

Cessna Citation 525 CJ vs CJ1 vs CJ1+ Comparison

The Citation CJ, CJ1, and CJ1+ represent the evolution of Cessna's original 525-series light jet platform. While all three aircraft share a common fuselage design and similar operational philosophy, each successive model introduced meaningful improvements in performance, payload capability, avionics integration, and owner/operator usability.

The straight Citation Jet (CJ) remains the lowest-cost entry point into jet ownership and is highly attractive for owner-flown missions. The CJ1 improved upon the original aircraft with better payload and performance characteristics, while the CJ1+ became the most refined version of the classic 525 platform with upgraded Pro Line 21 avionics, improved cabin appointments, and FADEC-equipped engines.

Category	Citation 525 CJ	Citation CJ1	Citation CJ1+
Production Years	1993–2000	2000–2005	2005–2011
Engines	Williams FJ44-1A	Williams FJ44-1A	Williams FJ44-1AP (FADEC)
Thrust	1,900 lbs each	1,900 lbs each	1,965 lbs each
Max Cruise Speed	377 KTAS	381 KTAS	389 KTAS
Long Range Cruise	330 KTAS	330 KTAS	340 KTAS
NBAA IFR Range	750 NM	775 NM	895 NM
Max Operating Altitude	41,000 ft	41,000 ft	41,000 ft
Takeoff Distance	3,180 ft	3,280 ft	3,250 ft
Landing Distance	2,500 ft	2,480 ft	2,590 ft
Fuel Burn	130-135 GPH	130–135 GPH	135–140 GPH
Typical Passengers	5	5	5
Single Pilot Certified	Yes	Yes	Yes
Typical Used Market Value	\$900K–\$1.5M	\$1.2M–\$2.0M	\$2.2M–\$3.0M
Direct Operating Cost	\$2,150/hr	\$2150/hr	\$2190/hr
Approx Fixed Ownership Cost at 200 hrs Per Year	\$2,750/hr	\$2,775/hr	\$2,800/hr
Standard Avionics	Collins EFIS-86 / Honeywell Upgradeable to G1000	Collins Pro Line 21 Upgradeable to Garmin 600/ 750	Collins Pro Line 21 integrated. Upgradeable to Fusion or Garmin 600
FMS Capability	Dual UNS-1K / early FMS	Improved FMS integration	Collins FMS 3000

FADEC	No	No	Yes
Electronic Checklists	No	Limited	Yes
Diagnostic Maintenance System	No	Limited	Yes
RVSM Capability	Retrofit/common	Standard/common	Standard
WAAS/LPV Upgrade Path	Available via retrofit	Common upgrade	Common upgrade
Fusion Upgrade Eligible	No	No	Yes

Performance Analysis

The CJ1+ demonstrates the strongest overall performance profile of the three aircraft. It offers the highest maximum cruise speed at 389 KTAS and the longest NBAA IFR range at 895 nautical miles. Long-range cruise capability also improved substantially in the CJ1+, allowing over 1,100 nautical miles of long-range cruise capability.

-The original Citation Jet provides respectable performance but trails the later aircraft in payload flexibility and range. The CJ1 introduced modest improvements to takeoff performance and cruise efficiency due to higher allowable weights and incremental engine enhancements.

-Climb performance remains very strong across all three aircraft, with all variants capable of approximately 3,200–3,300 feet per minute initial climb rates.

Operating Cost Analysis

One of the most notable findings from the report is how closely grouped the operating costs are across the three models. Despite the CJ1+ offering significantly improved performance and avionics, the annual operating cost premium versus the straight CJ is relatively modest.

-Variable costs remain extremely similar among all three aircraft due to the shared Williams FJ44 engine family and common maintenance architecture. Fuel burn averages approximately 134 GPH for the CJ and CJ1, while the CJ1+ increases slightly to approximately 141 GPH.

-Fixed costs are also remarkably close, with crew, hangar, training, and modernization costs remaining largely consistent throughout the fleet.

Avionics and Technology

Avionics evolution is one of the largest differentiators among the aircraft.

The original Citation Jet was initially equipped with older Collins and Honeywell systems, though many aircraft today have received Garmin G1000 retrofits or partial modernization upgrades.

-The CJ1 introduced Rockwell Collins Pro Line 21 avionics, significantly modernizing the cockpit environment. The CJ1 panel can be retrofit with Garmin 600/ 750. The CJ1+ further refined the Pro Line 21 suite with architecture similar to the Citation CJ3. It also

can be modified with the Garmin 600/750 as well as the Collins Fusion panel.

-The CJ1+ also introduced improved maintenance diagnostics systems, upgraded cabin appointments, LED lighting, redesigned seats, and FADEC-equipped engines. FADEC substantially reduces pilot workload and improves engine management.

Payload and Cabin Utility

Payload capability improves progressively through the series. The CJ1+ offers the highest useful load and available payload with full fuel, making it the most practical aircraft for real-world passenger missions.

-The original Citation Jet is more payload-limited with full fuel, allowing only approximately 330 pounds of remaining payload, while the CJ1+ improves this figure to approximately 545 pounds.

-Cabin dimensions remain nearly identical across the fleet, with approximately 201–205 cubic feet of total cabin volume and seating for five passengers.

Market Positioning and Ownership Considerations

The Citation Jet remains highly attractive for cost-conscious owner operators entering the light jet market. Acquisition costs remain relatively low and operating economics are excellent.

-The CJ1 is widely considered one of the best value propositions in the 525 family because it provides meaningful avionics and performance improvements without a dramatic increase in ownership cost.

-The CJ1+ is generally viewed as the most desirable version of the classic 525-series aircraft. Its stronger avionics integration, FADEC engines, superior payload flexibility, and improved resale demand make it particularly attractive for owner-flown and Part 91 operations.

Maintenance Schedule and Considerations

1. The Cessna recommended program is organized into “Inspection Documents” and is published in Chapter 5, Section 12 (5-12) of the Cessna Model 525 Maintenance Manual. The program in Chapter 5-12 must be adhered to as published. Cessna recommends subscribing to CESCO Online for inspection program tracking. Time limited components are listed in Chapter 5, Section 11 (5-11).

2. Each customer has the option to create their own custom program. Provided inspections are accomplished within the time frame specified in Chapter 5, no additional approval is required from Cessna or the FAA.

3. Most inspections repeat either as a result of a number of years or number of hours that is divisible by 300.

4. Intervals for some inspections are determined by the component manufacturer. The applicable component manual gives the information necessary to determine those intervals. Refer to the Model 525 Illustrated Parts Catalog, Introduction and Supplier Publication List.
5. Chapter 4 inspection items are listed in Chapter 5 as individual Inspection Documents and begin with the letter M. Please note that the actual intervals for these inspection items are exactly the same as listed in Chapter 4. Should Chapter 4 and Chapter 5 intervals differ, Chapter 4 takes precedence.
6. Operators and maintenance technicians can perform and report Chapter 4 inspections individually, without performing them with other Inspection Documents.
7. Williams engine manuals are part of the Model 525 Instructions for Continued Airworthiness and identify engine inspection requirements.

The Document 10 inspection is considered the biggest recurring maintenance item and is due every three years or 1200 hours- whichever comes first.