

CITATION CJ3



Flight Planning Guide

May 2006

TABLE OF CONTENTS

This Flight Planning Guide is published for the purpose of evaluating the performance of the Cessna Citation CJ3 (Model 525B). This guide is developed from data contained in the Citation CJ3 Aircraft Flight Manual and Operating Manual. **This document is not to be used in place of the FAA approved Aircraft Flight Manual or the Operating Manual.** The data included herein does not constitute an offer and is subject to change without notice.

Section	Page
Specifications	2
Takeoff Performance	
Decision, Rotation and Takeoff Safety Speeds	4
Takeoff Field Length - 15° Flaps	5
Takeoff Field Length - 0° Flaps	10
Climb Performance.....	15
Cruise Performance	
High Speed Cruise.....	16
Long Range Cruise.....	17
Descent Performance.....	18
Reserve Fuel Calculations	19
Holding Performance.....	19
Landing Performance	20
Stall Speeds	24
Mission Planning Table	25

SPECIFICATIONS

General

Certification Status	14 CFR Part 23 Commuter Category
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Engines

Manufacturer	Williams International	
Model	(2) FJ44-3A	
Thrust Output at S.L. (each)	2,820 lb	12.54 kN
Flat Rating Temperature	72 °F	22 °C
Overhaul Interval (TBO)	4,000 hours	

Exterior Dimensions

Length	50 ft 2 in	15.29 m
Height	15 ft 2 in	4.62 m
Wing Span	53 ft 4 in	16.26 m
Landing Gear Wheelbase	20 ft 0 in	6.10 m
Landing Gear Tread	16 ft 0 in	4.88 m

Internal Dimensions (with typical interior installed)

Length - overall	20 ft 7 in	6.27 m
Length - excluding cockpit	15 ft 8 in	4.78 m
Height	57 in	1.45 m
Width	58 in	1.47 m
Passenger Cabin Volume	283 ft ³	8.01 m ³

Accommodations

Passenger Seats - typical	6 - 8	
Baggage Capacity	69 ft ³	1.95 m ³
	1,100 lb	499 kg

Pressurization

Differential	8.9 psi	0.61 bar
Sea Level Cabin to	23,586 ft	7,189 m
8,000 Foot Cabin at	45,000 ft	13,716 m

Altitudes

Certified	45,000 ft	13,716 m
Service Ceiling - 1 Engine (MTOW)	26,250 ft	8,001 m
Typical Cruise Altitudes	FL 330 - 450	

SPECIFICATIONS

Basic Performance

Takeoff Distance, Sea Level, ISA, MTOW	3,180 ft	969 m
Landing Distance, Sea Level, ISA, MLW	2,770 ft	844 m
Rate of Climb - 2 Engines	4,478 ft/min	1,365 m/min
Rate of Climb - 1 Engine	1,090 ft/min	332 m/min
Typical Cruise Speeds	390-415 ktas	723-769 km/hr

Airspeed Limitations

Maximum Operating Limit	M 0.737 Indicated	
M _{MO} (29,300 ft / 8,931 m and above)		
V _{MO} (8,000 ft to 29,300 ft / 8,931 m)	278 KIAS	515 km/hr
V _{MO} (Below 8,000 ft / 2,438 m)	260 KIAS	482 km/hr
Maximum Flap Extended Speed (V _{FE})		
Partial Flaps – 15°	200 KIAS	371 km/hr
Full Flaps – 35°	161 KIAS	298 km/hr
Max Landing Gear Extended Speed (V _{LE})	250 KIAS	463 km/hr
Max Landing Gear Oper - Extending (V _{LO})	250 KIAS	463 km/hr
Max Landing Gear Oper - Retracting (V _{LO})	200 KIAS	371 km/hr
Max. Speed Brake Operation Speed (V _{SB})	No limit	No limit
Minimum Control Speed, Air - 15° (V _{MCA})	81 KIAS	150 km/hr
Minimum Control Speed, Ground (V _{MCG})	89 KIAS	165 km/hr

Certified Weights

Maximum Ramp Weight	14,070 lb	6,382 kg
Maximum Takeoff Weight	13,870 lb	6,291 kg
Maximum Landing Weight	12,750 lb	5,783 kg
Maximum Zero Fuel Weight	10,510 lb	4,767 kg
Maximum Fuel Capacity (6.7 lb/gal)	4,710 lb	2,136 kg

Basic Operating Weight

Typically-Equipped Empty Weight	8,300 lb	3,765 kg
Two Crew & Furnishings	400 lb	181 kg
Basic Operating Weight	8,700 lb	3,946 kg

Payload

Useful Payload and Fuel	5,370 lb	2,436 kg
Maximum Payload	1,810 lb	821 kg
Payload at Full Fuel	660 lb	300 kg

TAKEOFF PERFORMANCE

14 CFR Part 23 Commuter Category takeoff field lengths are shown on the following pages. Part 23 Commuter Category defines takeoff distance as the greater of accelerate-stop, accelerate-go with one engine inoperative, or 115% of the all engine takeoff distance to a point 35 feet above the runway. These factors are reflected in the takeoff field lengths presented.

Second segment climb limitations are presented at the bottom of each takeoff field length table. Second segment climb refers to the ability of the aircraft to meet certain climb rates after takeoff with one engine inoperative. Second segment climb limitations are a function of temperature, elevation and aircraft weight.

Two flap settings are shown for the aircraft: 15° and 0°. A flap setting of 15° is preferred to minimize runway length and runway speeds. In those situations where second segment climb requirements are too limiting for 15° of flaps, a 0° flap setting is available. A 0° flap setting requires greater runway length but provides equal or greater second segment climb capability.

A paved, level, dry runway with zero wind is assumed. Runway lengths shown are based on the aircraft's anti-ice systems being off and the cabin bleed air on.

DECISION, ROTATION & TAKEOFF SAFETY SPEEDS

Sea Level, Dry Runway, ISA, Zero Wind, Anti-Ice Off, KIAS

Takeoff Weight (lb)	15° Flap Setting			0° Flap Setting		
	Decision Speed	Rotation Speed	Safety Speed	Decision Speed	Rotation Speed	Safety Speed
	V₁	V_R	V₂	V₁	V_R	V₂
13,870	102	105	114	115	121	129
13,400	100	102	112	114	120	128
13,000	98	101	111	112	118	127
12,500	95	100	110	109	116	125
12,000	93	98	109	107	115	124
11,500	93	97	108	104	113	122
11,000	93	96	107	101	111	121
10,000	93	95	107	96	108	119

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 15° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = Sea Level								
Ambient Temp	----- Takeoff Weight (lb) -----							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
10 / 50	3,130	2,940	2,820	2,700	2,580	2,570	2,580	2,640
15 / 59	3,180	2,990	2,870	2,740	2,620	2,600	2,610	2,670
20 / 68	3,230	3,040	2,910	2,780	2,660	2,630	2,650	2,710
25 / 77	3,290	3,090	2,960	2,820	2,700	2,660	2,680	2,740
30 / 86	3,440	3,230	3,070	2,900	2,770	2,640	2,630	2,680
35 / 95	3,690	3,460	3,280	3,060	2,860	2,720	2,600	2,570
40 / 104	4,030	3,740	3,530	3,290	3,070	2,850	2,680	2,450
45 / 113	4,480	4,130	3,850	3,540	3,290	3,060	2,840	2,510
50 / 122	5,050	4,610	4,280	3,900	3,550	3,280	3,040	2,600
55 / 131	—	5,180	4,770	4,310	3,910	3,550	3,240	2,760
Climb Wght Temp Limits °C/°F	54/129	55/131	55/131	55/131	55/131	55/131	55/131	55/131
Field Length at Temp Limits (ft)	5,580	5,180	4,770	4,310	3,910	3,550	3,240	2,760

Elevation = 1,000 Feet								
Ambient Temp	----- Takeoff Weight (lb) -----							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
0 / 32	3,120	2,940	2,820	2,700	2,580	2,570	2,590	2,650
10 / 50	3,230	3,030	2,910	2,780	2,660	2,640	2,660	2,720
15 / 59	3,280	3,080	2,960	2,830	2,700	2,680	2,690	2,750
20 / 68	3,340	3,140	3,010	2,870	2,750	2,710	2,720	2,780
25 / 77	3,460	3,260	3,090	2,940	2,810	2,690	2,700	2,750
30 / 86	3,690	3,460	3,280	3,060	2,890	2,760	2,630	2,650
35 / 95	3,970	3,720	3,520	3,290	3,060	2,850	2,710	2,540
40 / 104	4,420	4,070	3,800	3,540	3,290	3,050	2,830	2,540
45 / 113	4,970	4,550	4,230	3,850	3,540	3,280	3,040	2,620
50 / 122	5,650	5,120	4,720	4,280	3,890	3,530	3,260	2,780
Climb Wght Temp Limits °C/°F	51/124	52/126	52/126	52/126	52/126	52/126	52/126	52/126
Field Length at Temp Limits (ft)	5,800	5,380	4,950	4,470	4,050	3,670	3,350	2,850

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 15° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = 2,000 Feet								
Ambient Temp	Takeoff Weight (lb)							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
0 / 32	3,230	3,030	2,910	2,790	2,660	2,640	2,660	2,720
10 / 50	3,330	3,140	3,010	2,870	2,750	2,720	2,730	2,790
15 / 59	3,400	3,190	3,060	2,920	2,790	2,750	2,770	2,820
20 / 68	3,520	3,300	3,130	2,990	2,850	2,740	2,750	2,800
25 / 77	3,710	3,480	3,300	3,080	2,930	2,790	2,690	2,730
30 / 86	3,970	3,720	3,520	3,280	3,060	2,880	2,750	2,630
35 / 95	4,350	4,020	3,790	3,530	3,290	3,050	2,840	2,570
40 / 104	4,890	4,490	4,180	3,820	3,540	3,290	3,040	2,650
45 / 113	5,550	5,050	4,670	4,250	3,860	3,530	3,270	2,790
50 / 122	—	5,750	5,270	4,740	4,280	3,880	3,510	2,980
Climb Wght Temp Limits °C/°F	48/118	50/122	50/122	50/122	50/122	50/122	50/122	50/122
Field Length at Temp Limits (ft)	6,030	5,750	5,270	4,740	4,280	3,880	3,510	2,980

Elevation = 3,000 Feet								
Ambient Temp	Takeoff Weight (lb)							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
-10 / 14	3,220	3,030	2,910	2,780	2,660	2,640	2,660	2,720
0 / 32	3,330	3,130	3,010	2,870	2,750	2,720	2,740	2,800
10 / 50	3,470	3,260	3,110	2,980	2,840	2,780	2,790	2,850
15 / 59	3,610	3,390	3,220	3,040	2,910	2,780	2,770	2,810
20 / 68	3,760	3,530	3,340	3,120	2,980	2,840	2,740	2,780
25 / 77	4,000	3,740	3,540	3,300	3,080	2,920	2,780	2,700
30 / 86	4,330	4,010	3,790	3,530	3,290	3,050	2,870	2,600
35 / 95	4,800	4,420	4,110	3,800	3,530	3,280	3,040	2,680
40 / 104	5,450	4,970	4,610	4,200	3,830	3,540	3,270	2,800
45 / 113	—	5,650	5,190	4,690	4,250	3,850	3,510	2,990
Climb Wght Temp Limits °C/°F	44/111	47/117	47/117	47/117	47/117	47/117	47/117	47/117
Field Length at Temp Limits (ft)	6,080	5,980	5,470	4,920	4,440	4,010	3,640	3,070

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 15° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = 4,000 Feet								
Ambient Temp	----- Takeoff Weight (lb) -----							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
-10 / 14	3,330	3,130	3,010	2,870	2,750	2,720	2,740	2,800
0 / 32	3,440	3,240	3,110	2,970	2,840	2,800	2,820	2,880
10 / 50	3,710	3,480	3,300	3,110	2,970	2,830	2,790	2,820
15 / 59	3,870	3,630	3,440	3,210	3,040	2,900	2,760	2,800
20 / 68	4,050	3,770	3,570	3,330	3,110	2,960	2,820	2,770
25 / 77	4,350	4,020	3,800	3,540	3,300	3,070	2,910	2,680
30 / 86	4,740	4,370	4,080	3,800	3,530	3,280	3,040	2,720
35 / 95	5,330	4,880	4,530	4,130	3,810	3,530	3,270	2,810
40 / 104	6,110	5,530	5,100	4,620	4,190	3,820	3,520	3,000
45 / 113	—	—	5,820	5,210	4,690	4,230	3,830	3,210
Climb Wght Temp Limits °C/°F	41/106	43/109	45/113	45/113	45/113	45/113	45/113	45/113
Field Length at Temp Limits (ft)	6,300	6,020	5,820	5,210	4,690	4,230	3,830	3,210

Elevation = 5,000 Feet								
Ambient Temp	----- Takeoff Weight (lb) -----							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
-10 / 14	3,440	3,230	3,110	2,970	2,830	2,810	2,820	2,880
0 / 32	3,650	3,430	3,250	3,090	2,950	2,820	2,830	2,880
5 / 41	3,810	3,580	3,390	3,170	3,020	2,890	2,810	2,840
10 / 50	3,990	3,730	3,530	3,290	3,100	2,960	2,820	2,810
15 / 59	4,180	3,880	3,670	3,430	3,190	3,020	2,880	2,780
20 / 68	4,380	4,050	3,820	3,560	3,320	3,100	2,950	2,760
25 / 77	4,750	4,370	4,100	3,820	3,550	3,290	3,060	2,750
30 / 86	5,270	4,830	4,490	4,110	3,820	3,540	3,280	2,840
35 / 95	5,980	5,440	5,030	4,570	4,150	3,810	3,520	3,000
40 / 104	—	6,250	5,720	5,140	4,640	4,200	3,820	3,220
Climb Wght Temp Limits °C/°F	37/99	40/104	42/108	42/108	42/108	42/108	42/108	42/108
Field Length at Temp Limits (ft)	6,340	6,250	6,040	5,400	4,860	4,380	3,960	3,310

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 15° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = 6,000 Feet									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000	
-10 / 14	3,600	3,380	3,230	3,080	2,940	2,860	2,870	2,920	
0 / 32	3,920	3,660	3,470	3,240	3,090	2,940	2,830	2,860	
5 / 41	4,110	3,830	3,620	3,380	3,160	3,020	2,870	2,830	
10 / 50	4,320	3,990	3,770	3,520	3,280	3,090	2,940	2,800	
15 / 59	4,530	4,180	3,930	3,660	3,410	3,170	3,010	2,770	
20 / 68	4,780	4,400	4,110	3,830	3,560	3,310	3,090	2,790	
25 / 77	5,200	4,780	4,450	4,110	3,820	3,540	3,280	2,880	
30 / 86	5,880	5,360	4,970	4,520	4,130	3,820	3,530	3,010	
35 / 95	—	6,120	5,620	5,070	4,580	4,160	3,810	3,230	
40 / 104	—	—	—	5,750	5,150	4,630	4,170	3,470	
Climb Wght Temp Limits °C/°F	34/93	37/99	39/102	40/104	40/104	40/104	40/104	40/104	
Field Length at Temp Limits (ft)	6,590	6,480	6,270	5,750	5,150	4,630	4,170	3,470	

Elevation = 7,000 Feet									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000	
-20 / -4	3,580	3,370	3,220	3,070	2,940	2,870	2,880	2,940	
-10 / 14	3,860	3,610	3,430	3,220	3,070	2,930	2,870	2,910	
0 / 32	4,240	3,920	3,710	3,460	3,230	3,080	2,930	2,850	
5 / 41	4,460	4,110	3,870	3,610	3,370	3,150	3,000	2,820	
10 / 50	4,690	4,320	4,040	3,770	3,500	3,260	3,070	2,790	
15 / 59	4,920	4,530	4,220	3,920	3,650	3,390	3,150	2,850	
20 / 68	5,240	4,810	4,480	4,130	3,840	3,560	3,300	2,920	
25 / 77	5,790	5,300	4,910	4,480	4,120	3,820	3,540	3,020	
30 / 86	6,670	6,030	5,550	5,020	4,550	4,160	3,810	3,240	
35 / 95	—	—	6,370	5,690	5,110	4,610	4,180	3,480	
Climb Wght Temp Limits °C/°F	31/88	33/91	35/95	37/99	37/99	37/99	37/99	37/99	
Field Length at Temp Limits (ft)	6,890	6,580	6,370	6,010	5,370	4,820	4,340	3,610	

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 15° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = 8,000 Feet									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000	
-20 / -4	3,840	3,600	3,410	3,220	3,070	2,930	2,870	2,920	
-10 / 14	4,180	3,870	3,670	3,420	3,220	3,060	2,920	2,890	
0 / 32	4,600	4,240	3,980	3,710	3,450	3,220	3,060	2,840	
5 / 41	4,840	4,460	4,160	3,870	3,600	3,350	3,140	2,840	
10 / 50	5,100	4,690	4,360	4,040	3,750	3,480	3,230	2,910	
15 / 59	5,360	4,910	4,570	4,200	3,910	3,630	3,360	2,970	
20 / 68	5,760	5,270	4,890	4,470	4,130	3,830	3,550	3,060	
25 / 77	6,520	5,920	5,470	4,960	4,510	4,140	3,820	3,250	
30 / 86	—	6,850	6,250	5,610	5,060	4,570	4,180	3,500	
35 / 95	—	—	—	6,460	5,740	5,130	4,610	3,810	
Climb Wght Temp Limits °C/°F	27/81	30/86	32/90	35/95	35/95	35/95	35/95	35/95	
Field Length at Temp Limits (ft)	6,930	6,850	6,640	6,460	5,740	5,130	4,610	3,810	

Elevation = 9,000 Feet									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000	
-20 / -4	4,150	3,850	3,650	3,410	3,210	3,060	2,920	2,900	
-10 / 14	4,530	4,180	3,930	3,660	3,410	3,210	3,050	2,880	
-5 / 23	4,750	4,380	4,090	3,810	3,550	3,300	3,130	2,860	
0 / 32	5,010	4,600	4,290	3,970	3,700	3,440	3,210	2,900	
5 / 41	5,280	4,840	4,510	4,150	3,850	3,580	3,320	2,970	
10 / 50	5,570	5,100	4,730	4,330	4,020	3,730	3,460	3,040	
15 / 59	5,880	5,370	4,980	4,540	4,200	3,890	3,610	3,110	
20 / 68	6,450	5,850	5,410	4,920	4,510	4,140	3,830	3,260	
25 / 77	—	6,710	6,150	5,530	5,000	4,550	4,170	3,510	
30 / 86	—	—	—	6,350	5,670	5,080	4,590	3,810	
Climb Wght Temp Limits °C/°F	24/75	26/79	29/84	31/88	32/90	32/90	32/90	32/90	
Field Length at Temp Limits (ft)	7,560	6,920	6,930	6,550	6,000	5,350	4,790	3,960	

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 0° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = Sea Level								
Ambient Temp	Takeoff Weight (lb)							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
10 / 50	3,870	3,650	3,500	3,330	3,160	3,000	2,840	2,560
15 / 59	3,950	3,720	3,560	3,380	3,210	3,040	2,890	2,600
20 / 68	4,030	3,790	3,620	3,440	3,260	3,090	2,940	2,640
25 / 77	4,100	3,860	3,680	3,490	3,310	3,140	2,980	2,690
30 / 86	4,250	3,990	3,790	3,590	3,410	3,230	3,060	2,750
35 / 95	4,470	4,200	3,990	3,750	3,550	3,350	3,170	2,840
40 / 104	4,790	4,510	4,280	4,000	3,740	3,500	3,310	2,950
45 / 113	5,190	4,840	4,590	4,280	4,000	3,730	3,470	3,060
50 / 122	5,690	5,290	4,960	4,590	4,280	3,990	3,710	3,200
55 / 131	—	5,760	5,400	4,970	4,570	4,250	3,950	3,390
Climb Wght Temp Limits °C/°F	54/129	55/131	55/131	55/131	55/131	55/131	55/131	55/131
Field Length at Temp Limits (ft)	6,110	5,760	5,400	4,970	4,570	4,250	3,950	3,390

Elevation = 1,000 Feet								
Ambient Temp	Takeoff Weight (lb)							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
0 / 32	3,870	3,650	3,500	3,320	3,150	3,000	2,840	2,560
10 / 50	4,020	3,780	3,620	3,430	3,260	3,090	2,940	2,640
15 / 59	4,100	3,860	3,680	3,490	3,310	3,140	2,980	2,690
20 / 68	4,190	3,930	3,740	3,550	3,370	3,200	3,030	2,730
25 / 77	4,320	4,050	3,850	3,640	3,450	3,270	3,100	2,790
30 / 86	4,520	4,240	4,010	3,780	3,580	3,390	3,210	2,880
35 / 95	4,790	4,500	4,280	4,000	3,740	3,530	3,330	2,980
40 / 104	5,150	4,840	4,590	4,290	4,010	3,740	3,480	3,090
45 / 113	5,670	5,260	4,940	4,600	4,290	4,000	3,720	3,220
50 / 122	6,220	5,770	5,400	4,970	4,600	4,280	3,970	3,420
Climb Wght Temp Limits °C/°F	51/124	52/126	52/126	52/126	52/126	52/126	52/126	52/126
Field Length at Temp Limits (ft)	6,340	5,980	5,590	5,150	4,730	4,390	4,080	3,500

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 0° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = 2,000 Feet								
Ambient Temp	----- Takeoff Weight (lb) -----							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
0 / 32	4,020	3,790	3,620	3,440	3,260	3,090	2,940	2,650
10 / 50	4,190	3,930	3,740	3,550	3,370	3,200	3,030	2,730
15 / 59	4,270	4,020	3,810	3,610	3,430	3,250	3,080	2,780
20 / 68	4,400	4,130	3,920	3,700	3,510	3,330	3,150	2,840
25 / 77	4,580	4,290	4,070	3,830	3,620	3,430	3,250	2,910
30 / 86	4,820	4,510	4,280	4,010	3,770	3,560	3,370	3,010
35 / 95	5,150	4,840	4,590	4,290	4,010	3,740	3,510	3,120
40 / 104	5,640	5,240	4,940	4,620	4,300	4,010	3,730	3,250
45 / 113	6,210	5,750	5,390	4,970	4,620	4,300	4,000	3,440
50 / 122	—	6,320	5,910	5,430	4,990	4,600	4,270	3,660
Climb Wght Temp Limits °C/°F	48/118	50/122	50/122	50/122	50/122	50/122	50/122	50/122
Field Length at Temp Limits (ft)	6,570	6,320	5,910	5,430	4,990	4,600	4,270	3,660

Elevation = 3,000 Feet								
Ambient Temp	----- Takeoff Weight (lb) -----							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
-10 / 14	4,020	3,780	3,620	3,430	3,250	3,090	2,930	2,640
0 / 32	4,180	3,930	3,740	3,550	3,370	3,200	3,030	2,730
10 / 50	4,380	4,110	3,900	3,680	3,490	3,310	3,140	2,830
15 / 59	4,520	4,240	4,020	3,780	3,580	3,400	3,220	2,890
20 / 68	4,680	4,380	4,150	3,880	3,680	3,480	3,300	2,960
25 / 77	4,890	4,570	4,320	4,040	3,810	3,610	3,410	3,050
30 / 86	5,150	4,850	4,600	4,300	4,020	3,760	3,540	3,160
35 / 95	5,590	5,210	4,940	4,620	4,310	4,020	3,740	3,280
40 / 104	6,170	5,730	5,370	4,970	4,630	4,310	4,010	3,450
45 / 113	—	6,300	5,900	5,430	4,980	4,620	4,290	3,680
Climb Wght Temp Limits °C/°F	44/111	47/117	47/117	47/117	47/117	47/117	47/117	47/117
Field Length at Temp Limits (ft)	6,850	6,550	6,130	5,630	5,170	4,750	4,410	3,780

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 0° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = 4,000 Feet								
Ambient Temp	Takeoff Weight (lb)							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
-10 / 14	4,180	3,930	3,740	3,550	3,370	3,190	3,030	2,730
0 / 32	4,360	4,090	3,880	3,670	3,480	3,300	3,140	2,820
10 / 50	4,650	4,350	4,120	3,860	3,660	3,470	3,290	2,950
15 / 59	4,810	4,500	4,260	3,980	3,760	3,560	3,370	3,020
20 / 68	4,970	4,650	4,400	4,100	3,860	3,650	3,460	3,090
25 / 77	5,220	4,870	4,630	4,330	4,050	3,800	3,580	3,200
30 / 86	5,570	5,220	4,950	4,630	4,320	4,030	3,750	3,320
35 / 95	6,120	5,690	5,330	4,970	4,630	4,310	4,010	3,460
40 / 104	7,130	6,260	5,870	5,400	4,980	4,630	4,300	3,700
45 / 113	—	—	6,470	5,940	5,450	4,990	4,620	3,950
Climb Wght Temp Limits °C/°F	41/106	43/109	45/113	45/113	45/113	45/113	45/113	45/113
Field Length at Temp Limits (ft)	7,380	6,650	6,470	5,940	5,450	4,990	4,620	3,950

Elevation = 5,000 Feet								
Ambient Temp	Takeoff Weight (lb)							
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000
-10 / 14	4,350	4,090	3,880	3,660	3,480	3,300	3,130	2,820
0 / 32	4,600	4,320	4,090	3,840	3,640	3,450	3,270	2,940
5 / 41	4,770	4,470	4,230	3,950	3,740	3,540	3,360	3,010
10 / 50	4,940	4,620	4,370	4,080	3,850	3,640	3,440	3,090
15 / 59	5,120	4,780	4,510	4,210	3,950	3,740	3,540	3,160
20 / 68	5,300	4,950	4,670	4,360	4,080	3,840	3,630	3,240
25 / 77	5,600	5,250	4,970	4,650	4,340	4,050	3,780	3,360
30 / 86	6,200	5,680	5,340	4,990	4,650	4,330	4,040	3,490
35 / 95	7,200	6,240	5,850	5,380	4,990	4,650	4,320	3,710
40 / 104	—	6,910	6,440	5,920	5,440	4,990	4,640	3,970
Climb Wght Temp Limits °C/°F	37/99	40/104	42/108	42/108	42/108	42/108	42/108	42/108
Field Length at Temp Limits (ft)	7,670	6,910	6,700	6,150	5,640	5,160	4,770	4,080

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 0° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = 6,000 Feet									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000	
-10 / 14	4,570	4,280	4,060	3,810	3,620	3,430	3,250	2,930	
0 / 32	4,900	4,580	4,330	4,050	3,820	3,620	3,430	3,070	
5 / 41	5,080	4,750	4,480	4,180	3,930	3,720	3,520	3,150	
10 / 50	5,270	4,910	4,640	4,320	4,050	3,820	3,610	3,230	
15 / 59	5,460	5,090	4,800	4,480	4,190	3,930	3,710	3,310	
20 / 68	5,680	5,290	5,000	4,680	4,370	4,080	3,820	3,400	
25 / 77	6,280	5,660	5,350	5,000	4,670	4,350	4,050	3,530	
30 / 86	7,270	6,220	5,830	5,380	5,010	4,670	4,340	3,730	
35 / 95	—	7,010	6,410	5,900	5,420	5,010	4,650	3,990	
40 / 104	—	—	—	6,490	5,950	5,450	4,990	4,270	
Climb Wght Temp Limits °C/°F	34/93	37/99	39/102	40/104	40/104	40/104	40/104	40/104	
Field Length at Temp Limits (ft)	8,260	7,480	6,940	6,490	5,950	5,450	4,990	4,270	

Elevation = 7,000 Feet									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000	
-20 / -4	4,550	4,270	4,050	3,800	3,610	3,420	3,240	2,920	
-10 / 14	4,860	4,550	4,300	4,020	3,800	3,600	3,410	3,060	
0 / 32	5,220	4,880	4,600	4,290	4,020	3,800	3,590	3,210	
5 / 41	5,420	5,050	4,770	4,440	4,140	3,910	3,690	3,300	
10 / 50	5,630	5,240	4,940	4,610	4,310	4,020	3,800	3,380	
15 / 59	5,880	5,430	5,120	4,790	4,480	4,180	3,900	3,470	
20 / 68	6,400	5,680	5,390	5,040	4,700	4,380	4,080	3,580	
25 / 77	7,330	6,200	5,810	5,400	5,030	4,690	4,360	3,750	
30 / 86	8,600	7,120	6,410	5,900	5,420	5,040	4,680	4,020	
35 / 95	—	—	7,080	6,500	5,960	5,460	5,030	4,300	
Climb Wght Temp Limits °C/°F	31/88	33/91	35/95	37/99	37/99	37/99	37/99	37/99	
Field Length at Temp Limits (ft)	8,900	7,850	7,080	6,760	6,190	5,670	5,180	4,430	

TAKEOFF PERFORMANCE

TAKEOFF FIELD LENGTH - 0° FLAPS

(Over 35 Foot Screen Height)

Dry Runway, Zero Wind, Anti-Ice Off, Cabin Bleed Air On

Elevation = 8,000 Feet									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000	
-20 / -4	4,840	4,530	4,290	4,010	3,790	3,590	3,400	3,050	
-10 / 14	5,180	4,840	4,570	4,260	3,990	3,780	3,580	3,200	
0 / 32	5,570	5,190	4,900	4,550	4,250	4,000	3,770	3,370	
5 / 41	5,830	5,390	5,080	4,730	4,430	4,130	3,880	3,450	
10 / 50	6,180	5,600	5,280	4,930	4,610	4,300	4,010	3,550	
15 / 59	6,660	5,810	5,490	5,130	4,790	4,470	4,160	3,640	
20 / 68	7,420	6,230	5,810	5,420	5,060	4,710	4,380	3,780	
25 / 77	8,620	7,190	6,380	5,880	5,430	5,050	4,690	4,040	
30 / 86	—	8,470	7,130	6,480	5,950	5,450	5,050	4,330	
35 / 95	—	—	—	7,170	6,560	6,000	5,480	4,650	
Climb Wght Temp Limits °C/°F	27/81	30/86	32/90	35/95	35/95	35/95	35/95	35/95	
Field Length at Temp Limits (ft)	9,200	8,470	7,620	7,170	6,560	6,000	5,480	4,650	

Elevation = 9,000 Feet									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	13,870	13,400	13,000	12,500	12,000	11,500	11,000	10,000	
-20 / -4	5,160	4,820	4,560	4,250	3,980	3,770	3,570	3,200	
-10 / 14	5,530	5,150	4,860	4,520	4,220	3,970	3,750	3,350	
-5 / 23	5,770	5,340	5,030	4,680	4,360	4,080	3,860	3,440	
0 / 32	6,120	5,550	5,220	4,870	4,540	4,240	3,970	3,530	
5 / 41	6,520	5,770	5,430	5,070	4,730	4,420	4,110	3,630	
10 / 50	7,060	6,000	5,660	5,290	4,930	4,600	4,280	3,730	
15 / 59	7,670	6,470	5,900	5,510	5,140	4,790	4,460	3,840	
20 / 68	8,670	7,290	6,370	5,870	5,460	5,080	4,720	4,060	
25 / 77	—	8,530	7,230	6,460	5,940	5,460	5,070	4,350	
30 / 86	—	—	—	7,160	6,550	6,000	5,480	4,670	
Climb Wght Temp Limits °C/°F	24/75	27/81	29/84	31/88	32/90	32/90	32/90	32/90	
Field Length at Temp Limits (ft)	9,870	9,130	8,260	7,310	6,830	6,240	5,700	4,820	

CLIMB PERFORMANCE

222 KIAS / M 0.56 CLIMB
ISA, Zero Wind, Anti-Ice Off

Time, Fuel, and Distance To Climb *							
Pressure Altitude (ft)		----- Takeoff Weight (lb) -----					
		13,870	13,000	12,000	11,000	10,000	9,000
15,000	Min	4	4	4	3	3	3
	Lb	163	151	138	126	113	101
	NM	17	16	14	13	12	10
25,000	Min	8	7	7	6	6	5
	Lb	281	260	237	215	194	173
	NM	36	33	30	28	25	22
31,000	Min	11	10	9	8	7	7
	Lb	353	326	297	268	241	215
	NM	52	48	44	39	35	31
33,000	Min	12	11	10	9	8	7
	Lb	376	347	315	285	255	227
	NM	58	54	49	44	39	35
35,000	Min	13	12	11	10	9	8
	Lb	399	368	334	301	270	240
	NM	65	60	54	48	43	38
37,000	Min	15	14	12	11	10	9
	Lb	425	391	354	319	285	253
	NM	73	67	60	54	48	42
39,000	Min	17	15	14	12	11	10
	Lb	454	416	375	337	301	267
	NM	83	75	67	60	53	47
41,000	Min	19	17	15	14	12	11
	Lb	488	445	399	358	319	282
	NM	95	86	76	67	60	52
43,000	Min	22	20	17	15	14	12
	Lb	530	478	427	380	337	297
	NM	112	99	87	76	67	58
45,000	Min	27	24	20	17	15	13
	Lb	591	523	460	406	358	314
	NM	139	119	101	88	76	66

* Based on the climb starting at sea level. Weight represents the aircraft weight at the start of the climb.

CRUISE PERFORMANCE

HIGH SPEED CRUISE

ISA, Anti-Ice Off

Cruise Speed & Fuel Flow							
Pressure Altitude (ft)		----- Cruise Weight (lb) -----					
		13,870	13,000	12,000	11,000	10,000	9,000
5,000	KTAS	279	279	279	279	279	279
	Lb/Hr	1,400	1,392	1,383	1,375	1,367	1,360
10,000	KTAS	317	317	317	317	317	317
	Lb/Hr	1,498	1,490	1,482	1,474	1,467	1,460
15,000	KTAS	341	341	341	341	341	341
	Lb/Hr	1,484	1,476	1,467	1,459	1,452	1,445
21,000	KTAS	374	374	374	374	374	374
	Lb/Hr	1,486	1,477	1,468	1,460	1,452	1,445
23,000	KTAS	386	386	386	386	386	386
	Lb/Hr	1,496	1,487	1,478	1,469	1,461	1,454
25,000	KTAS	398	398	398	398	398	398
	Lb/Hr	1,519	1,509	1,499	1,490	1,482	1,474
27,000	KTAS	410	410	410	410	410	410
	Lb/Hr	1,548	1,537	1,526	1,516	1,507	1,499
29,000	KTAS	413	415	416	417	418	419
	Lb/Hr	1,471	1,473	1,475	1,477	1,479	1,481
31,000	KTAS	413	414	416	417	418	419
	Lb/Hr	1,368	1,371	1,373	1,375	1,377	1,378
33,000	KTAS	413	414	416	417	419	419
	Lb/Hr	1,285	1,286	1,287	1,289	1,290	1,283
35,000	KTAS	411	413	415	415	415	415
	Lb/Hr	1,195	1,197	1,200	1,188	1,177	1,167
37,000	KTAS	408	411	413	413	413	413
	Lb/Hr	1,096	1,099	1,103	1,089	1,077	1,066
39,000	KTAS	404	407	409	412	413	413
	Lb/Hr	997	998	999	1,000	995	983
41,000	KTAS	395	400	404	407	410	412
	Lb/Hr	893	896	899	901	903	905
43,000	KTAS	385	390	396	400	404	408
	Lb/Hr	804	805	807	808	811	814
45,000	KTAS		374	384	391	397	401
	Lb/Hr		712	718	722	725	728

CRUISE PERFORMANCE

LONG RANGE CRUISE

ISA, Anti-Ice Off

Cruise Speed & Fuel Flow							
Pressure Altitude (ft)		----- Cruise Weight (lb) -----					
		13,870	13,000	12,000	11,000	10,000	9,000
5,000	KTAS	202	197	191	185	178	171
	Lb/Hr	896	850	800	750	701	650
10,000	KTAS	218	213	206	198	191	183
	Lb/Hr	854	812	761	711	662	614
15,000	KTAS	235	229	221	213	205	196
	Lb/Hr	825	781	731	683	635	586
21,000	KTAS	258	250	242	233	224	214
	Lb/Hr	791	748	698	650	602	554
23,000	KTAS	265	258	250	240	231	221
	Lb/Hr	780	739	690	641	594	546
25,000	KTAS	274	266	258	248	238	228
	Lb/Hr	771	729	683	634	586	539
27,000	KTAS	283	274	266	258	247	237
	Lb/Hr	759	715	670	625	578	531
29,000	KTAS	293	284	274	266	256	244
	Lb/Hr	747	703	655	612	565	518
31,000	KTAS	298	292	283	274	263	252
	Lb/Hr	724	689	644	599	553	507
33,000	KTAS	302	297	291	283	272	260
	Lb/Hr	702	670	632	590	545	499
35,000	KTAS	308	302	296	289	281	269
	Lb/Hr	689	651	614	576	536	491
37,000	KTAS	320	311	302	295	288	279
	Lb/Hr	690	646	600	562	525	486
39,000	KTAS	334	325	314	303	296	288
	Lb/Hr	699	654	602	554	516	479
41,000	KTAS	345	338	328	316	304	296
	Lb/Hr	705	661	611	559	511	472
43,000	KTAS	359	348	340	330	317	304
	Lb/Hr	723	665	616	567	515	466
45,000	KTAS		365	352	342	330	316
	Lb/Hr		689	626	573	521	470

DESCENT PERFORMANCE

HIGH SPEED & NORMAL DESCENT
ISA, Zero Wind, Anti-Ice Off,
Speed Brakes Retracted, Gear & Flaps Up

		Time, Fuel, and Distance To Descend *					
		High Speed – 3,000 FPM			Normal – 2,000 FPM		
Pressure Altitude (ft)		----- Start of Descent Weight (lb) -----			----- Start of Descent Weight (lb) -----		
		12,750	11,000	9,000	12,750	11,000	9,000
15,000	Min	6	6	5	8	8	8
	Lb	32	31	32	56	64	74
	NM	29	26	24	36	36	35
25,000	Min	10	9	8	13	13	13
	Lb	49	53	61	103	116	132
	NM	49	46	44	65	65	65
31,000	Min	12	11	10	16	16	16
	Lb	63	70	80	136	151	170
	NM	62	59	57	85	85	85
33,000	Min	12	12	11	17	17	17
	Lb	68	75	87	146	162	182
	NM	67	64	61	92	92	92
35,000	Min	13	12	12	18	18	18
	Lb	72	80	92	156	172	192
	NM	71	68	66	99	99	99
37,000	Min	14	13	12	19	19	19
	Lb	75	84	97	163	180	201
	NM	75	73	70	105	105	105
39,000	Min	14	14	13	20	20	20
	Lb	78	87	100	170	187	208
	NM	80	77	75	112	112	112
41,000	Min	15	14	14	21	21	21
	Lb	80	89	103	175	193	215
	NM	85	82	79	119	118	118
43,000	Min	16	15	14	22	22	22
	Lb	82	91	105	180	198	221
	NM	90	86	84	125	125	125
45,000	Min	17	16	15	23	23	23
	Lb	85	94	108	184	202	226
	NM	96	92	88	132	131	131

* Based on descending to sea level.

RESERVE FUEL

RESERVE FUEL ALLOWANCES

Based on 4 Passengers, ISA, Zero Wind

VFR Fuel Reserves (at 15,000 feet)

Day (30 minutes)	313 lb
Night (45 minutes)	475 lb

IFR Fuel Reserves (Alternate plus 45 minutes at 15,000 feet)

100 Nautical Mile Alternate	821 lb
200 Nautical Mile Alternate	1,060 lb
300 Nautical Mile Alternate	1,240 lb

NBAA IFR Reserves *

100 Nautical Mile Alternate	840 lb
200 Nautical Mile Alternate	1,077 lb
300 Nautical Mile Alternate	1,257 lb

*NBAA IFR Reserves are defined as the amount of fuel for the following profile:

- A 5 minute approach at sea level
- Climb to 5,000 feet
- A 5 minute hold at 5,000 feet
- Climb to cruise altitude for the diversion to the alternate airport
- Cruise at long range cruise power
- Descend to sea level
- Land with 30 minutes of holding fuel at 5,000 feet.

HOLDING PERFORMANCE

ISA, Anti-Ice Off, Speed Brakes Retracted, Gear & Flaps Up

Holding Speed & Fuel Flow								
Weight (lb)	KIAS	----- Pressure Altitude (ft) -----						
		S.L.	5,000	10,000	15,000	20,000	25,000	30,000
13,000	185	911	861	820	793	768	750	720
12,000	180	862	814	775	750	725	707	676
11,000	175	815	769	732	707	683	665	635
10,000	170	769	724	689	665	642	625	595
9,000	165	724	682	648	625	602	586	557

LANDING PERFORMANCE

LANDING DISTANCE - ACTUAL

(Distance from 50 Feet Above the Runway)

Flaps 35°, Dry Runway, Zero Wind, Anti-Ice On or Off

Elevation = Sea Level									
Ambient Temp	Landing Weight (lb)								
°C / °F	12,750	12,000	11,500	11,000	10,500	10,000	9,500	9,000	
0 / 32	2,650	2,540	2,470	2,400	2,340	2,270	2,210	2,150	
10 / 50	2,730	2,610	2,540	2,470	2,400	2,330	2,270	2,200	
15 / 59	2,770	2,650	2,580	2,500	2,430	2,370	2,300	2,230	
20 / 68	2,810	2,690	2,610	2,540	2,460	2,400	2,330	2,260	
25 / 77	2,850	2,720	2,640	2,570	2,500	2,420	2,360	2,290	
30 / 86	2,880	2,760	2,680	2,600	2,530	2,460	2,390	2,320	
35 / 95	2,920	2,800	2,710	2,630	2,560	2,490	2,410	2,350	
40 / 104	2,960	2,830	2,750	2,670	2,590	2,520	2,440	2,380	
45 / 113	3,000	2,870	2,780	2,700	2,620	2,550	2,470	2,400	
50 / 122	3,040	2,900	2,820	2,730	2,650	2,580	2,500	2,430	
Lndg Wght Temp Limits °C/°F	54/129	54/129	54/129	54/129	54/129	54/129	54/129	54/129	54/129
V _{REF} (KIAS)	108	105	103	101	99	97	95	93	

Elevation = 1,000 Feet									
Ambient Temp	Landing Weight (lb)								
°C / °F	12,750	12,000	11,500	11,000	10,500	10,000	9,500	9,000	
0 / 32	2,730	2,610	2,540	2,470	2,400	2,330	2,270	2,200	
10 / 50	2,810	2,690	2,610	2,540	2,460	2,400	2,330	2,260	
15 / 59	2,850	2,730	2,650	2,570	2,500	2,430	2,360	2,290	
20 / 68	2,890	2,760	2,680	2,600	2,530	2,460	2,390	2,320	
25 / 77	2,930	2,800	2,720	2,640	2,560	2,490	2,420	2,350	
30 / 86	2,970	2,840	2,750	2,670	2,600	2,520	2,450	2,380	
35 / 95	3,010	2,870	2,790	2,710	2,630	2,550	2,480	2,410	
40 / 104	3,050	2,910	2,820	2,740	2,660	2,590	2,510	2,440	
45 / 113	3,090	2,950	2,860	2,780	2,690	2,620	2,540	2,470	
50 / 122	3,130	2,990	2,900	2,810	2,730	2,650	2,570	2,490	
Lndg Wght Temp Limits °C/°F	52/126	52/126	52/126	52/126	52/126	52/126	52/126	52/126	52/126
V _{REF} (KIAS)	108	105	103	101	99	97	95	93	

LANDING PERFORMANCE

LANDING DISTANCE - ACTUAL

(Distance from 50 Feet Above the Runway)

Flaps 35°, Dry Runway, Zero Wind, Anti-Ice On or Off

Elevation = 2,000 Feet									
Ambient Temp	----- Landing Weight (lb) -----								
°C / °F	12,750	12,000	11,500	11,000	10,500	10,000	9,500	9,000	
0 / 32	2,810	2,690	2,610	2,540	2,460	2,400	2,330	2,260	
10 / 50	2,890	2,760	2,680	2,600	2,530	2,460	2,390	2,320	
15 / 59	2,930	2,800	2,720	2,640	2,570	2,490	2,420	2,350	
20 / 68	2,970	2,840	2,760	2,680	2,600	2,530	2,450	2,380	
25 / 77	3,020	2,880	2,800	2,710	2,630	2,560	2,480	2,410	
30 / 86	3,060	2,920	2,830	2,750	2,670	2,590	2,520	2,440	
35 / 95	3,100	2,960	2,870	2,790	2,700	2,620	2,550	2,470	
40 / 104	3,140	3,000	2,910	2,820	2,740	2,660	2,580	2,500	
45 / 113	3,180	3,030	2,940	2,850	2,770	2,690	2,610	2,530	
50 / 122	3,230	3,070	2,980	2,890	2,800	2,720	2,640	2,560	
Lndg Wght Temp Limits °C/°F	50/122	50/122	50/122	50/122	50/122	50/122	50/122	50/122	50/122
V _{REF} (KIAS)	108	105	103	101	99	97	95	93	

Elevation = 3,000 Feet									
Ambient Temp	----- Landing Weight (lb) -----								
°C / °F	12,750	12,000	11,500	11,000	10,500	10,000	9,500	9,000	
-10 / 14	2,810	2,680	2,600	2,530	2,460	2,390	2,320	2,260	
0 / 32	2,890	2,760	2,680	2,600	2,530	2,460	2,390	2,320	
10 / 50	2,980	2,840	2,760	2,680	2,600	2,530	2,450	2,390	
15 / 59	3,020	2,880	2,800	2,720	2,640	2,560	2,490	2,410	
20 / 68	3,060	2,930	2,840	2,750	2,670	2,600	2,520	2,450	
25 / 77	3,110	2,970	2,880	2,790	2,710	2,630	2,550	2,480	
30 / 86	3,150	3,010	2,920	2,830	2,740	2,660	2,590	2,510	
35 / 95	3,200	3,050	2,950	2,860	2,780	2,700	2,620	2,540	
40 / 104	3,240	3,090	2,990	2,900	2,810	2,730	2,650	2,570	
45 / 113	3,280	3,130	3,030	2,940	2,850	2,770	2,680	2,600	
Lndg Wght Temp Limits °C/°F	47/117	47/117	47/117	47/117	47/117	47/117	47/117	47/117	47/117
V _{REF} (KIAS)	108	105	103	101	99	97	95	93	

LANDING PERFORMANCE

LANDING DISTANCE - ACTUAL

(Distance from 50 Feet Above the Runway)

Flaps 35°, Dry Runway, Zero Wind, Anti-Ice On or Off

Elevation = 4,000 Feet									
Ambient Temp	Landing Weight (lb)								
°C / °F	12,750	12,000	11,500	11,000	10,500	10,000	9,500	9,000	
-10 / 14	2,890	2,760	2,680	2,600	2,530	2,460	2,390	2,320	
0 / 32	2,980	2,850	2,760	2,680	2,600	2,530	2,460	2,390	
10 / 50	3,070	2,930	2,840	2,760	2,680	2,600	2,520	2,450	
15 / 59	3,110	2,970	2,880	2,800	2,710	2,630	2,560	2,480	
20 / 68	3,160	3,020	2,920	2,830	2,750	2,670	2,590	2,510	
25 / 77	3,210	3,060	2,960	2,870	2,790	2,710	2,620	2,550	
30 / 86	3,250	3,100	3,000	2,910	2,820	2,740	2,660	2,580	
35 / 95	3,300	3,140	3,040	2,950	2,860	2,780	2,690	2,610	
40 / 104	3,340	3,180	3,080	2,990	2,900	2,810	2,730	2,640	
45 / 113	3,390	3,230	3,120	3,020	2,930	2,840	2,760	2,670	
Lndg Wght Temp Limits °C/°F	45/113	45/113	45/113	45/113	45/113	45/113	45/113	45/113	
V _{REF} (KIAS)	108	105	103	101	99	97	95	93	

Elevation = 5,000 Feet									
Ambient Temp	Landing Weight (lb)								
°C / °F	12,750	12,000	11,500	11,000	10,500	10,000	9,500	9,000	
-10 / 14	2,980	2,840	2,760	2,680	2,600	2,530	2,450	2,390	
0 / 32	3,070	2,930	2,840	2,760	2,680	2,600	2,530	2,450	
5 / 41	3,120	2,980	2,890	2,800	2,720	2,640	2,560	2,480	
10 / 50	3,170	3,020	2,930	2,840	2,760	2,670	2,600	2,520	
15 / 59	3,210	3,060	2,970	2,880	2,790	2,710	2,630	2,550	
20 / 68	3,260	3,110	3,010	2,920	2,830	2,750	2,660	2,590	
25 / 77	3,310	3,150	3,050	2,960	2,870	2,780	2,700	2,620	
30 / 86	3,360	3,200	3,090	3,000	2,910	2,820	2,740	2,650	
35 / 95	3,400	3,240	3,140	3,040	2,950	2,860	2,770	2,690	
40 / 104	3,450	3,280	3,180	3,080	2,980	2,890	2,810	2,720	
Lndg Wght Temp Limits °C/°F	42/108	42/108	42/108	42/108	42/108	42/108	42/108	42/108	
V _{REF} (KIAS)	108	105	103	101	99	97	95	93	

LANDING PERFORMANCE

LANDING DISTANCE - ACTUAL

(Distance from 50 Feet Above the Runway)

Flaps 35°, Dry Runway, Zero Wind, Anti-Ice On or Off

Elevation = 6,000 Feet									
Ambient Temp	----- Landing Weight (lb) -----								
°C / °F	12,750	12,000	11,500	11,000	10,500	10,000	9,500	9,000	
-10 / 14	3,070	2,930	2,840	2,760	2,680	2,600	2,530	2,450	
0 / 32	3,170	3,020	2,930	2,840	2,760	2,680	2,600	2,520	
5 / 41	3,220	3,070	2,970	2,880	2,800	2,710	2,630	2,560	
10 / 50	3,270	3,110	3,020	2,930	2,840	2,750	2,670	2,590	
15 / 59	3,320	3,160	3,060	2,970	2,880	2,790	2,710	2,620	
20 / 68	3,370	3,210	3,100	3,010	2,920	2,830	2,740	2,660	
25 / 77	3,420	3,250	3,150	3,050	2,960	2,870	2,780	2,690	
30 / 86	3,460	3,300	3,190	3,090	3,000	2,900	2,810	2,730	
35 / 95	3,510	3,340	3,230	3,130	3,030	2,940	2,850	2,760	
40 / 104	3,570	3,390	3,280	3,170	3,070	2,980	2,890	2,800	
Lndg Wght Temp Limits °C/°F	40/104	40/104	40/104	40/104	40/104	40/104	40/104	40/104	40/104
V _{REF} (KIAS)	108	105	103	101	99	97	95	93	

Elevation = 7,000 Feet									
Ambient Temp	----- Landing Weight (lb) -----								
°C / °F	12,750	12,000	11,500	11,000	10,500	10,000	9,500	9,000	
-20 / -4	3,070	2,930	2,840	2,760	2,680	2,600	2,520	2,450	
-10 / 14	3,170	3,020	2,930	2,840	2,760	2,680	2,600	2,520	
0 / 32	3,270	3,120	3,020	2,930	2,840	2,760	2,670	2,590	
5 / 41	3,320	3,170	3,060	2,970	2,880	2,800	2,710	2,630	
10 / 50	3,370	3,210	3,110	3,020	2,920	2,830	2,750	2,660	
15 / 59	3,430	3,260	3,160	3,060	2,960	2,870	2,790	2,700	
20 / 68	3,480	3,310	3,200	3,100	3,010	2,910	2,820	2,740	
25 / 77	3,530	3,360	3,250	3,140	3,040	2,950	2,860	2,770	
30 / 86	3,580	3,400	3,290	3,190	3,090	2,990	2,900	2,810	
35 / 95	3,640	3,450	3,340	3,230	3,130	3,030	2,940	2,840	
Lndg Wght Temp Limits °C/°F	37/99	37/99	37/99	37/99	37/99	37/99	37/99	37/99	37/99
V _{REF} (KIAS)	108	105	103	101	99	97	95	93	

LANDING PERFORMANCE

LANDING DISTANCE - ACTUAL

(Distance from 50 Feet Above the Runway)

Flaps 35°, Dry Runway, Zero Wind, Anti-Ice On or Off

Elevation = 8,000 Feet									
Ambient Temp	Landing Weight (lb)								
°C / °F	12,750	12,000	11,500	11,000	10,500	10,000	9,500	9,000	
-20 / -4	3,170	3,020	2,930	2,840	2,760	2,670	2,600	2,520	
-10 / 14	3,270	3,120	3,020	2,930	2,840	2,760	2,670	2,600	
0 / 32	3,380	3,220	3,120	3,020	2,930	2,840	2,750	2,670	
5 / 41	3,430	3,270	3,160	3,060	2,970	2,880	2,790	2,710	
10 / 50	3,480	3,320	3,210	3,110	3,010	2,920	2,830	2,740	
15 / 59	3,540	3,370	3,260	3,150	3,050	2,960	2,870	2,780	
20 / 68	3,600	3,420	3,300	3,200	3,100	3,000	2,910	2,820	
25 / 77	3,650	3,460	3,350	3,240	3,140	3,040	2,950	2,850	
30 / 86	3,700	3,520	3,400	3,290	3,180	3,080	2,990	2,890	
35 / 95	3,760	3,570	3,450	3,330	3,230	3,120	3,020	2,930	
Lndg Wght Temp Limits °C/°F	35/95	35/95	35/95	35/95	35/95	35/95	35/95	35/95	35/95
V _{REF} (KIAS)	108	105	103	101	99	97	95	93	

STALL SPEEDS

Zero Angle of Bank, Landing Gear Up or Down, KCAS

Weight (lb)	Stall Speeds		
	Flap Position		
	Land	15°	0°
13,870	86	94	102
13,200	84	92	100
12,600	82	89	97
12,000	80	87	95
11,000	78	84	91
10,000	75	80	87
9,000	72	77	83

MISSION PLANNING

CRITERIA

The following mission planning table provides flight time and fuel burn statistics for selected distances and altitudes.

Flight time represents the time for the climb, cruise and descent portion of the mission. No allowance has been added for taxi, takeoff, approach, or ATC procedures. Fuel burn represents the total amount of fuel consumed for taxi, takeoff, climb, cruise, and descent. There is a taxi and takeoff allowance of 100 pounds of fuel included in all fuel burn figures. NBAA IFR fuel reserves (100 nm) are considered in each case but are not included in the fuel burn figure.

The mission planning table reflects the climb schedule of 222 knots / M 0.56, high-speed cruise, and high-speed descent schedules. Standard day conditions are assumed with zero wind enroute. The effects of wind can be determined from the wind correction factors table below. Apply the wind correction factor to the zero wind flight time and fuel burn to estimate the impact of wind.

Typical cruise altitudes for various distances are:

<u>Distance (nm)</u>	<u>Typical Cruise Altitude (ft)</u>
0 - 99	6,000 - 14,000
100 - 199	15,000 - 28,000
200 - 299	29,000 - 35,000
300 - 499	35,000 - 39,000
500 - 999	39,000 - 43,000
1000 +	41,000 - 45,000

Wind Correction Factors *									
True Airspeed (kt)	----- Headwinds (kt) -----					----- Tailwinds (kt) -----			
	100	75	50	25	0	25	50	75	100
300	1.50	1.33	1.20	1.09	1.00	0.92	0.86	0.80	0.75
320	1.45	1.31	1.18	1.08	1.00	0.93	0.86	0.81	0.76
340	1.42	1.28	1.17	1.08	1.00	0.93	0.87	0.82	0.77
360	1.38	1.26	1.16	1.07	1.00	0.93	0.88	0.83	0.78
380	1.36	1.25	1.15	1.07	1.00	0.94	0.88	0.84	0.79
400	1.33	1.23	1.14	1.06	1.00	0.94	0.89	0.84	0.80
420	1.31	1.22	1.13	1.06	1.00	0.94	0.89	0.85	0.81

* Wind Correction Factor is calculated as KTAS divided by the sum of KTAS ± wind component

MISSION PLANNING

FLIGHT TIME & FUEL BURN

Dist (nm)	Cruise Altitude (ft)									
	25,000		29,000		31,000		33,000		35,000	
	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)
100	0:19	467	0:19	450						
200	0:34	845	0:34	808	0:33	780	0:34	751	0:34	726
300	0:49	1,225	0:48	1,168	0:48	1,114	0:49	1,064	0:49	1,016
400	1:05	1,606	1:02	1,528	1:02	1,448	1:03	1,378	1:03	1,307
500	1:20	1,987	1:17	1,888	1:17	1,782	1:18	1,692	1:18	1,599
600	1:35	2,368	1:31	2,247	1:32	2,117	1:32	2,007	1:32	1,892
700	1:49	2,751	1:46	2,607	1:46	2,453	1:47	2,321	1:47	2,186
800	2:05	3,134	2:00	2,967	2:01	2,788	2:01	2,636	2:01	2,481
900	2:20	3,518	2:15	3,326	2:15	3,124	2:16	2,951	2:16	2,776
1,000					2:30	3,460	2:30	3,267	2:30	3,073
1,100							2:45	3,583	2:45	3,371
1,200										
1,300										
1,400										
1,500										
1,600										
1,700										

Assumptions:

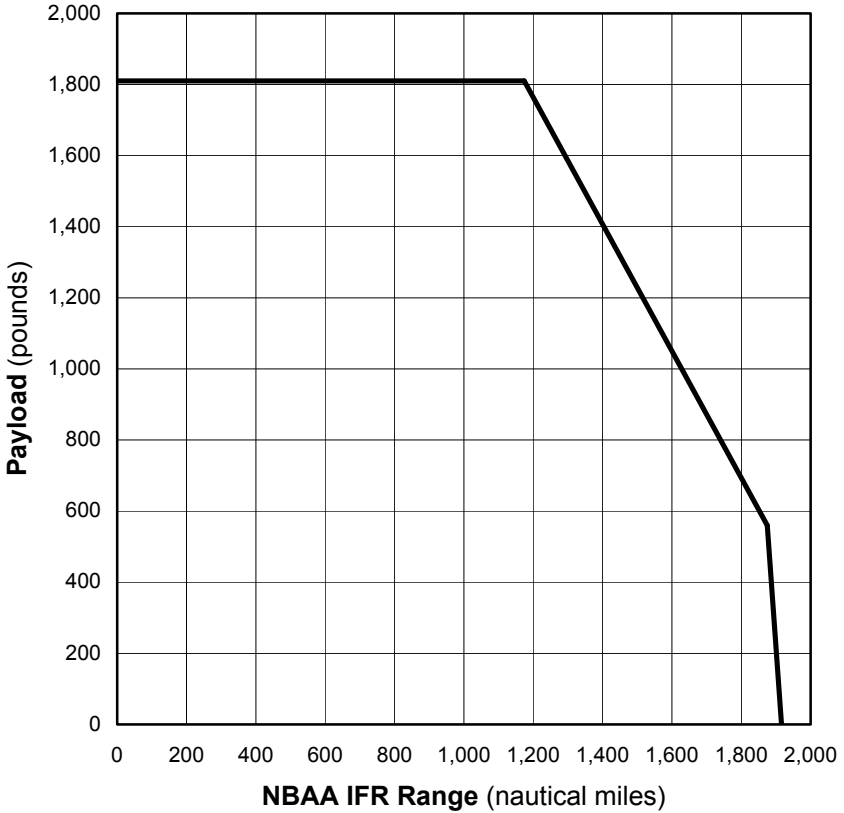
- 222 KIAS / M 0.56 climb
- High-speed cruise
- High-speed descent
- ISA, zero winds enroute
- Flight time includes climb, cruise and descent
- Fuel burn includes 100 pounds for taxi and takeoff
- Four passengers @ 200 pounds each
- NBAA IFR Reserves – 100 nm (840 lb) Reserves are not included in the fuel burn figures

FOR SELECTED DISTANCES

----- Cruise Altitude (ft) -----										
37,000		39,000		41,000		43,000		45,000		Dist (nm)
Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	
										100
0:34	700	0:35	681	0:36	664	0:36	651	0:36	641	200
0:49	968	0:50	928	0:50	890	0:50	857	0:51	830	300
1:04	1,237	1:05	1,176	1:05	1,116	1:06	1,064	1:07	1,019	400
1:18	1,507	1:19	1,424	1:20	1,342	1:21	1,271	1:22	1,210	500
1:33	1,777	1:34	1,673	1:34	1,569	1:36	1,479	1:38	1,400	600
1:48	2,049	1:49	1,922	1:49	1,796	1:51	1,686	1:53	1,591	700
2:02	2,321	2:03	2,171	2:04	2,023	2:06	1,895	2:09	1,783	800
2:17	2,594	2:18	2,421	2:19	2,251	2:21	2,104	2:25	1,974	900
2:32	2,868	2:33	2,671	2:34	2,479	2:37	2,313	2:41	2,167	1,000
2:46	3,144	2:48	2,922	2:49	2,708	2:52	2,523	2:57	2,359	1,100
3:01	3,421	3:03	3,173	3:04	2,937	3:08	2,733	3:12	2,552	1,200
		3:18	3,424	3:19	3,166	3:23	2,944	3:28	2,746	1,300
				3:34	3,396	3:38	3,155	3:44	2,941	1,400
				3:50	3,626	3:54	3,367	4:00	3,136	1,500
						4:09	3,579	4:16	3,332	1,600
								4:31	3,545	1,700

MISSION PLANNING

RANGE / PAYLOAD CAPABILITY
NBAA IFR Reserves (100 nm), ISA,
Zero Wind, High-Speed Cruise



Assumptions:
Two crew
Cruise at FL 450



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