

Tamarack CJ1+ Benefits

FLY YOUR CJ1+ BETTER:

Fly More Comfortably

- Aesthetic Appeal (these things look great)
- Ride Smoothing during turbulence
- Fewer Fuel Stops
- Environmentally Friendly
- Fly higher
 - Higher Initial Climb Altitude (get over the weather faster)
 - Smoother air generally
 - Less headwind generally
 - Less traffic, ATC holds, and rerouting

Fly More Economically

- Less fuel burn at higher altitudes (even heavy and very high, get to Certified Ceiling)
- Less wear and tear on brakes, landing gear and tires
- Resale Value (Vref estimates 100% return of value)
- Lower approach power settings
- More payload available with 400 lb MZFW increase

Fly Safer

- Safer Takeoff & Landings
 - Slower speeds
 - Less energy
 - Runway length margin
- Fly at higher altitudes
 - Get to Altitude faster
 - Less Traffic
 - Less weather
 - Get over weather faster

- Driftdown altitudes are several thousand feet higher
- Higher OEI climb performance
 - Increase safety margin departing Aspen and Telluride all year around
 - Increase safety margin year-round, but especially on hot days
- Increased Stability
 - Like another yaw damper
 - High Altitude with INOP autopilot is not an event anymore
 - Rock Solid approaches and landings
- Structural Envelope Protection with ATLAS® (protects from wing overloading)

Fly with more Utility and now possible to repurpose aircraft

- Range increase
- MZFW increase (400 lb)
- Shorter Runways
- Hotter Conditions
- Higher Airfields
- Better High/Hot Performance (WAT)
- Less fuel required means more payload available
- Higher Initial Climb Altitudes

Total wingspan

- OEM: 46 ft 5 in
- Active Winglet: 52 ft 6 in

A CJ1+ Pilot's Report By Shawn D. Mack

I recently had the good fortune to fly N122LM one of TAMARACKs modified CJ1+ aircraft with CJP's membership chairman Steven Foote. To say I was pleasantly surprised would be a large understatement. I thought I would see an improvement, but truthfully, I was not expecting this modification to create a whole new performance class of Citation Jet.

Steve and I have been flying my CJ2+ in anticipation of his purchase of an aircraft to use in his business travel. Because of his contacts in the CJP community, he was offered the opportunity to fly N122LM to evaluate the CJ1+ and the winglets that Tamarack has installed on the aircraft.

We flew the aircraft for 21.3 hours on eleven different flights this month. The shortest flight was a small test hop from KAHN (Athens GA), to KDPK (DeKalb-Peachtree City, GA) (49 nm) and the longest was KCWA (Central Wisconsin) back to Tamaracks home at KSZT (Sandpoint, ID) (1128 nm).

During the short flight to DeKalb, we did a stall series, a series of steep turns, and I documented the slow flight characteristics that I could use flying our approach into DeKalb. The aircraft is very stable and predictable all the way into the .8-.9 AOA region and into the stick shaker. We attempted to accelerate the stall and note any "roll off" but there was none that we could induce. At our landing weight we computed 112 KIAS on final, but the aircraft flew .6 AOA at 96-97 KIAS. Our approach into DeKalb-Peachtree was slightly gusty with a 30° crosswind at 8 kts. We flew the .6 AOA approach at the resulting indicated airspeed and experienced a very solid, stable platform. Touch down was close to 90 KIAS and the rollout was short and sweet.

The real treat, though, was the long flight from Central Wisconsin back to the factory at Sandpoint, ID. Although ATC did not cooperate with a continuous climb to altitude, accounting for the level off delay I was able to climb the aircraft to FL410 in 27 minutes, burning 400 lbs. in the climb and traveling 157 air miles. I leveled the aircraft at FL 410 and proceeded to accelerate to .67M and 365 KTAS, even in the +7 ISA environment. Fuel flow was 610 lbs./hr. Importantly, what this demonstrated is the ability of the aircraft to accelerate rapidly due to the reduction in AOA at a corresponding indicated airspeed at high altitude. At speed, still at FL410 (with ATC knowledge of course) I disconnected both the autopilot and the yaw damper. Noting a slight out of trim condition due to rudder yaw damper inputs, I trimmed the aircraft; first rudder, then aileron, and was delighted to experience a very solid stable platform. Maneuvering the aircraft at altitude was straightforward and presented no surprises.

Descent into Sandpoint was accomplished with VNAV and resulted in an increase of indicated airspeed for the same power settings and fuel flow, attributable to a lower AOA for the same KIAS. Again, ATC did not cooperate with a constant descent, so a accurate comparison is difficult. Landing on runway 20 with a slight tailwind was again significantly slower on final at a rock solid .6 AOA and rollout was shorter than book numbers.

This aircraft truly is a pleasure to fly. The increase in performance and safety is significant. But hey, don't take my word for it. Tamarack has several aircraft around the country now and will gladly let you behind the wheel to see for yourself. Give Tamarack a call or bring up their website, I am sure they will get a demo flight scheduled for you.

Shawn Mack, Instructor USAF; approaching 22,000 hours; instructed aerobatics in Stearman, Luscombe, Citabria; C501SP, C525, C525A, C525B, B727, A319/320-APD, DC10, A330 acceptance pilot, B757/767; initial instructor cadre on the B878; T38 instructor, F-15 MR (mission ready), chief of flight test/QA F-15 Holloman AFB, A-10 MR pilot, F-16 MR Command Pilot.

Tamarack Aerospace Group CJ Performance Estimates

