

<p>1.</p>	<p>5.</p>	<p>9.</p>	<p>13.</p>	<p>17.</p>
<p>2.</p>	<p>6.</p>	<p>10.</p>	<p>14.</p>	<p>18.</p>
<p>3.</p>	<p>7.</p>	<p>11.</p>	<p>15.</p>	<p>19.</p>
<p>4.</p>	<p>8.</p>	<p>12.</p>	<p>16.</p>	<p>*</p> <p>Staggered threshold adjustments may apply, refer to paragraph 4-2 of AG 15U/5086-6.</p>

CHAPTER 2. CAPACITY AND DELAY CALCULATIONS FOR LONG RANGE PLANNING

2-1. GENERAL Chapter contains calculations for determining hourly airport capacity, ASV, and aircraft delay for long-range airport planning. Appendix 1 contains examples of these calculations. When more precise results are required, or if the conditions differ significantly from the assumptions described in the following paragraphs, apply the calculations found in subsequent chapters.

2-2. CAPACITY ASSUMPTIONS. Hourly VFR and IFR values in figure 2-1 are based on runway utilizations which produce the highest sustainable capacity consistent with current ATC ties and practices. These values are representative of typical U.S. airports having similar runway-use configurations. VFR and IFR hourly airport capacities in figure 2-1 are based on the following assumptions:

- a. Runway-use Configuration. Any runway layout can be approximated by one of the 19 depicted runway-use configurations. Multiple arrival streams are only to parallel runway configurations.
- b. Percent Arrivals. Arrivals equal departures.
- c. Percent Touch and Go's. The percent of touch and go's is within the ranges in table 2-1.
- d. Taxiways. a full-length parallel taxiway, ample runway entrance/exit taxiways, and no taxiway crossing problems.
- e. Airspace Limitations There are no airspace limitations which would adversely impact flight operations or otherwise restrict aircraft which could operate at the airport. Missed approach protection is assured for all converging operations in IFR weather conditions.
- f. Runway Instrumentation The airport has at least one runway equipped with an ILS and has the necessary ATC facilities and services to carry but operations in a radar environment. For independent operations, 3,400 feet separation requires Precision Runway Monitor (PRM) equipment with high update radar. If PRM equipment is not available, independent operations will require 4,300 feet separation.

Table 2-1. Assumptions incorporated in figure 2-1

Mix Index %(C+3D)	Percent Arrivals	Percent Touch & Go	Demand Ratios	
			Annual Demand	Av. Daily Demand*
			Av. Daily Demand*	Av. Peak Hour Demand*
0-20	50	0-50	290	9
21-50	"	0-40	300	10
51-80	"	0-20	310	11
81-120	"	0	320	12
121-180	"	0	350	14

* In the peak month

2-3. ASV ASSUMPTIONS. The ASV values in figure 2-1 are based on the assumptions of paragraph 2-2, table 2-1, and the following:

- a. Weather weather conditions occur roughly 10 percent of the time.

BGM ASV - 2005.TXT
AIRPORT CAPACITY AND DELAY DATA

C = Percent of airplanes over 12,500 lbs but not over 300,000 lbs 47
D = Percent of airplanes over 300,000 lbs 0
Mix Index (C+3D) 47
Annual demand 26,000
General aviation operations dominate

AIRPORT CAPACITY AND DELAY FOR LONG RANGE PLANNING

Runway-use Configuration (Sketch) No.	Capacity (Ops/Hour)		ASV	Ratio of Annual Demand to ASV Ratio	Average Delay per Aircraft (Minutes)		Minutes of Annual Delay (000)	
	VFR	IFR			Low	High	Low	High
8	290	114	550,000	0.05	0.0	0.0	0	0
7	219	114	475,000	0.05	0.0	0.0	0	0
12	149	114	320,000	0.08	0.0	0.0	0	0
4	149	113	320,000	0.08	0.0	0.0	0	0
6	219	63	310,000	0.08	0.0	0.0	0	0
5	213	63	305,000	0.09	0.0	0.1	0	3
16	210	57	305,000	0.09	0.0	0.1	0	3
18	210	57	305,000	0.09	0.0	0.1	0	3
19	193	57	295,000	0.09	0.0	0.1	0	3
3	149	63	285,000	0.09	0.0	0.1	0	3
11	149	63	285,000	0.09	0.0	0.1	0	3
13	147	57	275,000	0.09	0.0	0.1	0	3
2	145	57	275,000	0.09	0.0	0.1	0	3
10	145	57	275,000	0.09	0.0	0.1	0	3
17	145	57	275,000	0.09	0.0	0.1	0	3
14	108	57	225,000	0.12	0.0	0.1	0	3
15	99	57	220,000	0.12	0.0	0.1	0	3
9	77	57	200,000	0.13	0.0	0.1	0	3
1	74	57	195,000	0.13	0.0	0.1	0	3

REFERENCE: Chapter 2 of AC 150/5060-5, Airport Capacity and Delay, including Changes 1 and 2.

BGM ASV - 2025.TXT
AIRPORT CAPACITY AND DELAY DATA

C = Percent of airplanes over 12,500 lbs but not over 300,000 lbs 41
D = Percent of airplanes over 300,000 lbs 0
Mix Index (C+3D) 41
Annual demand 30,000
General aviation operations dominate

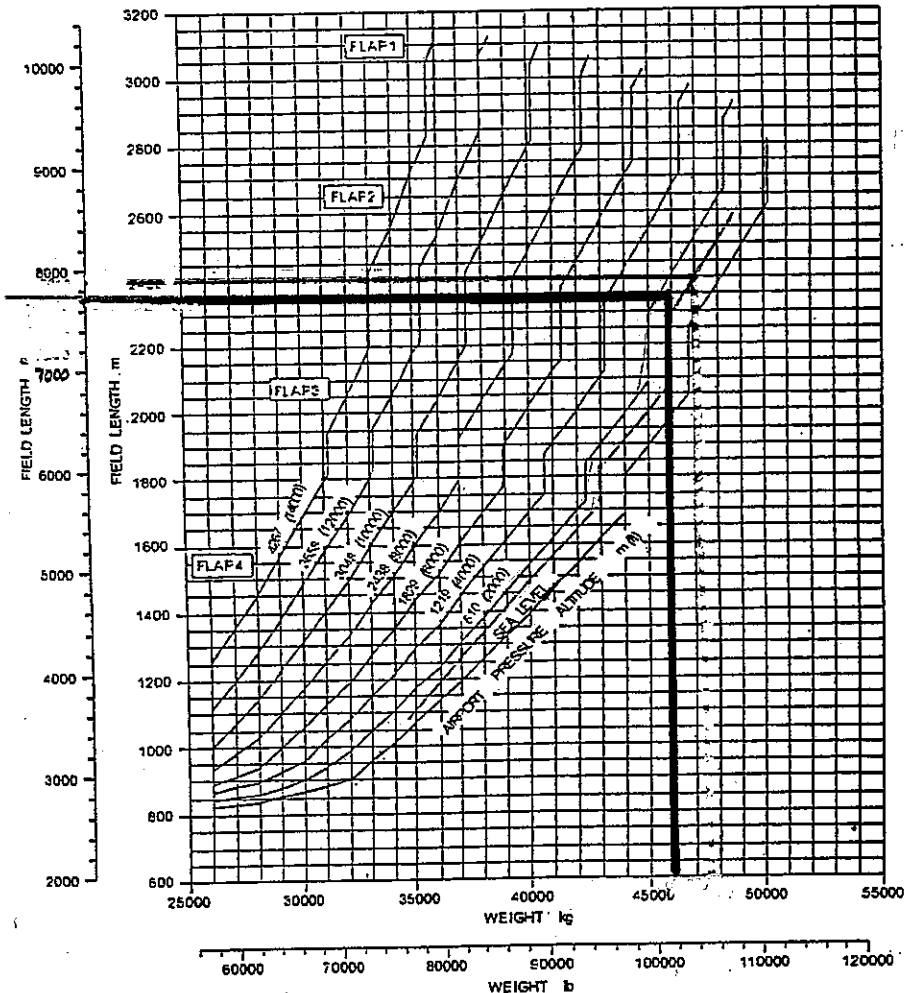
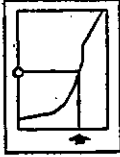
AIRPORT CAPACITY AND DELAY FOR LONG RANGE PLANNING

Runway-use Configuration (Sketch) No.	Capacity (Ops/Hour)		ASV	Ratio of Annual Demand to ASV Ratio	Average Delay per Aircraft (Minutes) Low High		Minutes of Annual Delay (000) Low High	
	VFR	IFR						
8	290	114	550,000	0.05	0.0	0.0	0	0
7	219	114	475,000	0.06	0.0	0.0	0	0
12	149	114	320,000	0.09	0.0	0.1	0	3
4	149	113	320,000	0.09	0.0	0.1	0	3
6	219	63	310,000	0.10	0.0	0.1	0	3
5	213	63	305,000	0.10	0.0	0.1	0	3
16	210	57	305,000	0.10	0.0	0.1	0	3
18	210	57	305,000	0.10	0.0	0.1	0	3
19	193	57	295,000	0.10	0.0	0.1	0	3
3	149	63	285,000	0.11	0.0	0.1	0	3
11	149	63	285,000	0.11	0.0	0.1	0	3
13	147	57	275,000	0.11	0.0	0.1	0	3
2	145	57	275,000	0.11	0.0	0.1	0	3
10	145	57	275,000	0.11	0.0	0.1	0	3
17	145	57	275,000	0.11	0.0	0.1	0	3
14	108	57	225,000	0.13	0.0	0.1	0	3
15	99	57	220,000	0.14	0.0	0.1	0	3
9	77	57	200,000	0.15	0.0	0.1	0	3
1	74	57	195,000	0.15	0.0	0.1	0	3

REFERENCE: Chapter 2 of AC 150/5060-5, Airport Capacity and Delay, including Changes 1 and 2.

**EMERAER 190 AIRPORT
PLANNING MANUAL**

TAKEOFF FIELD LENGTH
CF 3410E5 ENGINE @ T/O1 MODE
ATTCS OFF
DRY, SMOOTH, HARD PAVED AND LEVEL RUNWAY
V2 = 1.20 V_s
ISA + 10°C = 25°C



Adjustments:
For every 1°C ↑
in temp (above
25°C) runway length
↑ by 20'
↑ runway length by
10' per 1' diff.
in el. between
high & low pt.

Takeoff Field Lengths - ISA + 10 °C Conditions
Figure 3.14

EFFECTIVITY: ALL

Section 3
Page 3-17
Aug 15/05

ERTJ 190 STD = 45,990 Kg } 7,750'
BGM Altitude = 1,636' MSL }
Average Maximum Temp = 78.4° F = 25.8°C } Adjustmat for 1°C diff. in temp 7,770'
Max. difference in Runway El. = 67' } Adjustmat for runway gradient

8,440'

www.embraer.com

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Embraer 145 MP

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Std Temp adjusted to Sea Level)

T1 = Adjusted Std Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Embraer 145 LR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Embraer 145 XR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Embraer 170 AR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Embraer 170 LR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Embraer 170 STD

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Embraer 190 AR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Embraer 190 LR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stnd temp in hottest month)

(Stnd Temp adjusted to Sea Level)

T1 = Adjusted Stnd Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

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Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Embraer 190 STD

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Dash 8 (RWY 16-34)

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 200 ER

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 200 LR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 700

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 700 ER

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 700 LR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 700 Series 705

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 700 Series 705 ER

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Std Temp adjusted to Sea Level)

T1 = Adjusted Std Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 700 Series 705 LR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 900

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 900 ER

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Bombardier CRJ 900 LR

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - SAAB 340 (RWY 16-34)

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Std Temp adjusted to Sea Level)

T1 = Adjusted Std Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Airbus 320-200

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - SAAB 340 (RWY 10-28)

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Dash 8 (RWY 10-28)

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above std temp in hottest month)

(Std Temp adjusted to Sea Level)

T1 = Adjusted Std Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Cessna 550 Citation II

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Falcon 900DX

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Falcon 900EX

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Falcon 2000

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Falcon 2000DX

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Falcon 2000EX

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.

TAKEOFF RUNWAY LENGTH ADJUSTMENT

(Given takeoff distance at sea level, mean max temperature, elevation & difference in Hi / Lo pts)

Altitude Correction

(7% per 1,000' above sea level)

E = Elevation

L = Takeoff distance @ sea level

L1 = Takeoff runway length corrected for altitude

$$L1 = (.07 * E / 1000) * L + L$$

Temperature Correction

(0.5% per degree above stdn temp in hottest month)

(Stdn Temp adjusted to Sea Level)

T1 = Adjusted Stdn Temp

T = Mean Max High Temperature

L2 = Takeoff RW length corrected for altitude & temperature

$$T1 = 59 - (3.566 * E / 1000)$$

$$L2 = (.005 * (T - T1)) * L1 + L1$$

Effective Gradient Correction

(10' for each 1' difference between Hi/Lo Pts.)

G = Difference between Hi / Lo point in feet

L3 = RW length corrected for altitude, temperature & gradient

$$L3 = G * 10 + L2$$

BGM - Raytheon/Hawker 125-800

Takeoff Runway Length at Sea Level and 59 Degrees Fahrenheit

1. Enter the takeoff distance at sea level in feet from Table 1.

L =

Altitude

2. Enter Airport Altitude in feet above sea level

E =

L1 =

Temperature

3. Enter Mean Max Daily Temp in degrees F

T =

T1 =

L2 =

Gradient Adjustment

4. Enter Maximum Difference in RW Elevation in feet

Takeoff Runway Length Adjusted for Temp, Elevation & Gradient

L3 =

Note: The takeoff runway length calculated here is based on the airplane takeoff distance. If the accelerate-stop distance is greater than the takeoff distance, the runway length should be designed for the accelerate-stop distance. Consult the aircraft flight manual.