# Aircraft Bluebook MARKETLINE

**VOL 27 NO 2** 

#### 2014 NEWSLETTER

# CONTRIBUTOR'S PERSPECTIVES IN THE VALUE EQUATION

Aircraft Bluebook Marketline offers timely intelligence information for the discerning aviation professional who is involved in any one of the many facets of business aircraft markets.

In this issue, Dennis Rousseau of AircraftPost, provides highlights for interrupting market values on corporate jets. Like the information displayed on a weather radar screen in IMC flight, the raw data has to be understood in its relationship to the calibration of the unit itself. Follow this market perspective as Rousseau calibrates his analysis through historical facts based on market values.

Marketline also would like to introduce Tony Kioussis of Asset Insight. Kioussis has a unique program that values an aircraft's maintenance condition in real dollars through a rating scale. Maintenance is always a key element in the equation of determining an aircraft's worth. It is the buyer's checkbook that determines the agreed value. The proper discernment of maintenance condition just might avoid seeing red by having an assessment of maintenance cost relative to the value of the aircraft being transacted.

In addition, enjoy the updated graphs and charts Marketline provided based on market activity and powered by values reported in Aircraft Bluebook.

Carl Janssens, ASA
 Chief Appraiser
 Aircraft Bluebook



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BLUEBOOK-AT-A-G	ILANCE
JET	
INCREASED	3
DECREASED	130
STABLE	888
TURBOPROF	>
INCREASED	9
DECREASED	11
STABLE	619
MULTI	
INCREASED	0
DECREASED	5
STABLE	678
SINGLE	
INCREASED	14
DECREASED	106
STABLE	2543
HELICOPTER	7
INCREASED	0
DECREASED	59
STABLE	1127

## MARKET DIRECTION... UP, DOWN OR SIDEWAYS

By Dennis Rousseau | President and Founder | AircraftPost.com

There is considerable rhetoric regarding the state of the pre-owned business jet market. When a slightly used G650 sells for \$10M more than its original cost new, the general consensus is our market is on the rebound. Conversely, when a low-time, 10-year-old Challenger 604 with an OEM engine program, recent 96-month inspection and paint and interior sells under \$10M, it generally indicates the market is crashing. However, our markets cannot be judged on one-off sales, nor should an ask price be indicative of the state of our markets. The pre-owned markets are driven in part by selling price, which in turn is influenced by economic factors such as inflation/deflation, GDP and depreciation.

The accompanying chart depicts year-to-date transactions for a random selection of current generation business jets. When considering the activity for the first five months of 2013 versus the same period in 2014, the number of transactions is showing a 16 percent increase yet the average market time is tallying about the same. However, when we factor selling prices year over year, it becomes clear our markets are far from stable.

Age-based depreciation will typically take an average of 5% off the current value on an annual basis. This of course varies by aircraft class, make/model, age, inspection status, etc. However, when we see a 20 percent delta on selling prices year-to-year, our attention turns to market erosion versus aircraft depreciation. Market erosion is not specific to business aviation but to most economic markets not influenced by government policies that control the floodgate of inflation.

For example, the Lear 45 showed seven year-to-date transactions for both 2013 and 2014 with prices dropping from \$3M to \$2.5M year over year for the same average year model. When we review the transaction detail of the 14 aircraft sold, there are no anomalies that would suggest that a model year change would add or subtract from the results. But when we view the Citation XLS+

results, the three aircraft sold YTD 2014 include a 2012, 2010 and 2008, which is skewing the comparison to the one 2008 sale in 2013, yielding a higher average selling price in 2014.

HOWEVER, OUR MARKETS CANNOT BE JUDGED ON ONE-OFF SALES, NOR SHOULD AN ASK PRICE BE INDICATIVE OF THE STATE OF OUR MARKETS.

It should be noted that to generate a fair comparison year over year, we should be drawing the analysis for the same aged aircraft (eight years old in 2013 and 2014). However, as in the case of the G550, although we're comparing an average eight-year-old aircraft in each year, the transaction detail reveals five aircraft that were [newer] 2006 – 2010 year models that typically command higher prices, skewing what should be a year-over-year decline in price. If we were to interpret the numbers as displayed, it is easy to see that the G550 and Global XRS prices were subject to inflation while the GV and Sovereign were subject to deflation. The aircraft markets are showing no signs of stability.

The bottom line seems to indicate that the current level of pre-owned sales activity parallels the results of the last four years, which we are slowly defining as the 'new normal.' Subsequent to the price run up in 2008, the average selling prices in 2009 dropped anywhere from 30 to 50 percent, then each year thereafter the decline was more controlled along the line of five to 10 percent annually, resulting in our 'normal' market today, which yields increased sales and lower pricing (aka bargains).

See chart on page 3



#### January-May 2013 Sales

#### **January-May 2014 Sales**

Aircraft	Number Sold	Average Sell Price	Average Mkt Time	Average Year	Number Sold	Average Sell Price	Average Mkt Time	Average Year
Lear 45	7	3.0	253	2000	8	2.5	129	2000
Lear 45XR	4	4.8	264	2005	8	5.1	232	2008
Citation XLS	9	5.7	294	2006	6	4.7	215	2005
Citation XLS+	1	7.5	512	2008	3	8.5	258	2010
Lear 60	8	2.8	327	1998	11	2.2	441	1997
Lear 60XR	1	5.3	867	2008	4	5.2	253	2008
Hawker 800XP	12	2.9	266	2000	16	2.6	242	2000
Hawker 900XP	4	6.2	152	2008	7	5.8	413	2008
Citation Sovereign	5	9.4	277	2007	9	7.2	239	2007
Citation X	7	4.3	197	1999	5	6.0	210	2001
Gulfstream G200	2	7.0	187	2003	8	6.7	234	2003
Challenger 300	7	14.8	190	2008	5	12.6	202	2006
Falcon 50EX	3	5.7	232	2000	5	5.4	238	2001
Challenger 604	17	7.6	330	2000	10	6.9	360	2001
Falcon 2000	6	7.4	228	1998	10	6.9	308	2000
Challenger 605	3	18.9	200	2009	1	17.0	225	2009
Falcon 2000EXy	3	16.8	210	2005	8	18.7	390	2008
Gulfstream GIV	3	5.3	335	1987	7	4.0	277	1990
Falcon 900B	9	7.5	549	1990	3	6.6	330	1991
Gulfstream GIV SP	5	9.6	190	1997	7	6.6	351	1996
Falcon 900EX	4	14.1	185	1998	4	12.5	322	2000
Falcon 900EXy	4	24.5	234	2006	0	n/a	n/a	n/a
Gulfstream G450	4	23.0	172	2006	5	23.1	149	2008
Gulfstream GV	4	20.7	258	2000	1	16.1	891	2000
Global Express	2	21.0	333	2000	2	17.6	352	2000
Global Express XR S	2	35.5	168	2006	2	36.5	73	2009
Gulfstream G550	4	32.0	414	2005	8	34.1	178	2006
Total	208	12.0	290		163	10.8	289	

#### VALUING AN AIRCRAFT'S MAINTENANCE CONDITION

By Tony Kioussis | Asset Insight, Inc. | Asset Insight, Inc.

An aircraft's maintenance condition represents its greatest value "wild card" and a figure that can dramatically impact the asset's value. The challenge—whether you are a buyer or a seller—is to correctly value the asset's financial exposure based on its maintenance requirements.

Aircraft Bluebook represents maintenance events as being fresh for most turbo prop and fan jet late model fixed wing aircraft in its descriptive "Base Average." Calculating the financial exposure associated with all completed and upcoming scheduled maintenance events is a complex process. Additionally, to accurately complete such a task requires detailed knowledge of spare parts cost, Mean Time Between Failure (MTBF) rates for On-Condition components and flat-rate costs for maintenance inspections—just to name a few. Asset Insight, Inc., provides anyone holding, or planning to hold, a financial interest in an aircraft, a simple-to-understand, uniform methodology—an industry standard—for evaluating an aircraft's maintenance condition based on a standardized scale.

Aircraft are assets whose values are heavily influenced by their maintenance conditions. Asset Insight has developed a proprietary Asset Grading System Process (patent pending) that derives an Index (the "Asset Insight Index") allowing for an objective "maintenance condition" comparison between aircraft. The actual value of an aircraft remains to be determined by the buyer, seller or other party related to the transaction (e.g., appraiser; lessor; insurance firm). Asset Insight offers a tool that simplifies complex technical/maintenance data into standardized, actionable, financial figures—the Asset Insight Index—that provides the ability to compare any aircraft's Index to that of any other aircraft. In turn, this offers the opportunity to optimize an asset's overall financial performance by:

- Objectively analyzing and grading an aircraft's technical condition
- Comparing any aircraft to another aircraft as well as to the average value of similar make/model aircraft listed for sale
- Proving and, if desired, improving an aircraft's technical rating
- Justifying the ask or offer price for an aircraft

Asset Insight's standardized grading system could be viewed as a "credit score" for an asset. Essentially, the better the aircraft's maintenance condition, the better the asset's Index, resulting in the following value for Asset Insight services users:

- For an aircraft owner, the ability to treat a hard asset as a financial instrument. Because the Asset Grading System Process is based on a uniform scale for all aircraft, the Asset Insight Index allows one to grade and compare any aircraft to another aircraft.
- For an aircraft financing entity, be it for a loan or a lease, the Index provides a mechanism for grading and evaluating an asset it is considering funding as well as the ability to track that asset's potential maintenance cost (exposure) should a client default during the term of the loan or lease or upon lease termination.
- An aircraft management company can provide quarterly updates to its clients regarding their aircraft's maintenance statuses, how they compare with the average, like models, aircraft listed sale and what scheduled maintenance expenses to anticipate during the forthcoming 60 months (providing their clients with a valuable planning tool).
- An aircraft broker is better able to justify pricing recommendations to a client and perhaps why some additional maintenance may be advisable to better position the aircraft in the market and/or increase the asset's value.
- An appraiser has a useful, objective tool by which to gauge an aircraft's maintenance condition, allowing for a comparison to aircraft currently on the market as well as values for recently-traded aircraft.
- A maintenance facility can use the Asset Insight Index to help sell the value of their maintenance services. By conducting a major inspection, by refurbishing the interior and/or by repainting an aircraft, its owner would see an improvement in the aircraft's Asset Insight Index (the same way paying off a debt would raise an individual's credit score).
- An hourly cost maintenance services program provider is given the ability to independently prove the Program's value to a client not only when quoting a Buy-In Fee, but also on a regular basis to remind a client of the Program's value (irrespective of the funds residing in their accounts).

Continued on pg. 5



This simple-to-obtain, web-based, cost-effective service is currently available by specific serial number on more than 100 aircraft models (www.assetinsightinc.com). Concurrently acquiring an optional Comparative Aircraft Index report detailing the Financial Exposure for similar make/model aircraft listed for sale allows one to determine if the aircraft's Financial Exposure is greater or less than the industry average. That difference in Financial Exposure Value represents the value to be added or deducted from the average price of all similar make/model aircraft listed for sale.

Asset Insight translates complex technical data into actionable financial information and addresses a piece of the valuation puzzle that has been missing. Using this new tool, anyone with a financial interest in an aircraft is now able to manage the investment as a financial asset.

### 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.

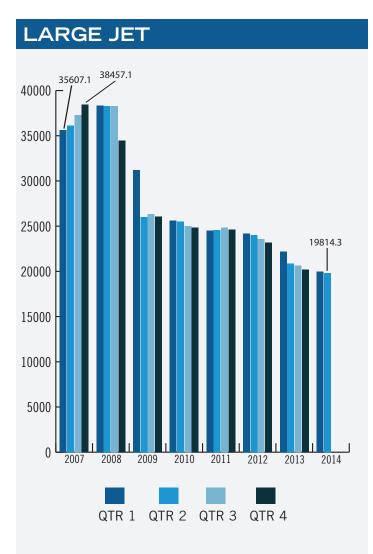
#### MARKETLINE CHARTS

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.



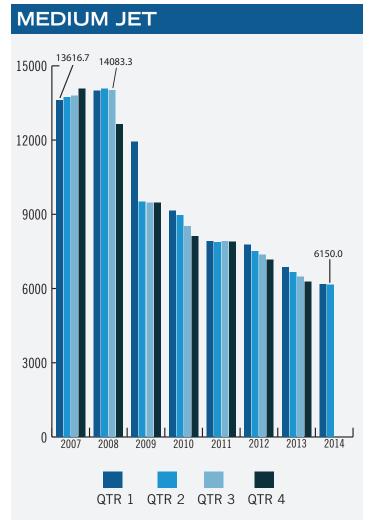
2007/2008 Model	CMS	2007/2008 Model	CMS	2007/2008 Model	CMS
0	Oilio		O.I.I.O		
Beech Premier 1A	В-	Gulfstream G200	В-	Cirrus SR22-G2	В
Bombardier Global XRS		Gulfstream G150	В	Cirrus SR20-G2	B-
Bombardier Challenger 604	В	Hawker 800XP	В-	Diamond DA40-180XLS Star	В
Bombardier Challenger 300		Hawker 400XP		Diamond DA20-C1 Eclipse	В-
Bombardier LearJet 60XR	В-	Beech King Air 350		Mooney M20TN Acclaim	B-
Bombardier Learjet 45XR		Beech King Air B200		Mooney M20R Ovation	В-
	B+	Beech King Air C90GT		Piper PA46-350P Mirage	В
Cessna Citation XLS	B+	Cessna 208B Grand Caravan		Piper PA34-220T Seneca V	В-
Cessna Citation CJ3		Piaggio P180	В	Piper PA28R-201 Arrow	В-
Cessna Citation CJ2		Pilatus PC-12/47	В	Piper PA28-181 Archer III	B-
Dassault Falcon 900EX Easy		Piper PA46-500TP Meridian	В	Evektor Sportstar (LSA)	В-
Dassault Falcon 50EX	В-	Socata TBM850	В	Flight Design CTLS (LSA)	В
Dassault Falcon 2000EX		Beech 58 Baron	B-	Agusta A109 Grand	
Embraer EMB-135 Legacy		Beech A36 Bonanza	В	Bell 206 L-4	
Embraer Phenom 100		Cessna T206H Stationair	В	Eurocopter AS350-B3	
Gulfstream G550		Cessna 182T Skylane	В	Robinson R44 Raven II	
Gulfstream G450		Cessna 172S Skyhawk	В-	Sikorsky S-76C++	
Gulfstream G450	A+			<u> </u>	





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.

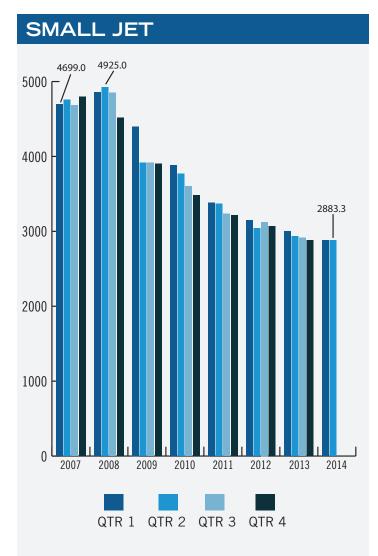
YEAR/MODEL	%CHANGE
2006 Bombardier Global Express	-3.4
2007 Bombardier Challenger 605	0.0
2005 Dassault Falcon 900 EX Easy	0.0
2005 Dassault Falcon 200EX Easy	0.0
2005 Gulfstream G550	0.0
2005 Gulfstream G450	0.0
2005 Embraer EMB135 Legacy	0.0



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	0.0
2005 Cessna Citation Sovereign	0.0
2005 Cessna Citation XLS	-2.1
2006 Gulfstream G150	0.0
2005 Hawker 800XP	0.0

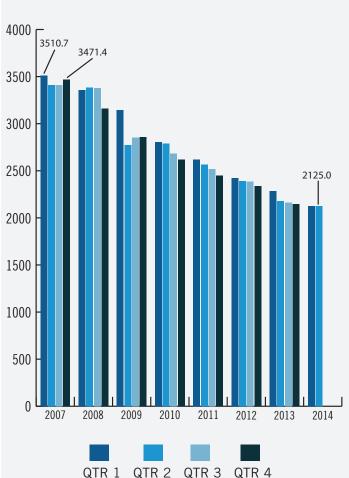




The Small Jet chart depicts the average price (in thousands) of the six jets listed. Each model's year will precede the name of the aircraft.

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

## TURBOPROP

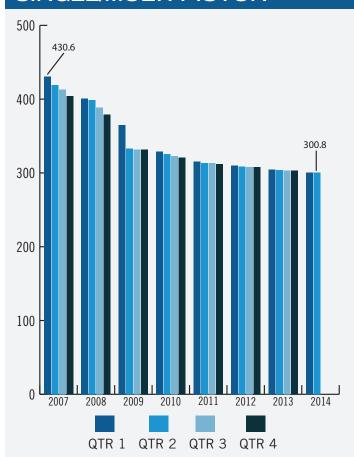


The Turboprop chart depicts the average price (in thousands) of the seven turboprops listed. Each model's year will precede the name of the aircraft.

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	0.0
2005 Pilatus PC12/45	0.0
2005 Socata TBM700C2	0.0



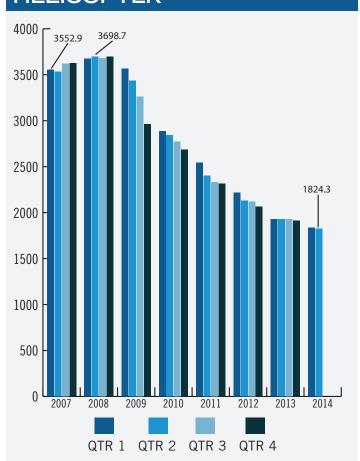
#### SINGLE/MULTI PISTON



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	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 Stationai	r 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

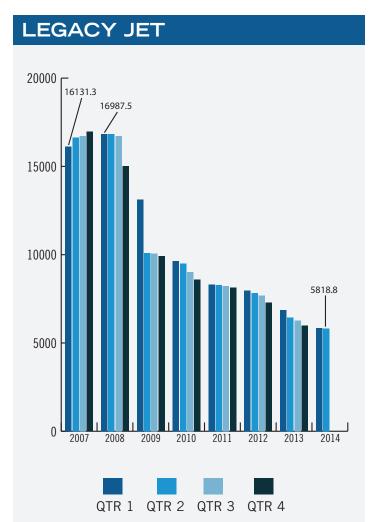
#### **HELICOPTER**



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.

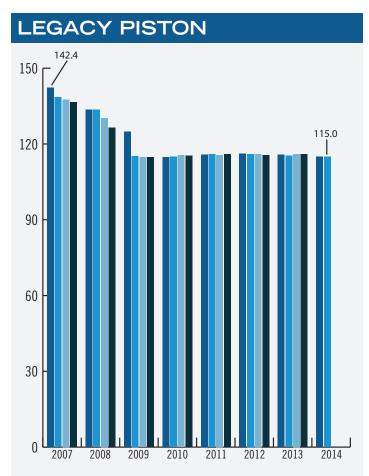
YEAR/MODEL	%CHANGE
2005 Agusta A109E Power	-4.1
2005 Bell 430	0.0
2005 Eurocopter EC130B4	0.0
2005 Eurocopter AS350B-3 Ecureuil	0.0
2004 Enstrom 280FX	0.0
2005 Robinson R44 Raven	0.0
2005 Sikorsky S-76C+	0.0





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	0.0
1997 Dassault Falcon 50EX	0.0
1996 Gulfstream GV	0.0
1996 Gulfstream GIVSP	-3.8
1996 Hawker800XP	0.0



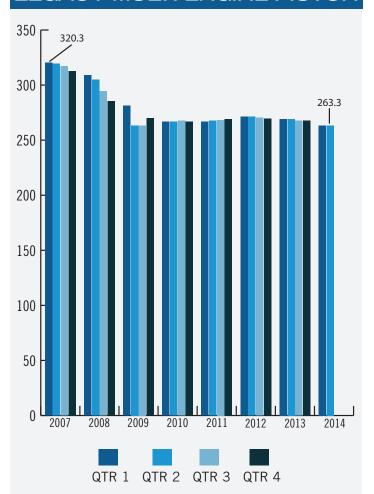
The Legacy Piston chart depicts the average price (in thousands) of the ten piston aircraft listed. Each model's year will precede the name of the aircraft. Legacy Aircraft are those produced prior to the year 2000.

QTR 1 QTR 2 QTR 3 QTR 4

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

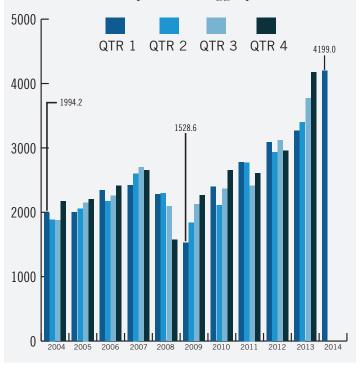


The Legacy Multi Engine Piston chart depicts the average price (in thousands) of the six aircraft listed. Each model's year will precede the name of the aircraft. Legacy Aircraft are those produced prior to the year 2000.

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

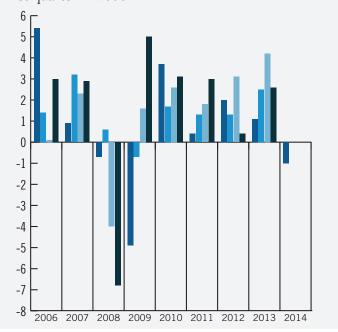
#### **NASDAQ**

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

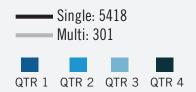
Each data point represents the BEA's final figure or latest estimate of the quarter-to-quarter seasonally adjusted annual rates of change in real GDP "based on chained 2005 dollars." The study begins with the first quarter in 2006.

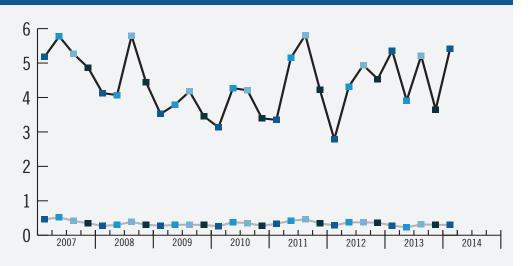




#### **CHANGE OF STATUS: SINGLE/MULTI**

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

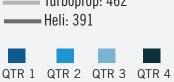


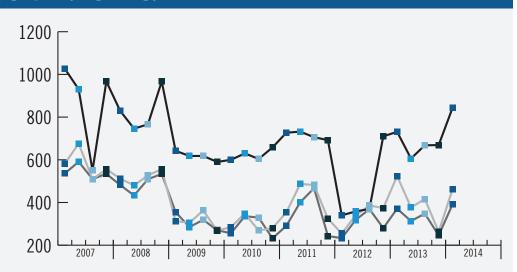


#### **CHANGE OF STATUS: JET/TURBO/HELI**

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

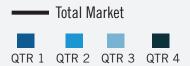


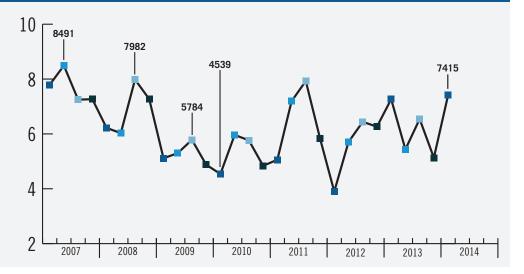




#### CHANGE OF STATUS: TOTAL MARKET

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.







#### WHAT'S NEW IN ABB

- Updated Airworthiness Directives
- Updated Maintenance Programs

#### ASK AIRCRAFT BLUEBOOK

In an effort to better explain how the Aircraft Bluebook works, we have included a few more FAQs this month that are relevant to all aircraft large and small. 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.

## WHAT IS THE STANDARD DEDUCTION FOR MISSING OR INCOMPLETE LOGBOOKS?

This question is one of the most frequently asked and is similar to questions regarding the impact of damage history and warrants repeating. Be wary of any "standard" deduction of value quotes, because the answer is complicated. It is extremely subjective and depends on many things such as: the extent of the missing logs, amount of time the aircraft has flown since the missing history, and the cost to reconstruct the logs (if possible). This is why there is not a one-size-fits-all deduction, because each case is unique, making a standard answer inappropriate.

Missing logs can cast a negative shadow over an aircraft and should initiate pause in the buyer's thought process. However, this doesn't mean there aren't extenuating circumstances why a log book might not be available, but a buyer should proceed with caution when considering an aircraft with lost or incomplete logs. The absence of logbooks prevent potential buyers from learning the aircraft's complete history including any damage incidents, component removal/installation, weight and balance changes, or maintenance lapses that may have occurred. As a seller, an attempt to reconstruct the logbooks can show good faith to the prospective buyer and might not be as difficult as one might think. A good place to start is the Aircraft Registration Branch of the FAA's Aeronautical Center in Oklahoma City. They can provide copies of an aircraft's airworthiness data, including any filed Form 337s, for a small fee.

## AIRCRAFT BLUEBOOK AROUND THE GLOBE

## National Business Aviation Association (NBAA) Annual Meeting, Orlando, FL; October 21-23, 2014

Founded in 1947 and based in Washington DC, 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.

#### Middle East Business Aviation (MEBA), Dubai, UAE; December 8-10, 2014

MEBA is firmly established as a key event on the international aerospace calendar - every two years leading business aviation companies and decision makers gather for MEBA - an event dedicated to connecting buyers and sellers alike.

#### MEET THE STAFF

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