

What's Your Business Aircraft Worth Today?

Points of Value Specific to Cessna's Larger Cabin Business Jets

Senior Certified Aircraft Appraiser Jeremy Cox continues his series spotlighting aircraft makes and models and their value points in today's market. This month, the focus is on Cessna's larger business jet models...

While the Business Aviation community awaits the certification and first deliveries of Cessna's future \$35m flagship model, the Citation Hemisphere, sometime after 2020, how does the owner of a stand-up cabin Citation already on the market evaluate its worth?

Overview of Cessna's Larger Model Jets

The imminent flagship of Cessna's Citation fleet is the \$23.995m Citation Longitude (expected to begin delivering late 2017/early 2018), which provides performance and cabin enhancements over the 'game-changing' Citation Latitude. Curiously its design roots may be more attributable to the Hawker 4000 program that Textron Aviation bought from Beechcraft Corporation.

The Citation Longitude is positioned as a stepping stone for

Citation customers looking to step up into the forthcoming Citation Hemisphere, and who typically have a requirement for additional range over what the Longitude offers.

A brief comparison between the Longitude and the \$16.35m Citation Latitude shows a longer cabin in the Longitude, while its cross-section is the same as that of the Latitude. That extra length is put to good use, as the Longitude will accommodate 12 passengers (over the nine of the Latitude). It will also fly about 800nm further and 30 knots faster.

Topping the longer-established in-production models of the larger Citation product range are the Citation Sovereign and the Citation X.

There are three versions of the Citation Sovereign, including:

- **Citation Sovereign (original model):** Powered by PW306C FADEC engines, and offering Primus EPIC 4-tube integrated avionics;
- **Citation Sovereign (Elliptical Winglets):** From 2013, the Citation Sovereign was built with Elliptical Winglets (S/N 501 onward);



being released from the NetJets program to prevent overall market value loss. The program, implemented by Cessna in Wichita, included a full avionics panel upgrade and a 5-Year/1,500 Hours Warranty, plus two Pro-Parts Enrollment Options, Rolls-Royce Corporate Care Enrollment and Cessna AuxAdvantage Enrollment.

Finally, we have the \$12.75m Citation XLS+, which differs from the straight Citation XLS by having FADEC controlled PW545C engines with 4,119 lbs of thrust each (128 lbs more than the PW545B models on the Citation XLS, which didn't have FADEC.) The Citation XLS+ features a fully-integrated Proline 21 Avionics Suite, with 4-Tube EFIS, whereas the original XLS model has a 3-Tube Primus 1000, and UNS-1Esp FMS as standard, without the full integration provided by the Proline System.

The Citation Excel, from which the XLS+ and XLS derive, was powered by PW545A engines. All three models share the same fuselage as the Cessna Citation X.

Earlier-Model Stand-Up Cabins

The Citation III was a radical 'clean-sheet' project for Cessna. As the aircraft neared its FAA acceptance in 1982, Cessna was advertising it both as the "...most fuel-efficient...and...the most advanced - business jet in the world".

The most notable difference of the 650 series versus the 500 series Citations is the supercritical 25-degree - swept wing in-place of Cessna's signature 'straight wing' design. It was also the first Citation with a T-Tail configuration. The differences between the trio of CE650 models follows:

- **Model III:** TFE731-3C-100S engines. Steam gauges until 1985, then Bendix-King EDZ640, 4-Tube EFIS. Multiple Auxiliary Power Units Options available for all years of the III and VI (Sundstrand T-62T-40C3A1/Garrett GTCP36-150W).
- **Model VI:** TFE731-3B-100S engines. Bendix-King EDZ650, 5-Tube EFIS. Sundstrand, or Garrett optional APUs. The VI was introduced as a lower priced model, by having a lower cost avionics suite, as well as fewer interior configuration options than the III, and later VII.
- **Model VII:** TFE731-4R-2S engines (780 lbs more thrust than the III and VI.) Honeywell EDZ816, 5-Tube EFIS. Garrett GTCP36-150W Auxiliary Power Unit. The VII had a variety of interior configuration options.

Residual Values Thumbnail

- The residual value of a 2015 Citation Latitude is indicated to be at about 83% of its new value, based upon a 2015 List Price of \$16.25m, and a retail value today of \$13.5m. ➤



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- **Citation Sovereign+:** After 2014, PW306D FADEC engines were utilized on the \$17.895m Sovereign along with the Garmin G5000 touch-screen panel. As a result of these enhancements, the Sovereign+ offers 137 lbs additional thrust (per engine), and 475 lbs greater MGTOW over the original model.

Meanwhile, there are two versions of the Citation X, including:

- **Citation X:** The original model delivered between 1996-2012, and was a clean-sheet design. Powered by Rolls-Royce AE3007C engines, this Citation became the quickest civil aircraft following the demise of Concorde. After 2010 Cessna offered the Citation X with AE3007C1 engines, producing 322 lbs more thrust each, while lengthening the cabin by over a foot. MGTOW also increased.
- **Citation X+:** In production since 2012, the \$23.365m Citation X+ offers 278 lbs increased thrust from each Rolls-Royce AE3007C2 engine and auto-throttles as standard. Garmin's G5000 avionics suite and Elliptical Winglets also became standard.
- **Citation X Elite:** This was a factory upgrade program designed specifically for the aircraft



- The residual value of a 2008 Citation Sovereign is currently at about 41% of its new value (2008 List Price was \$16.904m; current retail value \$6.9m).
- The residual value of a 2001 Citation X is about 19% of its new value (2001 List Price was \$18.19m; current retail value is \$3.5m).
- The residual value of a 2000 Citation Excel is about 33% of its new value (2000 List Price was \$8.545m; current retail value \$2.8m).
- The lowest residual value of the series is found with the Citation III. A 1985 model has a residual value that is about 12% of its original list price (\$700k today, versus \$5.7m thirty-two years ago).

An Insight into Annual Utilization

All of the current and post production Citations discussed within this article, are projected by the Aircraft Bluebook to accumulate an average of 380 flight hours per year. The highest annual projection belongs to the Citation X (410 flight hours per year). The lowest is assigned to the Citation Excel (350 flight hours per year).

Specific Upgrades/Modifications

Here follows a list of Appraised Value Add-Ons for each Citation model discussed in this article. Note, these are my numbers, not the numbers from the value guides. They are also not valued ‘dollar for dollar’ from the options guides for each aircraft, except for the Latitude, which is too new to have much variance on options values...

Citation Latitude

- Full FANS 1/A - \$130,000
- CPDLC only – \$70,000
- Flight Data Recorder - \$168,000
- GoGo Biz ATG-4000 with Swift Broadband - \$135,000
- FWD RH Side-Facing Seat - \$43,300

Citation Sovereign

- Flight Data Recorder - \$90,000
- GoGo ATG-5000 - \$135,000
- GoGo Biz ATG-4000 with Swift Broadband - \$150,000

Citation X

- Cessna Elite Upgrade - \$2,500,000
- Winglets - \$450,000
- Autothrottles - \$180,000
- Flight Data Recorder - \$90,000
- GoGo ATG-5000 - \$135,000

Citation XLS

- No Auxiliary Power Unit installed - **(\$175,000) Deduction**
- Flight Data Recorder - \$90,000
- GoGo ATG-4000 - \$120,000

Citation Excel

- No Auxiliary Power Unit installed - **(\$175,000) Deduction**
- No External Lavatory Service - **(\$50,000) Deduction**
- Flight Data Recorder - \$90,000
- GoGo ATG-4000 - \$120,000

Citation III

- No Auxiliary Power Unit installed - **(\$100,000) Deduction**
- Flight Data Recorder - \$40,000

Citation VI

- No TCAS-II - **(\$50,000) Deduction**
- Flight Data Recorder - \$40,000

Citation VII

- No TCAS-II - **(\$50,000) Deduction**
- Flight Data Recorder - \$40,000 ■

Respective Cessna Citation Stand-Up Cabin Model Manufacture & Fleet Numbers

• Citation Latitude:	2014 - Present	93 total built (86 currently active)
• Citation Sovereign/+	2002 - Present	421 total built (416 currently active)
• Citation X/Elite/+	1996 - Present	346 total built (336 currently active)
• Citation XLS/+	2004 - Present	557 total built (550 currently active)
• Citation Excel	1996 - 2004	372 total built (367 currently active)
• Citation III	1982 - 1991	203 total built (188 currently active)
• Citation VI	1991 - 1995	38 total built (36 currently active)
• Citation VII	1992 - 2000	118 total built (115 currently active)

Total Active Cessna Citation Stand-Up Cabin Jets = 2,094

Jeremy Cox is experienced in presenting his expertise at aviation meetings, seminars and conferences. If you have an upcoming event and would like to discuss having Jeremy present, you can contact him via jcox@jetbrokers.com