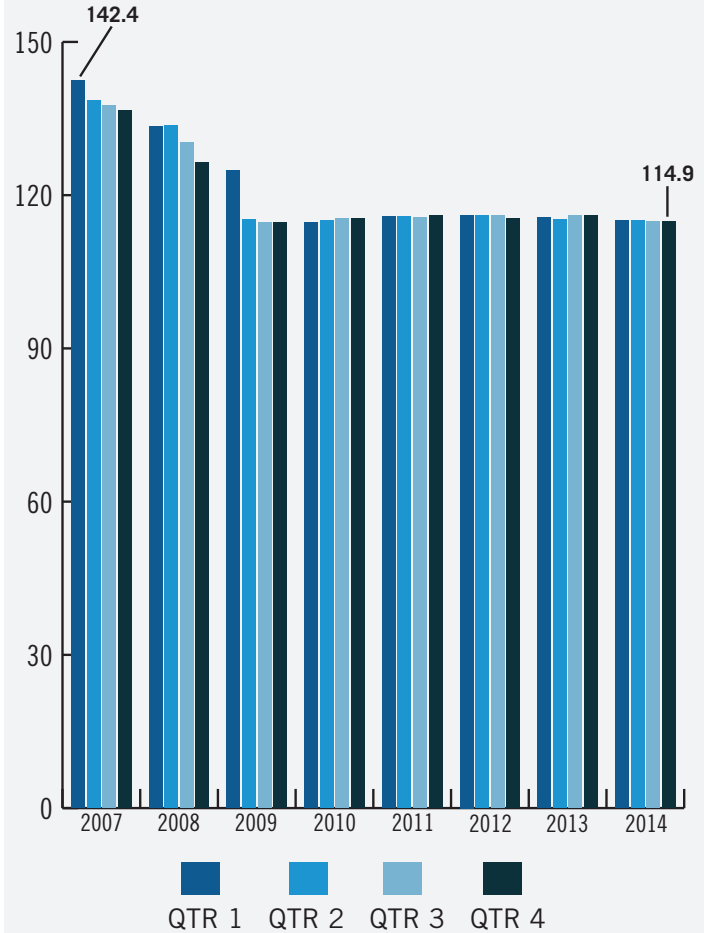
## LEGACY JET



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	-8.7
1996 Cessna Citation Ultra	-6.3
1996 Dassault Falcon 900B	-5.6
1997 Dassault Falcon 50EX	-6.5
1996 Gulfstream GV	-4.8
1996 Gulfstream GIVSP	-4.2
1996 Hawker800XP	0.0

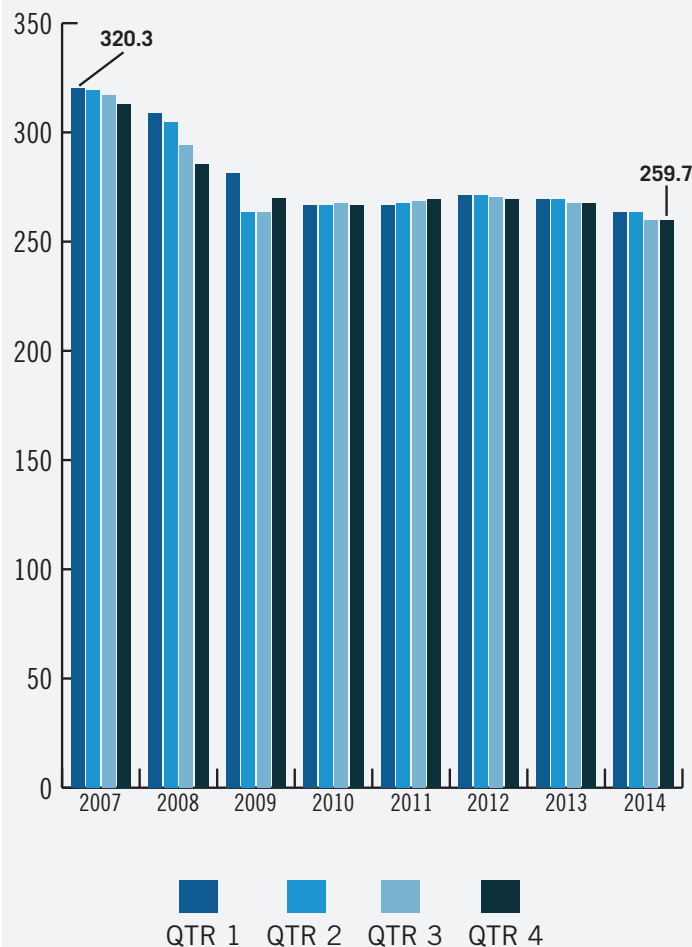
## LEGACY PISTON



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	0.0
1990 Piper PA-28-236 Dakota	0.0
1990 Piper PA-28R-201 Arrow	0.0
1990 Piper PA-28-181 Archer II	0.0
1990 Piper PA-28-161 Warrior II	0.0

## LEGACY MULTI ENGINE PISTON

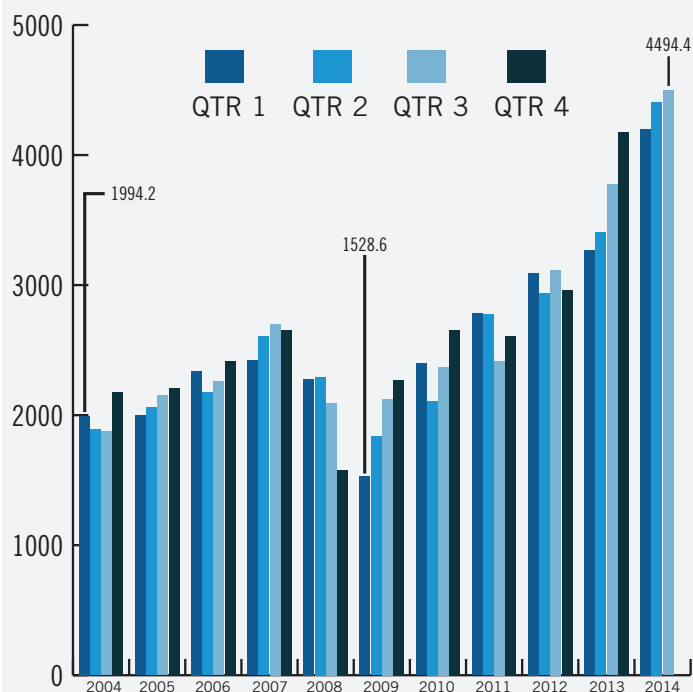


The Legacy Multi Engine Piston chart depicts the average price (in thousands) of the six aircraft listed. Each model's year will precede the name of the aircraft. Legacy Aircraft are those produced prior to the year 2000.

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

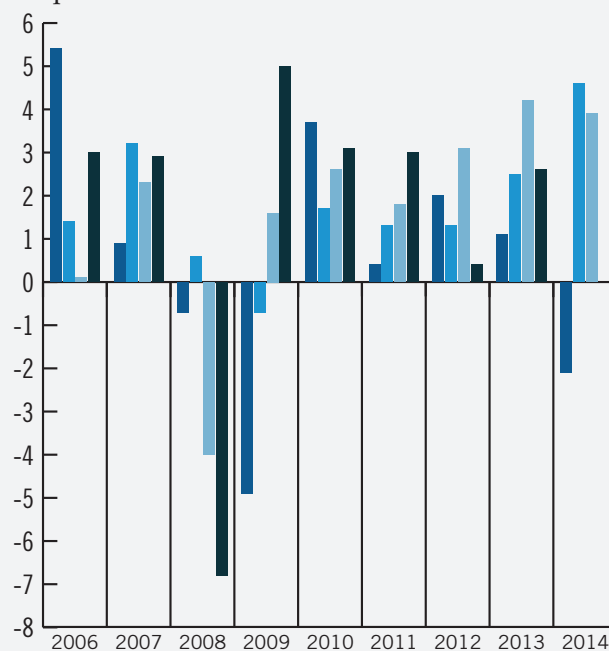
## NASDAQ

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.



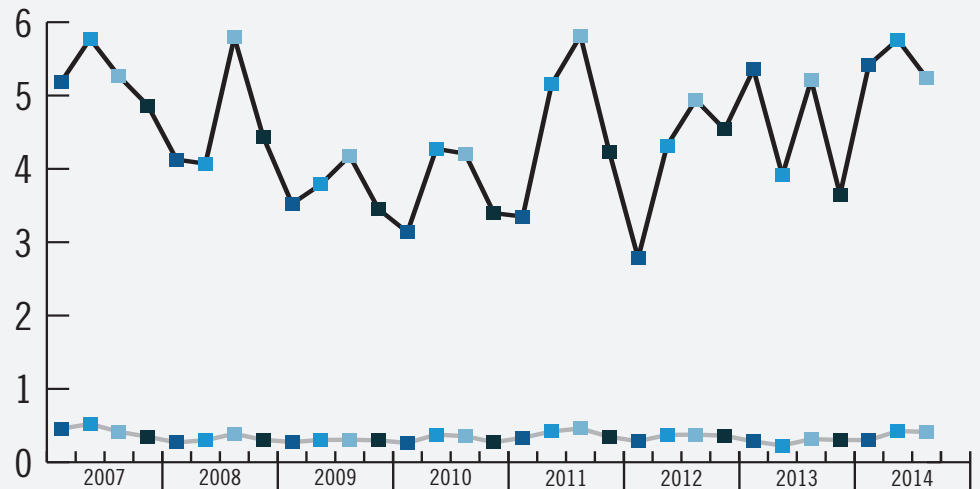
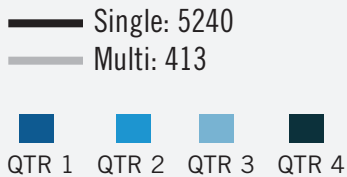
## U.S. REAL GDP

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.



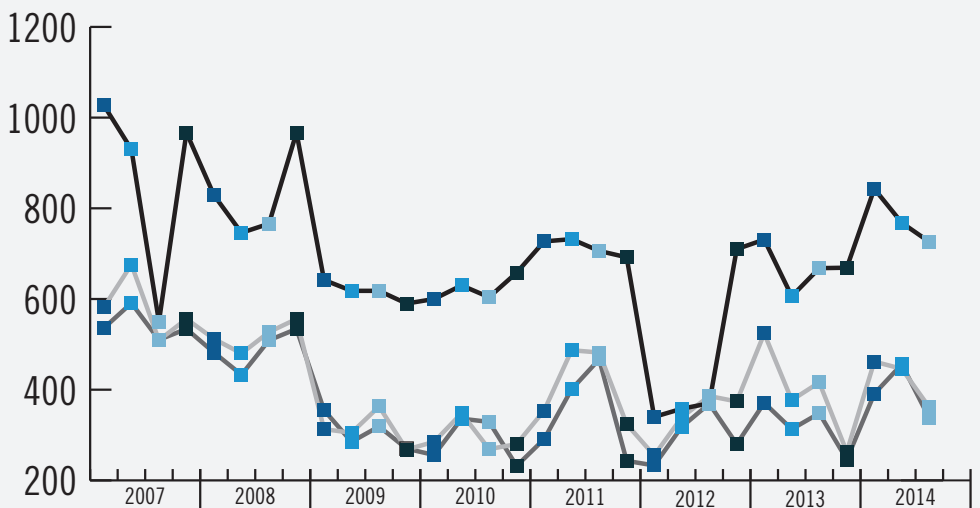
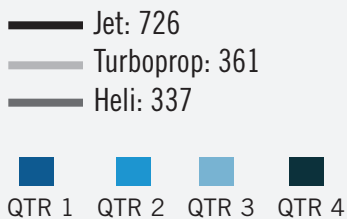
## CHANGE OF STATUS: SINGLE/MULTI

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



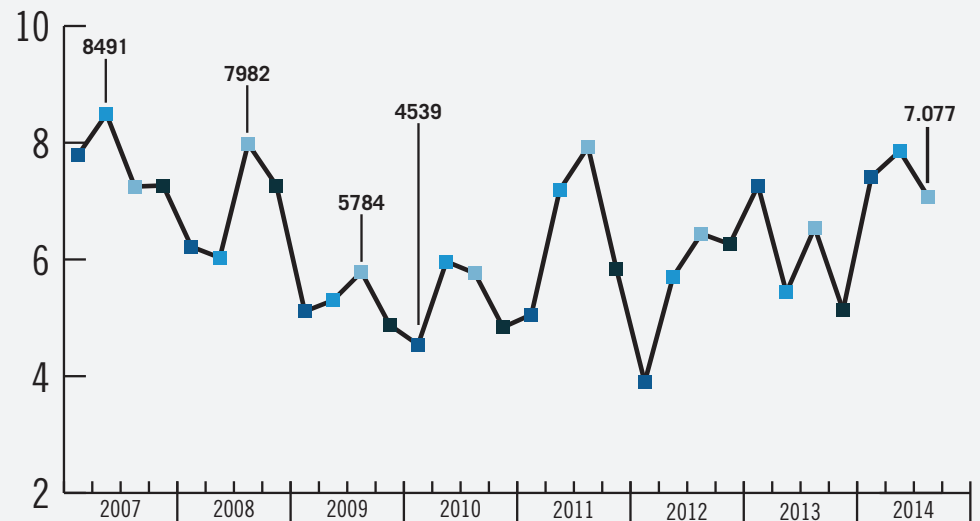
## CHANGE OF STATUS: JET/TURBO/HELI

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.





# MARKET DEPRECIATION VS. DECLINING RESIDUAL VALUES

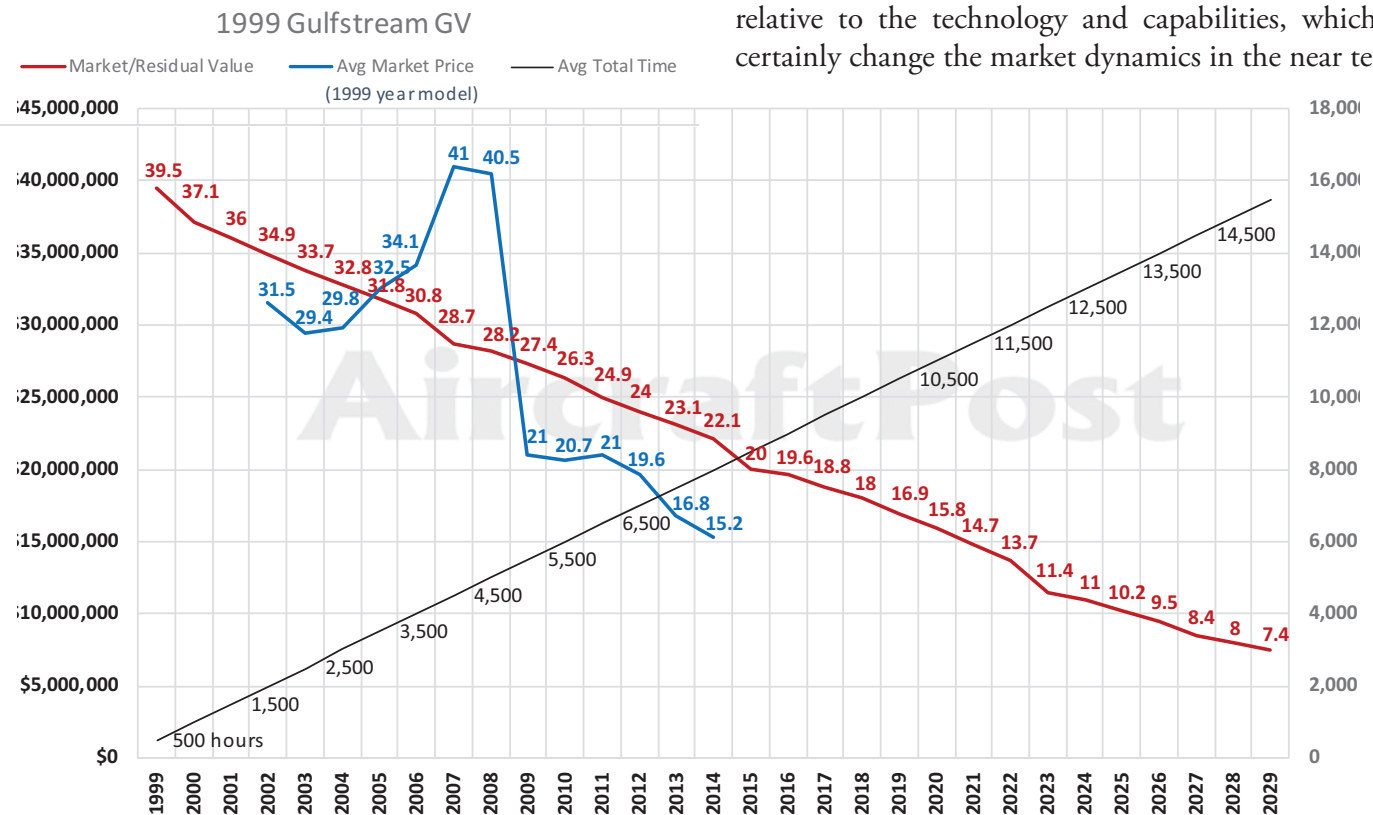
By Dennis Rousseau | President and Founder | AircraftPost.com

In 1999, a new Gulfstream GV sold for ~\$39.5M. Considering a 'useful life' of 30 years and an average utility of 500 hours per year, a 1999 year model in 2014 (midlife/15 years) would be considered 'average' with ~7,500 hours total time. When we consider a 'normal' value retention of 20 percent of the original cost new, at the end of 30 years we would expect a market value of ~\$7.4M and a midlife value of \$22.1M. In fact, the midlife value today is closer to \$15.2M. Will the market continue to hasten depreciation beyond what should reasonably be expected for a 30-year old aircraft? Are longer-range aircraft affected more than those in the small- and medium-jet categories? Do aircraft with higher production runs (350+) depreciate quicker?

Let's look at random selection of aircraft in the small- and medium-jet categories and examine value retention over six years. When we apply a 30-year age-based depreciation schedule to aircraft, the aircraft (over six years) should yield a market value of ~80 percent of its original cost new. As depicted in the chart, the values retained after six years are well below what a 'normal' market would deliver, in some cases dropping more than 60 percent.

2008 Year Model	Avg Cost New (USD)	Avg Sale Price - 2014	Percent Retained
Lear 40	9.2	3.1	34
Lear 45XR	11.8	4.9	42
Citation XLS	11.7	5.3	45
Citation XLS+	12	6	50
Lear 60XR	13.5	5.2	38
Gulfstream G150	14	6.3	45
Hawker 900XP	15	5.7	38
Citation Sovereign	17	8.1	48

Could this be indicative of the lower end of the business jet market depreciating quicker than those aircraft with greater capability (i.e., longer range, larger cabin)? Further consider that the price points of these aircraft are coming so close that decision making leans in favor of an aircraft with a stand-up cabin and greater range (aka 'getting the most value for the dollar'). By way of example, YTD 2014 the average selling price for a 2008 Lear 45XR is \$4.9M and a 2008 Lear 60XR \$5.2M. Perhaps the dynamic in passenger requirements is trending to greater range and capability for near the same dollar. At the end of the day, OEMs are building next generation aircraft that go further, fly faster and higher, have lower cabin pressure altitudes, extended design life and reasonable price points relative to the technology and capabilities, which will certainly change the market dynamics in the near term.



# INTO THE BLUE

## Aircraft Bluebook At-a-Glance

### Cessna Citation Sovereign 680/+

By Chris Reynolds, ASA | Aircraft Bluebook

Aircraft Bluebook At-a-Glance has reviewed the current market status of the Cessna Citation Sovereign series aircraft. Research for this study was obtained in part from Aircraft Bluebook, Aircraft Bluebook's Historical Value Reference, the FAA's registry web site and various trade services.

### Demand

Currently the Sovereign fleet is approximately 388 aircraft. At the time of writing this article, more than a dozen various year models of the Sovereign were for sale representing approximately three percent of the total fleet.

### Pricing

Current offerings for the Sovereign range from mid-\$5 million to high-\$12 million, with airframe time varying from several hundred hours to more than 6,000 hours, depending on the year model. Over the last year approximately 30-40 sales occurred with average time on market of more than 180 days. As noted in previous At-a-Glances, equipment, time and condition can significantly

affect time on market and marketable value. The Winter 2014 Aircraft Bluebook lists a 2004 Cessna Citation Sovereign with a reported retail price of \$6.4 million.

### Residual Values

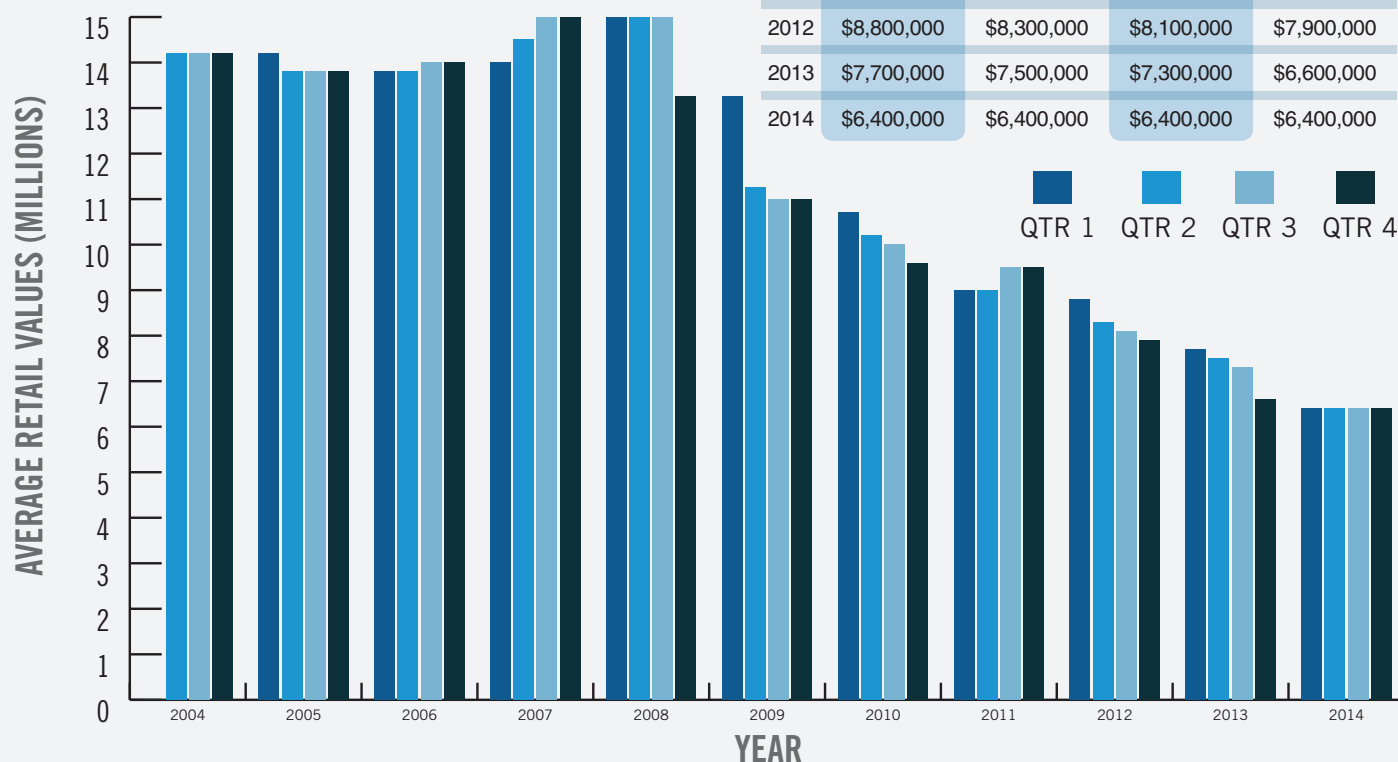
A 2004 Cessna Citation Sovereign, whose market values have been tracked since the second quarter of 2004, was reported new with an average equipped price of \$14,193,000.00. Aircraft Bluebook's Historical Value Reference has demonstrated the Cessna Citation Sovereign market value (performance by quarter) in the graph for this 2004 model.

Other historical values can be obtained at Aircraft Bluebook's web site, [www.aircraftbluebook.com](http://www.aircraftbluebook.com).

## AVERAGE RETAIL VALUES

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4
2004		\$14,193,000	\$14,193,000	\$14,193,000
2005	\$14,193,000	\$13,800,000	\$13,800,000	\$13,800,000
2006	\$13,800,000	\$13,800,000	\$14,000,000	\$14,000,000
2007	\$14,000,000	\$14,500,000	\$15,000,000	\$15,000,000
2008	\$15,000,000	\$15,000,000	\$15,000,000	\$13,250,000
2009	\$13,250,000	\$11,250,000	\$11,000,000	\$11,000,000
2010	\$10,700,000	\$10,200,000	\$10,000,000	\$9,600,000
2011	\$9,000,000	\$9,000,000	\$9,500,000	\$9,500,000
2012	\$8,800,000	\$8,300,000	\$8,100,000	\$7,900,000
2013	\$7,700,000	\$7,500,000	\$7,300,000	\$6,600,000
2014	\$6,400,000	\$6,400,000	\$6,400,000	\$6,400,000

QTR 1 QTR 2 QTR 3 QTR 4



## WHAT'S NEW IN ABB

- Updated Airworthiness Directives
- Updated Maintenance Programs

## AIRCRAFT BLUEBOOK AROUND THE GLOBE

### National Aircraft Finance Association (NAFA) Annual Conference, Scottsdale, Ariz.; March 24-27, 2015

The National Aircraft Finance Association is a non-profit corporation dedicated to promoting the general welfare of individuals and organizations providing aircraft financing and loans secured by aircraft; to improving the industry's service to the public; and to working with government agencies to foster a greater understanding of our members' needs.

### Asian Business Aviation Conference & Exhibition (ABACE), Shanghai, China; April 14-16, 2015

ABACE is the region's largest show dedicated strictly to showcasing business aviation products and services to thousands of the region's top business leaders, entrepreneurs, wealth creators and other purchase decision-makers.

### European Business Aviation Convention & Exhibition (EBACE), Geneva, Switzerland; May 19-21, 2015

EBACE, jointly hosted each year by the European Business Aviation Association (EBAA), the leading association for business aviation in Europe, and the National Business Aviation Association (NBAA), the leading voice for the business aviation industry in the United States, is the premier annual meeting place for the European business aviation community.

### Experimental Aircraft Association's (EAA) AirVenture, Oshkosh, Wis.; July 20-26, 2015

Beginning more than 60 years ago, EAA AirVenture has evolved from a small gathering of aircraft and aviators into a grand, week-long celebration known as The World's Greatest Aviation Celebration. Oshkosh is filled with dazzling displays of aerobatics, informative programs, hands-on workshops and diverse aircraft spanning all eras of flight.

### National Business Aviation Association (NBAA) Annual Meeting, Las Vegas, Nev.; November 17-19, 2015

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](mailto:info@aircraftbluebook.com).

### HOW IS THE ADD FOR LOW-ENGINE HOURLY RATE IN THE BLUEBOOK CALCULATED??

The hourly rate listed for the majority of aircraft in the Bluebook is calculated by dividing the average overhaul cost by the engine TBO hours. For example, a 1997 Cessna 172R with a 160 hp Lycoming IO-360-L2A has an average overhaul cost of \$25,000 dollars and the TBO for the engine is 2,000 hours. Dividing \$25,000 dollars by 2,000 hours results in \$12.50 for the hourly engine rate. Next, this number is used to calculate any credit or deduction for low- or high-engine time.

### WHERE CAN I FIND THE AIRCRAFT SPEC CHARTS AND OTHER INFO FORMERLY IN PRINT?

This content is available for free at [AircraftBluebook.com](http://AircraftBluebook.com) under the Supplemental Data Tab and includes: Airworthiness Directives, Engines, Manufacturers, Specifications, Fixed Wing Specifications in PDF format, Glossary of Terms & Abbreviations, Interest Charts and Area Codes.

### HOW OFTEN IS THE AIRCRAFT BLUEBOOK DATA RELEASED EACH YEAR?

The Aircraft Bluebook is published and released every 90 days on the following schedule: March 1st, June 1st, September 1st and December 1st.

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