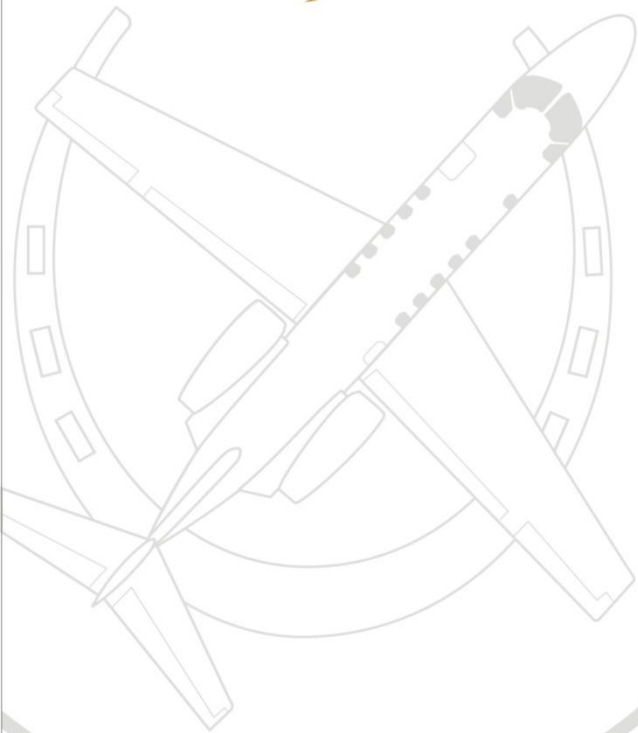


CITATION  
CJ4



# Flight Planning Guide

September 2012



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This Flight Planning Guide is published for the purpose of evaluating the performance of the Cessna Citation CJ4 (Model 525C). This guide is developed from data contained in the Citation CJ4 Aircraft Flight Manual and Electronic Operating Manual. **This document is not to be used in place of the FAA approved Aircraft Flight Manual or the Electronic Operating Manual.** The data included herein does not constitute an offer and is subject to change without notice.

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## **SPECIFICATIONS**

### General

Certification Status 14 CFR Part 23 Commuter Category

### Engines

Manufacturer	Williams International	
Model	(2) FJ44-4A	
Thrust Output at S.L. (each)	3,621 lb	16.11 kN
Flat Rating Temperature	79 °F	26 °C
Overhaul Interval (TBO)	5,000 hours	

### Exterior Dimensions

Length	53 ft 4 in	16.26 m
Height	15 ft 4 in	4.67 m
Wing Span	50 ft 10 in	15.49 m
Landing Gear Wheelbase	21 ft 2 in	6.45 m
Landing Gear Tread	12 ft 4 in	3.76 m

### Internal Dimensions (with typical interior installed)

Length - overall	22 ft 4 in	6.81 m
Length - excluding cockpit	17 ft 4 in	5.28 m
Height	57 in	1.45 m
Width	58 in	1.47 m
Passenger Cabin Volume	311 ft <sup>3</sup>	8.81 m <sup>3</sup>

### Accommodations

Passenger Seats - typical	8 - 9	
Baggage Capacity	77 ft <sup>3</sup>	2.18 m <sup>3</sup>
	1,040 lb	472 kg

### Pressurization

Differential	9.0 psi	0.62 bar
Sea Level Cabin to	23,984 ft	7,310 m
Cabin Altitude at Certified Ceiling (45,000 ft)	7,800 ft	2,377 m

### Altitudes

Certified Ceiling	45,000 ft	13,716 m
Service Ceiling - 1 Engine (MTOW)	28,200 ft	8,595 m
Typical Cruise Altitudes	FL 350 - 430	

## SPECIFICATIONS

### Basic Performance

Takeoff Distance, Sea Level, ISA, MTOW	3,190 ft	972 m
Landing Distance, Sea Level, ISA, MLW	2,740 ft	835 m
Rate of Climb - 2 Engines	3,854 ft/min	1,175 m/min
Rate of Climb - 1 Engine	1,248 ft/min	380 m/min
Typical Cruise Speeds	420-445 ktas	778-825 km/hr

### Airspeed Limitations

Maximum Operating Limit	M 0.77 Indicated	
M <sub>MO</sub> (27,884 ft / 8,499 m and above)		
V <sub>MO</sub> (8,000 ft to 27,884 ft / 8,499 m)	305 KIAS	565 km/hr
V <sub>MO</sub> (Sea Level to 8,000 ft / 2,438 m)	260 KIAS	482 km/hr
Maximum Flap Extended Speed (V <sub>FE</sub> )		
Takeoff & Approach Position (15°)	200 KIAS	371 km/hr
Land Position (35°)	160 KIAS	297 km/hr
Max Landing Gear Extended Speed (V <sub>LE</sub> )	200 KIAS	371 km/hr
Max Landing Gear Oper - Extending (V <sub>LO</sub> )	200 KIAS	371 km/hr
Max Landing Gear Oper - Retracting (V <sub>LO</sub> )	200 KIAS	371 km/hr
Max. Speed Brake Operation Speed (V <sub>SB</sub> )	No limit	No limit
Minimum Control Speed, Air (V <sub>MCA</sub> )		
Flaps - 0°	94 KIAS	174 km/hr
Flaps - 15°	85 KIAS	158 km/hr
Minimum Control Speed, Ground (V <sub>MCG</sub> )	88 KIAS	163 km/hr

### Certified Weights

Maximum Ramp Weight	17,230 lb	7,815 kg
Maximum Takeoff Weight	17,110 lb	7,761 kg
Maximum Landing Weight	15,660 lb	7,103 kg
Maximum Zero Fuel Weight	12,500 lb	5,670 kg
Maximum Fuel Capacity (6.7 lb/gal)	5,828 lb	2,644 kg

### Basic Operating Weight

Typically-Equipped Empty Weight	9,950 lb	4,513 kg
2 Crew & Stores	400 lb	181 kg
Basic Operating Weight (BOW)	10,350 lb	4,694 kg

### Payload

Useful Payload and Fuel	6,880 lb	3,121 kg
Maximum Payload	2,150 lb	975 kg
Payload at Full Fuel	1,052 lb	477 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)	Flaps 15° Setting			Flaps 0° Setting		
	Decision Speed	Rotation Speed	Safety Speed	Decision Speed	Rotation Speed	Safety Speed
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>
17,110	103	104	117	112	115	128
16,500	100	102	115	110	114	127
16,000	98	100	113	109	113	126
15,500	96	99	112	107	112	125
15,000	94	97	111	106	111	125
14,000	93	95	109	103	109	124
13,000	93	95	110	101	108	123
12,000	93	96	111	98	107	123

## TAKEOFF PERFORMANCE

### TAKEOFF FIELD LENGTH - FLAPS 15°

(Over 35 Foot Screen Height)

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

<b>Elevation = Sea Level</b>									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
0 / 32	3,020	2,810	2,670	2,550	2,430	2,350	2,340	2,330	
10 / 50	3,130	2,910	2,770	2,630	2,510	2,420	2,400	2,390	
15 / 59	3,190	2,960	2,810	2,680	2,550	2,450	2,430	2,420	
20 / 68	3,240	3,010	2,860	2,720	2,590	2,480	2,460	2,450	
25 / 77	3,290	3,060	2,900	2,760	2,630	2,520	2,490	2,480	
30 / 86	3,500	3,250	3,050	2,880	2,730	2,480	2,450	2,430	
35 / 95	3,790	3,490	3,280	3,080	2,880	2,580	2,390	2,370	
40 / 104	4,270	3,880	3,600	3,330	3,120	2,730	2,440	2,290	
45 / 113	4,760	4,310	3,980	3,670	3,390	2,920	2,550	2,300	
50 / 122	5,410	4,860	4,460	4,090	3,760	3,180	2,720	2,400	
Climb Wght Temp									
Limits °C/°F	52/126	54/129	54/129	54/129	54/129	54/129	54/129	54/129	
Field Length at									
Temp Limits (ft)	5,760	5,470	4,980	4,540	4,150	3,480	2,930	2,510	

<b>Elevation = 1,000 Feet</b>									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
0 / 32	3,120	2,900	2,760	2,630	2,510	2,420	2,400	2,400	
10 / 50	3,230	3,010	2,850	2,720	2,590	2,490	2,470	2,460	
15 / 59	3,290	3,060	2,900	2,760	2,630	2,530	2,500	2,490	
20 / 68	3,360	3,120	2,960	2,810	2,680	2,550	2,530	2,510	
25 / 77	3,520	3,260	3,070	2,910	2,760	2,540	2,510	2,490	
30 / 86	3,790	3,510	3,300	3,090	2,900	2,610	2,440	2,420	
35 / 95	4,210	3,840	3,560	3,330	3,120	2,740	2,470	2,360	
40 / 104	4,750	4,310	3,980	3,670	3,400	2,940	2,580	2,330	
45 / 113	5,400	4,860	4,460	4,100	3,770	3,200	2,750	2,420	
50 / 122	—	5,570	5,070	4,630	4,230	3,550	2,990	2,560	
Climb Wght Temp									
Limits °C/°F	49/120	52/126	52/126	52/126	52/126	52/126	52/126	52/126	
Field Length at									
Temp Limits (ft)	6,080	5,960	5,390	4,900	4,470	3,720	3,120	2,640	

**TAKEOFF PERFORMANCE**

**TAKEOFF FIELD LENGTH - FLAPS 15°**

(Over 35 Foot Screen Height)

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

<b>Elevation = 2,000 Feet</b>								
Ambient Temp	Takeoff Weight (lb)							
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000
0 / 32	3,230	3,000	2,850	2,720	2,590	2,490	2,470	2,460
10 / 50	3,340	3,110	2,950	2,810	2,680	2,570	2,540	2,530
15 / 59	3,400	3,160	3,000	2,850	2,720	2,610	2,580	2,560
20 / 68	3,550	3,290	3,100	2,940	2,800	2,600	2,560	2,550
25 / 77	3,810	3,530	3,310	3,110	2,930	2,640	2,510	2,480
30 / 86	4,170	3,810	3,570	3,340	3,130	2,760	2,490	2,420
35 / 95	4,690	4,260	3,940	3,650	3,380	2,950	2,600	2,350
40 / 104	5,370	4,840	4,450	4,090	3,770	3,200	2,770	2,450
45 / 113	6,220	5,530	5,040	4,610	4,220	3,550	2,990	2,580
50 / 122	—	—	5,850	5,290	4,800	3,980	3,320	2,770
Climb Wght Temp Limits °C/°F	45/113	48/118	50/122	50/122	50/122	50/122	50/122	50/122
Field Length at Temp Limits (ft)	6,220	6,070	5,850	5,290	4,800	3,980	3,320	2,770

<b>Elevation = 3,000 Feet</b>								
Ambient Temp	Takeoff Weight (lb)							
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000
-10 / 14	3,220	3,000	2,850	2,710	2,590	2,500	2,480	2,470
0 / 32	3,330	3,100	2,950	2,810	2,680	2,580	2,550	2,540
10 / 50	3,450	3,210	3,050	2,900	2,770	2,660	2,620	2,600
15 / 59	3,550	3,300	3,120	2,970	2,820	2,680	2,640	2,620
20 / 68	3,830	3,540	3,330	3,120	2,960	2,670	2,570	2,550
25 / 77	4,150	3,820	3,580	3,360	3,150	2,790	2,520	2,480
30 / 86	4,640	4,230	3,910	3,620	3,390	2,960	2,620	2,410
35 / 95	5,270	4,760	4,390	4,040	3,730	3,190	2,770	2,470
40 / 104	6,140	5,480	5,010	4,580	4,200	3,540	2,990	2,600
45 / 113	—	6,390	5,760	5,230	4,750	3,960	3,310	2,790
Climb Wght Temp Limits °C/°F	42/108	45/113	47/117	47/117	47/117	47/117	47/117	47/117
Field Length at Temp Limits (ft)	6,550	6,390	6,160	5,550	5,030	4,150	3,450	2,880



## TAKEOFF PERFORMANCE

### TAKEOFF FIELD LENGTH - FLAPS 15°

(Over 35 Foot Screen Height)

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

<b>Elevation = 4,000 Feet</b>								
Ambient Temp	----- Takeoff Weight (lb) -----							
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000
-10 / 14	3,330	3,100	2,950	2,810	2,670	2,580	2,550	2,540
0 / 32	3,450	3,210	3,050	2,900	2,770	2,660	2,630	2,610
10 / 50	3,630	3,360	3,180	3,020	2,880	2,720	2,680	2,650
15 / 59	3,850	3,570	3,350	3,150	2,990	2,700	2,630	2,610
20 / 68	4,150	3,840	3,600	3,370	3,160	2,810	2,570	2,540
25 / 77	4,600	4,190	3,880	3,630	3,400	2,970	2,650	2,480
30 / 86	5,190	4,700	4,340	4,000	3,690	3,200	2,780	2,500
35 / 95	5,990	5,360	4,920	4,510	4,150	3,500	3,000	2,620
40 / 104	—	6,260	5,680	5,160	4,710	3,930	3,290	2,800
45 / 113	—	—	—	6,020	5,420	4,450	3,680	3,060
Climb Wght Temp Limits °C/°F	38/100	41/106	43/109	45/113	45/113	45/113	45/113	45/113
Field Length at Temp Limits (ft)	6,620	6,490	6,260	6,020	5,420	4,450	3,680	3,060

<b>Elevation = 5,000 Feet</b>								
Ambient Temp	----- Takeoff Weight (lb) -----							
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000
-10 / 14	3,440	3,200	3,040	2,900	2,770	2,670	2,630	2,610
0 / 32	3,570	3,320	3,150	3,000	2,860	2,760	2,720	2,690
5 / 41	3,630	3,380	3,210	3,050	2,910	2,800	2,760	2,730
10 / 50	3,900	3,610	3,390	3,200	3,030	2,750	2,690	2,660
15 / 59	4,180	3,860	3,630	3,400	3,190	2,850	2,630	2,600
20 / 68	4,560	4,160	3,890	3,650	3,410	2,990	2,680	2,540
25 / 77	5,130	4,660	4,300	3,980	3,680	3,210	2,810	2,530
30 / 86	5,850	5,270	4,840	4,450	4,090	3,470	3,000	2,640
35 / 95	—	6,100	5,540	5,060	4,630	3,880	3,260	2,800
40 / 104	—	—	—	5,910	5,340	4,410	3,660	3,060
Climb Wght Temp Limits °C/°F	34/93	37/99	39/102	42/108	42/108	42/108	42/108	42/108
Field Length at Temp Limits (ft)	6,640	6,530	6,330	6,310	5,670	4,640	3,830	3,180

**TAKEOFF PERFORMANCE**

**TAKEOFF FIELD LENGTH - FLAPS 15°**

(Over 35 Foot Screen Height)

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

<b>Elevation = 6,000 Feet</b>									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-10 / 14	3,560	3,310	3,150	3,000	2,860	2,760	2,720	2,690	
0 / 32	3,720	3,450	3,280	3,120	2,970	2,830	2,800	2,760	
5 / 41	3,920	3,630	3,410	3,230	3,070	2,810	2,760	2,730	
10 / 50	4,220	3,900	3,660	3,430	3,220	2,890	2,690	2,660	
15 / 59	4,590	4,210	3,940	3,690	3,450	3,030	2,720	2,600	
20 / 68	5,120	4,660	4,310	3,980	3,710	3,240	2,840	2,560	
25 / 77	5,830	5,250	4,830	4,450	4,100	3,490	3,020	2,670	
30 / 86	6,800	6,040	5,510	5,040	4,610	3,870	3,260	2,820	
35 / 95	—	—	6,450	5,820	5,280	4,380	3,640	3,060	
40 / 104	—	—	—	—	6,160	4,990	4,090	3,380	
Climb Wght Temp Limits °C/°F	31/88	33/91	36/97	38/100	40/104	40/104	40/104	40/104	
Field Length at Temp Limits (ft)	7,040	6,680	6,680	6,440	6,160	4,990	4,090	3,380	

<b>Elevation = 7,000 Feet</b>									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-20 / -4	3,550	3,310	3,140	2,990	2,850	2,770	2,730	2,700	
-10 / 14	3,710	3,440	3,270	3,110	2,970	2,850	2,810	2,770	
0 / 32	4,020	3,720	3,490	3,300	3,130	2,840	2,800	2,760	
5 / 41	4,270	3,940	3,700	3,470	3,260	2,940	2,760	2,720	
10 / 50	4,600	4,240	3,970	3,720	3,480	3,070	2,760	2,650	
15 / 59	5,110	4,650	4,310	4,010	3,740	3,260	2,880	2,590	
20 / 68	5,790	5,230	4,820	4,450	4,090	3,520	3,050	2,700	
25 / 77	6,710	5,990	5,470	5,010	4,600	3,870	3,290	2,840	
30 / 86	—	—	6,380	5,770	5,250	4,360	3,640	3,080	
35 / 95	—	—	—	—	6,100	4,970	4,090	3,380	
Climb Wght Temp Limits °C/°F	26/79	29/84	32/90	34/93	36/97	37/99	37/99	37/99	
Field Length at Temp Limits (ft)	6,940	6,820	6,840	6,570	6,310	5,250	4,290	3,530	

## TAKEOFF PERFORMANCE

### TAKEOFF FIELD LENGTH - FLAPS 15°

(Over 35 Foot Screen Height)

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

<b>Elevation = 8,000 Feet</b>									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-20 / -4	3,680	3,430	3,260	3,100	2,960	2,860	2,810	2,780	
-10 / 14	3,990	3,690	3,470	3,290	3,120	2,860	2,810	2,780	
0 / 32	4,340	4,020	3,760	3,530	3,320	2,990	2,810	2,760	
5 / 41	4,650	4,290	4,020	3,760	3,520	3,110	2,800	2,710	
10 / 50	5,110	4,650	4,320	4,040	3,770	3,290	2,910	2,650	
15 / 59	5,740	5,200	4,800	4,430	4,080	3,540	3,070	2,730	
20 / 68	6,630	5,940	5,440	4,990	4,580	3,860	3,310	2,870	
25 / 77	—	6,940	6,280	5,710	5,200	4,340	3,630	3,080	
30 / 86	—	—	—	6,730	6,040	4,950	4,080	3,400	
35 / 95	—	—	—	—	—	5,720	4,640	3,790	
Climb Wght Temp									
Limits °C/°F	22/72	25/77	27/81	30/86	32/90	35/95	35/95	35/95	
Field Length at									
Temp Limits (ft)	7,070	6,940	6,720	6,730	6,470	5,720	4,640	3,790	

<b>Elevation = 9,000 Feet</b>									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-20 / -4	3,950	3,660	3,440	3,270	3,110	2,880	2,840	2,800	
-10 / 14	4,300	3,980	3,730	3,500	3,300	2,980	2,830	2,780	
-5 / 23	4,480	4,140	3,880	3,640	3,410	3,060	2,830	2,780	
0 / 32	4,720	4,350	4,080	3,820	3,570	3,160	2,850	2,760	
5 / 41	5,100	4,660	4,360	4,070	3,810	3,320	2,960	2,720	
10 / 50	5,690	5,160	4,770	4,400	4,090	3,560	3,090	2,770	
15 / 59	6,480	5,820	5,340	4,910	4,520	3,830	3,310	2,890	
20 / 68	—	6,740	6,130	5,590	5,100	4,280	3,600	3,080	
25 / 77	—	—	—	6,500	5,870	4,840	4,020	3,380	
30 / 86	—	—	—	—	—	5,600	4,570	3,750	
Climb Wght Temp									
Limits °C/°F	19/66	21/70	24/75	26/79	29/84	32/90	32/90	32/90	
Field Length at									
Temp Limits (ft)	7,360	6,970	6,980	6,730	6,720	6,000	4,840	3,950	

**TAKEOFF PERFORMANCE**

**TAKEOFF FIELD LENGTH – FLAPS 0°**

(Over 35 Foot Screen Height)

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

<b>Elevation = Sea Level</b>									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
0 / 32	3,500	3,330	3,210	3,080	2,970	2,750	2,560	2,390	
10 / 50	3,630	3,450	3,310	3,190	3,070	2,840	2,640	2,460	
15 / 59	3,690	3,510	3,370	3,240	3,120	2,890	2,680	2,500	
20 / 68	3,750	3,570	3,430	3,300	3,170	2,940	2,730	2,540	
25 / 77	3,820	3,630	3,480	3,350	3,220	2,990	2,770	2,580	
30 / 86	4,060	3,750	3,580	3,430	3,290	3,040	2,810	2,610	
35 / 95	4,380	4,050	3,790	3,540	3,380	3,110	2,870	2,650	
40 / 104	4,780	4,400	4,110	3,850	3,590	3,200	2,940	2,710	
45 / 113	5,190	4,740	4,430	4,130	3,850	3,350	3,010	2,760	
50 / 122	5,810	5,270	4,860	4,490	4,150	3,600	3,120	2,820	
Climb Wght Temp Limits °C/°F	52/126	54/129	54/129	54/129	54/129	54/129	54/129	54/129	
Field Length at Temp Limits (ft)	6,130	5,830	5,360	4,930	4,530	3,850	3,320	2,890	

<b>Elevation = 1,000 Feet</b>									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
0 / 32	3,620	3,450	3,310	3,190	3,070	2,840	2,640	2,460	
10 / 50	3,750	3,570	3,430	3,300	3,170	2,940	2,730	2,540	
15 / 59	3,820	3,630	3,490	3,360	3,230	2,990	2,780	2,580	
20 / 68	3,890	3,690	3,550	3,410	3,280	3,040	2,820	2,620	
25 / 77	4,080	3,790	3,630	3,480	3,350	3,090	2,860	2,660	
30 / 86	4,410	4,070	3,810	3,590	3,440	3,170	2,920	2,700	
35 / 95	4,780	4,400	4,120	3,850	3,600	3,240	2,990	2,750	
40 / 104	5,200	4,780	4,470	4,170	3,890	3,380	3,060	2,810	
45 / 113	5,820	5,280	4,880	4,510	4,200	3,640	3,150	2,870	
50 / 122	—	5,950	5,470	5,030	4,630	3,930	3,390	2,950	
Climb Wght Temp Limits °C/°F	49/120	52/126	52/126	52/126	52/126	52/126	52/126	52/126	
Field Length at Temp Limits (ft)	6,430	6,290	5,760	5,280	4,850	4,100	3,500	3,000	

## TAKEOFF PERFORMANCE

### TAKEOFF FIELD LENGTH – FLAPS 0°

(Over 35 Foot Screen Height)

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

<b>Elevation = 2,000 Feet</b>									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
0 / 32	3,750	3,570	3,430	3,300	3,180	2,940	2,730	2,540	
10 / 50	3,890	3,690	3,550	3,410	3,280	3,040	2,820	2,620	
15 / 59	3,960	3,760	3,610	3,470	3,340	3,090	2,870	2,670	
20 / 68	4,120	3,850	3,690	3,540	3,410	3,150	2,920	2,710	
25 / 77	4,430	4,090	3,830	3,640	3,490	3,220	2,970	2,750	
30 / 86	4,790	4,420	4,130	3,860	3,610	3,300	3,030	2,800	
35 / 95	5,210	4,800	4,480	4,180	3,900	3,400	3,110	2,850	
40 / 104	5,820	5,280	4,890	4,550	4,240	3,670	3,200	2,920	
45 / 113	6,580	5,930	5,460	5,020	4,630	3,960	3,420	3,000	
50 / 122	—	—	6,190	5,660	5,190	4,370	3,690	3,160	
Climb Wght Temp									
Limits °C/°F	45/113	48/118	50/122	50/122	50/122	50/122	50/122	50/122	
Field Length at									
Temp Limits (ft)	6,580	6,410	6,190	5,660	5,190	4,370	3,690	3,160	

<b>Elevation = 3,000 Feet</b>									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-10 / 14	3,750	3,560	3,430	3,300	3,170	2,940	2,730	2,540	
0 / 32	3,880	3,690	3,550	3,420	3,280	3,040	2,820	2,630	
10 / 50	4,030	3,830	3,670	3,530	3,400	3,150	2,920	2,710	
15 / 59	4,120	3,900	3,750	3,600	3,460	3,200	2,970	2,760	
20 / 68	4,450	4,110	3,860	3,700	3,550	3,270	3,020	2,800	
25 / 77	4,820	4,440	4,150	3,880	3,650	3,350	3,090	2,850	
30 / 86	5,230	4,810	4,490	4,190	3,910	3,450	3,160	2,900	
35 / 95	5,730	5,230	4,880	4,550	4,240	3,670	3,240	2,970	
40 / 104	6,540	5,910	5,440	5,010	4,620	3,990	3,440	3,050	
45 / 113	—	6,720	6,140	5,630	5,160	4,350	3,710	3,180	
Climb Wght Temp									
Limits °C/°F	42/108	45/113	47/117	47/117	47/117	47/117	47/117	47/117	
Field Length at									
Temp Limits (ft)	6,900	6,720	6,490	5,920	5,420	4,550	3,830	3,280	

**TAKEOFF PERFORMANCE**

**TAKEOFF FIELD LENGTH – FLAPS 0°**

(Over 35 Foot Screen Height)

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

<b>Elevation = 4,000 Feet</b>									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-10 / 14	3,880	3,690	3,550	3,410	3,280	3,040	2,820	2,620	
0 / 32	4,030	3,830	3,680	3,540	3,400	3,150	2,920	2,720	
10 / 50	4,210	3,980	3,820	3,670	3,530	3,260	3,020	2,810	
15 / 59	4,480	4,130	3,920	3,760	3,610	3,330	3,080	2,850	
20 / 68	4,840	4,460	4,170	3,900	3,710	3,410	3,140	2,900	
25 / 77	5,250	4,830	4,500	4,210	3,920	3,500	3,210	2,950	
30 / 86	5,720	5,240	4,890	4,560	4,250	3,680	3,290	3,020	
35 / 95	6,430	5,820	5,370	4,960	4,620	3,990	3,440	3,090	
40 / 104	—	6,640	6,090	5,580	5,130	4,340	3,730	3,200	
45 / 113	—	—	—	6,360	5,800	4,850	4,060	3,450	
Climb Wght Temp Limits °C/°F	38/100	41/106	43/109	45/113	45/113	45/113	45/113	45/113	
Field Length at Temp Limits (ft)	7,080	6,830	6,600	6,360	5,800	4,850	4,060	3,450	

<b>Elevation = 5,000 Feet</b>									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-10 / 14	4,030	3,830	3,680	3,540	3,400	3,150	2,920	2,720	
0 / 32	4,180	3,970	3,810	3,660	3,530	3,260	3,020	2,810	
5 / 41	4,260	4,040	3,880	3,730	3,590	3,320	3,080	2,860	
10 / 50	4,540	4,190	3,990	3,830	3,670	3,390	3,130	2,900	
15 / 59	4,880	4,490	4,200	3,940	3,770	3,470	3,200	2,950	
20 / 68	5,270	4,850	4,520	4,220	3,940	3,560	3,260	3,010	
25 / 77	5,730	5,260	4,900	4,570	4,260	3,700	3,350	3,070	
30 / 86	6,400	5,740	5,330	4,960	4,620	3,990	3,450	3,140	
35 / 95	7,750	6,520	5,990	5,510	5,070	4,330	3,730	3,240	
40 / 104	—	—	6,910	6,300	5,750	4,830	4,060	3,470	
Climb Wght Temp Limits °C/°F	35/95	37/99	40/104	42/108	42/108	42/108	42/108	42/108	
Field Length at Temp Limits (ft)	7,750	6,900	6,910	6,650	6,050	5,050	4,230	3,580	

## TAKEOFF PERFORMANCE

### TAKEOFF FIELD LENGTH – FLAPS 0°

(Over 35 Foot Screen Height)

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

<b>Elevation = 6,000 Feet</b>									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-10 / 14	4,180	3,970	3,810	3,660	3,520	3,260	3,020	2,810	
0 / 32	4,340	4,120	3,960	3,810	3,650	3,380	3,140	2,910	
5 / 41	4,560	4,240	4,060	3,890	3,740	3,450	3,190	2,960	
10 / 50	4,920	4,540	4,250	4,010	3,840	3,530	3,250	3,010	
15 / 59	5,330	4,900	4,580	4,270	3,990	3,620	3,320	3,060	
20 / 68	5,790	5,310	4,950	4,620	4,300	3,730	3,410	3,130	
25 / 77	6,610	5,780	5,380	5,010	4,660	4,030	3,510	3,200	
30 / 86	7,920	6,500	5,980	5,500	5,070	4,370	3,760	3,290	
35 / 95	—	—	6,830	6,240	5,720	4,800	4,080	3,490	
40 / 104	—	—	—	—	6,510	5,400	4,500	3,780	
Climb Wght Temp									
Limits °C/°F	31/88	34/93	36/97	38/100	40/104	40/104	40/104	40/104	
Field Length at									
Temp Limits (ft)	8,230	7,270	7,030	6,780	6,510	5,400	4,500	3,780	

<b>Elevation = 7,000 Feet</b>									
Ambient Temp	----- Takeoff Weight (lb) -----								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-20 / -4	4,170	3,960	3,810	3,660	3,520	3,260	3,020	2,810	
-10 / 14	4,340	4,120	3,960	3,800	3,650	3,380	3,140	2,910	
0 / 32	4,680	4,320	4,140	3,970	3,810	3,520	3,250	3,010	
5 / 41	4,980	4,590	4,290	4,080	3,900	3,590	3,310	3,060	
10 / 50	5,380	4,950	4,620	4,310	4,030	3,680	3,390	3,120	
15 / 59	5,840	5,360	5,000	4,660	4,340	3,790	3,470	3,180	
20 / 68	6,770	5,830	5,430	5,050	4,700	4,060	3,570	3,260	
25 / 77	8,040	6,470	5,960	5,500	5,100	4,400	3,790	3,340	
30 / 86	—	7,710	6,790	6,220	5,710	4,810	4,110	3,520	
35 / 95	—	—	—	—	6,490	5,400	4,510	3,810	
Climb Wght Temp									
Limits °C/°F	27/81	30/86	32/90	34/93	36/97	37/99	37/99	37/99	
Field Length at									
Temp Limits (ft)	8,660	7,710	7,200	6,930	6,670	5,660	4,700	3,930	

**TAKEOFF PERFORMANCE**

**TAKEOFF FIELD LENGTH – FLAPS 0°**

(Over 35 Foot Screen Height)

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

<b>Elevation = 8,000 Feet</b>									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-20 / -4	4,330	4,120	3,960	3,800	3,650	3,380	3,140	2,910	
-10 / 14	4,640	4,320	4,140	3,970	3,810	3,520	3,250	3,010	
0 / 32	5,070	4,670	4,370	4,160	3,980	3,660	3,380	3,120	
5 / 41	5,450	5,010	4,680	4,360	4,100	3,750	3,450	3,180	
10 / 50	5,940	5,410	5,040	4,700	4,380	3,850	3,530	3,240	
15 / 59	6,890	5,870	5,460	5,080	4,730	4,090	3,630	3,310	
20 / 68	8,150	6,530	5,960	5,540	5,140	4,440	3,820	3,400	
25 / 77	—	7,860	6,740	6,180	5,680	4,820	4,140	3,540	
30 / 86	—	—	—	7,100	6,470	5,390	4,510	3,840	
35 / 95	—	—	—	—	—	6,120	5,060	4,190	
Climb Wght Temp Limits °C/°F	23/73	26/79	28/82	30/86	33/91	35/95	35/95	35/95	
Field Length at Temp Limits (ft)	9,070	8,190	7,340	7,100	7,050	6,120	5,060	4,190	

<b>Elevation = 9,000 Feet</b>									
Ambient Temp	Takeoff Weight (lb)								
°C / °F	17,110	16,500	16,000	15,500	15,000	14,000	13,000	12,000	
-20 / -4	4,590	4,310	4,130	3,960	3,810	3,510	3,250	3,010	
-10 / 14	5,020	4,630	4,340	4,150	3,980	3,660	3,380	3,120	
-5 / 23	5,240	4,820	4,500	4,250	4,060	3,740	3,440	3,180	
0 / 32	5,530	5,080	4,740	4,430	4,170	3,820	3,510	3,230	
5 / 41	6,070	5,450	5,080	4,740	4,420	3,920	3,590	3,300	
10 / 50	6,980	5,900	5,490	5,110	4,750	4,110	3,680	3,370	
15 / 59	8,140	6,630	5,970	5,540	5,150	4,440	3,820	3,460	
20 / 68	—	7,900	6,620	6,090	5,610	4,820	4,140	3,560	
25 / 77	—	—	—	6,930	6,340	5,310	4,500	3,840	
30 / 86	—	—	—	—	—	6,040	5,010	4,180	
Climb Wght Temp Limits °C/°F	19/66	22/72	24/75	26/79	29/84	32/90	32/90	32/90	
Field Length at Temp Limits (ft)	9,360	8,520	7,470	7,130	7,090	6,400	5,280	4,370	



## CLIMB PERFORMANCE

**240 KIAS / M 0.64 CLIMB**  
ISA, Zero Wind, Anti-Ice Off

<b>Time, Fuel, and Distance To Climb *</b>						
Pressure Altitude (ft)		----- Takeoff Weight (lb) -----				
		17,110	16,000	15,000	14,000	12,000
15,000	Min	4	4	4	3	3
	Lb	198	183	169	156	131
	NM	19	17	16	15	12
25,000	Min	8	7	7	6	5
	Lb	338	311	287	264	221
	NM	39	36	33	30	25
29,000	Min	10	9	8	8	6
	Lb	399	366	337	310	259
	NM	50	46	42	39	32
31,000	Min	11	10	9	8	7
	Lb	428	392	361	332	277
	NM	56	51	47	43	36
33,000	Min	12	11	10	9	7
	Lb	455	416	383	351	292
	NM	62	57	52	48	39
35,000	Min	13	12	11	10	8
	Lb	485	442	406	372	309
	NM	69	63	58	53	43
37,000	Min	14	13	12	11	9
	Lb	518	470	431	394	326
	NM	78	71	64	58	48
39,000	Min	16	15	13	12	10
	Lb	558	504	460	419	345
	NM	90	80	73	66	53
41,000	Min	19	17	15	13	11
	Lb	609	544	493	447	365
	NM	106	93	83	75	60
43,000	Min	23	19	17	15	12
	Lb	675	593	531	478	387
	NM	129	110	97	85	67
45,000	Min	29	23	20	17	14
	Lb	784	657	578	514	411
	NM	169	134	114	99	76

\* Based on the climb starting from sea level.

**CRUISE PERFORMANCE**

**HIGH SPEED CRUISE \***

ISA, Anti-Ice Off

		<b>Cruise Speed &amp; Fuel Flow</b>					
Pressure Altitude (ft)		----- Cruise Weight (lb) -----					
		17,110	16,500	16,000	15,000	14,000	12,000
5,000	KTAS	278	278	278	278	278	278
	Lb/Hr	1,585	1,577	1,571	1,560	1,549	1,529
10,000	KTAS	351	351	351	351	351	351
	Lb/Hr	2,051	2,045	2,040	2,031	2,023	2,007
15,000	KTAS	377	377	377	377	377	377
	Lb/Hr	2,010	2,003	1,998	1,989	1,979	1,963
21,000	KTAS	412	412	412	412	412	412
	Lb/Hr	2,035	2,028	2,022	2,011	2,001	1,982
23,000	KTAS	425	425	425	425	425	425
	Lb/Hr	2,055	2,048	2,042	2,032	2,022	2,005
25,000	KTAS	438	438	438	438	438	438
	Lb/Hr	2,089	2,081	2,075	2,063	2,052	2,032
27,000	KTAS	444	445	445	446	447	448
	Lb/Hr	2,043	2,042	2,042	2,041	2,041	2,039
29,000	KTAS	446	447	447	448	449	450
	Lb/Hr	1,943	1,943	1,943	1,944	1,944	1,945
31,000	KTAS	449	450	450	450	451	452
	Lb/Hr	1,882	1,883	1,883	1,883	1,883	1,883
33,000	KTAS	447	448	448	448	448	448
	Lb/Hr	1,783	1,781	1,779	1,760	1,746	1,722
35,000	KTAS	442	443	444	444	444	444
	Lb/Hr	1,619	1,622	1,624	1,614	1,594	1,567
37,000	KTAS	437	438	439	441	442	442
	Lb/Hr	1,460	1,463	1,465	1,469	1,470	1,434
39,000	KTAS	430	432	433	435	438	441
	Lb/Hr	1,298	1,298	1,298	1,300	1,305	1,311
41,000	KTAS	425	427	429	432	434	438
	Lb/Hr	1,189	1,187	1,186	1,183	1,181	1,185
43,000	KTAS	414	420	424	430	433	438
	Lb/Hr	1,072	1,084	1,092	1,102	1,105	1,107
45,000	KTAS		398	407	420	428	437
	Lb/Hr		955	970	992	1,007	1,025

\* Maximum cruise thrust setting ("CRU" detent on throttle quadrant).

## CRUISE PERFORMANCE

### LONG RANGE CRUISE \*

ISA, Anti-Ice Off

Pressure Altitude (ft)		Cruise Speed & Fuel Flow					
		----- Cruise Weight (lb) -----					
		17,110	16,500	16,000	15,000	14,000	12,000
5,000	KTAS	231	228	226	221	216	206
	Lb/Hr	1,212	1,183	1,160	1,114	1,069	977
10,000	KTAS	244	241	238	232	226	212
	Lb/Hr	1,151	1,120	1,095	1,045	996	890
15,000	KTAS	255	251	248	242	235	220
	Lb/Hr	1,070	1,039	1,013	962	911	802
21,000	KTAS	277	273	269	262	254	239
	Lb/Hr	1,025	993	966	913	860	760
23,000	KTAS	285	281	277	270	262	246
	Lb/Hr	1,012	980	953	900	849	748
25,000	KTAS	294	290	286	278	270	253
	Lb/Hr	1,002	970	943	890	838	735
27,000	KTAS	304	299	295	287	278	260
	Lb/Hr	992	958	931	878	823	719
29,000	KTAS	314	309	305	296	284	265
	Lb/Hr	984	952	925	869	805	695
31,000	KTAS	321	318	316	306	290	269
	Lb/Hr	964	938	916	859	785	667
33,000	KTAS	328	325	322	314	300	274
	Lb/Hr	948	921	898	845	776	648
35,000	KTAS	337	334	331	322	311	283
	Lb/Hr	940	911	887	834	772	639
37,000	KTAS	350	346	342	332	324	294
	Lb/Hr	943	911	885	828	775	636
39,000	KTAS	363	359	356	345	335	305
	Lb/Hr	951	921	894	833	776	638
41,000	KTAS	376	371	367	359	350	317
	Lb/Hr	959	924	897	842	786	639
43,000	KTAS	391	384	380	372	363	328
	Lb/Hr	979	937	906	849	793	640
45,000	KTAS		398	396	384	375	342
	Lb/Hr		955	928	859	800	650

\* Thrust for maximum range (approximate).

**DESCENT PERFORMANCE**

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

		<b>Time, Fuel, and Distance To Descend *</b>					
		<b>High Speed – 3,000 FPM</b>			<b>Normal – 2,000 FPM</b>		
Pressure Altitude (ft)		----- End of Cruise Weight (lb) -----			----- End of Cruise Weight (lb) -----		
		14,000	12,000	10,000	14,000	12,000	10,000
15,000	Min	7	6	6	8	8	8
	Lb	49	48	46	70	78	86
	NM	33	31	28	39	38	38
25,000	Min	10	10	9	13	13	13
	Lb	77	81	85	135	147	160
	NM	55	52	50	72	71	71
31,000	Min	12	12	11	16	16	16
	Lb	99	105	111	180	193	208
	NM	69	67	64	94	93	93
33,000	Min	13	12	12	17	17	17
	Lb	106	113	119	193	207	222
	NM	74	72	69	101	101	100
35,000	Min	14	13	12	18	18	18
	Lb	111	119	126	205	219	235
	NM	79	77	74	108	108	107
37,000	Min	14	14	13	19	19	19
	Lb	116	124	131	215	229	245
	NM	84	82	79	115	115	115
39,000	Min	15	14	14	20	20	20
	Lb	122	129	136	223	238	254
	NM	90	87	84	122	122	122
41,000	Min	16	15	15	21	21	21
	Lb	128	135	142	231	245	262
	NM	97	94	90	129	129	129
43,000	Min	17	16	16	22	22	22
	Lb	136	143	150	239	253	270
	NM	104	101	97	137	137	137
45,000	Min	18	18	17	23	23	23
	Lb	146	153	160	248	263	280
	NM	113	111	107	146	146	146

\* 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)	390 lb
Night (45 minutes)	592 lb

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

100 Nautical Mile Alternate	985 lb
200 Nautical Mile Alternate	1,264 lb
300 Nautical Mile Alternate	1,486 lb

#### NBAA IFR Reserves \*

100 Nautical Mile Alternate	912 lb
200 Nautical Mile Alternate	1,191 lb
300 Nautical Mile Alternate	1,411 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

		<b>Holding Speed &amp; Fuel Flow</b>						
		----- Pressure Altitude (ft) -----						
Weight (lb)	KIAS	S.L.	5,000	10,000	15,000	20,000	25,000	30,000
16,000	180	1,038	990	952	910	884	864	845
15,000	175	992	945	907	863	837	816	797
14,000	165	925	879	840	794	768	748	725
13,000	160	882	837	796	748	723	703	677
12,000	150	819	777	728	685	659	639	611
11,000	145	774	730	682	642	617	597	566

**LANDING PERFORMANCE**

**LANDING DISTANCE - ACTUAL**

(Distance from 50 Feet Above the Runway)

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

<b>Elevation = Sea Level</b>								
Ambient Temp	Landing Weight (lb)							
°C / °F	15,660	15,000	14,500	14,000	13,500	13,000	12,000	11,000
0 / 32	2,610	2,530	2,470	2,410	2,360	2,300	2,180	2,070
10 / 50	2,690	2,600	2,540	2,470	2,410	2,360	2,240	2,120
15 / 59	2,740	2,630	2,570	2,510	2,440	2,390	2,260	2,150
20 / 68	2,800	2,660	2,600	2,540	2,470	2,410	2,290	2,170
25 / 77	2,850	2,690	2,630	2,570	2,500	2,440	2,320	2,200
30 / 86	2,920	2,720	2,660	2,600	2,530	2,470	2,350	2,220
35 / 95	2,980	2,760	2,690	2,620	2,560	2,500	2,370	2,250
40 / 104	3,040	2,810	2,720	2,650	2,590	2,530	2,400	2,270
45 / 113	3,110	2,860	2,750	2,680	2,620	2,550	2,420	2,300
50 / 122	3,180	2,920	2,780	2,710	2,650	2,580	2,450	2,320
Lndg Wght Temp Limits °C/°F	54/129	54/129	54/129	54/129	54/129	54/129	54/129	54/129
V <sub>REF</sub> (KIAS)	113	110	108	106	104	102	98	94

<b>Elevation = 1,000 Feet</b>								
Ambient Temp	Landing Weight (lb)							
°C / °F	15,660	15,000	14,500	14,000	13,500	13,000	12,000	11,000
0 / 32	2,680	2,600	2,530	2,470	2,410	2,350	2,230	2,120
10 / 50	2,800	2,660	2,600	2,540	2,470	2,410	2,290	2,170
15 / 59	2,860	2,690	2,630	2,570	2,500	2,440	2,320	2,200
20 / 68	2,920	2,730	2,660	2,600	2,540	2,470	2,350	2,220
25 / 77	2,990	2,770	2,690	2,630	2,570	2,500	2,380	2,250
30 / 86	3,050	2,820	2,730	2,660	2,600	2,530	2,400	2,280
35 / 95	3,120	2,870	2,760	2,690	2,620	2,560	2,430	2,300
40 / 104	3,200	2,930	2,790	2,720	2,650	2,590	2,460	2,330
45 / 113	3,270	2,990	2,820	2,750	2,680	2,620	2,480	2,350
50 / 122	3,350	3,050	2,870	2,780	2,710	2,640	2,510	2,380
Lndg Wght Temp Limits °C/°F	52/126	52/126	52/126	52/126	52/126	52/126	52/126	52/126
V <sub>REF</sub> (KIAS)	113	110	108	106	104	102	98	94

## LANDING PERFORMANCE

### LANDING DISTANCE - ACTUAL

(Distance from 50 Feet Above the Runway)

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

<b>Elevation = 2,000 Feet</b>								
Ambient Temp	----- Landing Weight (lb) -----							
°C / °F	15,660	15,000	14,500	14,000	13,500	13,000	12,000	11,000
0 / 32	2,800	2,660	2,600	2,540	2,470	2,410	2,290	2,170
10 / 50	2,930	2,730	2,660	2,600	2,540	2,470	2,350	2,220
15 / 59	2,990	2,770	2,700	2,630	2,570	2,500	2,380	2,250
20 / 68	3,060	2,830	2,730	2,660	2,600	2,530	2,400	2,280
25 / 77	3,140	2,880	2,760	2,700	2,630	2,560	2,430	2,310
30 / 86	3,210	2,940	2,800	2,730	2,660	2,590	2,460	2,330
35 / 95	3,290	3,010	2,830	2,760	2,690	2,620	2,490	2,360
40 / 104	3,370	3,070	2,890	2,790	2,720	2,650	2,520	2,390
45 / 113	3,460	3,130	2,940	2,820	2,750	2,680	2,550	2,410
50 / 122	3,550	3,200	3,000	2,850	2,780	2,710	2,570	2,440
Lndg Wght Temp Limits °C/°F	50/122	50/122	50/122	50/122	50/122	50/122	50/122	50/122
V <sub>REF</sub> (KIAS)	113	110	108	106	104	102	98	94

<b>Elevation = 3,000 Feet</b>								
Ambient Temp	----- Landing Weight (lb) -----							
°C / °F	15,660	15,000	14,500	14,000	13,500	13,000	12,000	11,000
-10 / 14	2,800	2,660	2,600	2,530	2,470	2,410	2,290	2,170
0 / 32	2,930	2,730	2,660	2,600	2,540	2,470	2,350	2,230
10 / 50	3,070	2,830	2,730	2,670	2,600	2,540	2,410	2,280
15 / 59	3,150	2,890	2,770	2,700	2,630	2,570	2,440	2,310
20 / 68	3,220	2,950	2,800	2,730	2,660	2,600	2,470	2,340
25 / 77	3,310	3,020	2,840	2,770	2,700	2,630	2,490	2,370
30 / 86	3,390	3,080	2,900	2,800	2,730	2,660	2,520	2,390
35 / 95	3,480	3,150	2,960	2,830	2,760	2,690	2,550	2,420
40 / 104	3,580	3,220	3,020	2,860	2,790	2,720	2,580	2,450
45 / 113	3,680	3,290	3,080	2,890	2,820	2,750	2,610	2,470
Lndg Wght Temp Limits °C/°F	47/117	47/117	47/117	47/117	47/117	47/117	47/117	47/117
V <sub>REF</sub> (KIAS)	113	110	108	106	104	102	98	94

**LANDING PERFORMANCE**

**LANDING DISTANCE - ACTUAL**

(Distance from 50 Feet Above the Runway)

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

<b>Elevation = 4,000 Feet</b>								
Ambient Temp	Landing Weight (lb)							
°C / °F	15,660	15,000	14,500	14,000	13,500	13,000	12,000	11,000
-10 / 14	2,930	2,730	2,660	2,600	2,540	2,470	2,350	2,220
0 / 32	3,070	2,830	2,730	2,670	2,600	2,540	2,410	2,280
10 / 50	3,230	2,960	2,810	2,740	2,670	2,600	2,470	2,340
15 / 59	3,320	3,030	2,850	2,770	2,700	2,630	2,500	2,370
20 / 68	3,410	3,100	2,910	2,810	2,740	2,670	2,530	2,400
25 / 77	3,500	3,170	2,970	2,840	2,770	2,700	2,560	2,420
30 / 86	3,610	3,240	3,030	2,870	2,800	2,730	2,590	2,450
35 / 95	3,710	3,320	3,100	2,910	2,830	2,760	2,620	2,480
40 / 104	3,820	3,400	3,160	2,970	2,860	2,790	2,650	2,510
45 / 113	3,940	3,480	3,230	3,020	2,900	2,820	2,680	2,540
Lndg Wght Temp Limits °C/°F	45/113	45/113	45/113	45/113	45/113	45/113	45/113	45/113
V <sub>REF</sub> (KIAS)	113	110	108	106	104	102	98	94

<b>Elevation = 5,000 Feet</b>								
Ambient Temp	Landing Weight (lb)							
°C / °F	15,660	15,000	14,500	14,000	13,500	13,000	12,000	11,000
-10 / 14	3,070	2,830	2,730	2,670	2,600	2,540	2,410	2,280
0 / 32	3,240	2,970	2,810	2,740	2,670	2,600	2,470	2,340
5 / 41	3,330	3,030	2,860	2,770	2,710	2,640	2,500	2,370
10 / 50	3,420	3,110	2,920	2,810	2,740	2,670	2,530	2,400
15 / 59	3,520	3,180	2,980	2,840	2,770	2,700	2,570	2,430
20 / 68	3,630	3,260	3,040	2,880	2,810	2,740	2,600	2,460
25 / 77	3,740	3,340	3,110	2,930	2,840	2,770	2,630	2,490
30 / 86	3,860	3,430	3,180	2,980	2,870	2,800	2,660	2,520
35 / 95	3,990	3,510	3,250	3,040	2,910	2,830	2,690	2,550
40 / 104	4,120	3,610	3,330	3,100	2,940	2,870	2,720	2,580
Lndg Wght Temp Limits °C/°F	41/106	42/108	42/108	42/108	42/108	42/108	42/108	42/108
V <sub>REF</sub> (KIAS)	113	110	108	106	104	102	98	94



## LANDING PERFORMANCE

### LANDING DISTANCE - ACTUAL

(Distance from 50 Feet Above the Runway)

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

<b>Elevation = 6,000 Feet</b>								
Ambient Temp	Landing Weight (lb)							
°C / °F	15,660	15,000	14,500	14,000	13,500	13,000	12,000	11,000
-10 / 14	3,240	2,970	2,810	2,740	2,670	2,600	2,470	2,340
0 / 32	3,430	3,110	2,920	2,810	2,740	2,670	2,540	2,400
5 / 41	3,530	3,190	2,990	2,850	2,780	2,710	2,570	2,430
10 / 50	3,650	3,270	3,060	2,880	2,810	2,740	2,600	2,470
15 / 59	3,760	3,360	3,130	2,940	2,850	2,780	2,630	2,500
20 / 68	3,890	3,440	3,200	3,000	2,880	2,810	2,670	2,530
25 / 77	4,020	3,540	3,270	3,060	2,920	2,840	2,700	2,560
30 / 86	4,170	3,640	3,350	3,120	2,950	2,880	2,730	2,590
35 / 95	4,330	3,740	3,430	3,190	3,000	2,910	2,760	2,610
40 / 104	—	3,850	3,520	3,260	3,050	2,940	2,790	2,640
Lndg Wght Temp Limits °C/°F	37/99	40/104	40/104	40/104	40/104	40/104	40/104	40/104
V <sub>REF</sub> (KIAS)	113	110	108	106	104	102	98	94

<b>Elevation = 7,000 Feet</b>								
Ambient Temp	Landing Weight (lb)							
°C / °F	15,660	15,000	14,500	14,000	13,500	13,000	12,000	11,000
-20 / -4	3,240	2,970	2,810	2,740	2,670	2,600	2,470	2,350
-10 / 14	3,440	3,120	2,930	2,810	2,750	2,680	2,540	2,410
0 / 32	3,660	3,280	3,070	2,890	2,820	2,750	2,610	2,470
5 / 41	3,780	3,370	3,140	2,950	2,860	2,790	2,640	2,500
10 / 50	3,920	3,460	3,220	3,010	2,890	2,820	2,670	2,540
15 / 59	4,060	3,560	3,290	3,080	2,930	2,850	2,710	2,570
20 / 68	4,220	3,670	3,380	3,140	2,970	2,890	2,740	2,600
25 / 77	4,380	3,780	3,460	3,220	3,020	2,920	2,770	2,630
30 / 86	4,570	3,890	3,550	3,290	3,070	2,960	2,810	2,660
35 / 95	—	4,020	3,650	3,360	3,140	2,990	2,840	2,690
Lndg Wght Temp Limits °C/°F	34/93	36/97	37/99	37/99	37/99	37/99	37/99	37/99
V <sub>REF</sub> (KIAS)	113	110	108	106	104	102	98	94

**LANDING PERFORMANCE**

**LANDING DISTANCE - ACTUAL**

(Distance from 50 Feet Above the Runway)

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

<b>Elevation = 8,000 Feet</b>									
Ambient Temp	Landing Weight (lb)								
°C / °F	15,660	15,000	14,500	14,000	13,500	13,000	12,000	11,000	
-20 / -4	3,440	3,120	2,930	2,810	2,750	2,680	2,540	2,410	
-10 / 14	3,670	3,290	3,070	2,890	2,820	2,750	2,610	2,480	
0 / 32	3,940	3,480	3,230	3,020	2,900	2,820	2,680	2,540	
5 / 41	4,090	3,580	3,310	3,090	2,940	2,860	2,720	2,570	
10 / 50	4,250	3,690	3,400	3,160	2,970	2,900	2,750	2,600	
15 / 59	4,430	3,810	3,480	3,230	3,030	2,940	2,790	2,640	
20 / 68	4,630	3,930	3,580	3,310	3,090	2,970	2,820	2,670	
25 / 77	4,850	4,060	3,680	3,390	3,160	3,010	2,850	2,700	
30 / 86	5,100	4,210	3,780	3,470	3,230	3,040	2,890	2,730	
35 / 95	—	—	3,890	3,560	3,290	3,080	2,920	2,770	
Lndg Wght Temp Limits °C/°F	30/86	33/91	35/95	35/95	35/95	35/95	35/95	35/95	35/95
V <sub>REF</sub> (KIAS)	113	110	108	106	104	102	98	94	

**STALL SPEEDS**

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

Weight (lb)	Stall Speeds		
	Flap Position		
	35°	15°	0°
17,110	91	97	103
16,500	89	95	102
16,000	87	93	100
15,000	85	91	97
14,000	82	87	93
13,000	79	84	90
12,000	76	81	87
11,000	73	78	83

## MISSION PLANNING

### CRITERIA

The following mission planning table provides flight time and fuel burn estimates for selected distances and cruise 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 120 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. Each distance and altitude combination is based on the aircraft departing at the minimum takeoff weight required to complete the mission.

The mission planning table reflects the 240 knots / M 0.64 climb, high-speed cruise (maximum cruise thrust setting), and high-speed descent (3,000 fpm) 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	4,000 - 12,000
100 - 199	12,000 - 24,000
200 - 299	23,000 - 31,000
300 - 499	30,000 - 39,000
500 - 999	38,000 - 43,000
1000+	41,000 - 45,000

<b>Wind Correction Factors *</b>									
True Airspeed (kt)	Headwinds (kt)					Tailwinds (kt)			
	100	75	50	25	0	25	50	75	100
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
440	1.29	1.21	1.13	1.06	1.00	0.95	0.90	0.85	0.81
460	1.28	1.19	1.12	1.06	1.00	0.95	0.90	0.86	0.82

\* 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) -----									
	<b>15,000</b>		<b>25,000</b>		<b>31,000</b>		<b>33,000</b>		<b>35,000</b>	
	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)
200	0:34	1,123	0:32	1,002	0:32	917	0:31	877	0:32	841
300	0:50	1,649	0:46	1,473	0:45	1,340	0:45	1,268	0:46	1,201
400	1:06	2,176	1:00	1,944	0:59	1,763	0:58	1,660	0:59	1,562
500	1:22	2,705	1:14	2,417	1:12	2,186	1:12	2,053	1:13	1,924
600	1:38	3,236	1:27	2,890	1:25	2,609	1:26	2,449	1:27	2,287
700	1:54	3,768	1:41	3,365	1:39	3,032	1:39	2,846	1:40	2,652
800	2:10	4,301	1:55	3,842	1:52	3,455	1:53	3,243	1:54	3,018
900	2:25	4,834	2:08	4,320	2:06	3,879	2:06	3,641	2:08	3,386
1,000			2:22	4,799	2:19	4,302	2:20	4,040	2:21	3,755
1,100					2:33	4,728	2:33	4,442	2:35	4,125
1,200							2:47	4,845	2:48	4,498
1,300									3:02	4,874
1,400										
1,500										
1,600										
1,700										
1,800										
1,900										

Assumptions:

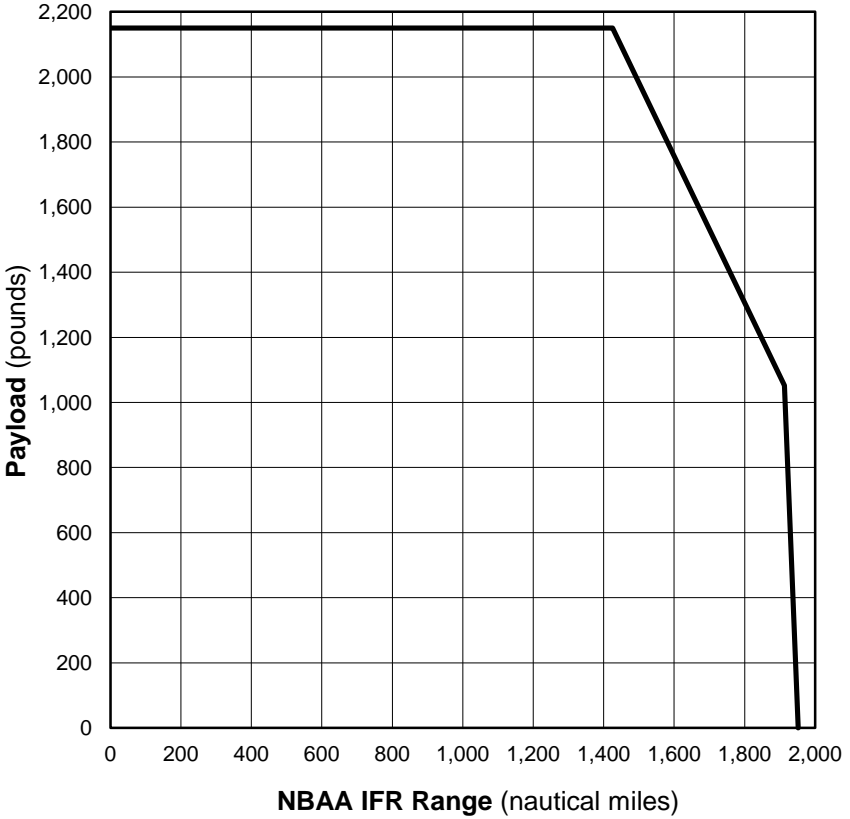
- 240 KIAS / M 0.64 climb
- High-speed cruise (maximum cruise thrust setting)
- High-speed descent (3,000 fpm)
- ISA, zero winds enroute
- Flight time includes climb, cruise and descent
- Fuel burn includes 120 pounds for taxi and takeoff
- NBAA IFR Reserves – 100 nm (912 lb) Reserves are not included in the fuel burn figures
- Four passengers @ 200 pounds each
- Aircraft BOW of 10,350 pounds (includes 2 crew at 200 pounds each)

**FOR SELECTED DISTANCES**

-----Cruise Altitude (ft)-----										
<b>37,000</b>		<b>39,000</b>		<b>41,000</b>		<b>43,000</b>		<b>45,000</b>		Dist (nm)
Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	Time (min)	Fuel (lb)	
0:32	811	0:32	785	0:32	759	0:33	746			200
0:46	1,143	0:46	1,088	0:46	1,035	0:46	1,005	0:48	971	300
1:00	1,477	1:00	1,391	1:00	1,312	1:00	1,264	1:01	1,212	400
1:13	1,811	1:13	1,694	1:14	1,589	1:14	1,524	1:15	1,453	500
1:27	2,147	1:27	1,998	1:27	1,866	1:28	1,783	1:29	1,693	600
1:41	2,485	1:41	2,302	1:41	2,144	1:42	2,043	1:43	1,934	700
1:55	2,824	1:55	2,606	1:55	2,423	1:56	2,304	1:57	2,176	800
2:08	3,164	2:08	2,910	2:09	2,702	2:10	2,564	2:11	2,418	900
2:22	3,506	2:22	3,215	2:23	2,981	2:24	2,826	2:25	2,660	1,000
2:36	3,849	2:36	3,520	2:37	3,260	2:38	3,087	2:39	2,902	1,100
2:49	4,195	2:50	3,825	2:52	3,539	2:51	3,351	2:54	3,145	1,200
3:03	4,539	3:04	4,130	3:06	3,819	3:05	3,615	3:08	3,388	1,300
3:16	4,881	3:18	4,435	3:20	4,099	3:19	3,880	3:22	3,632	1,400
		3:32	4,741	3:34	4,380	3:34	4,145	3:36	3,875	1,500
				3:48	4,662	3:48	4,410	3:51	4,119	1,600
						4:02	4,676	4:05	4,365	1,700
								4:20	4,611	1,800
								4:34	4,858	1,900

**MISSION PLANNING**

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



Assumptions:

- 240 KIAS / M 0.64 climb, maximum cruise thrust setting, 3,000 fpm descent
- FL 450
- Aircraft BOW = 10,350 pounds (includes 2 crew at 200 pounds each)





Citation Marketing Cessna Aircraft Company, P.O. Box 7706, Wichita, Kansas  
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