

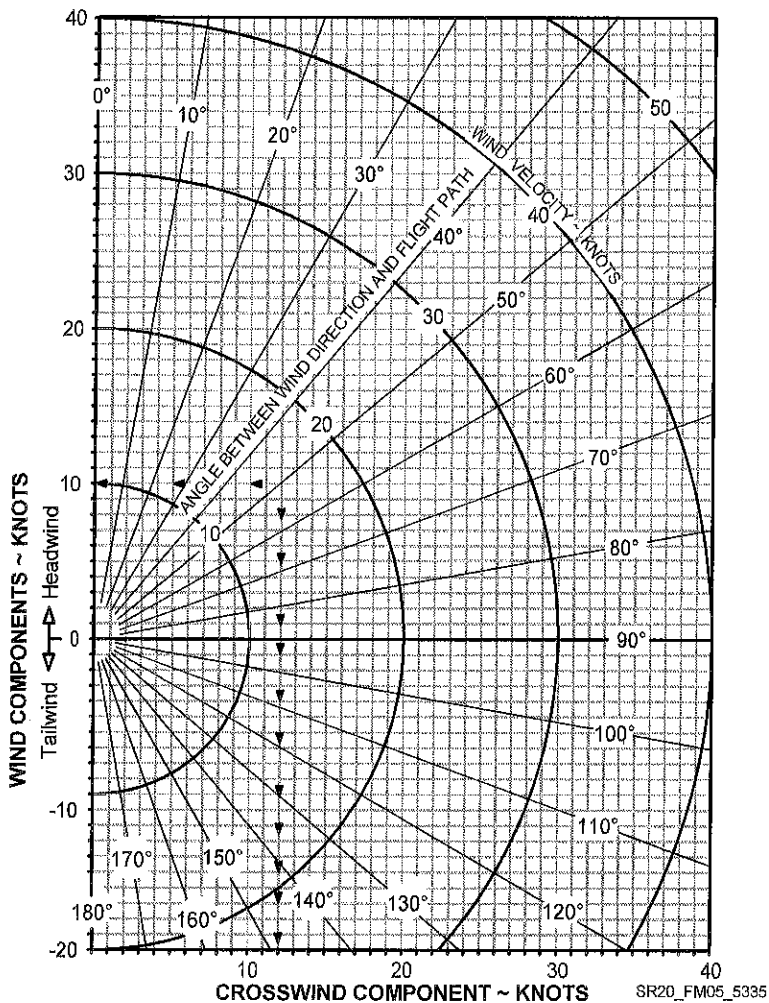
Wind Components

Example:

- Runway Heading..... 10°
- Wind Direction..... 60°
- Wind Velocity 15 Knots

• Note •

The max demonstrated crosswind is 20 knots. Value not considered limiting.



Takeoff Distance

Conditions:

- Winds..... Zero
- Runway..... Dry, Level, Paved
- Flaps..... 50%
- Air Conditioner..... OFF
- Power..... Full Throttle
- Mixture..... Set per Placard

• Note •

The following factors are to be applied to the computed takeoff distance for the noted condition:

- Headwind - Subtract 10% from computed distance for each 12 knots headwind.
- Tailwind - Add 10% for each 2 knots tailwind up to 10 knots.
- Grass Runway, Dry - Add 20% to ground roll distance.
- Grass Runway, Wet - Add 30% to ground roll distance.
- Sloped Runway - Increase table distances by 22% of the ground roll distance at Sea Level, 30% of the ground roll distance at 5000 ft, 43% of the ground roll distance at 10,000 ft for each 1% of upslope. Decrease table distances by 7% of the ground roll distance at Sea Level, 10% of the ground roll distance at 5000 ft, and 14% of the ground roll distance at 10,000 ft for each 1% of downslope.

• Note •

The above corrections for runway slope are required to be included herein. These corrections should be used with caution since published runway slope data is usually the net slope from one end of the runway to the other. Many runways will have portions of their length at greater or lesser slopes than the published slope, lengthening (or shortening) takeoff ground roll estimated from the table.

- If brakes are not held while applying power, distances apply from point where full throttle and mixture setting is complete.
- For operation in outside air temperatures colder than this table provides, use coldest data shown.
- For operation in outside air temperatures warmer than this table provides, use caution.
- Aircraft with optional Air Conditioning System: Add 300 feet to ground roll distance and 400 feet to distance over 50' obstacle if Air Conditioner is ON during takeoff.

Takeoff Distance - 3150 LB

WEIGHT = 3150 LB
Approx. Speed at Liftoff = 75 KIAS
Speed over 50 Ft. Obstacle = 81 KIAS
Flaps 50%; Full Throttle; Mixture Set; Dry
Level, Paved Runway

Headwind: Subtract 10% for each 12 knots headwind
Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.
Runway Slope: Refer to list of factors.
Dry Grass: Add 15% of ground roll to distances.
Air Conditioner: Add 100 feet to ground roll and 150 feet to distance over 50' obstacle if Air Conditioner is ON during takeoff.

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	1503	1623	1748	1877	2011	2150	1685
	Total	2273	2443	2618	2799	2986	3179	2530
1000	Grnd Roll	1653	1784	1921	2063	2210	2363	1825
	Total	2491	2675	2867	3065	3270	3482	2732
2000	Grnd Roll	1818	1962	2113	2269	2431	2599	1978
	Total	2730	2932	3142	3359	3584	3817	2953
3000	Grnd Roll	2002	2161	2326	2498	2676	2862	2145
	Total	2995	3217	3447	3686	3932	4187	3195
4000	Grnd Roll	2206	2381	2563	2753	2950	3154	2329
	Total	3288	3532	3785	4048	4319	4599	3460
5000	Grnd Roll	2433	2626	2827	3037	3254	3479	2530
	Total	3614	3883	4161	4449	4747	5055	3749
6000	Grnd Roll	2687	2900	3122	3353	3592	3841	2752
	Total	3976	4272	4578	4895	5224	5563	4066
7000	Grnd Roll	2969	3205	3450	3705	3970	4245	2995
	Total	4379	4705	5042	5392	5754	6127	4414
8000	Grnd Roll	3322	3586	3861	4146	4442	4750	3300
	Total	4883	5246	5622	6013	6416	6833	4851
9000	Grnd Roll	3752	4050	4360	4682	5017	5364	3669
	Total	5495	5904	6328	6767	7221	7691	5380
10000	Grnd Roll	4240	4577	4927	5291	5670	6062	4082
	Total	6188	6649	7127	7621	8133	8663	5970

Takeoff Distance - 2600 LB

WEIGHT = 2600 LB
Approx. Speed at Liftoff = 69 KIAS
Speed over 50 Ft Obstacle = 75 KIAS
 Flaps 50%; Full Throttle; Mixture Set; Dry;
 Level; Paved Runway

Headwind: Subtract 10% for each 12 knots headwind.
Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.
Runway Slope: Refer to list of factors.
Dry Grass: Add 15% of ground roll to distances.
Air Conditioner: Add 100 feet to ground roll and 150 feet to distance over 50' obstacle if Air Conditioner is ON during takeoff.

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	913	986	1061	1140	1221	1305	1023
	Total	1408	1513	1621	1732	1848	1967	1566
1000	Grnd Roll	1004	1083	1166	1252	1342	1435	1108
	Total	1542	1656	1775	1897	2024	2154	1692
2000	Grnd Roll	1104	1192	1283	1378	1476	1578	1201
	Total	1690	1815	1945	2079	2218	2361	1828
3000	Grnd Roll	1215	1312	1412	1517	1625	1738	1303
	Total	1854	1991	2133	2281	2433	2590	1978
4000	Grnd Roll	1339	1446	1556	1671	1791	1915	1414
	Total	2036	2186	2342	2504	2672	2844	2141
5000	Grnd Roll	1477	1595	1717	1844	1975	2112	1536
	Total	2237	2403	2574	2752	2936	3126	2320
6000	Grnd Roll	1631	1761	1896	2036	2181	2332	1671
	Total	2461	2643	2832	3028	3230	3440	2616
7000	Grnd Roll	1803	1946	2095	2250	2411	2577	1818
	Total	2710	2911	3119	3335	3558	3788	2731
8000	Grnd Roll	2017	2178	2344	2518	2697	2884	2004
	Total	3021	3245	3477	3718	3967	4224	3001
9000	Grnd Roll	2278	2459	2647	2843	3046	3257	2228
	Total	3399	3651	3913	4184	4464	4754	3328
10000	Grnd Roll	2575	2779	2992	3213	3442	3681	2478
	Total	3827	4112	4406	4711	5027	5353	3693

Takeoff Climb Gradient

Conditions:

- Power Full Throttle
- Mixture Set per Placard
- Flaps 50%
- Airspeed Best Rate of Climb

• Note •

Climb Gradients shown are the gain in altitude for the horizontal distance traversed expressed as Feet per Nautical Mile.

Cruise climbs or short duration climbs are permissible at best power as long as altitudes and temperatures remain within those specified in the table.

For operation in air colder than this table provides, use coldest data shown.

For operation in air warmer than this table provides, use caution.

Weight	Press Alt	Climb Speed	CLIMB GRADIENT ~ Feet per Nautical Mile					
			Temperature ~ °C					
LB	FT	KIAS	-20	0	20	40	50	ISA
3150	SL	88	624	568	517	469	446	529
	2000	87	531	479	431	386	365	452
	4000	86	442	394	349	307	288	377
	6000	86	357	312	270	232	213	305
	8000	85	276	234	196	160	143	236
	10000	84	199	160	124	91	75	169
2600	SL	88	843	775	712	653	626	727
	2000	87	731	668	609	554	529	635
	4000	86	624	565	511	460	436	546
	6000	86	523	468	418	371	348	460
	8000	85	426	376	329	285	264	378
	10000	84	334	288	244	204	185	299

Takeoff Rate of Climb

Conditions:

- Power Full Throttle, 2700 RPM
- Mixture Per Placard
- Flaps 50%
- Airspeed Best Rate of Climb

• Note •

Rate-of-Climb values shown are change in altitude for unit time expended expressed in Feet per Minute.

Cruise climbs or short duration climbs are permissible at best power as long as altitudes and temperatures remain within those specified in the table.

For operation in air colder than this table provides, use coldest data shown.

For operation in air warmer than this table provides, use caution.

Aircraft with optional Air Conditioning System: Maximum rate of climb performance is reduced by approximately 75 feet per minute if system is ON. For maximum climb performance the air conditioner should be off.

Weight	Press Alt	Climb Speed	RATE OF CLIMB ~ Feet per Minute					
			Temperature ~ °C					
LB	FT	KIAS	-20	0	20	40	50	ISA
3150	SL	88	862	816	769	721	698	781
	2000	87	752	706	658	610	586	680
	4000	86	643	595	547	498	474	578
	6000	86	533	485	435	386	361	477
	8000	85	423	374	323	273	248	376
	10000	84	313	262	211	160	134	275
2600	SL	88	1159	1109	1056	1003	976	1069
	2000	87	1033	981	928	874	847	952
	4000	86	906	854	800	745	718	835
	6000	86	780	726	671	616	589	718
	8000	85	654	599	543	487	459	602
	10000	84	527	471	415	358	329	486

Landing Distance

Conditions:

- Winds Zero
- Runway Dry, Level, Paved
- Flaps 100%, 50%, or 0%
- Power 3° Power Approach
to 50 FT obstacle, then reduce power passing the estimated 50 foot point and
smoothly continue power reduction to reach idle just prior to touchdown.

• Note •

The following factors are to be applied to the computed landing distance for the noted condition:

- Headwind - Subtract 10% from table distances for each 13 knots headwind.
- Tailwind - Add 10% to table distances for each 2 knots tailwind up to 10 knots.
- Grass Runway, Dry - Add 20% to ground roll distance.
- Grass Runway, Wet - Add 60% to ground roll distance.
- Sloped Runway - Increase table distances by 27% of the ground roll distance for each 1% of downslope. Decrease table distances by 9% of the ground roll distance for each 1% of upslope.

• Note •

The above corrections for runway slope are required to be included herein. These corrections should be used with caution since published runway slope data is usually the net slope from one end of the runway to the other. Many runways will have portions of their length at greater or lesser slopes than the published slope, lengthening (or shortening) landing ground roll estimated from the table.

- For operation in outside air temperatures colder than this table provides, use coldest data shown.
- For operation in outside air temperatures warmer than this table provides, use caution.

Landing Distance Table - Flaps 100%

WEIGHT: 3150 LB	Headwind: Subtract 10% per each 13 knots headwind.
Speed over 50 Ft Obstacle: 78 KIAS	Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.
Flaps: 100%	Runway Slope: Ref. Factors
Power: Idle	Dry Grass: Add 20% to Ground Roll
Runway: Dry, Level Paved Surface	Wet Grass: Add 60% to Ground Roll

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	809	838	868	897	927	957	853
	Total	2557	2609	2663	2717	2773	2829	2636
1000	Grnd Roll	838	869	900	931	961	992	878
	Total	2610	2665	2722	2779	2838	2898	2682
2000	Grnd Roll	870	901	933	965	997	1029	905
	Total	2666	2725	2785	2846	2907	2970	2731
3000	Grnd Roll	902	935	968	1001	1034	1067	932
	Total	2726	2788	2852	2916	2981	3048	2782
4000	Grnd Roll	936	971	1005	1039	1073	1108	960
	Total	2790	2856	2923	2991	3060	3130	2837
5000	Grnd Roll	972	1007	1043	1079	1114	1150	990
	Total	2858	2928	2999	3070	3143	3217	2894
6000	Grnd Roll	1009	1046	1083	1120	1157	1194	1021
	Total	2931	3004	3079	3155	3232	3310	2954
7000	Grnd Roll	1048	1086	1125	1163	1201	1240	1052
	Total	3008	3086	3165	3245	3326	3409	3017
8000	Grnd Roll	1089	1128	1168	1208	1248	1288	1085
	Total	3091	3173	3256	3341	3427	3513	3084
9000	Grnd Roll	1131	1173	1214	1255	1297	1338	1119
	Total	3179	3265	3353	3443	3533	3625	3154
10000	Grnd Roll	1176	1219	1262	1305	1348	1391	1155
	Total	3272	3364	3457	3551	3646	3743	3228

Landing Distance Table - Flaps 50%

WEIGHT: 3150 LB	Headwind: Subtract 10% per each 13 knots headwind.
Speed over 50 Ft Obstacle: 82 KIAS	Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.
Flaps: 50%	Runway Slope: Ref. Factors
Power: Idle	Dry Grass: Add 20% to Ground Roll
Runway: Dry, Level Paved Surface	Wet Grass: Add 60% to Ground Roll

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	1029	1066	1104	1141	1179	1217	1085
	Total	2704	2768	2833	2899	2966	3033	2800
1000	Grnd Roll	1067	1106	1145	1184	1223	1262	1117
	Total	2768	2836	2904	2974	3044	3115	2856
2000	Grnd Roll	1106	1147	1187	1228	1268	1309	1151
	Total	2837	2908	2980	3053	3127	3202	2915
3000	Grnd Roll	1148	1190	1232	1274	1316	1358	1186
	Total	2909	2984	3060	3137	3216	3295	2977
4000	Grnd Roll	1191	1234	1278	1322	1365	1409	1222
	Total	2987	3066	3146	3227	3309	3392	3042
5000	Grnd Roll	1236	1281	1327	1372	1417	1462	1259
	Total	3069	3152	3236	3322	3408	3496	3111
6000	Grnd Roll	1283	1330	1377	1424	1471	1518	1298
	Total	3156	3243	3332	3422	3513	3605	3183
7000	Grnd Roll	1333	1382	1431	1479	1528	1577	1338
	Total	3248	3340	3434	3529	3624	3721	3258
8000	Grnd Roll	1385	1435	1486	1537	1587	1638	1380
	Total	3346	3443	3542	3642	3742	3844	3338
9000	Grnd Roll	1439	1492	1544	1597	1650	1702	1424
	Total	3450	3553	3656	3761	3867	3974	3421
10000	Grnd Roll	1496	1550	1605	1660	1715	1769	1469
	Total	3560	3668	3778	3888	4000	4112	3509

Landing Distance Table - Flaps 0%

WEIGHT: 3150 LB	Headwind: Subtract 10% per each 13 knots headwind.
Speed over 50 Ft Obstacle: 87 KIAS	Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.
Flaps: 0%	Runway Slope: Ref. Factors
Power: Idle	Dry Grass: Add 20% to Ground Roll
Runway: Dry, Level Paved Surface	Wet Grass: Add 60% to Ground Roll

PRESS ALT FT	DISTANCE FT	TEMPERATURE ~ °C						
		0	10	20	30	40	50	ISA
SL	Grnd Roll	1185	1228	1272	1315	1358	1402	1250
	Total	2971	3037	3105	3174	3243	3314	3071
1000	Grnd Roll	1229	1274	1319	1364	1409	1454	1287
	Total	3038	3108	3179	3252	3325	3399	3130
2000	Grnd Roll	1274	1321	1368	1414	1461	1508	1326
	Total	3109	3183	3258	3335	3412	3490	3191
3000	Grnd Roll	1322	1371	1419	1467	1516	1564	1366
	Total	3185	3263	3342	3422	3504	3586	3256
4000	Grnd Roll	1372	1422	1472	1523	1573	1623	1408
	Total	3265	3348	3431	3515	3601	3688	3323
5000	Grnd Roll	1424	1476	1528	1581	1633	1685	1451
	Total	3351	3437	3525	3614	3704	3795	3395
6000	Grnd Roll	1479	1533	1587	1641	1695	1749	1495
	Total	3441	3533	3625	3719	3814	3910	3470
7000	Grnd Roll	1536	1592	1648	1704	1760	1817	1542
	Total	3537	3634	3731	3830	3930	4031	3548
8000	Grnd Roll	1595	1654	1712	1770	1829	1887	1590
	Total	3640	3741	3844	3948	4053	4159	3631
9000	Grnd Roll	1658	1718	1779	1840	1900	1961	1641
	Total	3748	3855	3963	4073	4183	4295	3718
10000	Grnd Roll	1723	1786	1849	1912	1975	2038	1693
	Total	3863	3976	4090	4205	4322	4439	3809