Cessna Citation Jet (CJ4 or similar)

Quick Reference Guide

X-Plane 12



SECTION 1: TAKEOFF INFORMATION

Weights and Distances (Sea Level, ISA, Dry Runway)

- Maximum Takeoff Weight (MTOW): ~16,500 lbs
- Full Fuel Max Takeoff Distance (Ground Roll): ~3,300 ft
- Full Fuel Max Takeoff Distance (Over 50 ft obstacle): ~4,000 ft
- Half Weight Takeoff Distance (Ground Roll): ~2,000 ft
- Half Weight Takeoff Distance (Over 50 ft obstacle): ~2,800 ft

Takeoff Speeds

Phase	Speed (IAS)	Notes
V1 (Decision)	~100 KIAS	Varies by weight
VR (Rotate)	~104 KIAS	Smooth, steady pitch up
V2 (Safety Speed)	~115 KIAS	Target climb speed with one engine
Initial Climb	200 KIAS	Clean up gear/flaps and accelerate

SECTION 2: PERFORMANCE TABLES

Climb Performance (Cruise Climb)

Altitude	N1 (%)	Climb IAS (KIAS)	Rate of Climb (fpm)	Notes
SL-10,000	95	250	~3,000	
10,000-FL300	90	230	~2,000	Speed may reduce
FL300-FL450	87	0.64-0.70 Mach	~1,000	Climb by Mach above FL300

Cruise Settings

Altitude	N1 (%)	Mach	IAS (KIAS)	Fuel Burn (lb/hr/side)	Notes
FL300	89	0.70	~275	~400	Normal cruise
FL400	85	0.70	~250	~350	Long range cruise
FL450 (Max)	83	0.65	~220	~300	Economy cruise

Standard Cruise Altitudes:

• Typical: FL350–FL450

• Mach 0.64–0.72 depending on range/speed goals

DESCENT SETTINGS

Phase	Speed (KIAS/Mach)	N1 (%)	Notes
Cruise Descent	Mach $0.70 \rightarrow 0.64$	70	Reduce speed below FL300
Below FL300	250 KIAS	60	Use speed brakes as needed
Approach Config	180–200 KIAS	~45	Gear/flaps per approach phase

CIRCUIT / APPROACH OPERATIONS

Phase	Altitude AGL	Speed (KIAS)	Gear/Flap	Notes
Downwind	1,500 ft	180	Gear up / Flaps 0	
Abeam Numbers	1,500 ft	160	Gear down / Flaps 15	Start descent
Base Turn	1,200 ft	140-150	Flaps 30	
Final	500 ft	120-130	Flaps Full	Vref + 10
Touchdown	Ground	110-115	Full flaps	Target Vref

Flap Operating Speeds:

• Flaps 15: ≤ 200 KIAS

• Flaps 35 (Full): ≤ 160 KIAS

Landing Gear Speed:

• Gear Extension/Extended: ≤ 200 KIAS

Max Demonstrated Crosswind:

• 21 knots

EMERGENCY / SINGLE ENGINE

Best Glide Speed:

• ~130 KIAS

Single-Engine Climb:

• Vyse: ~125 KIAS

Single-Engine Landing

• Final: 120 KIAS

- Use Flaps 15–35 depending on runway length and approach stability
- Gear Down only when runway is assured

Engine Failure on Takeoff:

• V1 Decision: Continue or reject

• Positive climb: Gear up, accelerate to V2

• Identify/Verify/Feather inoperative engine

Note: All speeds and settings are approximations for X-Plane 12 default/modified CitationJet models and may vary by aircraft variant and environmental conditions.

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