



GUIDE TO OPERATING ECONOMICS



CITATION MUSTANG



Cessna

TEXTRON AVIATION

CITATION MUSTANG

INTRODUCTION

This *Guide to Operating Economics* is a tool for estimating the cost of operating a new, typically-equipped, Cessna Citation Mustang. The actual operating cost of an aircraft will vary according to mission profiles flown, types of airports used, maintenance practices, geographical location and utilization. Cost can be higher for optional items ordered with the aircraft.

OPERATING CHARACTERISTICS¹

Stage Length (nautical miles)	Altitude (feet)	Block Speed (knots)	Block Fuel Flow ² (US gal/hr)	Stage (kilometers)	Altitude (meters)	Block Speed (kilometers/hr)	Block Fuel Flow ² (liters/hr)
200	28,000	300	124	370	8,534	556	469
300	36,000	300	101	556	10,973	556	382
500	38,000	309	92	926	11,582	573	348
700	40,000	307	83	1,296	12,192	569	314
1,000	41,000	302	77	1,852	12,497	560	291

- Block speeds and block fuel flows are shown at high-speed cruise power for various stage lengths. Block speed includes the climb, cruise, and descent portion of the flight only. Block fuel flows include an allowance for taxi and takeoff. The cruise altitudes shown are typical flight levels for the specified stage lengths. Flight at lower altitudes will generally increase block speeds and fuel flows. Flight at higher altitudes or at reduced power settings will generally decrease block speeds and fuel flows.
- Block fuel flow includes 60 pounds (27 kilograms) of fuel for taxi/takeoff.

LABOR¹

	Year 1 (per hour)	Year 2 (per hour)	Year 3 (per hour)	Year 4 (per hour)	Year 5 (per hour)
Man-Hours ¹	0.2	0.2	0.4	0.3	0.3
Labor Dollars (\$117.00 shop rate)	\$23.40	\$23.40	\$46.80	\$35.10	\$35.10

- Man-hours for scheduled and unscheduled maintenance based on Cessna Service Center flat rates for inspections and the examination of historical maintenance records. These figures are averages based on a typical annual utilization of 300 flight hours and reflect the impact of warranty during the first five years. Maintenance man-hours per flight hour can vary depending on utilization, maintenance and operating practices, and location.

PARTS¹

Year 1 (per hour)	Year 2 (per hour)	Year 3 (per hour)	Year 4 (per hour)	Year 5 (per hour)
\$30.80	\$118.62	\$127.12	\$127.12	\$127.12

- Parts costs are based on Cessna's ProParts, a cost control program. ProParts covers all parts requirements for the aircraft, including consumables, unscheduled repairs, and avionics, for a fixed hourly rate. There may be additional charges of \$20.79 for each landing cycle in excess of one landing per flight hour. Transportation charges, labor, engine parts, fluids, and in-flight consumables are not included. All cost figures are shown in current U.S. dollars and do not reflect the annual CPI adjustment calculated at the beginning of each calendar year.

ENGINE RESERVES¹

Rate (per engine per hour)
\$84.69

- Engine reserves are based on Cessna's PowerAdvantage, a cost control program. PowerAdvantage covers parts requirements for hot sections, overhauls, unscheduled repairs, parts for routine maintenance, engine rental for overhaul and unscheduled events, parts for mandatory and recommended service bulletins. There may be additional charges of \$21.66 for each engine cycle in excess of one cycle per flight hour. Some consumables, optional service bulletins, transportation charges, life cycle fatigue items, any P&WC engine 'in shop' labor, any engine line maintenance labor or inspection labor and engine removal and installation labor are not included. All cost figures are shown in current U.S. dollars and do not reflect the annual CPI adjustment calculated at the beginning of each calendar year.

DIRECT OPERATING COST¹

Dollars per Flight Hour for an Average 500 Nautical Mile (926 Kilometer) Stage Length and 300 Hours Annual Utilization.

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Fuel (\$4.60 per US gallon) ²	\$423.20	\$423.20	\$423.20	\$423.20	\$423.20
Labor (\$117.00 shop rate)	\$23.40	\$23.40	\$46.80	\$35.10	\$35.10
Parts (ProParts)	\$30.80	\$118.62	\$127.12	\$127.12	\$127.12
Engine Reserves (PowerAdvantage)	\$169.38	\$169.38	\$169.38	\$169.38	\$169.38
Total Direct Cost per Hour	\$646.78	\$734.60	\$766.50	\$754.80	\$754.80
\$/nm (309 kt block speed)	\$2.09/nm	\$2.38/nm	\$2.48/nm	\$2.44/nm	\$2.44/nm
\$/km (573 km/hr block speed)	\$1.13/km	\$1.28/km	\$1.34/km	\$1.32/km	\$1.32/km

- All costs are shown in current dollars and do not reflect the impact of inflation. There may be other miscellaneous costs incurred on a per hour basis that are related to the operation of any aircraft. These costs are not shown due to their variability for each operator.
- Fuel price is based on nationwide surveys of FBO prices at the date of this publication and is subject to change without notice.

FIXED ANNUAL COST¹

Dollars per Year

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Personal (owner flown)	N/A	N/A	N/A	N/A	N/A
Hangar Rental (\$1,500 per month)	\$18,000	\$18,000	\$18,000	\$18,000	\$18,000
Hull Insurance ²	\$15,750	\$15,750	\$15,750	\$15,750	\$15,750
Liability & Medical Insurance ²	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
War Risk (hull and liability) ²	\$825	\$825	\$825	\$825	\$825
Initial / Recurrent Pilot Training	N/C	\$12,500	\$12,500	\$12,500	\$12,500
Total Fixed Cost per Year	\$37,575	\$50,075	\$50,075	\$50,075	\$50,075

- The fixed costs shown are based on recent national surveys and reflect average costs. All costs are shown in current dollars and do not reflect the impact of inflation. Other fixed costs may be incurred on a periodic basis. These costs are not shown due to their variability for each operator.
- Insurance rates assume the aircraft is flown by the owner who is a single pilot in good physical condition, takes annual recurrency training, and has a mid-level Proficiency Index score from Flight Safety International. Liability rates are for \$5 million coverage. War Risk rates are for \$5 million aggregate coverage and do not include coverage under the Federal Terrorism Risk Insurance Act of 2002. Rates and terms can vary significantly depending on pilot experience and the desired amount of coverage. Temporary operating restrictions (i.e. flying with a mentor pilot at the owner's expense) might also exist depending on pilot experience.

TOTAL ANNUAL BUDGET

Based on 300 Hours Annual Utilization

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Direct Cost (300 hours)	\$194,034	\$220,380	\$229,950	\$226,440	\$226,440
Fixed Cost	\$37,575	\$50,075	\$50,075	\$50,075	\$50,075
Total Annual Cost	\$231,609	\$270,455	\$280,025	\$276,515	\$276,515
\$/nm (92,700 nm)	\$2.50/nm	\$2.92/nm	\$3.02/nm	\$2.98/nm	\$2.98/nm
\$/km (171,900 km)	\$1.35/km	\$1.57/km	\$1.63/km	\$1.61/km	\$1.61/km



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