Challenger 300

Additional Information

economics

(Challenger 300)

HOURLY DIRECT OPERATING COSTS

– Fuel ($6.86 per gal): $1,982.54
– Maintenance labor (at $93 per hour): $114.17
– Parts, airframe, engine, avionics: $278.73
– Inspections, component overhauls, life limited parts: $336.87
– Engine restoration: $424.68
– APU overhaul: $50
– Misc. expenses
  Landing and parking fees: $41.46
  Crew expenses: $93
  Supplies & catering: $49

TOTAL VARIABLE FLIGHT COSTS PER HOUR: $3,370.45

Average speed: 419 knots
– Cost per nautical mile: $8.04

ANNUAL FIXED OPERATING COSTS

– Crew salaries (estimates)
  Captain: $135,000
  Copilot: $90,000
  Benefits: $67,500
– Hangar rental (typical): $57,600
– Insurance (insured hull value = $11.25 million)
  Hull (0.17% of value): $19,125
  Single limit liability: $16,500
– Recurrent crew training: $55,200
– Aircraft modernization (avg per year): $33,333
– Navigational chart service: $18,275
– Refurbishing: $78,120
– Computer maintenance program: $10,500
– Aviation weather service (typical): $700

TOTAL FIXED COST PER YEAR: $581,853

ANNUAL BUDGET–BASED ON 175,000 NM

(Utilization: 418 hours)
– Variable cost: $1,408,848
– Fixed cost: $581,853

TOTAL FIXED COST (WITHOUT DEPRECIATION): $1,990,701
  – Per hour: $4,762
  – Per nautical mile: $11.38
  – Per seat nautical mile: $1.42

Total cost (without depreciation): $1,990,701
– Book depreciation (10% per year): $1,125,000

TOTAL COST (WITH BOOK DEPRECIATION): $3,115,701
  – Per hour: $7,454
  – Per nautical mile: $17.80
  – Per seat nautical mile: $2.23

Total cost (without depreciation): $1,990,701
– Market depreciation: $450,000

TOTAL COST (WITH MARKET DEPRECIATION): $2,440,701
– Per hour: $5,839
– Per nautical mile: $13.95
– Per nautical seat mile: $1.74

Source: Conklin & de Decker, Orleans, Mass.

specifications

(Challenger 300)

CABIN DIMENSIONS

– Height: 6.08 ft
– Width: 7.17 ft
– Length: 28.6 ft
– Volume: 860 cu ft
– Door height: 6.22 ft
– Door width: 2.5 ft

BAGGAGE:

– Internal: 106 cu ft

TYPICAL SEATS CREW/PASSENGERS: 2/8

MAXIMUM WEIGHTS

– Takeoff: 38,850 lb
– Basic operating: 23,850 lb
– Usable fuel: 14,045 lb
– Maximum payload: 3,350 lb
– Payload with full fuel: 1,105 lb

performance

(Challenger 300)

RANGE (IFR/200 nm reserve)

– Seats full: 3,065 nm
– Ferry range: 3,340 nm

RATE OF CLIMB

– 4,240 fpm
– One engine not operating: 474 fpm

CRUISE SPEED

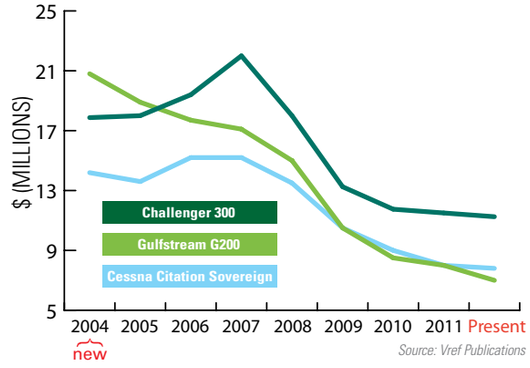
– Max: 476 kt
– Long range: 459 kt

SERVICE CEILING

– Both engines: 45,000 ft
– One engine: 27,800 ft

FAIR MARKET VALUE

price comparison of competitive aircraft



Source: Vref Publications

CHALLENGER 300 COMPARED WITH OTHER AIRCRAFT

Model	First year produced	Variable cost/hour	Seats exec/max	Range (nm)	Normal cruise (kt)	Max takeoff weight (lb)
Challenger 300	2004	$3,370	8/16	3,220	459	38,850
Gulfstream G200	2000	$3,079	8/18	3,394	459	35,450
Citation Sovereign	2004	3,278	9/12	2,920	446	30,300

Assumptions: Aircraft are 2004 models. Jet fuel $6.86gal; variable cost: fuel plus maintenance reserves; four passengers; NBAA IFR 200 nm reserve fuel; passenger weight 200 lb includes baggage; two pilots.

Cost source: Conklin & de Decker Life Cycle Cost

Performance source: Conklin & de Decker Aircraft Performance Comparator, Orleans, Mass.

SUPPORT & SERVICE | CHALLENGER 300 AND COMPETITORS

Model	Overall Average 2012	Overall Average 2011	Authorized Service Centers	Factory Service Centers	Parts Availability	Cost of Parts	Aircraft on the Ground Response	Warranty Fulfillment	Technical Manuals	Technical Reps	Aircraft Reliability
Bombardier Challenger	7.7	7.8	7.3	7.1	7.3	6.3	7.8	7.8	8.0	8.7	8.5
Cessna Citation	8.0	8.1	7.3	7.8	8.3	6.8	8.2	8.3	7.8	8.1	8.4
Gulfstream G200	7.6	7.8	7.4	6.9	7.5	5.3	7.9	8.9	7.4	8.0	8.3

Source: Aviation International News 2012 Product Support Survey
Rating scale – 1 to 10: 1-inadequate; 3-poor; 5.5-average; 8-good; 10-excellent.

Cost source: Conklin & de Decker Life Cycle Cost
Performance source: Conklin & de Decker Aircraft Performance Comparator, Orleans, Mass.