

# Asset Insight

## AI<sup>2</sup> Market Report

Business Jet & Turboprop Aircraft – Volume 1, January 2017



### Value Decline Slowing, While High Maintenance Quality and Record Low Ask Prices Offering Great Deals for Buyers

Welcome to the AI<sup>2</sup> Market Report from Asset Insight, LLC. This Quarterly Market Report analyzed values for every production year of every modern make/model Business Class aircraft, and our December 30, 2016 maintenance analytics covered 91 fixed-wing models and 1,865 aircraft listed for sale.

- **90-Day Future Values trending lower but the rate of decrease is improving**  
Average prices are expected to decrease over the next quarter, but most decreases are expected to be smaller. Large Jet value decrease is expected to average nearly a 32% improvement, while Turboprop value decline is expected to improve by over 7.7%. Medium and Small Jet value reduction rates are expected to remain unchanged.
- **Market demand remains below average – except for Turboprops**  
Market demand remains below average for all but the Turboprop group, where demand is slightly above average. On our scale of 1.00 (lowest) to 5.00 (highest), Large Jets registered 2.80, Medium Jets 2.89, Small Jets 2.93, and Turboprops 3.15.
- **Ask versus final transaction value gap has not improved**  
The spread between Ask and final Transaction price increased to 12.5% for Large Jets – the group’s worst / highest figure since 2009. At 15.5%, Medium Jets posted the worst / highest differential among the four groups, while Small Jets registered the best / lowest figure at 8.1%. Turboprops remained unchanged at 9.7%.
- **For sale fleet Asset Quality remains Excellent while Ask Price is near record low**  
Asset Quality for the inventory fleet ended the year just below October’s record high figure. Medium Jets registered a record low average Ask Price, while the fleet average posted a 0.6% increase for the quarter.
- **Maintenance Exposure high for Large Jets and low for Small Jets**  
Average Maintenance Exposure (the accrued or embedded cost of future scheduled maintenance) posted the highest / worst figure of the past 12 months, driven by Large Jets. Small Jets posted the group’s lowest / best 12-month figure.
- **Maintenance Exposure to Ask Price Ratio (“ETP Ratio”)**  
The market’s ETP Ratio (Maintenance Exposure divided by Ask Price) decreased 4.6% q/q. We consider any ETP Ratio over 40% to represent excessive Exposure in relation to Ask Price and the Q4 2016 ETP Ratio stood at 52.4%. Aircraft whose ETP Ratio exceeded 40% this past quarter have been listed for sale 49% longer than aircraft whose Ratio was below 40% (223 versus 333 Days on Market).

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## Large Jets

### Future Value Trend (“eTrend™”) and Current Market Demand

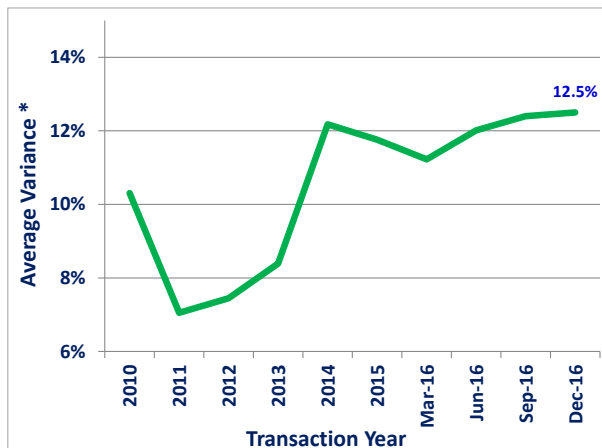
- eTrend™ information is designed to provide a general view of how aircraft prices are currently trending, and the **effect this is likely to have on average transaction values 90 days hence**.
- **Current Market Demand** for each Make/Model represents an objective view based on that Make/Model’s Average Days on Market and the percentage of that Model’s fleet listed for sale. During this past quarter, **demand remained steady at 2.80, on our scale ranging from 1.00 (weak demand) to 5.00 (strong demand)**.

Aircraft Make/Model	eTrend™ 90-day Value Trend Average Gain/(Loss)	Current Market Demand*
<b>Bombardier</b>		
Challenger 600	(\$37,000)	★★★★☆
Challenger 601-1A	(\$123,500)	★☆☆☆☆
Challenger 601-3A	(\$192,500)	★★☆☆☆
Challenger 601-3R	(\$444,000)	★★★★☆
Challenger 604	(\$376,000)	★★★★☆
Challenger 605	(\$535,000)	★★★★☆
Challenger 650	(\$799,000)	★★★★☆
Challenger 850	(\$431,500)	★☆☆☆☆
Global 5000	(\$483,500)	★★★★☆
Global 6000	(\$2,054,500)	★★★★☆
Global Express	(\$928,000)	★★★★☆
Global Express XRS	(\$640,000)	★★★★☆
<b>Dassault</b>		
Falcon 7X	(\$771,500)	★★★★☆
Falcon 900A	(\$204,000)	★★★★☆
Falcon 900B	(\$325,500)	★★★★☆
Falcon 900C	(\$149,500)	★★★★☆
Falcon 900DX	(\$19,000)	★★★★☆
Falcon 900EX	(\$646,500)	★☆☆☆☆
Falcon 900EXeasy	(\$552,500)	★★★★☆
Falcon 900LX	(\$1,225,500)	★★★★☆
Falcon 2000	(\$432,500)	★★★★☆

Aircraft Make/Model	eTrend™ 90-day Value Trend Average Gain/(Loss)	Current Market Demand*
<b>Dassault</b>		
Falcon 2000DX	(\$832,000)	★★★★☆
Falcon 2000EXEasy	(\$302,000)	★★★★☆
Falcon 2000LX	(\$922,500)	★★★★☆
Falcon 2000S	(\$1,000,500)	★★★★☆
<b>Embraer</b>		
Embraer Legacy 600	(\$484,000)	★★★★☆
Embraer Legacy 650	(\$840,000)	★★☆☆☆
Linneage 1000	(\$843,500)	★★☆☆☆
<b>Gulfstream</b>		
Gulfstream G300	(\$239,000)	★★★★☆
Gulfstream G350	(\$1,031,500)	★★★★☆
Gulfstream G400	(\$50,500)	★★★★☆
Gulfstream G450	(\$504,500)	★★★★☆
Gulfstream G500	(\$1,285,500)	★★★★☆
Gulfstream G550	(\$524,500)	★★★★☆
Gulfstream G650	(\$799,000)	★★★★☆
Gulfstream G650ER	(\$2,165,000)	★★★★☆
Gulfstream G-III	(\$47,000)	★★☆☆☆
Gulfstream G-IV	(\$257,500)	★★★★☆
Gulfstream G-IVSP	(\$566,000)	★★★★☆
Gulfstream G-V	(\$255,000)	★★★★☆

Excludes new production aircraft entering service during 2016

### Used Aircraft Ask Price vs. Transaction Price Spread – Large Jets



### Market Overview Large Jets

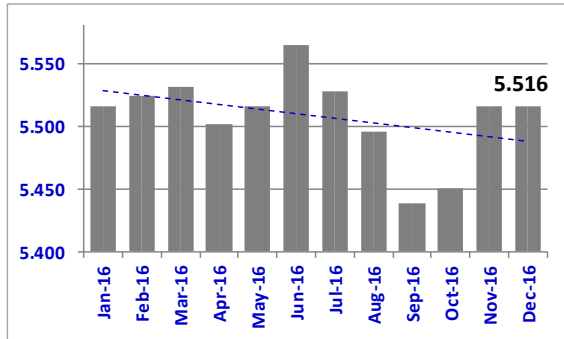
- Ask Price and final Transaction Value differential increased / worsened by 0.1%, and now represents the worst differential dating back to 2009
- Current Market Demand remains below average at 2.80, on our scale of 1.0 to 5.0
- The Quarter over Quarter average 90-Day Value Trend figure improved by approximately 32%

\* Average Variance based on a Sample Set considering the Ask Price against the Transactional Price

## Large Jets

### Asset Quality Rating

Scale -2.500 to 10.000

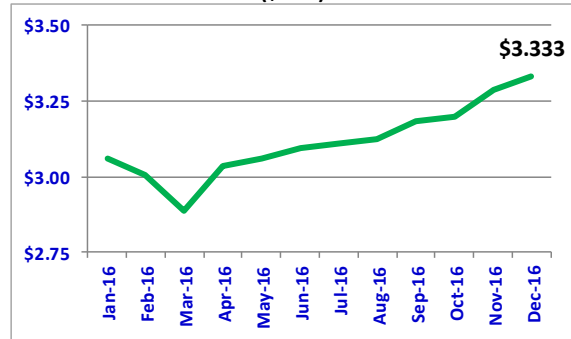


#### Asset Quality Rating Key

Outstanding	Excellent	Very Good	Good	Average	Below Average
5.500 or Greater	5.250 to 5.499	5.000 to 5.249	4.750 to 4.999	4.500 to 4.749	Less than 4.500

### Maintenance Exposure\*

(\$ Mil)



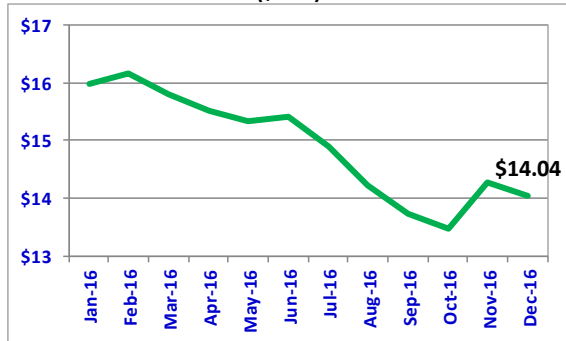
#### Maintenance Exposure – Reference Points

12-month Figures \$ Millions			Historical Figures \$ Millions	
Worst	Average	Best	Worst	Best
\$3.333	\$3.115	\$2.885	\$3.763	\$2.575

\* The accrued cost of future scheduled maintenance

### Average Ask Price

(\$ Mil)

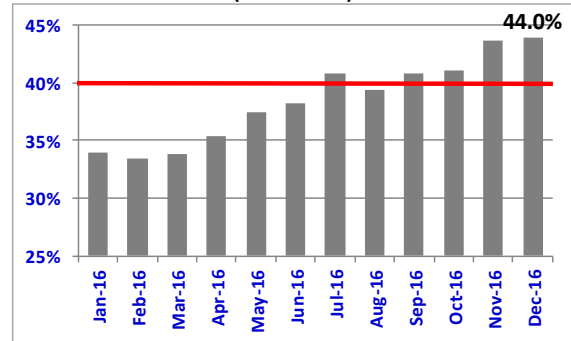


#### Average Ask Price – Reference Points

12-month Figures \$ Millions			Historical Figures \$ Millions	
Highest	Average	Lowest	Highest	Lowest
\$16.15	\$14.91	\$13.47	\$16.61	\$13.13

### Maintenance Exposure to Ask Price Ratio

("ETP Ratio")



#### Importance of the ETP Ratio

- As the ETP Ratio decreases, the aircraft's "value" increases (in relation to its Ask Price)
- Aircraft whose ETP Ratio is above 40% are burdened, on average, with excessive Maintenance Exposure

### Maintenance Exposure to Ask Price Ratio ("ETP Ratio") & Days on Market

Model	ETP Ratio	Days on Market	Model	ETP Ratio	Days on Market	Model	ETP Ratio	Days on Market
<b>Boeing</b>			<b>Dassault</b>			<b>Embraer</b>		
Boeing BBJ	5.3%	261	F900LX	6.2%	335	Embraer Legacy 600	33.0%	221
<b>Bombardier</b>			F2000LX	10.8%	258	<b>Gulfstream</b>		
Challenger 605	15.1%	174	F900EX EASY	14.2%	207	G650	1.7%	231
Global XRS	29.2%	218	F900C	15.9%	487	G 450	14.9%	156
Global 5000	27.8%	262	Falcon2000EX Easy	16.6%	234	G550	23.7%	164
CL-604	36.5%	223	F900EX	26.0%	297	<b>GV</b>	<b>45.6%</b>	<b>69</b>
Global Express	59.0%	233	F900B	34.2%	311	GIV-SP	64.7%	116
CL-601-3R	103.6%	360	Falcon 2000	62.8%	198	GIV-SP (MSG3)	74.6%	115
CL-601-3A	173.3%	202				GIV	121.8%	127
CL-601-1A	292.2%	328				G-III	541.6%	606

## Medium Jets

### Future Value Trend (“eTrend™”) and Current Market Demand

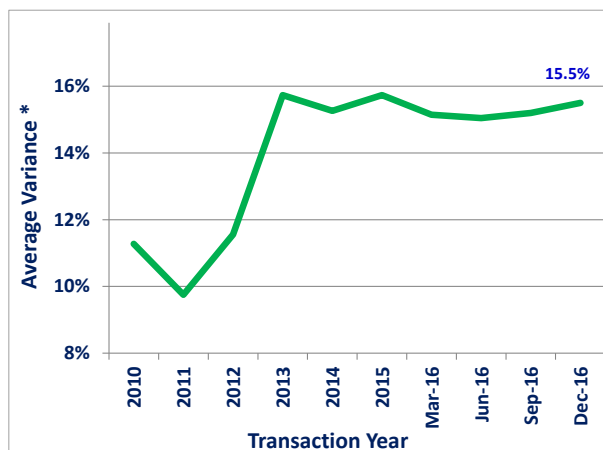
- **eTrend™** information is designed to provide a general view of how aircraft prices are currently trending, and the ***effect this is likely to have on average transaction values 90 days hence***.
- **Current Market Demand** for each Make/Model represents an objective view based on that Make/Model’s Average Days on Market and the percentage of that Model’s fleet listed for sale. During this past quarter, ***demand remained steady at 2.89, on our scale ranging from 1.00 (weak demand) to 5.00 (strong demand)***.

Aircraft Make/Model	eTrend™	Current Market Demand*
	90-day Value Trend Average Gain/(Loss)	
<b>Bombardier</b>		
Challenger 300	(\$1,012,500)	★★★★☆
Challenger 350	(\$96,000)	★★★★☆
Lear 40	(\$117,000)	★★★★☆
Lear 40XR	(\$248,000)	★★★★☆
Lear 45	(\$232,000)	★★★★☆
Lear 45XR	(\$101,000)	★★★★☆
Lear 55	(\$28,000)	★★★★☆
Lear 60	(\$241,000)	★★★★☆
Lear 60SE	(\$258,000)	★★★★☆
Lear 60XR	(\$98,500)	★★★★☆
Lear 70	(\$379,500)	★★★★☆
Lear 75	(\$188,000)	★★★★☆
<b>Cessna</b>		
Citation Excel	(\$109,500)	★★★★☆
Citation Sovereign	(\$335,500)	★★★★☆
Citation Sovereign +	(\$385,000)	★★★★☆
Citation X	(\$132,000)	★★★★☆
Citation X+	(\$725,000)	★★★★☆
Citation XLS+	(\$259,000)	★★★★☆
Citation XLS	(\$265,000)	★★★★☆

Aircraft Make/Model	eTrend™	Current Market Demand*
	90-day Value Trend Average Gain/(Loss)	
<b>Embraer</b>		
Embraer 500	(\$65,000)	★★★★☆
<b>Dassault</b>		
Falcon 50	(\$30,500)	★★☆☆☆
Falcon 50EX	(\$219,000)	★★☆☆☆
<b>Gulfstream</b>		
Gulfstream G100	(\$34,000)	★★★★☆
Gulfstream G150	(\$84,500)	★★★★☆
Gulfstream G200	(\$506,500)	★★★★☆
Gulfstream G280	(\$796,000)	★★★★☆
<b>Hawker Beechcraft</b>		
Hawker 700A	(\$30,500)	★★☆☆☆
Hawker 750	(\$46,500)	★★★★☆
Hawker 800A	(\$19,500)	★★★★☆
Hawker 800XP	(\$222,000)	★★★★☆
Hawker 800XPi	(\$216,000)	★★★★☆
Hawker 850XP	(\$478,500)	★★★★☆
Hawker 900XP	(\$558,000)	★★★★☆
Hawker 1000	(\$87,000)	★★★★☆
Hawker 4000	(\$317,400)	★★★★☆

*Excludes new production aircraft entering service during 2016*

### Used Aircraft Ask Price vs. Transaction Price Spread – Medium Jets



### Market Overview Medium Jets

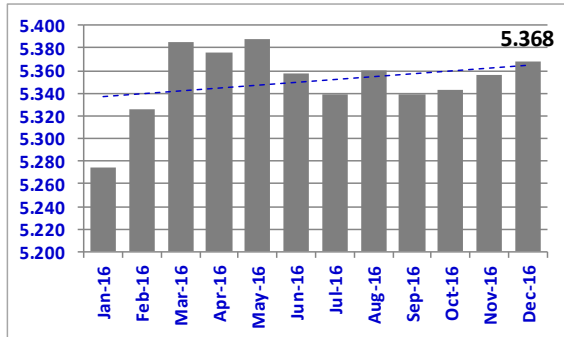
- Ask Price and final Transaction Value differential continues to be the worst / highest among the four groups, and increased by another 0.3%
- Current Market Demand remains below average at 2.89, on our scale of 1.0 to 5.0
- The Quarter over Quarter average 90-Day Value Trend figure remained virtually unchanged

\* Average Variance based on a Sample Set considering the Ask Price against the Transactional Price

## Medium Jets

### Asset Quality Rating

Scale -2.500 to 10.000

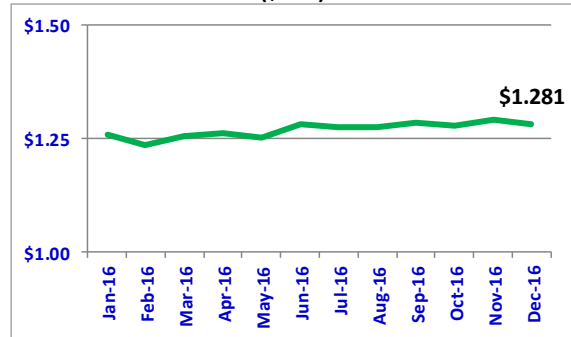


#### Asset Quality Rating Key

Outstanding	Excellent	Very Good	Good	Average	Below Average
5.500 or Greater	5.250 to 5.499	5.000 to 5.249	4.750 to 4.999	4.500 to 4.749	Less than 4.500

### Maintenance Exposure\*

(\$ Mil)



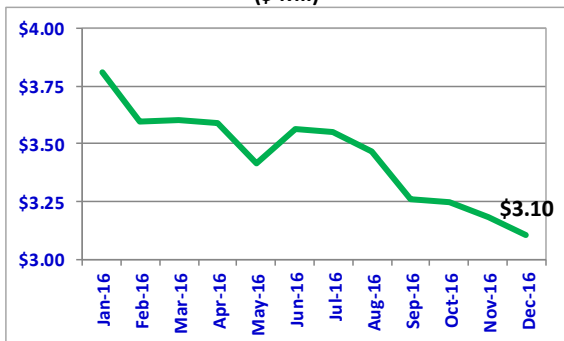
#### Maintenance Exposure – Reference Points

12-month Figures \$ Millions			Historical Figures \$ Millions	
Worst	Average	Best	Worst	Best
\$1.291	\$1.269	\$1.235	\$1.702	\$0.854

\* The accrued cost of future scheduled maintenance

### Average Ask Price

(\$ Mil)

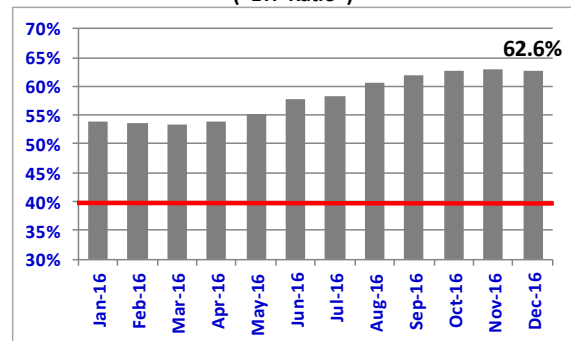


#### Average Ask Price – Reference Points

12-month Figures \$ Millions			Historical Figures \$ Millions	
Highest	Average	Lowest	Highest	Lowest
\$3.81	\$3.54	\$3.10	\$4.80	\$3.10

### Maintenance Exposure to Ask Price Ratio

("ETP Ratio")



#### Importance of the ETP Ratio

- As the ETP Ratio decreases, the aircraft's "value" increases (in relation to its Ask Price)
- Aircraft whose ETP Ratio is above 40% are burdened, on average, with excessive Maintenance Exposure

### Maintenance Exposure to Ask Price Ratio ("ETP Ratio") & Days on Market

Model	ETP Ratio	Days on Market	Model	ETP Ratio	Days on Market	Model	ETP Ratio	Days on Market
<b>Bombardier</b>			<b>Cessna</b>			<b>Hawker</b>		
Challenger 300	21.3%	209	Citation Sovereign 680	15.6%	243	Hawker 900XP	21.4%	237
Learjet 60XR	34.0%	127	Citation XLS	23.2%	136	Hawker 400XP	35.2%	265
Learjet 45XR	44.3%	359	Citation X (MSG3)	30.9%	353	Hawker Beechjet 400A	44.9%	211
Learjet 45 w/APU	53.9%	312	Citation Excel 560XL	35.8%	118	Hawker 800XP	54.0%	209
Learjet 45	58.3%	309	<b>Dassault</b>			Hawker Beechjet 400	68.3%	220
Learjet 60	92.2%	278	Falcon 50EX	32.5%	214	Hawker 1000A	74.7%	470
Learjet 55C	116.5%	1030	Falcon 50	82.4%	309	Hawker 800A	109.9%	264
Learjet 55	205.1%	348	<b>Gulfstream</b>					
			G-150	16.2%	127			
			G-200	38.5%	263			

## Small Jets

### Future Value Trend (“eTrend™”) and Current Market Demand

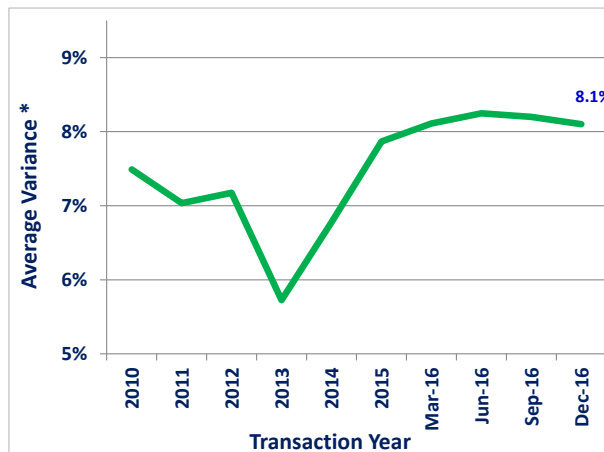
- eTrend™ information is designed to provide a general view of how aircraft prices are currently trending, and the ***effect this is likely to have on average transaction values 90 days hence***.
- **Current Market Demand** for each Make/Model represents an objective view based on that Make/Model’s Average Days on Market and the percentage of that Model’s fleet listed for sale. During this past quarter, ***demand remained steady at 2.93, on our scale ranging from 1.00 (weak demand) to 5.00 (strong demand)***.

Aircraft Make/Model	eTrend™	Current Market Demand*
	90-day Value Trend Average Gain/(Loss)	
<b>Beechcraft</b>		
Premier 1A	(\$98,000)	★★★★☆
Premier I	(\$19,000)	★★★★☆
<b>Bombardier</b>		
Lear 31A	(\$36,000)	★★★★☆
Lear 35	(\$9,500)	★★★★☆
Lear 35A	(\$20,500)	★★★★☆
Lear 36	(\$4,500)	★★★★☆
Lear 36A	(\$38,000)	★★★★☆
<b>Cessna</b>		
Citation Bravo	(\$58,500)	★★★★☆
Citation CJ1	(\$208,500)	★★★★☆
Citation CJ1+	(\$42,000)	★★★★☆
Citation CJ2	(\$105,000)	★★★★☆
Citation CJ2+	(\$56,500)	★★★★☆
Citation CJ3	(\$110,000)	★★★★☆
Citation CJ3+	(\$187,500)	★★★★☆

Aircraft Make/Model	eTrend™	Current Market Demand*
	90-day Value Trend Average Gain/(Loss)	
<b>Cessna</b>		
Citation CJ4	(\$82,500)	★★★★☆
Citation Encore +	(\$205,000)	★★★★☆
Citation Encore	(\$99,500)	★★★★☆
Citation M2	(\$111,000)	★★★★☆
Citation Mustang	(\$38,500)	★★★★☆
Citation Ultra	(\$83,500)	★★★★☆
Citation II	(\$7,500)	★★★★☆
Citation III 650	(\$31,000)	★★★★☆
Citation V	(\$44,500)	★★★★☆
Citation VII	(\$44,000)	★★★★☆
<b>Eclipse</b>		
Eclipse 500	(\$23,500)	★★★★☆
<b>Embraer</b>		
Embraer Phenom 100	(\$27,000)	★★★★☆
Embraer Phenom 100E	(\$20,000)	★★★★☆
Embraer Phenom 300	(\$441,500)	★★★★☆

*Excludes new production aircraft entering service during 2016*

### Used Aircraft Ask Price vs. Transaction Price Spread – Small Jets



### Market Overview Small Jets

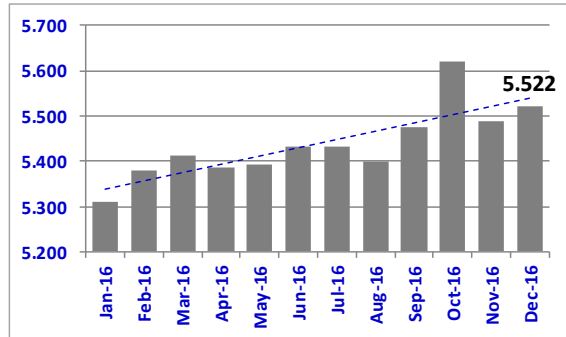
- Ask Price and final Transaction Value differential continue to be the best / lowest among the four groups, while decreasing by 0.1% q/q
- Current Market Demand remains slightly below average at 2.93, on our scale of 1.0 to 5.0
- The Quarter over Quarter average 90-Day Value Trend figure remained virtually unchanged

\* Average Variance based on a Sample Set considering the Ask Price against the Transactional Price

## Small Jets

### Asset Quality Rating

Scale -2.500 to 10.000

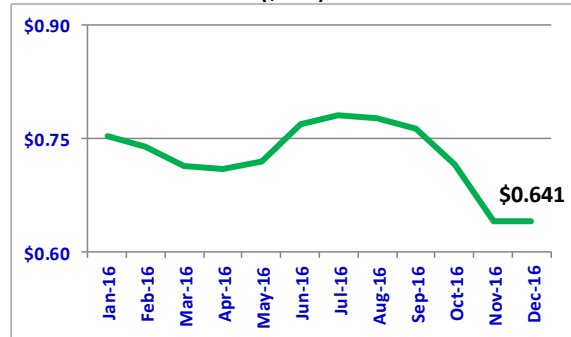


#### Asset Quality Rating Key

Outstanding	Excellent	Very Good	Good	Average	Below Average
5.500 or Greater	5.250 to 5.499	5.000 to 5.249	4.750 to 4.999	4.500 to 4.749	Less than 4.500

### Maintenance Exposure\*

(\$ Mil)



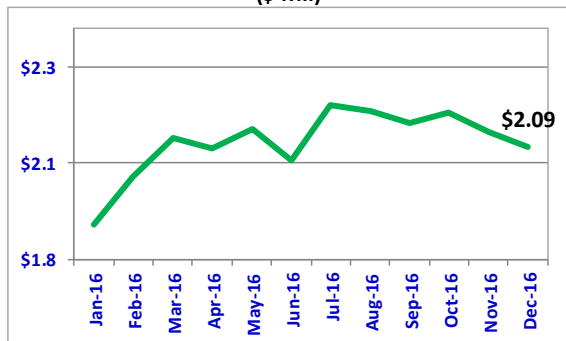
#### Maintenance Exposure – Reference Points

12-month Figures \$ Millions			Historical Figures \$ Millions	
Worst	Average	Best	Worst	Best
\$0.781	\$0.727	\$0.641	\$1.069	\$0.573

\* The accrued cost of future scheduled maintenance

### Average Ask Price

(\$ Mil)

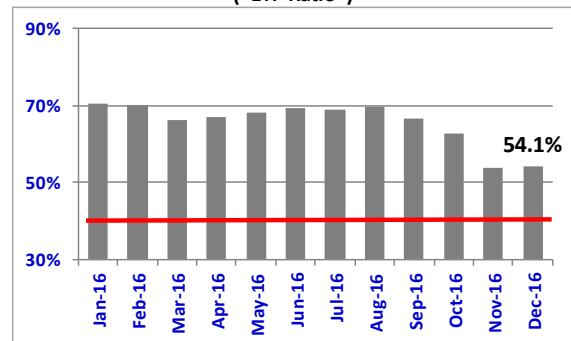


#### Average Ask Price – Reference Points

12-month Figures \$ Millions			Historical Figures \$ Millions	
Highest	Average	Lowest	Highest	Lowest
\$2.20	\$2.10	\$1.89	\$2.21	\$1.70

### Maintenance Exposure to Ask Price Ratio

("ETP Ratio")



#### Importance of the ETP Ratio

- As the ETP Ratio decreases, the aircraft's "value" increases (in relation to its Ask Price)
- Aircraft whose ETP Ratio is above 40% are burdened, on average, with excessive Maintenance Exposure

### Maintenance Exposure to Ask Price Ratio ("ETP Ratio") & Days on Market

Model	ETP Ratio	Days on Market	Model	ETP Ratio	Days on Market	Model	ETP Ratio	Days on Market
<b>Beechcraft</b>			<b>Cessna</b>			<b>Cessna</b>		
Premier 1A	34.5%	139	Citation CJ2+ 525A	14.8%	198	Citation V 560	64.8%	187
Premier 1	54.5%	317	Citation Encore	16.3%	151	Citation II	85.3%	311
<b>Bombardier</b>			Citation Mustang 510	23.2%	210	Citation ISP	108.5%	438
Learjet 31	78.0%	1165	Citation CJ2	23.9%	247	<b>Dassault</b>		
Learjet 35A	137.8%	448	Citation CJ1+	30.9%	324	Falcon 20-5	201.1%	440
<b>Cessna</b>			Citation Bravo	35.0%	168	<b>Embraer</b>		
Citation CJ4 525C	5.2%	270	Citation V Ultra	56.7%	194	Phenom 300	8.0%	143
Citation CJ3	16.7%	164	Citation VI	79.7%	512	Phenom 100	27.6%	242

## Turboprops

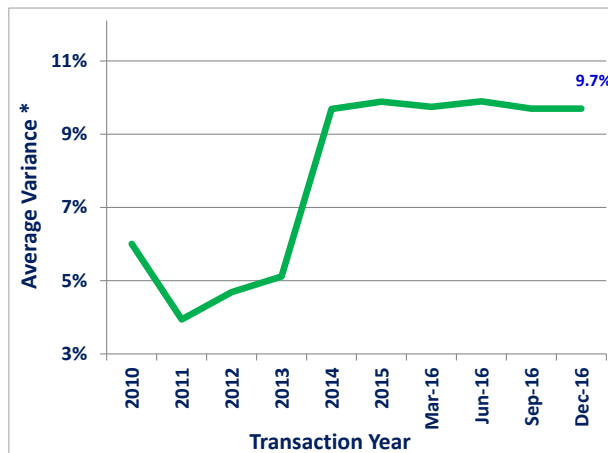
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Aircraft Make/Model	eTrend™	Current Market Demand*
	90-day Value Trend Average Gain/(Loss)	
<b>Cessna</b>		
208 Caravan (2001+)	(\$35,000)	★★★★☆
208 Caravan (2008+)	(\$51,500)	★★★★☆
208B Grand Caravan (2001+)	(\$40,000)	★★★★☆
208B Grand Caravan (2008+)	(\$39,500)	★★★★☆
<b>Beech</b>		
King Air 350 (1990-2009)	(\$117,000)	★★★★☆
King Air 350i	(\$113,000)	★★★★☆
<b>Piaggio</b>		
Piaggio Avanti P180 II	(\$299,000)	★★☆☆☆
<b>Pilatus</b>		
Pilatus PC-12 41 and 45	(\$19,000)	★★★★☆
Pilatus PC-12 47	(\$7,500)	★★★★☆
Pilatus PC-12-47E NG	(\$73,500)	★★★★☆
<b>Socata</b>		
Socata 700A TBM	(\$23,000)	★★★★☆
Socata 700B TBM	(\$25,500)	★★★★☆
Socata Pack TBM 850	(\$6,000)	★★★★☆

*Excludes new production aircraft entering service during 2016*

### Used Aircraft Ask Price vs. Transaction Price Spread



### Market Overview Turboprops

- **Ask Price and final Transaction Value differential remained unchanged**
- **Current Market Demand remains above average at 3.15 on our scale of 1.0 to 5.0**
- **The Quarter over Quarter average 90-Day Value Trend figure improved by over 7.7%**

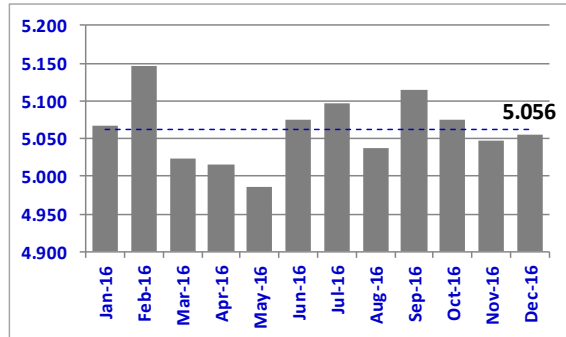
\* Average Variance based on a Sample Set considering the Ask Price against the Transactional Price



## Turboprops

### Asset Quality Rating

Scale **-2.500** to 10.000

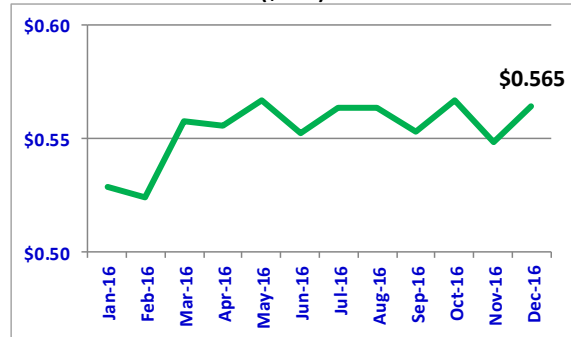


#### Asset Quality Rating Key

Outstanding	Excellent	Very Good	Good	Average	Below Average
5.500 or Greater	5.250 to 5.499	5.000 to 5.249	4.750 to 4.999	4.500 to 4.749	Less than 4.500

### Maintenance Exposure\*

(\$ Mil)



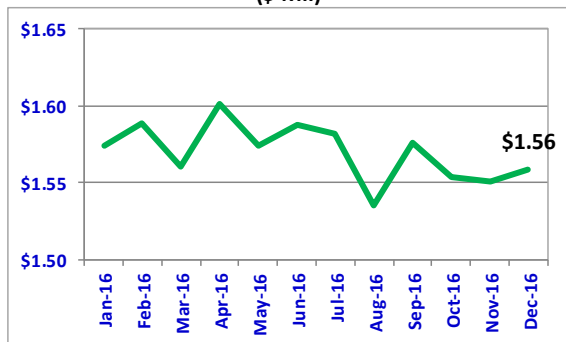
#### Maintenance Exposure – Reference Points

12-month Figures \$ Millions			Historical Figures \$ Millions	
Worst	Average	Best	Worst	Best
\$0.567	\$0.554	\$0.524	\$0.697	\$0.436

\* The accrued cost of future scheduled maintenance

### Average Ask Price

(\$ Mil)

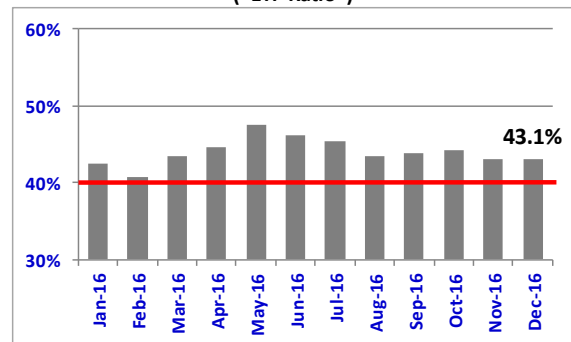


#### Average Ask Price – Reference Points

12-month Figures \$ Millions			Historical Figures \$ Millions	
Highest	Average	Lowest	Highest	Lowest
\$1.60	\$1.57	\$1.53	\$1.97	\$1.46

### Maintenance Exposure to Ask Price Ratio

("ETP Ratio")



#### Importance of the ETP Ratio

- As the ETP Ratio decreases, the aircraft's "value" increases (in relation to its Ask Price)
- Aircraft whose ETP Ratio is above 40% are burdened, on average, with excessive Maintenance Exposure

### Maintenance Exposure to Ask Price Ratio ("ETP Ratio") & Days on Market

Model	ETP Ratio	Days on Market	Model	ETP Ratio	Days on Market	Model	ETP Ratio	Days on Market
<b>Beechcraft</b>			<b>Beechcraft</b>			<b>Pilatus</b>		
KingAir B-200 - Post-2000	22.5%	290	KingAir C90	90.3%	631	Pilatus PC-12	21.6%	170
KingAir 350 - Post-2000	23.1%	237	Beech B-1900C	105.3%	359	<b>Piper</b>		
KingAir 350 - Pre-2001	29.2%	161	<b>Piaggio</b>			Piper Meridian	22.3%	215
KingAir B-200 - Pre-2001	44.8%	237	Piaggio P-180 II	30.9%	206			
KingAir 300	52.6%	193	Piaggio P-180	67.1%	203			

## Aircraft analyzed – maintenance analytics

Following is a list of the aircraft models researched to produce this Market Report’s maintenance analytics:

<u>Large Jets</u>	<u>Medium Jets</u>	<u>Small Jets</u>	<u>Turboprops</u>
<b>Beechcraft-Hawker:</b>			
	• Beechjet 400	• Premier 1	• King Air C90
	• Beechjet 400A	• Premier 1A	• King Air B-200
	• Hawker 400XP		• King Air 300
	• Hawker 800A		• King Air 350
	• Hawker 800XP		• B-1900C
	• Hawker 900XP		
	• Hawker 1000A		
<b>Boeing:</b>			
• BBJ			
<b>Bombardier:</b>			
• CL-601-1A; 3A; -3R; -SE	• Challenger 300	• Learjet 31	
• CL-604	• Learjet 45; 45 w/APU	• Learjet 35A	
• CL-605	• Learjet 45XR		
• Global 5000	• Learjet 55-55A		
• Global Express	• Learjet 55C		
• Global XRS	• Learjet 60		
	• Learjet 60XR		
<b>Cessna:</b>			
	• Citation Excel	• Citation CJ1+	
	• Citation Sovereign	• Citation CJ2	
	• Citation VI	• Citation CJ3	
	• Citation X (MSG3)	• Citation CJ4	
	• Citation XLS; XLS (MSG3)	• Citation Bravo	
	• Citation XLS+ (MSG3)	• Citation Encore	
		• Citation I-SP	
		• Citation II	
		• Citation Mustang	
		• Citation V; Citation V Ultra	
<b>Dassault Falcon Jet:</b>			
• F2000	• Falcon 20-5		
• F2000EX; F2000EX Easy	• Falcon 50		
• F2000DX; F2000LX	• Falcon 50EX		
• F900; F900B; F900C			
• F900EX; F900EX Easy			
• F900DX; F900LX			
<b>Embraer:</b>			
• Legacy 600		• Phenom 100	
		• Phenom 300	
<b>Gulfstream:</b>			
• G-IV	• G-100		
• GIV-SP & GIV-SP (MSG3)	• G-150		
• GV	• G-200		
• G350			
• G450			
• G550			
<b>Piaggio:</b>			
			• P-180; P180 II
<b>Pilatus:</b>			
			• PC-12
<b>Piper:</b>			
			• Malibu Meridian

## Analysis Methodology – Maintenance Analytics

Asset Insight, LLC has developed a proprietary **Asset Grading System Process**™ (AGSP) that objectively evaluates assets relative to their Optimal Maintenance Condition and provides an easy-to-understand, uniform, yet robust, set of data that can be acted upon, on a timely basis, to protect and/or enhance an asset's financial performance.

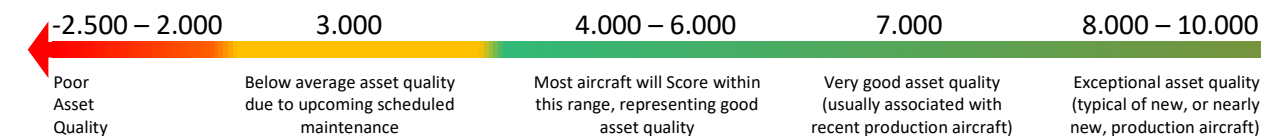
The AGSP is based on patented algorithms analyzing current age, the hours and cycles on an aircraft's Major Sectors – airframe, engine(s), propeller(s), APU, paint, and interior – as well as the cost to repair or replace parts with no defined life. The AGSP derives an index (the "**Asset Insight Index**") providing an objective measure of an aircraft's current maintenance status and its related Financial Exposure going forward – that is, the financial liability accrued with respect to future scheduled maintenance events.

The Asset Insight Index is comprised of three factors that evaluate two aspects of an aircraft's maintenance, its **Asset Quality Rating** and its **Maintenance Exposure Value**. The Asset Quality Rating is computed by averaging the aircraft's **Maintenance Rating** and **Financial Rating**, while the Maintenance Exposure Value measures an aircraft's accrued / consumed financial liability with respect to future scheduled maintenance events, presenting such information in financial terms.

## Asset Quality Rating and the Factors Comprising the "Asset Insight Index"

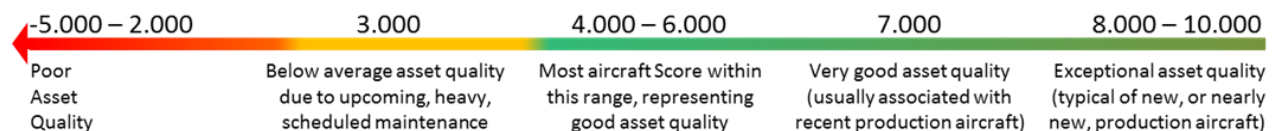
### 1 Asset Quality Rating

The Asset Quality Rating allows any aircraft's maintenance status to be directly compared to any other aircraft's maintenance status, by virtue of the Asset Insight standardized scale. The Asset Quality Rating is computed by averaging the aircraft's Maintenance Rating ("ATC Score") and Financial Rating ("ATFC Score") – explained in the following two sections – and is based on a scale ranging from -2.500 to 10.000, the latter reflecting a newly produced aircraft (see scale below).



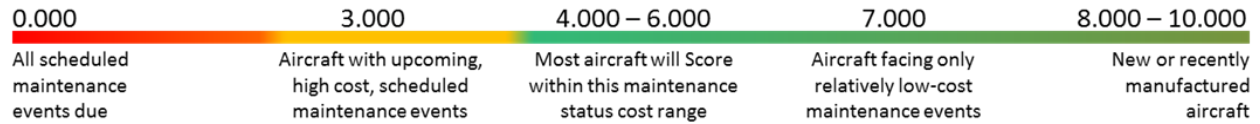
### Maintenance Rating – Asset Technical Condition Score ("ATC Score")

The "Asset Technical Condition Score" ("ATC Score") utilizes the Asset Grading System Process (Patent Pending) developed by Asset Insight, Inc. to objectively evaluate and grade an aircraft's maintenance status, on a standardized scale, relative to its Optimal Maintenance Condition (achieved on the day it came off the production line), utilizing the aircraft's (standard/typical) Scheduled Maintenance Program. The ATC Score is based on a scale ranging from -5.000 to 10.000, the latter reflecting a newly produced aircraft (see scale below).



## ② **Financial Rating – Asset Technical Financial Condition Score (“ATFC Score”)**

The “Asset Technical Financial Condition Score” (“ATFC Score”) evaluates and grades the Aircraft’s financial rating relative to its Optimal Maintenance Condition based on the Aircraft’s ATC Score (see Maintenance Rating above). The ATFC Score is based on a scale from 0.000 to 10.000, the latter reflecting a newly produced aircraft (see scale below).



To score each aircraft make/model, the average cost for completing each maintenance event comprising the ATC Maintenance Program is determined. Having compiled the aircraft's maintenance history, the time (calendar, flight hours or cycles) accumulated toward each individual scheduled/anticipated maintenance event is used to determine the aircraft's ATFC Score.

The Financial Rating (ATFC Score) differs from the Maintenance Rating (ATC Score). While the ATC Score evaluates and grades an aircraft's maintenance status relative to its Optimal Maintenance Condition, the ATFC Score grades an aircraft's financial condition relative to its Optimal Maintenance Condition, meaning the ATFC Score is weighted by the estimated cost to complete each maintenance event. Accordingly, the Maintenance Rating is likely to differ from the Financial Rating.

For example, if an aircraft had only two maintenance components, and if one component was three-quarters of the way toward its overhaul while the second was one-quarter of the way toward its overhaul, their combined ATC Score would be 5.000, based on the following calculation: (75% + 25%) / 2 X Perfect Score (10.000) = 5.000.

However, if the first of these components has an overhaul cost of \$1,000, while the second has an overhaul cost of \$10,000, their combined ATFC Score would be 2.955 (see below).

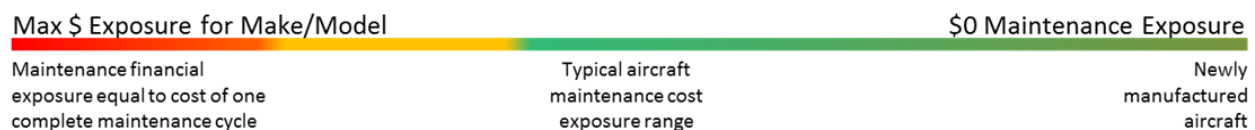
	<u>Remaining Useful Life</u>	<u>Overhaul Cost</u>	<u>Remaining Financial Value</u>
Component #1	75%	\$1,000	\$750
Component #2	25%	<u>\$10,000</u>	<u>\$2,500</u>
		<u>\$11,000</u>	<u>\$3,250</u>

### **ATFC Score Calculation Methodology**

$$\text{Aircraft's Financial Ratio } (\$3,250 / \$11,000) \times \text{Perfect Score } (10.000) = 2.955$$

## **Maintenance Exposure – Asset Technical Financial Exposure Value (“ATFE Value”)**

The “Asset Technical Financial Exposure Value” (“ATFE Value”) measures the aircraft’s financial exposure based on its maintenance condition – the liability accrued / consumed with respect to future scheduled maintenance events – and presents this information in financial terms, as follows:



To derive an aircraft's ATFE Value, the estimated cost for completing each event comprising the ATC Maintenance Program has been established. Having compiled an aircraft's maintenance history, the time (flight hours, landings/cycles, and/or calendar period) accumulated toward each individual scheduled/anticipated maintenance event is used to compute the dollar liability accrued toward that event, with the ATFE Value representing the total accrued liability toward future maintenance events.

## Used Aircraft Ask Price vs. Transactional Price Spread

Detailed analytics are used to determine the ask price of an aircraft and its bid/ask spreads, including, but not limited to, items such as market supply, demand, saturation, aircraft age, competition, utility, damage, economics, financing, trade, exclusivity, compulsion to sell, buyer / seller market strength, etc.

## Future Value Trend (“eTrend™”) and Current Market Demand

eTrend™ information is displayed by Make/Model and is intended to provide a general view of how aircraft prices are currently trending and the effect this is likely to have on average transaction values 90 days hence. Current Market Demand for each Make/Model is an objective view based on that Make/Model's Average Days on Market and the percentage of that Model's fleet listed for sale. All figures **EXCLUDE** new production aircraft entering service during 2016.

## Ask Price vs. Asset Exposure to Ask Price Ratio (“ETP Ratio”) Graph

The graph displays the relationship between each aircraft group's “Asset Exposure to Ask Price” Ratio (the ATFE Value divided by the Average Ask Price) and the Average Ask Price. In general, as aircraft Ask Prices rise, the Ratio should decrease – all other factors being equal. However, the Ratio's relationship to Ask Price is not an absolute inverse correlation. Aircraft with a greater or lesser maintenance-related Financial Exposure, but with the same Ask Price, may replace aircraft listed “for sale” during any given month. Accordingly, it is possible for both the Ratio and the Ask Price lines to move in the same direction.

## Asset Exposure to Ask Price Ratio (“ETP Ratio”)

The Asset Exposure to Ask Price Ratio (“ETP Ratio”) is calculated by dividing the aircraft's ATFE Value (the financial liability accrued with respect to future scheduled maintenance events) by its Ask Price. Accordingly, as the ETP Ratio decreases, the aircraft's “value” increases (in relation to its Ask Price). Aircraft whose ETP Ratio is 40% or greater are believed to have accrued an excessive level of maintenance Asset Exposure (ATFE Value) in relation to their Ask Price. ETP Ratios are only available in cases where a statistically significant sample of aircraft Ask Price and maintenance status can be derived for a specific Make / Model.

## ETP Ratio vs. Average Days on Market

The graph plots each aircraft make model displayed on the list (below the graph) based on information obtained from Amstat ([www.amstatcorp.com](http://www.amstatcorp.com)) and Asset Insight's research/analytics. Any models perceived to be “outliers” (e.g., aircraft whose ETP Ratio exceeded 200%) were excluded.

## General Information

Asset Insight, LLC ([www.assetinsightinc.com](http://www.assetinsightinc.com)) provides asset evaluation and financial optimization services. The company's "Asset Grading System Standard" (Patent Pending), and related analyses, provides the ability to translate the asset's technical condition into easy-to-understand, actionable financial information. Asset Insight is independent of any manufacturer, appraisal firm, financial services firm, or technical services facility, enabling it to provide an unbiased view of an asset's condition with respect to its technical status and related financial exposure. The company is managed by business, technical and financial professionals with significant experience in aviation asset management.

This Analysis is not intended to represent a technical evaluation of any Aircraft. Further, the reader, or any party using information contained in this Report, should recognize that this Report is limited in scope, and that discrepant conditions may exist in the analyzed aircraft that were not known by Asset Insight, LLC.

The Asset Insight Index and its ATC Score, ATFC Score, and ATFE Value components are based upon the aircraft maintenance condition information reviewed by Asset Insight, LLC as of a certain date. Running an analysis on any aircraft utilizing a different date, revised maintenance data and/or utilization figures will likely generate different results.

**Asset Insight, LLC makes no representation concerning the value or condition of any aircraft. Additionally, Asset Insight, LLC does not warrant the accuracy of the information obtained by Asset Insight, LLC that has been used to produce this Report.**

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