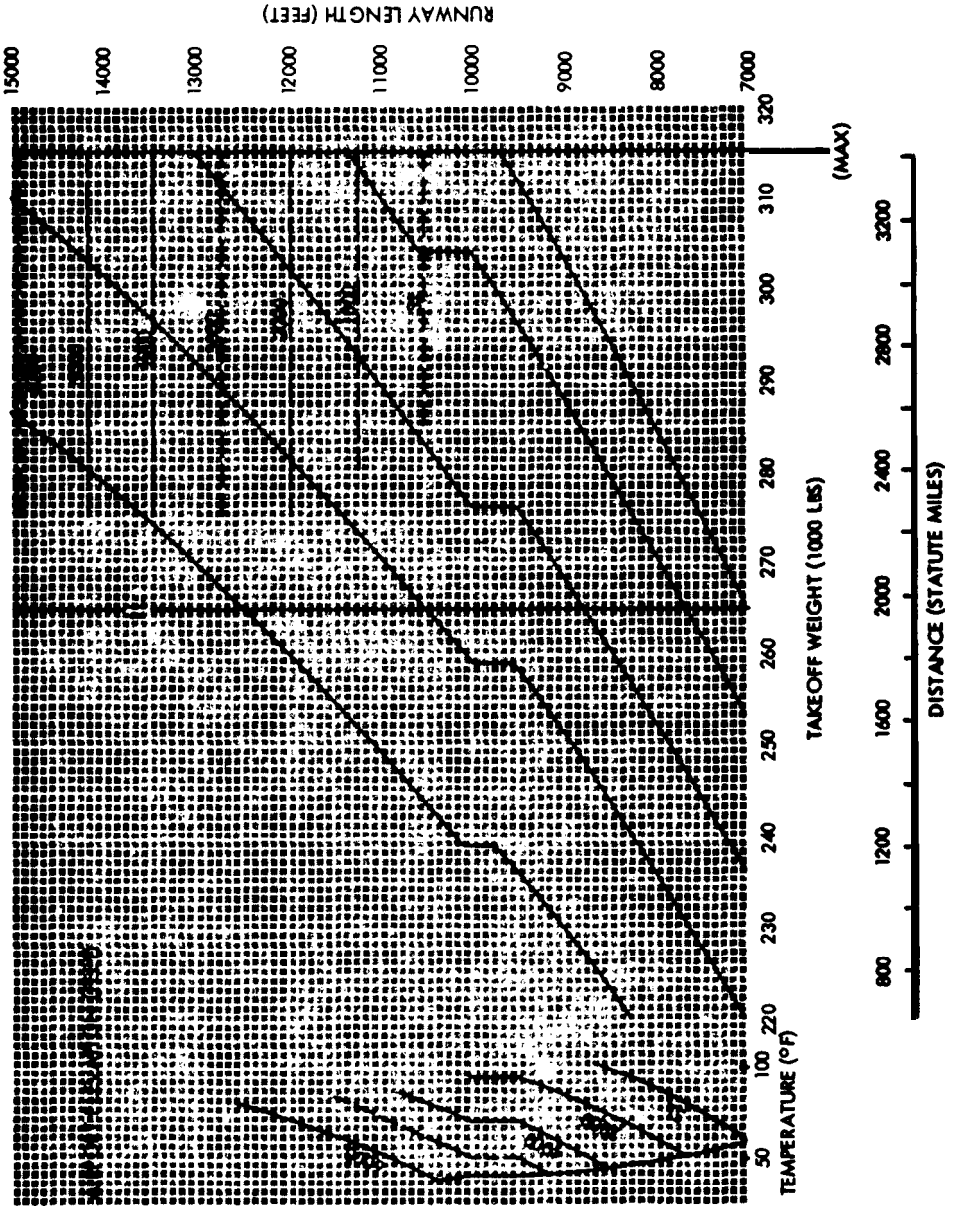


FIGURE 30. Aircraft Performance Curve, Takeoff (Douglas DC-8-40 Series)

BOEING 707-100B SERIES

PRATT & WHITNEY JT3D-1 ENGINE
JT3D-1-MC6
JT3D-1-MC7

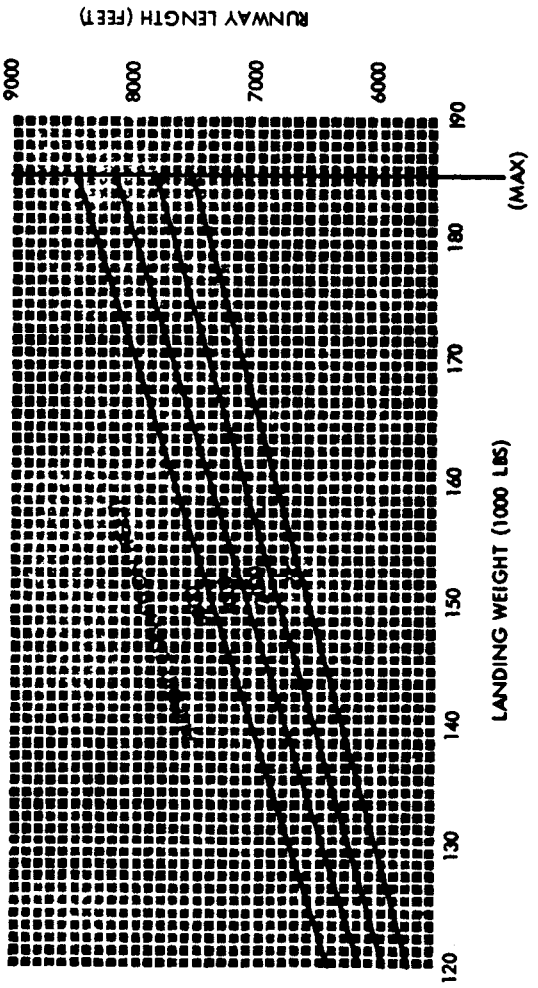


Figure 31. Aircraft Performance Curve, Landing (Boeing 707-100B Series)

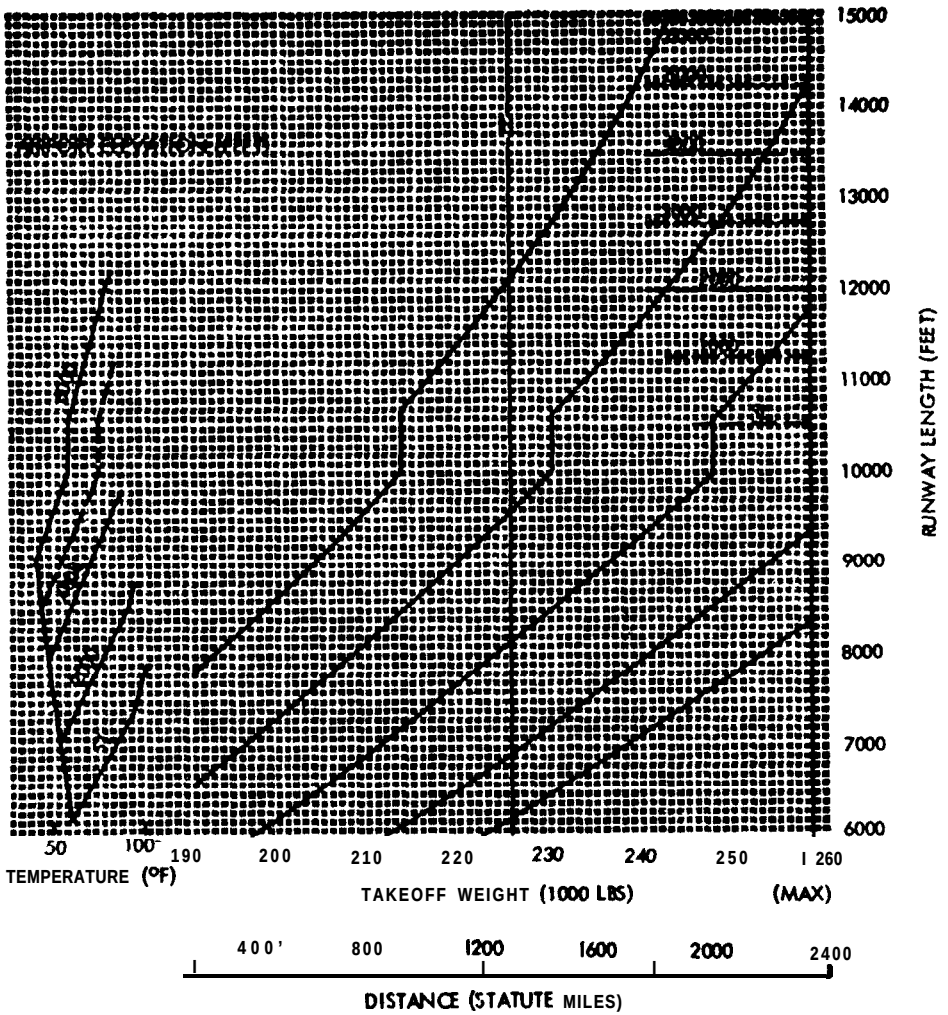


Figure 32. Aircraft Performance Curve, Takeoff (Boeing 707-100B Series)

BOEING 707-300B SERIES

PRATT & WHITNEY JT3D-3 ENGINE

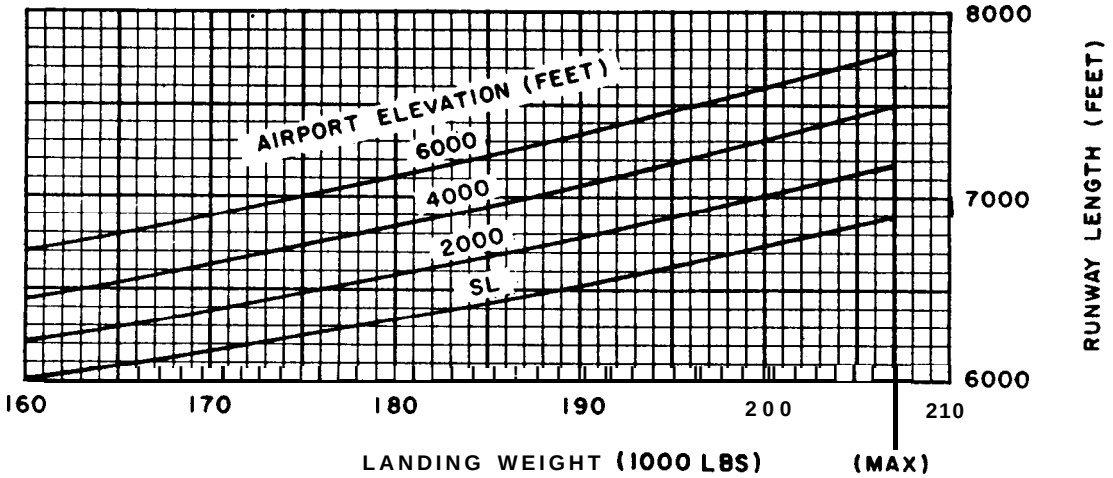


Figure 33. Aircraft Performance Curve, Landing (Boeing 707-300B Series)

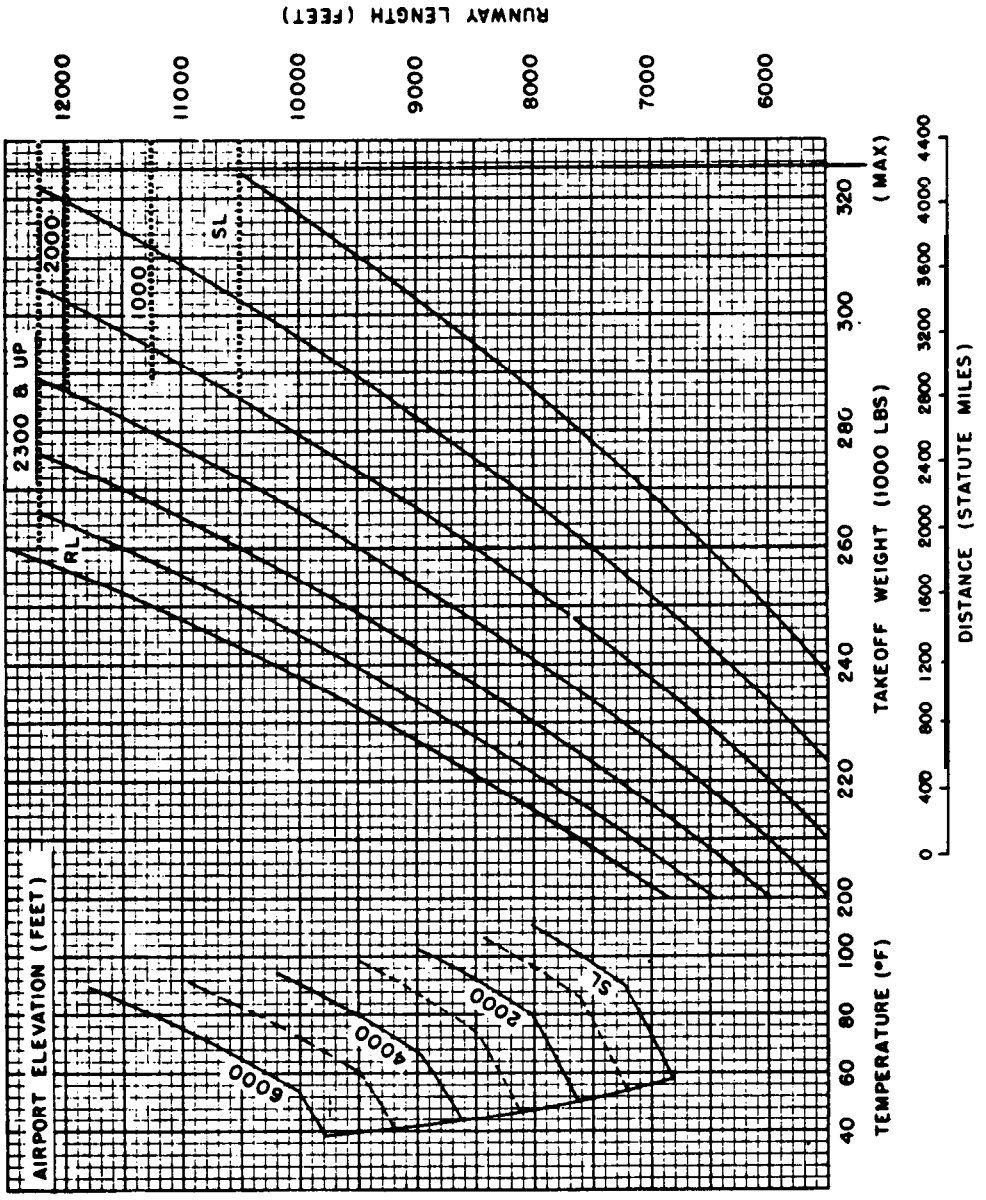


Figure 34. Aircraft Performance Curve, Takeoff (Boeing 707-300B Series)

BOEING 720-000B SERIES

PRATT & WHITNEY JT3D-1 ENGINE
JT3D-1-MC6
JT3D- 1-MC7

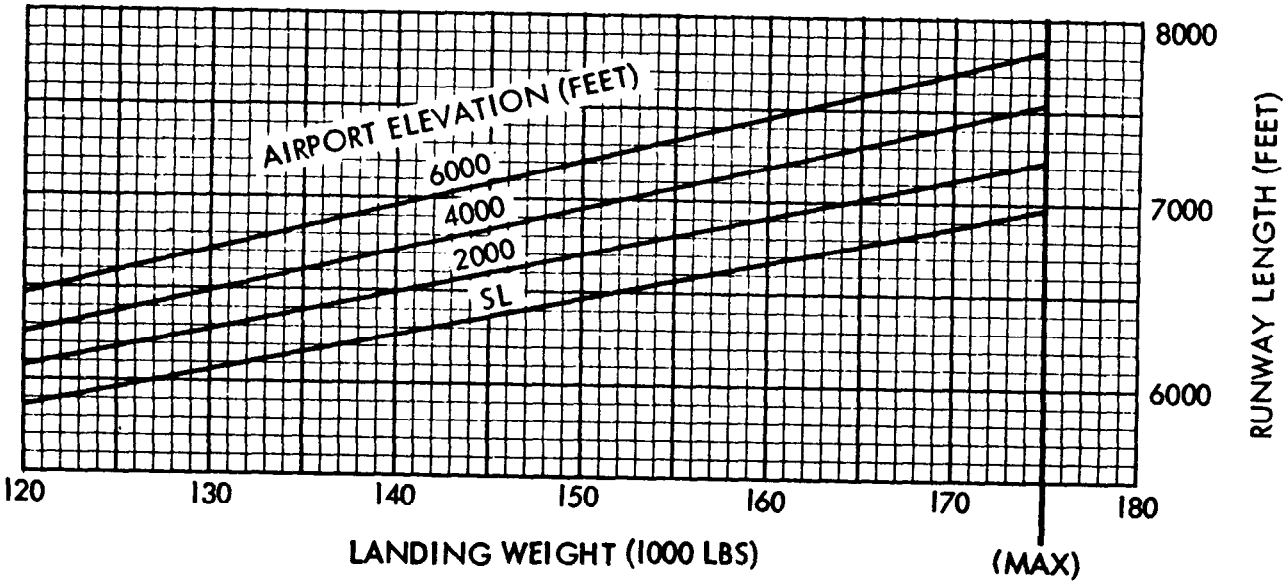


Figure 35. Aircraft Performance Curve, Landing (Boeing 720-000B Series)

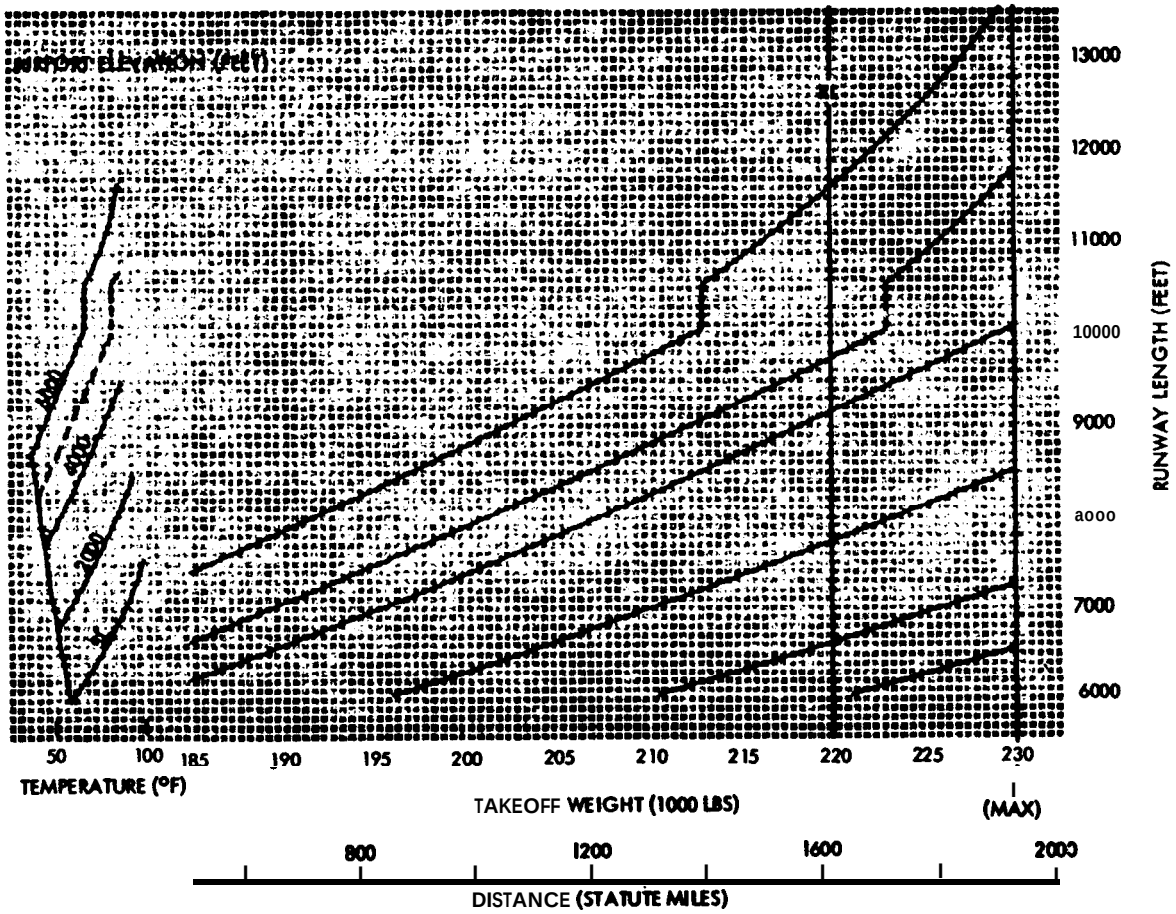
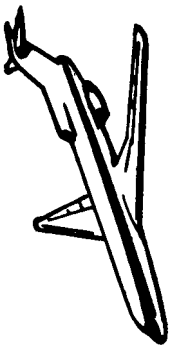


Figure 36. Aircraft Performance Curve, Takeoff (Boeing 720-000B Series)



BOEING 727-00 SERIES

Pratt & Whitney JT8D-1 Engine

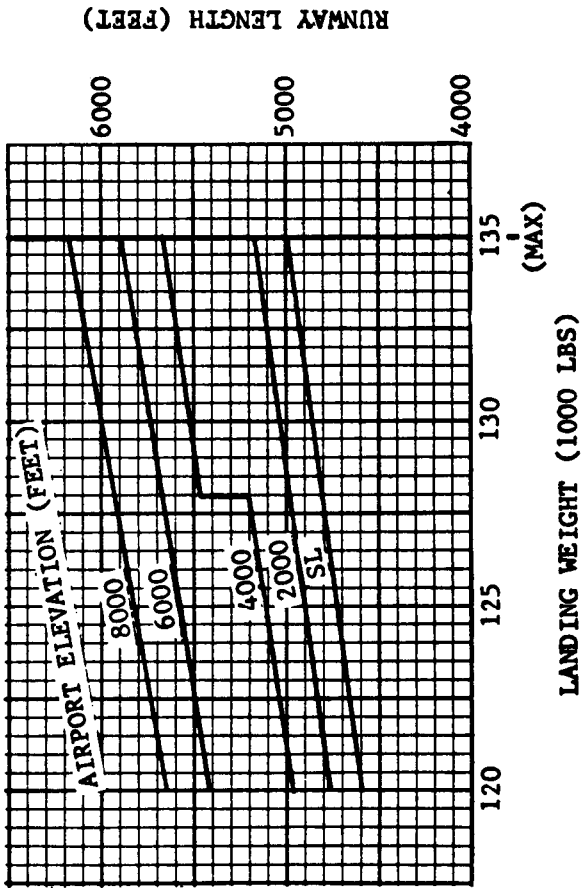


Figure 37. Aircraft Performance Curve, Landing (Boeing 727-00 Series)

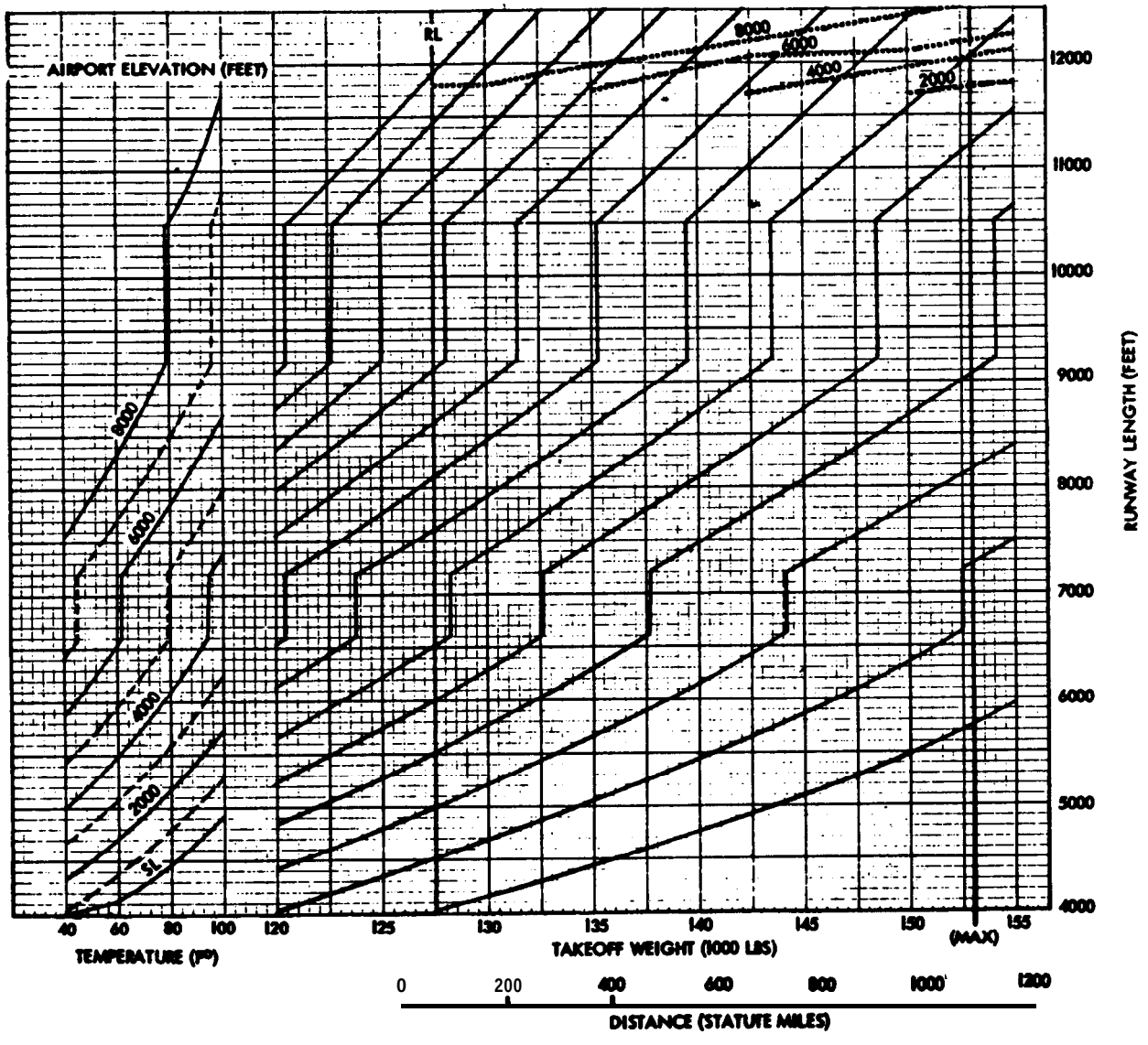
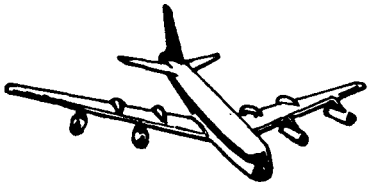


Figure 38. Aircraft Performance Curve, Takeoff (Boeing 727-00 Series)



CONVAIR 990A

GENERAL ELECTRIC CJ805-23B ENGINE

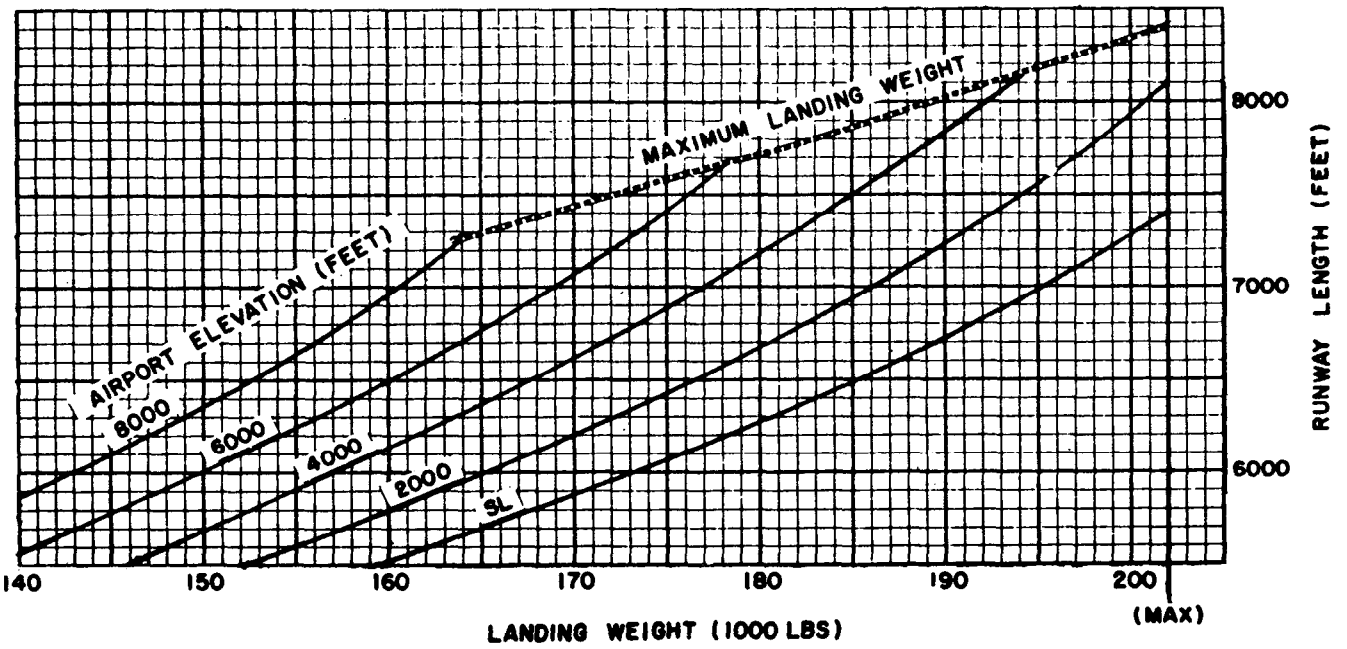


Figure 39. Aircraft Performance Curve, Landing (Convair 990A)

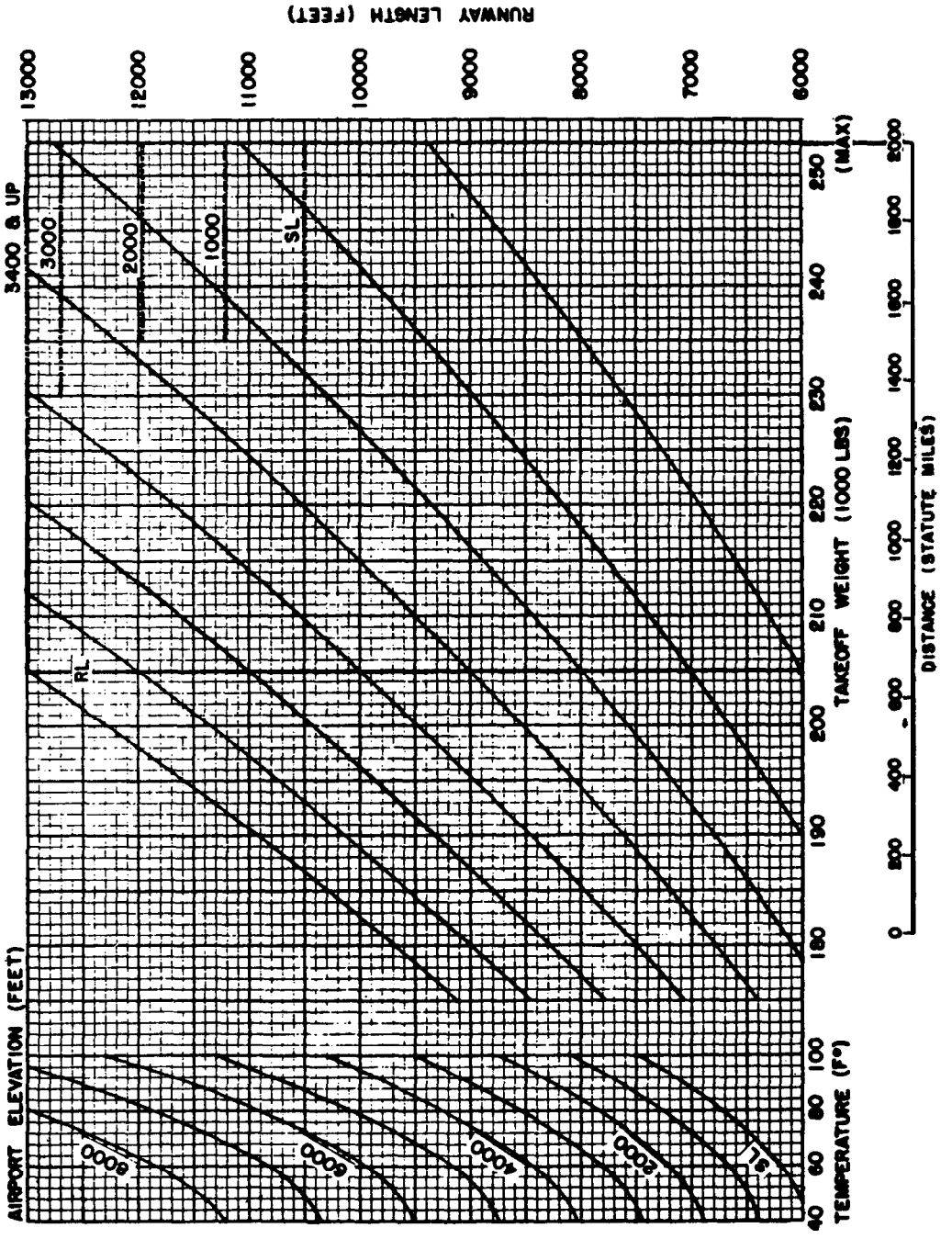


Figure 40. Aircraft Performance Curve, Takeoff (Convair 990A)

DOUGLAS DC-8-50 SERIES

PRATT & WHITNEY JT3D-1 ENGINE

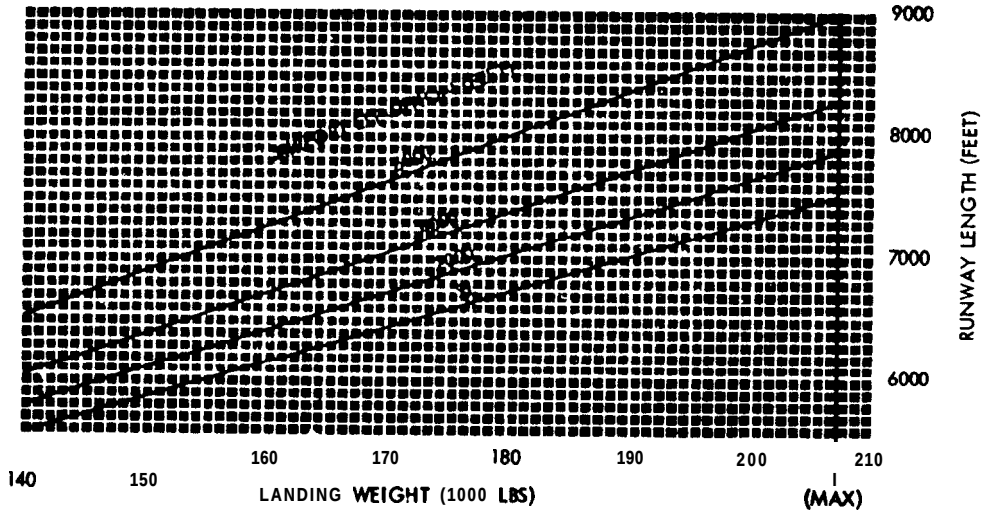


Figure 41. Aircraft Performance Curve, Landing (Douglas DC-8-50 Series)

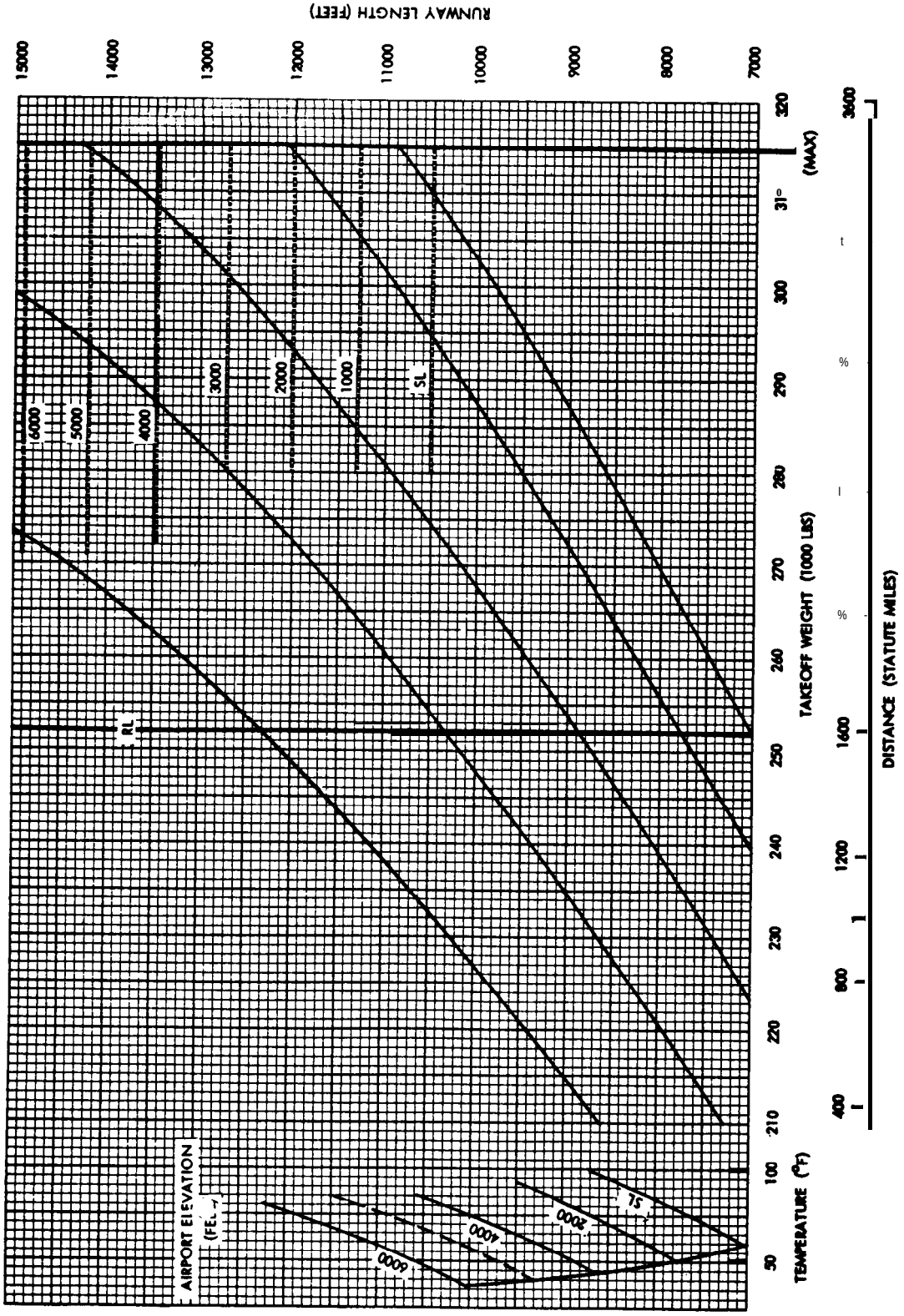


Figure 42 Aircraft Performance Curve, Takeoff (Douglas DC-8-50 Series)

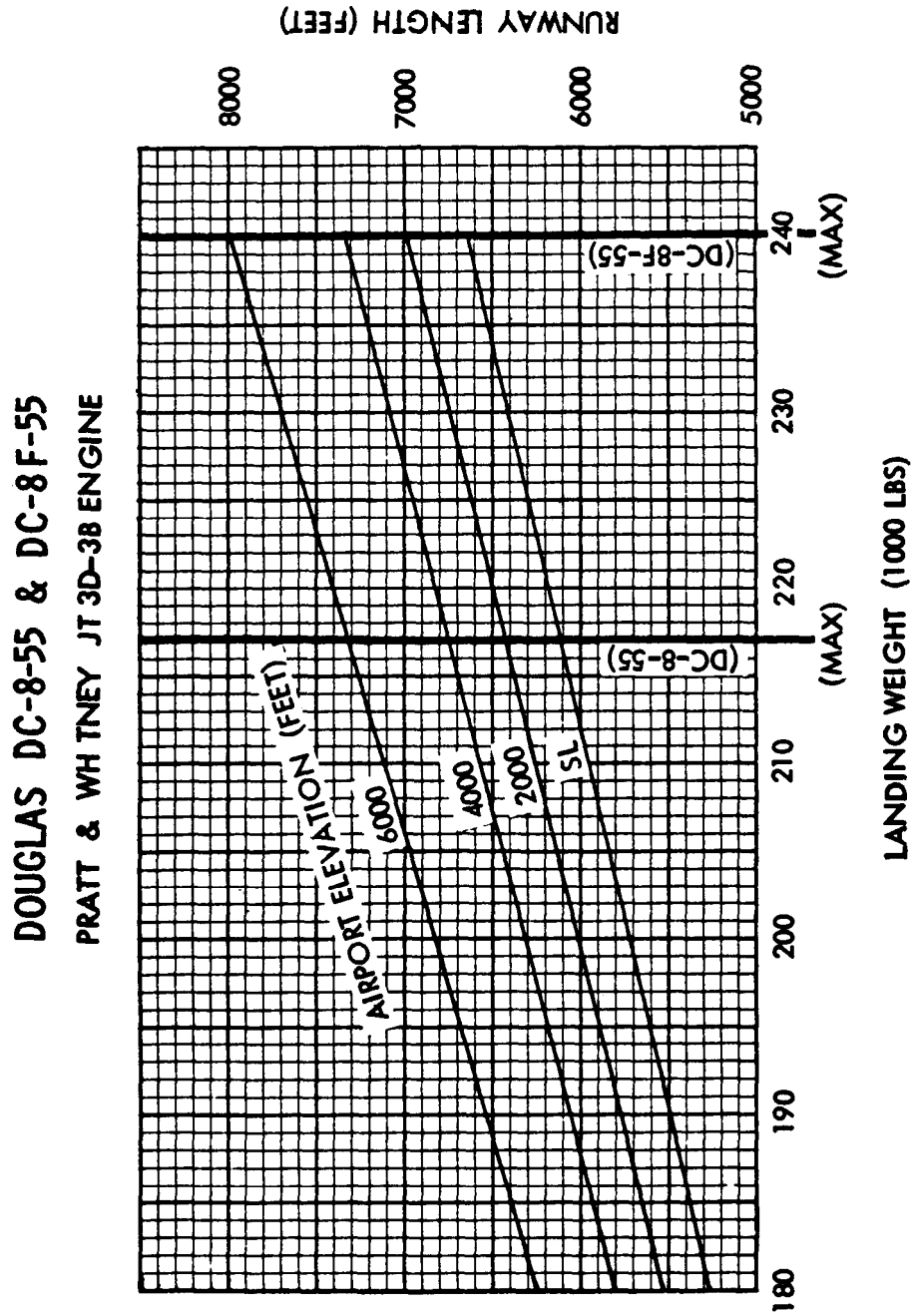


Figure 43 Aircraft Performance Curve, Landing (Douglas DC-8-55 & DC-8F-55

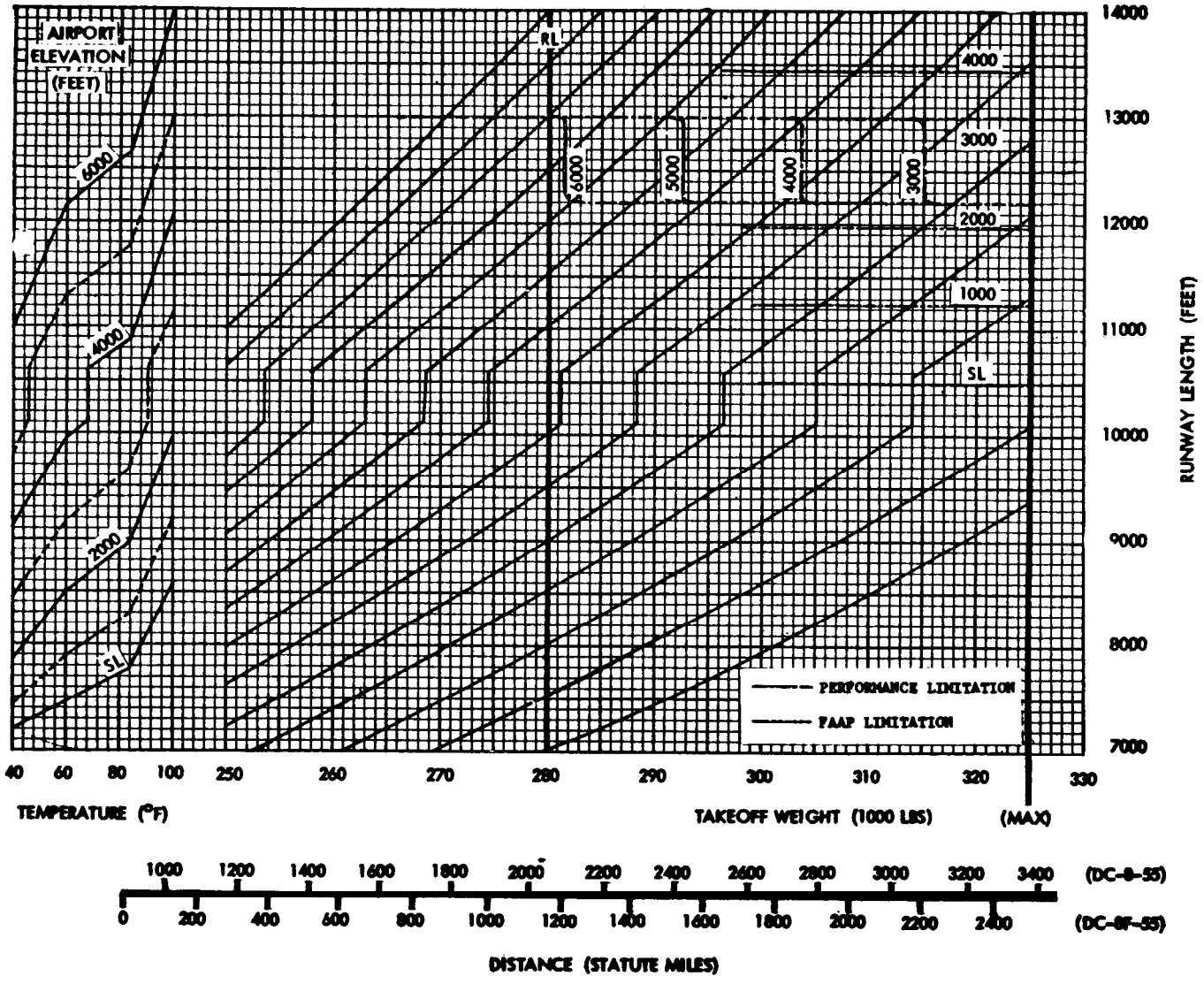


Figure 44. Aircraft Performance Curve, Takeoff (Douglas DC-8-55 & DC-8F-55)

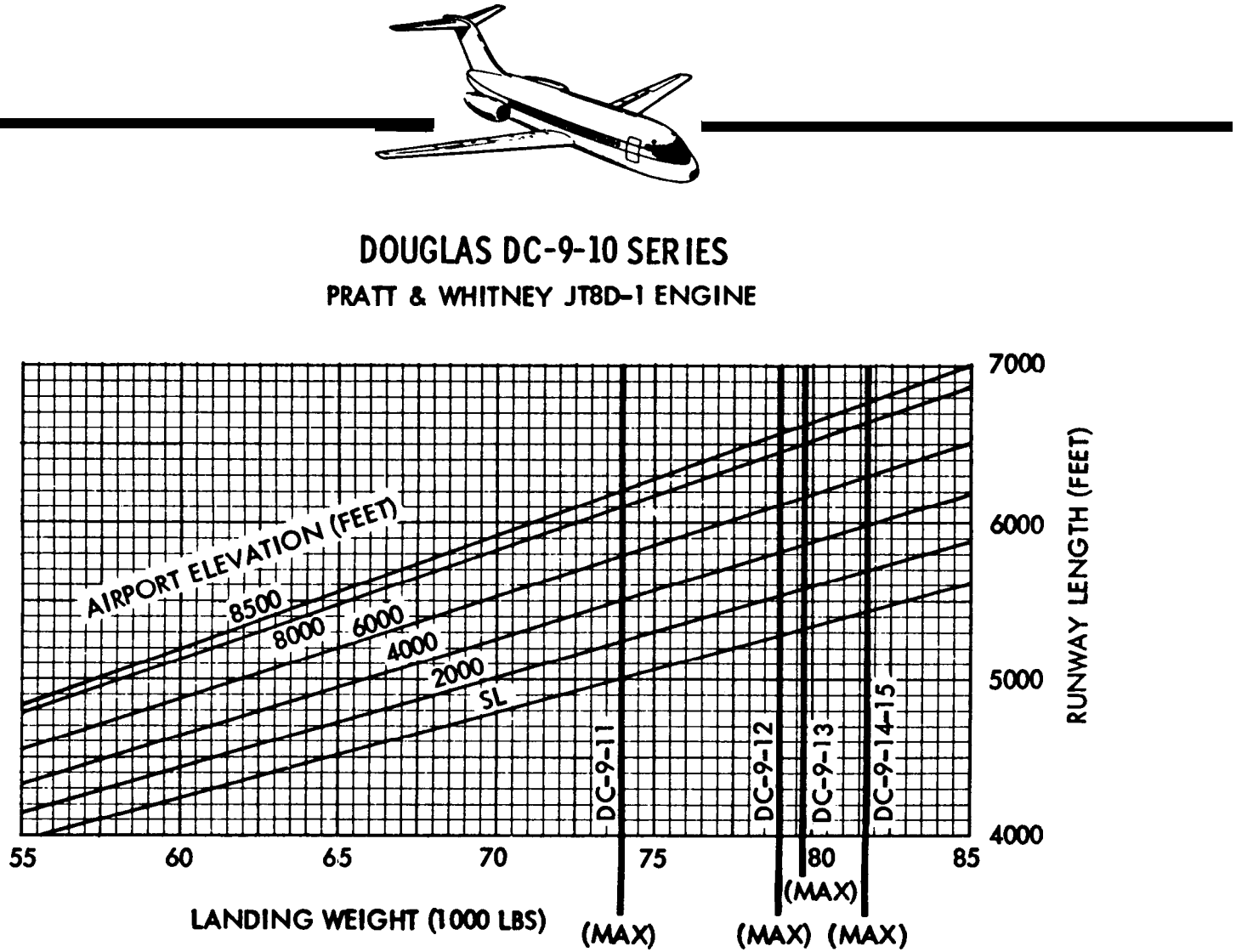


Figure 45. Aircraft Performance Curve, Landing (Douglas DC-9-10 Series)

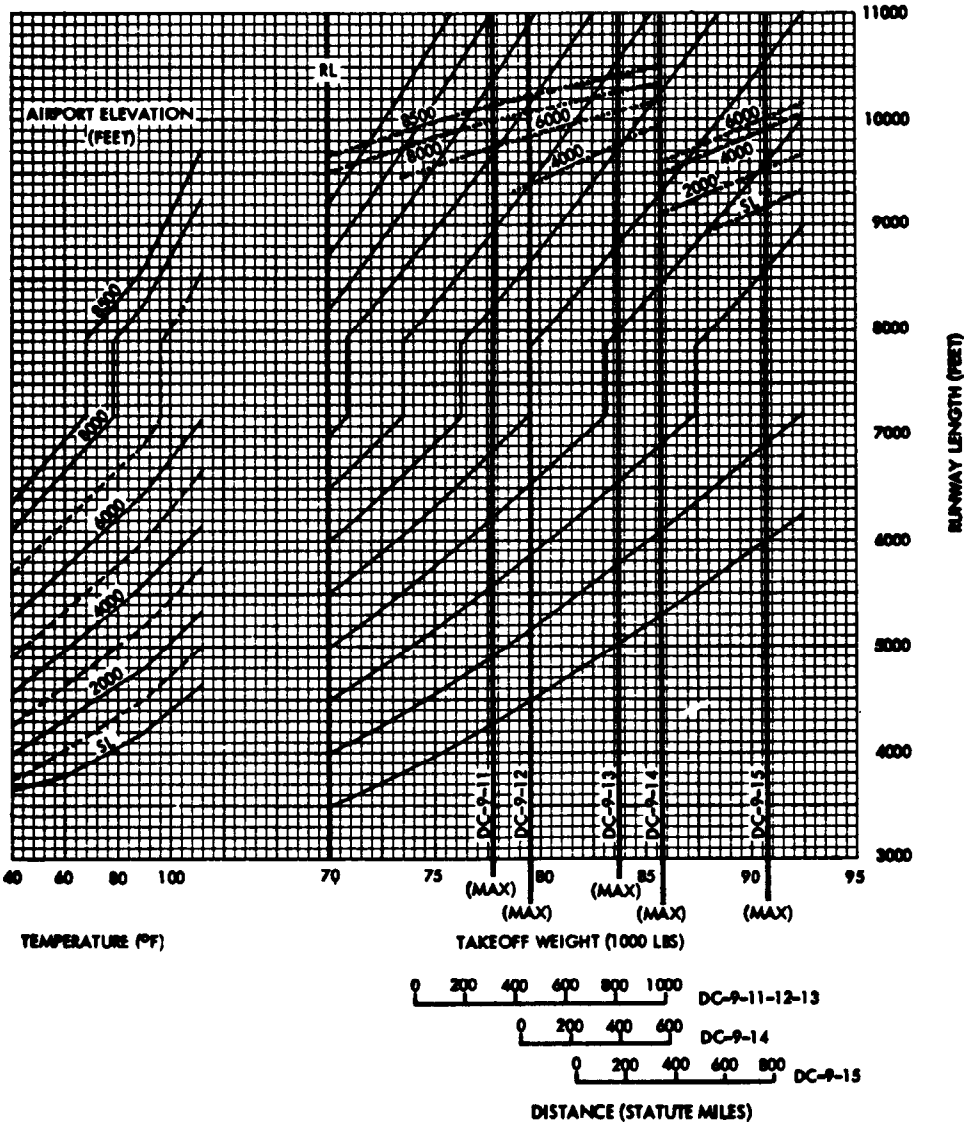


Figure 46 Aircraft Performance Curve, Takeoff (Douglas DC-9-10 Series)

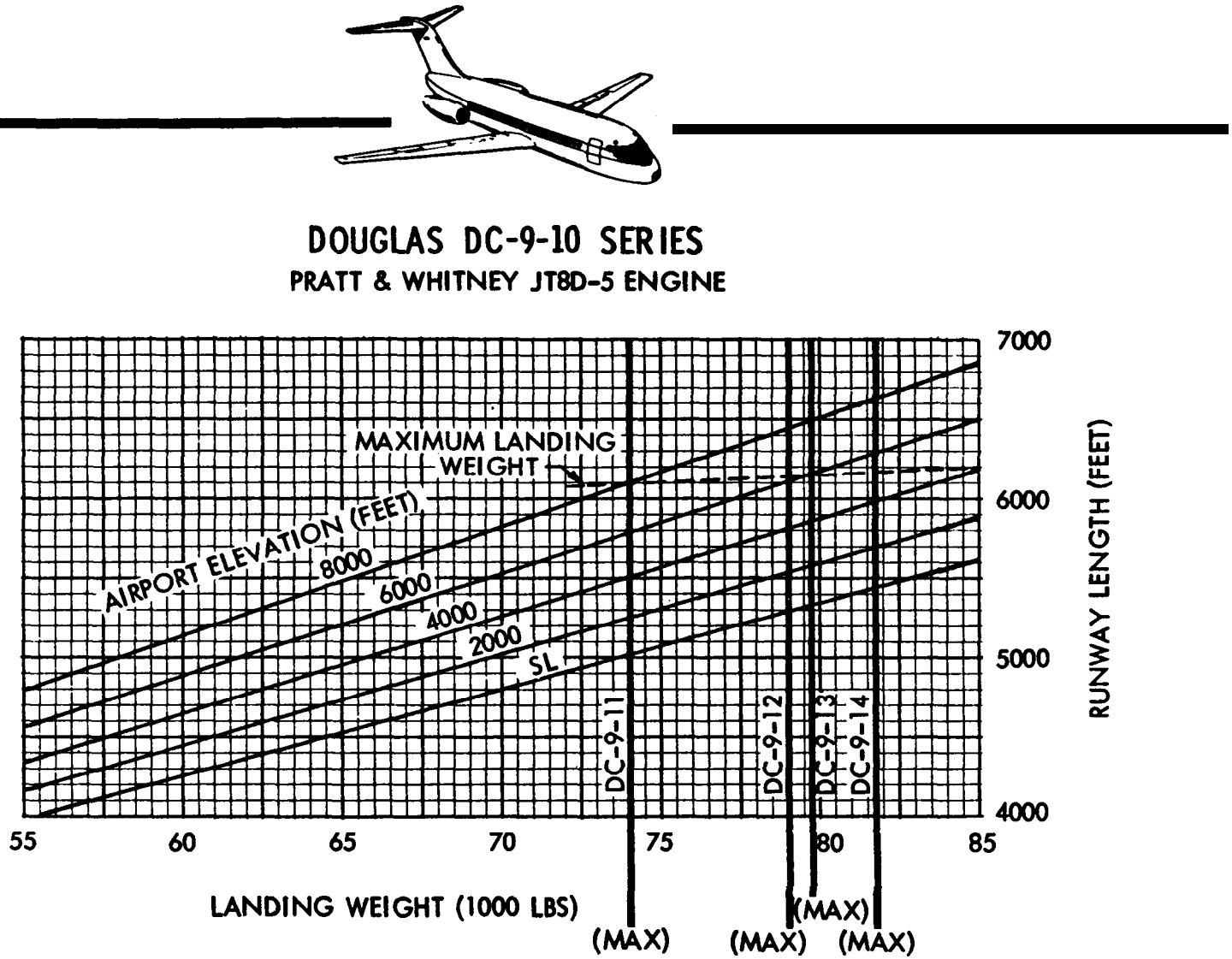


Figure 47. Aircraft Performance Curve, Landing (Douglas DC-g-10 Series)

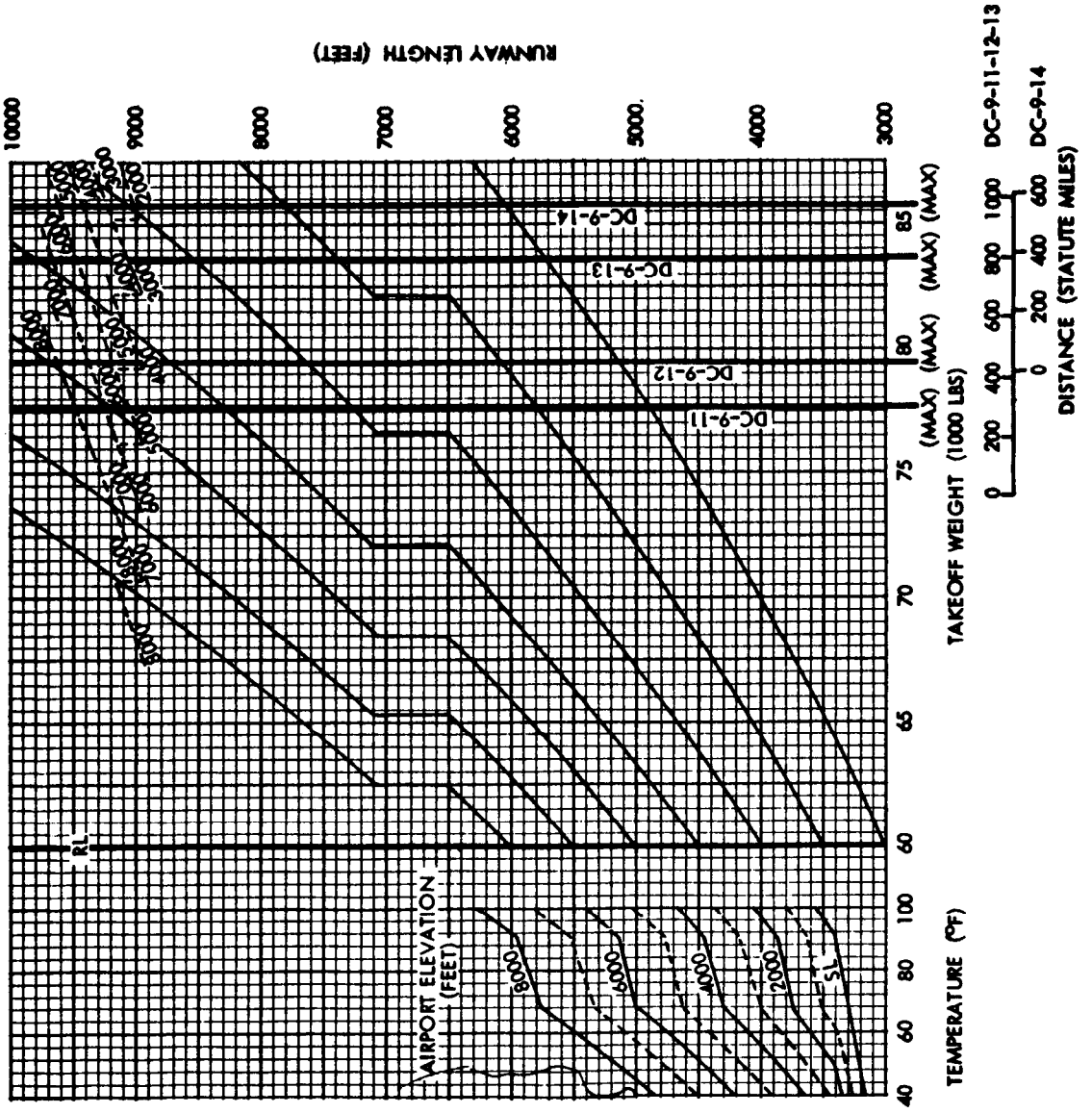
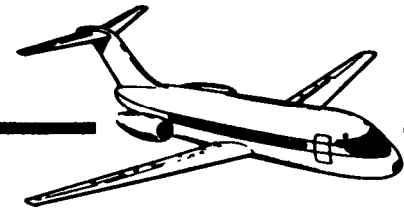


Figure 48. Aircraft Performance Curve, Takeoff (Douglas DC-9-10 Series)



DOUGLAS DC-9-30 SERIES

PRATT & WHITNEY JT8D-1 ENGINE

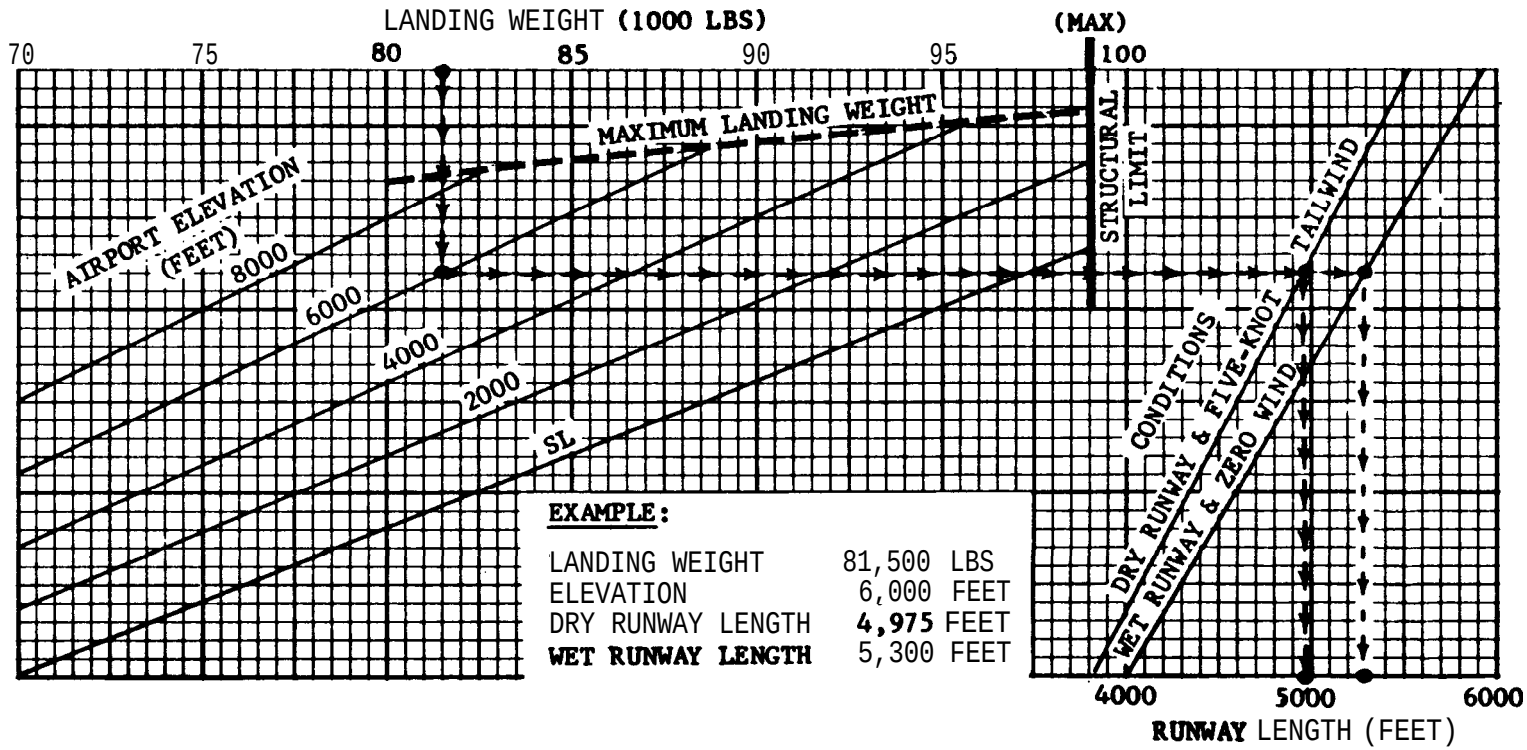


Figure 49. Aircraft Performance Curve, Landing (Douglas DC-9-30 Series)

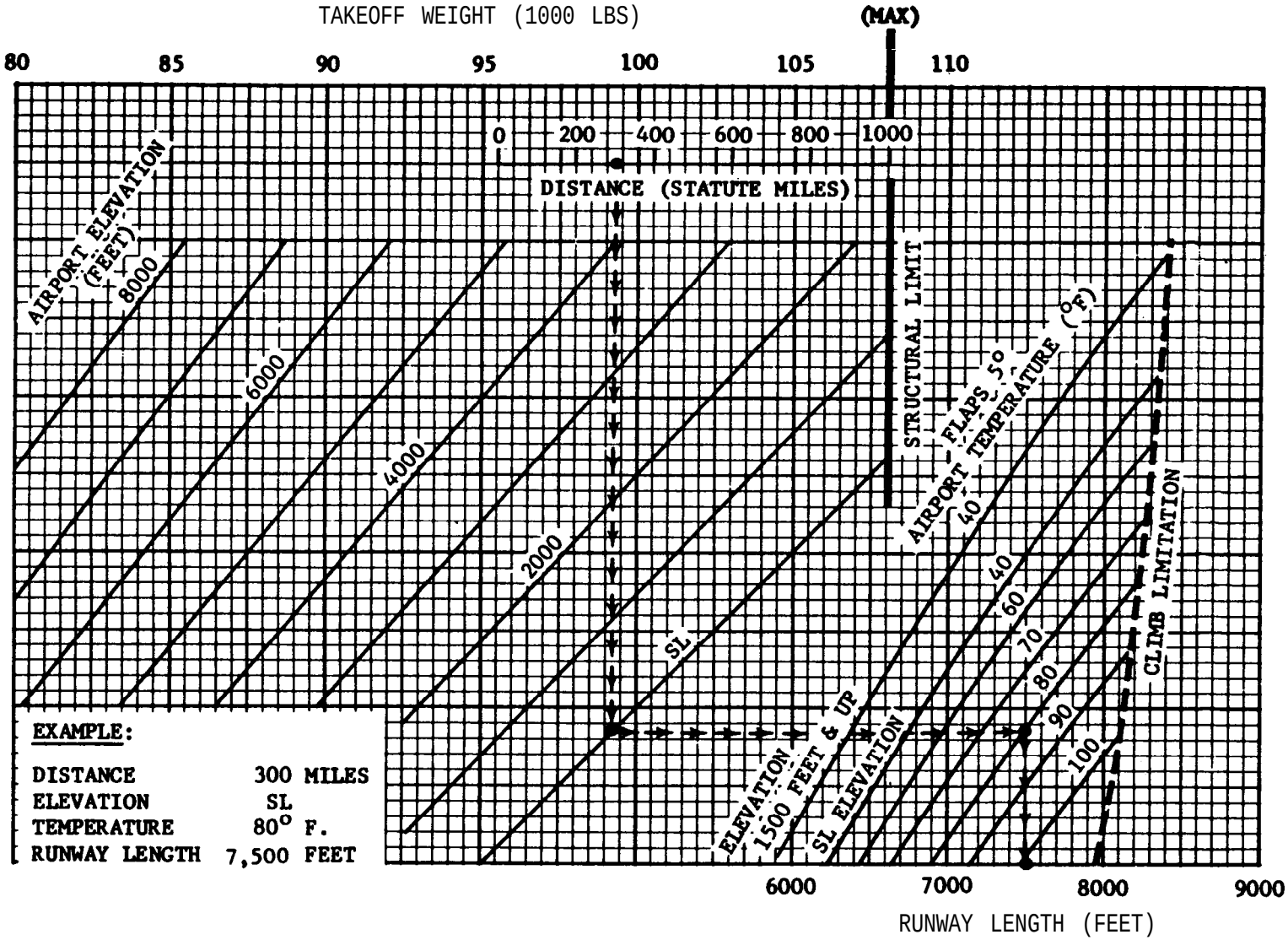


Figure 50. Aircraft Performance Curve, Takeoff (Douglas DC-g-30 Series)

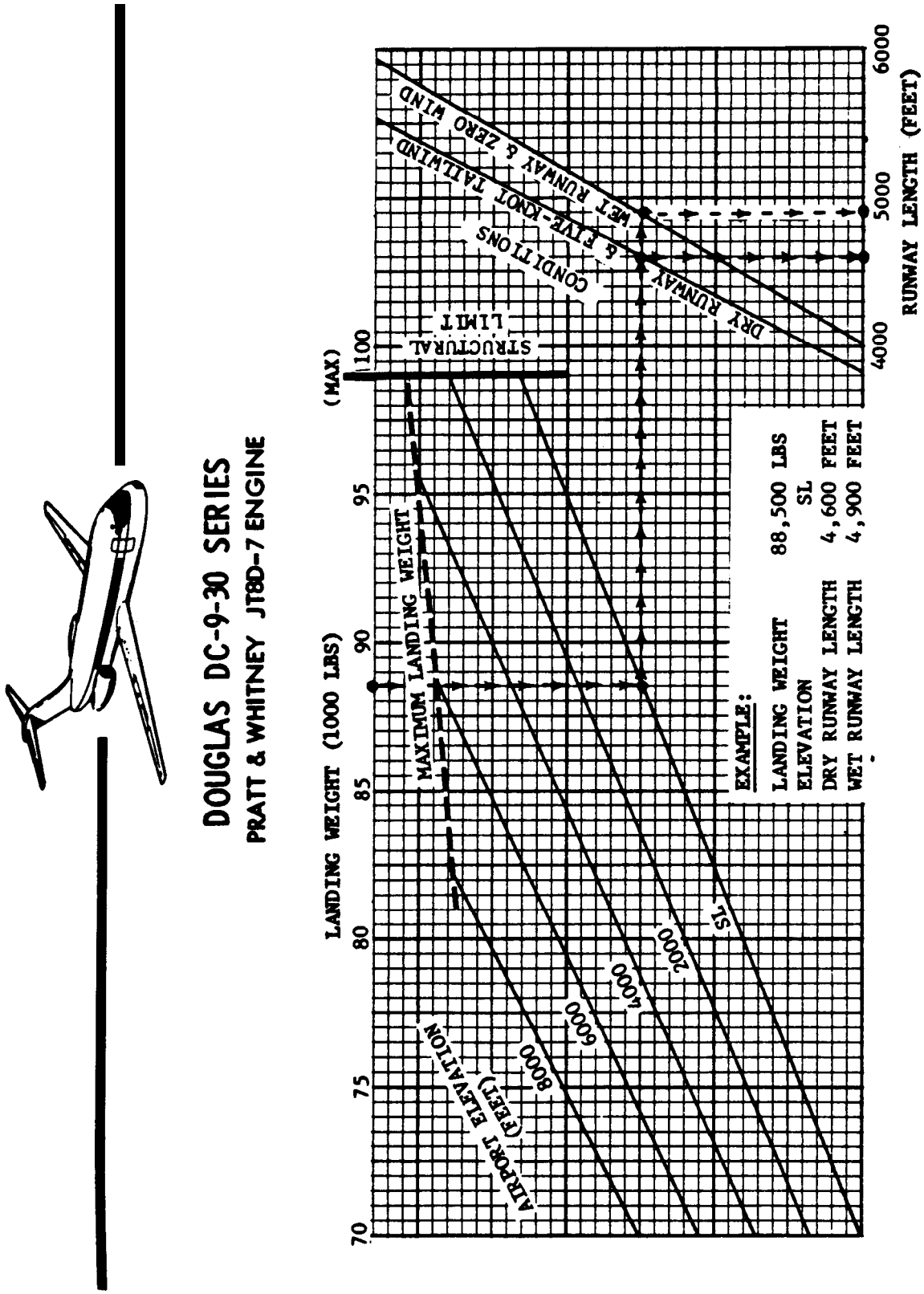


Figure 51. Aircraft Performance Curve, Landing (Douglas DC-9-30 Series)

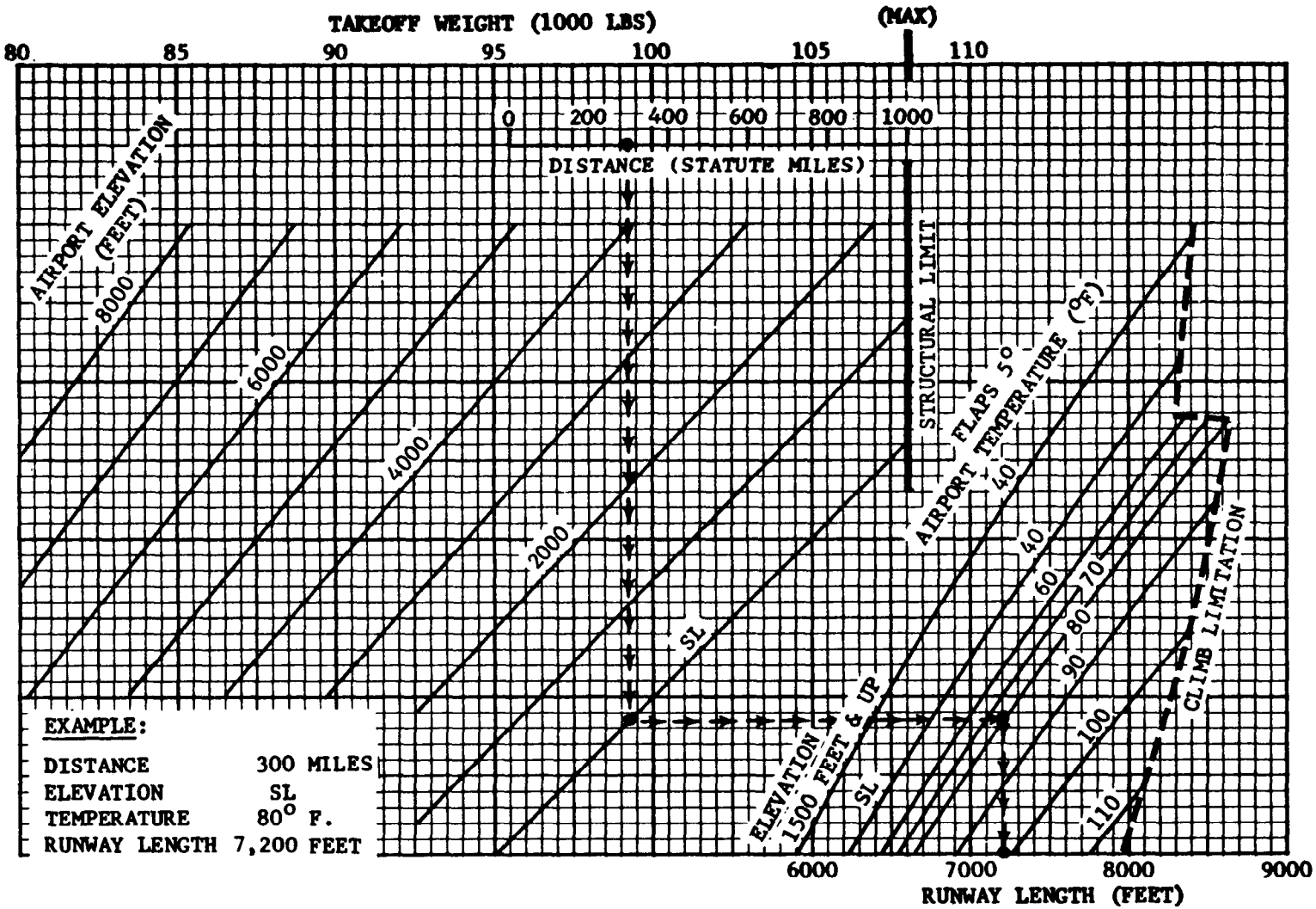


Figure 52. Aircraft Performance Curve, Takeoff (Douglas DC-g-30 Series)

APPENDIX 3. AIRPLANE PERFORMANCE TABLES

1. AIRPLANE PERFORMANCE TABLES. The data tables contained in this appendix are for large airplanes. Note that certain airplanes such as the Boeing 727-200 have tables for distinct engine power plants.

2. ENGLISH AND METRIC TABLES. The data tables contained *in* this appendix are expressed in both English (section 1) and metric (section 2) forms. The ultimate goal of this metrication activity is the unification of measurements used in domestic and international aviation. Distance, weight, and temperature conversion factors between the two systems are found in section 2.

SECTION 1. ENGLISH TABLES

3. EXPLANATORY INSTRUCTIONS. See chapter 3 for explanatory instructions and the design example problem on the use of the English data tables.

TABLE 1. AIRCRAFT PERFORMANCE, LANDING (BOEING 707-300C SERIES)
JT3D-3B ENGINE, 50" FLAPS

MAXIMUM ALLOWABLE LANDING WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	247.0	247.0	247.0	247.0	247.0	247.0	247.0	246.8	237.6
55	247.0	247.0	247.0	247.0	247.0	247.0	247.0	242.4	233.4
60	247.0	247.0	247.0	247.0	247.0	247.0	247.0	239.0	230.0
65	247.0	247.0	247.0	247.0	247.0	247.0	247.0	239.3	230.3
70	247.0	247.0	247.0	247.0	247.0	247.0	247.0	239.5	230.5
75	247.0	247.0	247.0	247.0	247.0	247.0	247.0	239.8	230.8
80	247.0	247.0	247.0	247.0	247.0	247.0	247.0	240.1	231.1
85	247.0	247.0	247.0	247.0	247.0	247.0	247.0	239.4	230.3
90	247.0	247.0	247.0	247.0	247.0	247.0	243.5	234.5	225.6
95	247.0	247.0	247.0	247.0	247.0	247.0	238.3	229.3	220.6
100	247.0	247.0	247.0	247.0	247.0	242.1	233.0	224.2	215.6
105	247.0	247.0	247.0	247.0	245.8	236.7	227.8	219.2	210.8
110	247.0	247.0	247.0	247.0	240.3	231.5	222.8	214.5	206.4

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
160	5.15	5.24	5.33	5.43	5.53	5.64	5.75	5.87	5.99
170	5.36	5.46	5.56	5.66	5.77	5.88	6.00	6.11	6.23
180	5.57	5.68	5.79	5.90	6.02	6.14	6.26	6.38	6.49
190	5.80	5.91	6.03	6.15	6.27	6.40	6.53	6.65'	6.78
200	6.03	6.15	6.27	6.40	6.53	6.67	6.80	6.94	7.07
210	6.26	6.39	6.52	6.66	6.80	6.94	7.09	7.24	7.39
220	6.50	6.64	6.77	6.92	7.07	7.22	7.38	1.54	7.70
230	6.75	6.89	7.03	7.19	7.34	7.50	7.67	7.84	6.02
240	6.99	7.14	7.30	7.45	7.62	7.79	7.96	8.15	8.34
250	7.24	7.40	7.56	7.73	7.90	8.07	8.25	8.45	8.65

AIRPLANE CHARACTERISTICS	UNIT OF MEASURE	CONVERTIBLE PASSENGER	CONVERTIBLE CARGO	FREIGHTER
TYPICAL OPERATING EMPTY WEIGHT PLUS RESERVE FUEL	LBS.	171,100	164,300	151,500
AVERAGE FUEL CONSUMPTION	LBS./MILE	27	27	27
TYPICAL MAXIMUM PASSENGER LOAD @200 LBS./PASSENGER	LBS.	38,800		-
MAXIMUM STRUCTURAL PAYLOAD	LBS.	74,900	81,700	94,500

TABLE 2. AIRCRAFT PERFORMANCE, TAKEOFF (BOEING 707-300C SERIES)
JT3D-3B ENGINE, 14" FLAPS

MAXIMUM ALLOWABLE TAKEOFF WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	336.0	336.0	336.0	328.6	316.5	305.1	294.0	283.4	273.0
55	336.0	336.0	336.0	326.1	314.2	302.8	291.8	281.2	270.8
60	336.0	336.0	336.0	323.7	311.8	300.5	289.6	279.0	268.7
65	336.0	336.0	333.4	321.2	309.5	298.2	287.3	276.8	266.5
70	336.0	336.0	330.7	318.8	307.2	295.9	285.1	274.6	264.4
75	336.0	336.0	328.1	316.3	304.8	293.7	282.8	272.4	262.2
80	336.0	336.0	325.5	313.8	302.5	291.4	280.6	270.2	260.1
85	336.0	334.5	322.8	311.4	300.1	289.1	278.4	268.0	257.9
90	336.0	331.6	320.2	308.9	297.8	286.8	276.1	265.8	25S.8
95	336.0	328.7	317.6	306.5	295.4	284.S	273.9	263.6	253.7
100	336.0	325.8	315.0	304.0	293.1	282.3	271.7	261.4	251.5
105	334.2	321.7	310.1	299.2	288.7	278.5	268.3	258.0	247.4
110	325.9	315.3	304.7	294.2	283.8	273.2	262.6	251.8	

REFERENCE FACTOR "R"

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	moo	6000	7000	8000
50	61.0	65.0	67.5	73.0	79.2	86.0	93.6	101.8	110.8
55	62.4	65.7	68.6	74.3	80.7	87.7	95.4	103.9	113.2
60	63.6	66.3	69.8	75.7	82.1	89.3	97.2	105.9	115.5
65	64.6	66.8	71.0	77.0	83.6	90.8	98.9	107.8	117.7
70	65.5	67.1	72.3	78.3	85.0	92.4	100.6	109.7	119.8
75	66.2	68.0	73.6	79.8	86.5	94.0	102.4	111.7	122.0
80	66.8	69.3	75.0	81.3	88.1	95.7	104.2	113.7	124.3
85	67.2	70.7	76.5	82.9	89.8	97.6	106.2	115.9	126.8
90	67.5	72.2	78.1	84.6	91.7	99.5	108.4	118.3	129.5
95	68.1	73.8	79.9	86.4	93.6	101.7	110.7	120.9	132.4
100	69.7	75.5	81.7	88.4	95.8	104.1	113.4	123.9	135.8
105	71.4	77.4	83.7	90.6	98.2	106.7	116.3	127.2	139.5
110	73.2	79.4	85.9	93.0	100.8	109.6	119.6	130.9	

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	REFERENCE FACTOR "R" 60	70	80	90	100	110	120	1%	140
160	4.00	4.00	4.00	4.00	4.00	4.00	4.25	4.53	4.72
170	4.00	4.00	4.00	4.00	4.04	4.44	4.83	5.17	3.45
180	4.00	4.00	4.00	4.13	4.56	5.00	5.44	5.84	6.21
190	4.00	4.00	4.15	4.62	5.11	5.60	6.08	6.55	7.00
200	4.00	4.08	4.61	5.14	5.68	6.22	6.76	7.30	7.83
210	4.00	4.49	5.09	5.69	6.29	6.89	7.49	8.09	8.70
220	4.25	4.93	5.60	6.27	6.94	7.60	8.27	8.94	9.62
230	4.66	5.40	6.15	6.88	7.62	8.36	9.10	9.85	10.60
240	5.10	5.91	6.72	7.54	8.36	9.18	10.00	10.82	11.65
250	5.58	6.45	7.33	8.23	9.14	10.05	10.96	11.87	12.76
260	6.09	7.02	7.98	8.97	9.98	10.99	12.00	12.99	13.95
270	6.64	7.62	8.66	9.75	10.88	12.00	13.12	14.20	15.22
280	7.23	8.25	9.39	10.59	11.84	13.09	14.32	15.49	
290	7.84	8.92	10.15	11.48	12.86	14.25			
300	8.49	9.63	10.96	12.43	13.96				
310	9.16	10.37	11.82	13.43	15.13				
320	9.87	11.14	12.72	14.50					
330	10.59	11.95	13.67						
340	11.35	12.79	14.67						

TABLE 3. AIRCRAFT PERFORMANCE, LANDING (BOEING 727-100 SERIES)
JT8D-7 ENGINE, 40" FLAPS

MAXIMUM ALLOWABLE LANDING WRIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	137.5	137.5	137.5	137.5	137.5	137.5	136.0	131.5	126.4
55	137.5	137.5	137.5	137.5	137.5	137.5	135.9	130.9	126.3
60	137.5	137.5	137.5	137.5	137.5	137.5	135.7	130.7	126.0
65	137.5	137.5	137.5	137.5	137.5	137.5	135.6	130.5	125.7
70	137.5	137.5	137.5	137.5	137.5	137.5	134.9	129.8	125.1
75	137.5	137.5	137.5	137.5	137.5	137.5	133.9	128.8	124.1
80	137.5	137.5	137.5	137.5	137.5	137.5	132.4	127.4	122.8
85	137.5	137.5	137.5	137.5	137.5	135.6	130.6	125.6	121.1
90	137.5	137.5	137.5	137.5	137.5	133.3	128.4	123.5	119.1
95	137.5	137.5	137.5	137.5	135.3	130.7	125.8	121.0	116.7
100	137.5	137.5	137.5	136.6	132.3	127.6	122.8	118.2	114.0
105	137.5	137.5	137.5	133.5	12a.9	124.2	119.5	115.0	110.9
110	137.5	137.5	135.0	130.0	125.1	120.3	115.8	111.5	107.5

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
105	4.00	4.07	4.15	4.25	4.34	4.45	4.55	4.65	4.75
110	4.14	4.22	4.30	4.40	4.50	4.60	4.71	4.82	4.92
115	4.29	4.37	4.46	4.55	4.65	4.76	4.07	4.98	5.10
120	4.43	4.52	4.61	4.71	4.82	4.93	5.04	5.16	5.28
125	4.58	4.69	4.78	4.88	4.99	5.10	5.22	5.34	5.46
130	4.73	4.04	4.94	5.06	5.17	5.29	5.41	5.53	5.65
135	4.89	5.00	5.12	5.23	5.35	5.48	5.60	5.72	5.85
140	5.05	5.17	5.29	5.42	5.55	5.67	5.80	5.93	5.95

AIRPLANE CHARACTERISTICS	UNIT OF MEASURE	ADVANCED PASSENGERS	OPTIONS QUICK CHANGE
MAXIMUM TAKEOFF WEIGHT	LBS.	160,000	169,000
MAXIMUM LANDING WEIGHT			
FLAPS 30°	LBS.	142,500	142,500
FLAPS 40"	LBS.	137,500	137,500
TYPICAL OPERATING EMPTY WEIGHT PLUS RESERVE FUEL	LBS.	101,330 107,468	101,330 1/ 107,468 2/
AVERAGE FUEL CONSUMPTION	LBS./MILE	19	19
TYPICAL MAXIMUM PASSENGER LOAD AT 200 LBS./PASSENGER	LBS.	25,000	18,800
MAXIMUM STRUCTURAL PAYLOAD	LBS.	32,400	40,900

1/ Based on 1.25 hours of reserve fuel.
2/ Based on 2.00 hours of reserve fuel.

TABLE 4. AIRCRAFT PERFORMANCE, LANDING (BOEING 727-100 SERIES)
JT8D-7 ENGINE, 30" FLAPS

MAXIMUM ALLOWABLE LANDING WEIGHT (1000 LBS)

TEMP	AIRPORT ELEVATION (FEET)								
	0	1000	2000	3000	4000	5000	6000	7000	8000
50	142.5	142.5	142.5	142.5	142.5	142.5	142.5	141.0	142.5
55	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5
60	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5
65	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5
70	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5
75	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5
80	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5
85	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.2	140.4
90	142.5	142.5	142.5	142.5	142.5	142.5	142.5	140.7	137.3
95	142.5	142.5	142.5	142.5	142.5	142.5	142.5	138.6	134.2
100	142.5	142.5	142.5	142.5	142.5	142.5	141.5	136.2	131.0
105	142.5	142.5	142.5	142.5	142.5	142.5	138.4	133.3	127.8
110	142.5	142.5	142.5	142.5	142.5	140.3	135.2	130.0	124.5

RUNWAY LENGTH (1000 FEET)

WEIGHT	AIRPORT ELEVATION (FEET)								
000 LBS	0	1000	2000	3000	4000	5000	6000	7000	8000
105	4.39	4.50	4.59	4.68	4.77	4.85	4.94	5.04	5.15
110	4.54	4.63	4.72	4.82	4.92	5.02	5.13	5.24	5.35
115	4.69	4.77	4.86	4.97	5.08	5.20	5.32	5.44	5.55
120	4.84	4.91	5.01	5.12	5.25	5.38	5.51	5.64	5.75
125	4.99	5.07	5.17	5.29	5.42	5.56	5.70	5.83	5.95
130	5.15	5.23	5.34	5.46	5.60	5.74	5.88	6.02	6.15
135	5.30	5.40	5.51	5.64	5.78	5.93	6.07	6.21	6.34
140	5.46	5.58	5.70	5.84	5.97	6.11	6.26	6.40	6.54
145	5.62	5.76	5.90	6.04	6.17	6.30	6.44	6.59	6.65

TABLE 5. AIRCRAFT PERFORMANCE, TAKEOFF (BOEING 727-100 SERIES)
JT8D-7 ENGINE, 25" FLAPS

MAXIMUM ALLOWABLE TAKEOFF WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5900	6000	7000	8000
50	163.6	157.9	152.3	146.8	141.4	136.2	131.0	126.0	121.2
55	162.0	156.3	150.7	145.2	139.9	134.7	129.7	124.3	120.0
60	160.0	153.9	148.2	142.8	137.7	133.0	128.4	124.1	120.0
65	160.0	153.9	148.2	142.8	137.7	133.0	128.4	124.1	120.0
70	160.0	153.9	148.2	142.8	137.7	133.0	128.4	124.1	120.0
75	160.0	153.9	148.2	142.3	137.7	133.0	128.4	124.1	120.0
80	160.0	153.9	148.2	142.8	137.7	133.0	128.4	124.1	120.0
85	160.0	153.9	148.2	142.3	136.9	131.9	127.0	122.3	117.5
90	155.6	149.9	144.4	139.1	134.0	129.0	124.2	119.6	115.0
95	152.1	146.5	141.2	136.0	131.0	126.2	121.4	116.9	112.4
100	148.5	143.2	138.0	133.0	126.1	123.3	118.7	114.2	109.8
105	145.0	139.9	134.8	129.9	125.1	120.4	115.9	111.5	107.2
110	141.5	136.5	131.6	126.9	122.2	117.6	113.1	108.7	104.5

REFERENCE FACTOR "R"

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
[illegible]	36.5	38.3	40.6	43.3	46.5	50.1	54.4	59.1	64.5
55	36.5	35.3	41.3	44.2	47.6	51.3	55.6	60.5	66.0
60	36.5	38.4	41.3	44.2	47.6	51.3	55.6	60.8	67.0
65	36.5	3R.5	41.4	44.3	41.6	51.3	55.7	61.0	61.5
70	36.6	38.9	41.7	44.7	48.0	51.8	56.2	61.5	67.7
75	36.7	39.4	42.3	45.4	413.8	52.1	57.2	62.4	68.5
80	37.5	40.2	43.1	46.3	49.8	53.9	58.5	63.9	70.0
85	38.4	41.1	44.1	47.4	51.2	55.4	60.3	65.8	72.1
90	39.5	42.3	45.4	48.9	52.8	57.3	62.4	68.3	74.9
95	40.8	43.6	46.9	50.5	54.7	59.5	65.0	71.2	78.3
100	42.2	45.2	48.6	52.5	56.9	62.1	68.0	74.7	82.4
105	43.8	46.9	50.5	54.7	59.4	64.9	71.3	78.7	87.1
110	45.5	48.9	52.7	57.1	62.2	68.2	75.1	83.2	92.5

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	REFERENCE FACTOR "R" 36	46	56	66	76	86	96
loo	2.78	3.39	3.96	4.50	5.00	5.47	5.90
105	2.95	3.63	4.28	4.91	5.51	6.06	6.57
110	3.14	3.91	4.67	5.41	G.12	6.79	7.41
115	3.36	4.23	5.10	5.97	6.82	7.64	3.41
120	3.60	4.59	5.60	6.61	7.62	8.62	9.59
125	3.87	4.99	6.14	7.32	8.52		
130	4.16	5.43	6.75	8.11	9.51		
135	4.48	5.91	7.41	8.97			
140	4.82	6.43	(1.12				
145	5.18	6.99	0.89				
150	5.57	7.60					
155	5.98	8.24					
160	6.41	0.92					
165	6.87						
170	1.35						

TABLE 6. AIRCRAFT PERFORMANCE, TAKEOFF (BOEING 727-100 SERIES)
JT8D-7 ENGINE, 15" FLAPS

MAXIMUM ALLOWABLE TAKEOFF WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	169.0	169.0	169.0	166.1	160.1	154.0	148.0	142.3	137.2
55	169.0	169.0	169.0	163.9	158.0	152.1	146.3	140.8	135.7
60	169.0	169.0	167.0	161.0	155.4	150.1	145.1	140.2	135.5
65	169.0	169.0	167.0	161.0	155.4	150.1	145.1	140.2	135.5
70	169.0	169.0	167.0	161.0	155.4	150.1	145.1	140.2	135.5
75	169.0	169.0	167.0	161.0	155.4	150.1	145.1	140.2	135.5
80	169.0	169.0	167.0	161.0	155.4	150.1	145.1	140.2	135.5
85	169.0	169.0	167.0	161.0	155.4	148.6	143.1	137.7	132.4
90	169.0	168.9	162.8	156.9	151.1	14514	140.0	134.6	129.5
95	169.0	165.2	159.3	153.5	147.8	142.2	136.8	131.6	126.6
100	167.4	161.5	155.7	150.0	144.4	139.0	133.7	128.6	123.7
105	163.6	157.9	152.2	146.6	141.1	135.8	130.6	125.6	120.8
110	160.0	154.2	148.6	143.1	137.7	132.5	127.5	122.7	118.0

REFERENCE FACTOR "R"

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	43.7	45.8	48.6	11.9	55.7	60.1	65.0	70.3	76.2
55	44.1	46.8	49.9	53.5	57.5	61.9	66.9	72.5	78.6
60	44.5	47.8	51.3	55.1	59.2	63.8	68.9	74.6	81.0
65	44.5	47.8	51.3	55.1	59.2	63.8	68.9	74.6	81.0
70	44.5	47.8	51.3	55.1	59.2	63.8	68.9	74.6	81.0
75	44.7	48.0	51.6	55.4	59.6	64.3	69.4	75.1	81.5
80	45.7	48.9	52.4	56.4	60.7	65.5	70.8	76.7	83.1
85	46.1	50.0	53.6	57.6	62.1	67.1	72.6	78.6	85.1
90	48.2	51.3	55.0	59.2	63.9	69.1	74.7	81.0	87.7
95	49.6	11'2.9	56.8	61.1	66.0	71.3	77.3	83.7	90.7
100	51.3	54.8	58.8	63.3	68.4	74.0	80.2	86.9	94.3
105	53.1	56.9	61.1	65.9	71.2	77.0	83.4	90.5	98.2
110	55.0	59.2	63.8	68.8	74.3	80.4	87.1	94.5	102.7

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	REFERENCE FACTOR "R" 42	52	62	72	82	92	102	112
100	2.89	3.44	4.02	4.63	5.23	5.81	G.34	6.81
105	3.u	3.74	4.40	5.08	5.73	6.39	7.00	7.55
110	3.35	4.07	4.91	5.56	6.30	7.32	7.72	0.37
115	3.61	4.42	5.25	6.07	6.89	7.70	(I.49	9.24
120	3.89	4.09	5.71	6.62	7.53	0.42	9.31	10.13
125	4119	5.20	6.20	7.20	8.20	9.20	10.19	11.18
130	4.51	5.62	6.72	7.32	8.91	10.01	11.12	
135	4.84	6.07	7.27	8.47	9.67	10.88		
140	5.20	6.53	7.85	9.15	10.46	11.79		
145	5.57	7.03	0.45	9.97	11.29			
150	5.96	7.54	9.09	10.62				
155	6.37	8.08	9.75	11.40				
160	6.81	0.64	10.44					
165	7.26	9.23	11.15					
170	7.72	9.84	11.90					

TABLE 7. AIRCRAFT PERFORMANCE, TAKEOFF (BOEING 727-100 SERIES)
JT8D-7 ENGINE, 5" FLAPS

MAXIMUM ALLOWABLE TAKEOFF WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FRET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	169.0	169.0	169.0	169.0	169.0	164.9	158.2	152.1	146.8
55	169.0	169.0	169.0	169.0	169.0	162.8	156.7	150.7	145.0
60	169.6	169.0	169.0	169.0	166.4	160.3	154.5	149.3	144.8
65	169.0	169.0	169.0	169.0	166.4	160.3	154.5	149.3	144.6
70	169.0	169.0	169.0	169.0	166.4	160.3	154.5	149.3	144.6
75	169.0	169.0	169.0	169.0	166.4	160.3	154.5	149.3	144.8
80	169.0	169.0	169.0	169.0	166.4	160.3	154.5	149.3	144.6
85	169.0	169.0	169.0	169.0	166.4	160.3	153.3	147.4	141.9
90	169.0	169.0	169.0	166.1	161.3	155.8	150.1	144.3	138.8
95	169.0	169.0	168.8	163.7	158.2	152.5	146.8	141.1	135.7
100	169.0	169.0	166.7	160.7	154.9	149.1	143.5	138.0	132.7
105	169.0	169.0	163.4	157.3	151.4	145.7	140.2	134.9	129.7
110	169.0	164.7	159.0	153.3	147.8	142.3	136.9	131.7	126.7

REFERENCE FACTOR "R"

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	56.3	59.3	63.4	6R.3	74.0	an.5	a7.5	95.0	103.0
55	56.6	60.4	64.9	70.1	76.0	82.6	89.7	97.5	105.7
60	57.0	61.5	66.5	72.0	70.0	84.7	92.0	99.9	108.5
65	s7.4	61.5	66.5	72.0	78.0	84.7	92.0	99.9	108.5
70	57.0	61.5	66.5	72.0	78.0	84.7	92.0	99.9	108.5
75	57.5	62.0	67.0	72.4	7A.4	85.0	92.4	100.5	109.5
80	58.7	63.3	68.4	73.9	80.1	86.9	94.4	192.n	112.0
85	60.3	65.0	70.2	75.9	82.2	89.3	97.0	105.6	115.1
90	62.2	67.1	72.4	78.3	84.9	92.2	100.2	109.1	118.8
95	64.4	69.5	75.1	81.2	88.1	95.6	104.0	113.1	123.1
100	67.0	72.3	78.1	84.6	91.8	99.6	108.2	117.7	128.0
105	69.8	75.4	01.6	88.4	95.9	104.1	113.1	122.9	133.4
110	73.0	79.0	05.5	92.7	100.6	109.2	118.5	128.6	139.5

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	REFERENCE FACTOR "R" 60	70	80	90	100	110	120	130	140
100	3.10	3.70	4.25	4.77	5.27	5.75	6.24	6.75	7.23
105	3.46	4.10	4.7')	5.27	5.83	6.38	6.94	7.50	8.09
110	3.83	4.51	5.17	5.61	6.43	7.05	7.67	8.30	8.95
115	4.23	4.96	5.68	6.38	7.07	7.76	8.45	9.15	9.86
120	4.64	5.43	6.21	6.98	7.75	8.51	9.20	10.04	10.62
125	5.08	5.93	6.78	7.62	U.46	9.30	10.14	10.98	11.83
130	5.53	6.46	7.38	6.30	9.21	10.13	11.05	11.97	12.89
135	6.01	7.01	8.01	9.00	10.00	11.00	12.00	13.00	14.60
140	6.51	7.59	8.67	9.75	10.83	11.91	12.99	14.06	
145	7.02	8.19	9.36	10.53	11.69	12.86	14.03		
150	7.56	8.82	10.08	11.34	12.60	13.85			
155	ct.12	9.48	10.83	12.19	13.53	14.88			
160	8.70	10.16	11.62	13.07	14.51				
165	9.30	10.87	12.43	13.98					
170	9.92	11.61	13.28	14.94					

TABLE 8. AIRCRAFT PERFORMANCE, LANDING (BOEING 727-200 SERIES)
JT8D-7 ENGINE, 40" FLAPS

MAXIMUM ALLOWABLE LANDING WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FRET) 0	loo0	2000	3000	4000	5000	6000	7000	8000
50	142.5	142.5	142.5	142.5	142.5	142.5	137.9	132.7	127.7
[illegible]	142.5	142.5	142.5	142.5	142.5	141.8	135.7	130.8	126.2
60	142.5	142.5	142.5	142.5	142.5	139.0	134.5	130.4	126.2
65	142.5	142.5	142.5	142.5	142.5	139.0	134.5	130.4	126.2
[illegible]	142.5	142.5	142.5	142.5	142.5	139.0	134.5	130.4	126.2
75	142.5	142.5	142.5	142.5	142.5	139.0	134.5	130.4	126.2
80	142.5	142.5	142.5	142.5	142.5	139.0	134.5	130.2	125.0
85	142.5	142.5	142.5	142.5	142.5	138.3	133.1	128.1	123.3
90	142.5	142.5	142.5	142.5	140.6	135.4	130.3	125.5	120.8
95	142.5	142.5	142.5	142.5	137.4	132.3	127.3	122.6	118.0
100	142.5	142.5	142.5	139.4	134.2	129.2	124.3	119.5	114.9
105	142.5	142.5	141.2	136.0	131.0	126.0	121.2	116.6	112.0
110	142.5	142.5	137.7	132.7	127.8	123.0	118.3	113.8	109.4

RUNWAY **LENGTH** (1000 PERT)

WEIGHT 1000 LBS	AIRPORT ELEVATION (FEET) 0	loo0	2000	3000	4000	5000	6000	7000	8000
110	4.01	4.09	4.17	4.26	4.36	4.46	4.56	4.66	4.75
115	4.15	4.23	4.31	4.40	4.50	4.60	4.70	4.81	4.92
120	4.29	4.38	4.47	4.56	4.66	4.76	4.87	4.98	5.10
125	4.43	4.54	4.64	4.73	4.83	4.94	5.05	5.17	5.30
130	4.59	4.70	4.81	4.91	5.02	5.13	5.24	5.37	5.51
135	4.74	4.86	4.98	5.09	5.20	5.32	5.44	5.57	5.72
140	4.91	5.03	5.14	5.26	5.38	5.50	5.63	5.77	5.92
145	5.08	5.19	5.30	5.42	5.55	5.68	5.82	5.96	6.11
I.50	5.25	5.34	5.44	5.56	5.69	5.83	5.98	6.14	6.30

AIRPLANE CHARACTERISTICS	UNIT OF MEASURE	STANDARD OPTION
TYPICAL OPERATING EMPTY WEIGHT PLUS RESERVE FUEL	LBS.	114,800
AVERAGE FUEL CONSUMPTION	LBS./MILE	19
TYPICAL MAXIMUM PASSENGER LOAD @200 LBS./PASSENGER	LBS.	26,800
MAXIMUM STRUCTURAL PAYLOAD	LBS.	38,800

TABLE 9. AIRCRAFT PERFORMANCE, LANDING (BOEING 727-200 SERIES)
JT8D-7 ENGINE, 30" FLAPS

MAXIMUM ALLOWABLE LANDING WEIGHT (1000 LBS)

TEMP	AIRPORT ELEVATION (FEET)								
	0	1000	2000	3000	4000	5000	6000	7000	8000
[illegible]	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	145.7
55	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	143.7
60	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	143.7
65	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	143.7
70	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	143.7
75	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	143.7
80	148.6	148.0	148.0	148.0	148.0	148.0	148.0	147.8	142.3
85	148.0	148.0	148.0	148.0	148.0	148.0	148.0	146.0	140.5
90	148.0	148.0	148.0	148.0	148.0	148.0	148.0	142.6	137.2
95	148.0	148.0	148.0	148.0	148.0	148.0	144.9	139.4	134.2
100	148.0	148.0	148.0	148.0	148.0	147.1	141.6	136.2	131.0
105	148.0	148.0	148.0	148.0	148.0	143.7	138.3	132.9	127.5
110	148.0	148.0	148.0	148.0	145.7	140.2	134.8	129.2	123.3

RUNWAY LENGTH (1000 **FEET)**

WEIGHT	AIRPORT ELEVATION (FEET)								
1000 LB8	0	1000	2000	3000	4000	5000	6000	7000	8000
110	4.43	4.52	4.62	4.72	4.82	4.93	5.04	5.15	5.27
115	4.58	4.67	4.78	4.88	4.99	5.10	5.21	5.33	5.46
120	4.73	4.83	4.94	5.05	5.16	5.28	5.40	5.52	5.66
125	4.88	4.99	5.10	5.22	5.33	5.46	5.59	5.72	5.86
130	5.04	5.15	5.27	5.39	5.52	5.64	5.78	5.92	6.06
135	5.20	5.32	5.44	5.57	5.70	5.83	5.97	6.12	6.27
140	5.37	5.49	5.62	5.75	5.88	6.02	6.17	6.32	6.47
145	5.53	5.66	5.79	5.93	6.07	6.21	6.36	6.52	6.67
150	5.70	5.83	5.97	6.11	6.25	6.40	6.56	6.71	6.86

TABLE 10. AIRCRAFT PERFORMANCE, TAKEOFF (BOEING 727-200 SERIES)
JT8D-7 ENGINE, 25" FLAPS

MAXIMUM ALLOWABLE TAKEOFF WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	164.2	162.4	156.8	151.2	145.7	140.3	135.1	130.0	125.1
55	164.2	160.2	154.6	149.0	143.5	138.1	132.9	128.0	123.3
60	163.8	158.2	152.4	146.8	141.5	136.4	131.8	127.5	123.3
65	163.8	158.2	152.4	146.8	141.5	136.4	131.8	127.5	123.3
70	163.8	158.2	152.4	146.8	141.5	136.4	131.8	127.5	123.3
75	163.8	158.2	152.4	146.8	141.5	136.4	131.8	127.5	123.3
80	163.6	158.2	152.4	146.8	141.5	136.4	131.8	127.4	122.2
85	163.2	157.4	151.8	146.3	140.9	135.7	130.6	125.7	120.9
90	159.7	154.0	148.5	143.1	137.9	132.8	127.9	123.1	118.5
95	156.2	150.7	145.3	140.0	134.9	129.9	125.0	120.4	115.9
100	152.7	147.3	142.0	136.9	131.8	126.9	122.2	117.6	113.1
105	149.2	143.9	138.8	133.7	128.8	124.0	119.3	114.8	
110	145.7	140.6	135.5	130.5	125.7	121.0	116.5	112.2	

REFERENCE FACTOR "R"

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	35.2	36.8	39.5	42.5	46.0	49.9	54.3	59.1	64.3
55	35.7	37.7	40.6	43.9	47.5	51.5	56.0	60.9	66.3
60	36.0	38.7	41.7	45.1	48.9	53.2	56.8	61.2	66.7
65	36.3	38.9	42.0	45.4	49.3	53.6	57.2	61.7	67.4
70	36.5	39.2	42.2	45.7	49.6	53.9	57.8	62.2	67.7
75	36.8	39.4	42.5	46.0	49.9	54.3	58.3	62.8	68.2
80	37.0	39.7	42.6	46.3	SO.3	54.6	58.7	63.6	69.5
85	37.3	40.2	43.4	46.9	50.8	55.2	60.0	65.3	71.1
90	38.4	41.5	44.9	48.7	52.8	57.3	62.3	67.7	73.7
95	39.8	43.1	46.6	50.5	54.8	59.5	64.7	70.4	76.6
100	41.3	44.7	48.5	52.6	57.0	61.9	67.3	73.3	79.7
105	43.0	46.5	50.4	54.7	59.4	64.5	70.1	76.3	
110	44.8	48.5	52.6	57.0	61.9	67.2	73.1	79.5	

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	REFERENCE FACTOR "R" 35	40	45	50	55	60	65	70	75	80
110	3.42	3.55	3.80	4.12	4.51	4.94	5.38	5.60	6.19	6.51
115	3.41	3.74	4.12	4.55	5.01	5.47	5.94	6.38	6.79	7.15
120	3.51	4.00	4.50	5.00	5.50	6.01	6.50	6.99	7.46	7.92
125	3.70	4.32	4.91	5.47	6.02	6.56	7.10	7.66	8.25	8.87
130	3.97	4.70	5.35	5.96	6.55	7.14	7.76	8.44	9.19	
135	4.30	5.12	5.83	6.48	7.11	7.78	8.50			
140	4.69	5.57	6.33	7.02	7.72	8.47				
145	5.11	6.04	6.85	7.59	8.37					
150	5.55	6.53	7.38	8.19	9.09					
155	5.99	7.03	7.93	8.83						
160	6.42									
165	6.83	7.51 7.98	8.48 9.04							

TABLE 11. AIRCRAFT PERFORMANCE, TAKEOFF (BOEING 727-200 SERIES)
JT8D-7 ENGINE, 15" FLAPS

MAXIMUM ALLOWABLE TAKEOFF WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50									
55	173.0 173.0	173.0 173.0	173.0 173.0	167.0 169.5	163.4 161.0	155.1 157.4	151.6 149.4	144.0 145.9	140.2 138.9
60	173.0	173.0	170.9	164.7	158.9	153.4	14R.3	143.4	13A.9
65	173.0	173.0	170.9	164.7	158.9	153.4	148.3	143.4	138.9
70									
75	173.0 173.0	173.0 173.0	173.9 170.9	1647 164.7	158.9 158.9	153 154	148.3 1483	1434 143.4	138.9 138.9
80	173.0	173.0	170.9	164.7	158.9	153.4	148.3	142.8	137.5
85	173.0	173.0	170.2	164.0	158.1	152.3	146.7	141.2	135.8
90	173.0	172.7	166.5	160.4	154.6	148.9	143.5	138.1	132.9
100	173.0	168.9	162.8	156.9	151.1	145.6	140.2	135.1	130.0
105	171.2 1672	165.1 161.3	159.1 155.5	153.3 149.8	147.7 1444	142.3 139.0	133.9	132.0 128.9	127.1
110	163.2	157.4	151.8	146.3	141.0	135.8	130.7	125.9	

REFERENCE FACTOR "R"

TEMP °F	AIRPORT ELEVATION (FEET) 0	[illegible]	2000	3000	4000	5000	6000	7000	8000
50	40.0	41.0	44.0	47.4	51.2	55.3	59.8	64.8	70.1
55	40.0	42.1	45.4	49.0	52.9	57.1	61.7	66.8	72.5
60	40.n	43.1	46.3	49.8	53.8	5R.3	62.6	67.4	72.6
65	40.3	43.4	46.7	50.3	54.3	58.8	63.1	67.7	73.2
70	40.7	43.6	47.1	50.7	54.6	59.3	63.3	6R.2	73.7
75	41.0	44.2	47.5	51.2	55.2	59.9	63.8	69.0	74.4
80	41.4	44.5	47.9	51.6	55.7	60.3	64.7	70.1	75.5
85	42.0	45.2	48.7	52.5	56.8	61.3	66.4	71.8	77.8
90	43.4	46.6	50.2	54.2	58.6	63.3	66.5	74.2	80.4
95	44.9	48.3	52.0	56.1	60.6	65.6	71.0	77.0	83.4
100	46.6	50.1	54.0	58.2	62.9	68.1	73.8	80.0	86.8
105	48.4	52.0	56.0	60.4	65.3	70.7	76.7	83.3	
110	50.2	54.0	58.2	62.7	67.8	73.4	79.7	66.6	

RUNWAYLENGTH (1000 FEET)

WEIGHT 1000 LBS	REFERENCE FACTOR "R" 40	45	50	55	60	65	70	75	80	85	90
110	3.36	3.78	4.19	4.61	5.03	5.45	5.87	6.28	6.68	7.06	7.44
115	3.69	4.14	4.59	5.05	5.51	5.96	6.42	6.87	7.31	7.75	8.17
120	4.01	4.51	5.01	5.51	6.00	6.50	7.00	7.50	0.00	8.49	8.99
125	4.34	4.89	5.44	5.98	6.53	7.07	7.62	8.18	8.74	9.32	9.91
130	4.69	5.29	5.89	6.48	7.06	7.68	0.29	8.92	9.57	10.25	10.95
135	5.04	5.71	6.36	7.01	7.66	8.33	9.02	9.74	10.50	11.30	12.15
140	5.42	6.14	6.86	7.57	8.29	9.04	9.62	10.65	11.53	12.48	
145	5.81	6.60	7.36	8.17	8.97	9.81	10.70	11.66			
150	6.22	7.09	7.94	8.81	9.71	10.65	11.67				
155	6.66	7.60	6.54	9.50	10.50	11.57					
160	7.12	8.15	9.18	10.24	11.37	12.58					
165	7.61	a.73	9.86	11.04	12.30						
170	8.12	9.34	10.59	11.90							
175	8.67	10.00	11.37								

TABLE 12. AIRCRAFT PERFORMANCE, TAKEOFF (BOEING 727-200 SERIES)
JT8D-7 ENGINE, 5" FLAPS

MAXIMUM ALLOWABLE TAKEOFF WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	WOO
50	173.0	173.0	173.0	173.0	170.7	164.4	158.3	152.5	146.9
55	173.0	173.0	173.0	173.0	167.8	161.5	155.6	150.1	145.3
60	173.0	173.0	173.0	171.9	165.8	159.9	154.6	149.7	145.3
65	173.0	173.0	173.0	171.9	165.8	159.9	154.6	149.7	145.3
70	173.0	173.0	173.0	171.9	165.8	159.9	154.6	149.7	145.3
75	173.0	173.0	173.0	171.9	165.8	159.9	154.6	149.7	145.3
80	173.0	173.0	173.0	171.9	165.8	159.9	154.6	149.2	143.6
85	173.0	173.0	173.0	171.3	165.1	159.1	153.2	147.5	141.8
90	173.0	173.0	173.0	167.7	161.6	155.6	149.9	144.2	138.8
95	173.0	173.0	170.2	164.1	158.0	152.2	146.5	141.0	135.7
100	173.0	172.5	166.4	160.3	154.4	148.7	143.2	137.8	132.6
105	173.0	168.5	162.4	156.5	150.8	145.2	139.8	134.6	
110	170.3	164.4	158.5	152.7	147.1	141.7	136.4	131.3	

REFERENCE FACTOR "R"

TEMP °F	AIRPORTELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	55.0	56.8	61.9	67.3	73.0	79.2	86.1	93.7	102.1
55	55.2	58.6	63.7	69.2	75.2	81.6	88.6	96.4	105.0
60	55.3	60.0	65.2	70.8	76.9	83.5	90.3	97.7	105.6
65	55.0	60.6	65.8	71.4	77.5	84.3	91.1	98.6	106.6
70	56.3	61.2	66.4	72.0	78.2	85.0	92.0	99.3	107.3
75	56.8	61.7	67.0	72.7	78.9	85.6	92.8	100.2	108.4
80	57.4	62.2	67.5	73.4	79.6	86.4	93.3	101.5	110.3
85	58.1	63.1	68.5	74.3	00.7	07.7	95.4	103.9	113.3
90	60.4	65.5	71.0	77.1	83.7	91.0	99.0	107.9	117.6
95	62.8	68.2	74.0	00.2	87.1	94.7	103.1	112.3	122.5
100	65.5	71.1	77.1	83.7	90.9	98.8	107.5	117.1	127.8
105	68.2	74.1	80.4	87.2	94.8	103.0	112.2	122.2	
110	71.0	77.0	83.6	90.7	90.6	107.3	116.9	127.5	

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	REFERENCE FACTOR "R" 50	60	70	80	90	100	110	120	130
110	5.56	5.50	5.50	5.50	5.71	6.35	6.99	7.62	8.24
115	5.50	5.50	5.50	5.61	6.31	7.01	7.70	8.39	9.07
120	5.50	5.50	5.50	6.16	6.93	7.70	0.46	9.21	9.96
125	5.50	5.50	5.90	6.75	7.59	0.43	9.26	10.09	10.91
130	5.50	5.51	6.43	7.36	8.28	9.19	10.11	11.02	11.92
135	5.50	5.98	6.99	8.00	9.00	10.00	11.01	12.01	13.00
140	5.50	6.48	7.58	0.67	9.76	10.86	11.96	13.05	14.16
145	5.81	7.00	8.19	9.37	10.56	11.76	12.96	14.17	15.39
150	6.26	7.54	8.82	10.11	11.40	12.71	14.02	15.35	
155	6.72	8.10	9.49	10.88	12.29	13.70	15.14		
160	7.20	0.69	10.19	11.69	13.21	14.76			
165	7.71	9.30	10.91	12.54	14.19	15.86			
170	8.23	9.94	11.67	13.42	15.21				
175	8.77	10.61	12.47	14.35					

TABLE 13. AIRCRAFT PERFORMANCE, LANDING (BOEING 727-200 SERIES)
JT8D-9 ENGINE, 40"

MAXIMUM ALLOWABLE LANDING WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	142.5	142.5	142.5	142.5	142.5	142.5	142.5	138.3	133.2
55	142.5	142.5	142.5	142.5	142.5	142.5	141.4	136.1	131.0
60	142.5	142.5	142.5	142.5	142.5	142.5	139.6	134.3	129.3
65	142.5	142.5	142.5	142.5	142.5	142.5	139.6	134.3	129.3
70	142.5	142.5	142.5	142.5	142.5	142.5	139.6	134.3	129.3
75	142.5	142.5	142.5	142.5	142.5	142.5	139.6	134.3	129.3
80	142.5	142.5	142.5	142.5	142.5	142.5	139.6	134.3	129.3
85	142.5	142.5	142.5	142.5	142.5	142.5	138.7	133.5	128.7
90	142.5	142.5	142.5	142.5	142.5	141.0	135.7	130.6	125.8
95	142.5	142.5	142.5	142.5	142.5	137.9	132.7	127.7	122.9
100	142.5	142.5	142.5	142.5	139.9	134.7	129.7	124.8	120.0
105	142.5	142.5	142.5	141.8	136.6	131.5	126.6	121.8	117.1
110	142.5	142.5	142.5	138.3	133.3	128.3	123.5	118.8	114.3

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
110	4.01	4.09	4.17	4.26	4.36	4.46	4.56	4.66	4.75
115	4.15	4.23	4.31	4.40	4.50	4.60	4.70	4.81	4.92
120	4.29	4.38	4.47	4.56	4.66	4.76	4.87	4.98	5.10
125	4.43	4.54	4.64	4.73	4.83	4.94	5.05	5.17	5.30
130	4.59	4.70	4.81	4.91	5.02	5.13	5.24	5.37	5.51
135	4.74	4.86	4.98	5.09	5.20	5.32	5.44	5.57	5.72
140	4.91	5.03	5.14	5.26	5.38	5.50	5.63	5.77	5.92
145	5.08	5.19	5.30	5.42	5.55	5.68	5.82	5.96	6.11
150	5.25	5.34	5.44	5.56	5.69	5.83	5.98	6.14	6.30

AIRPLANE CHARACTERISTICS	UNIT OF MEASURE	ADVANCED OPTION
TYPICAL OPERATING EMPTY-- WEIGHT PLUS RESERVE FUEL	LBS.	114,800
AVERAGE FUEL CONSUMPTION	LBS./MILE	19
TYPICAL MAXIMUM PASSENGER LOAD @200 LBS./PASSENGER	LBS.	26,800
MAXIMUM STRUCTURAL PAYLOAD	LBS.	40,300

TABLE 14. AIRCRAFT PERFORMANCE, LANDING (BOEING 727-200 SERIES)
JT8D-9 ENGINE, 30" FLAPS

MAXIMUM ALLOWABLE LANDING WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FRET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0
55	148.0	146.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0
60	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	147.5
65	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	147.5
70	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	147.5
75	148.0	146.0	148.0	148.0	148.0	148.0	148.0	148.0	147.5
80	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	147.5
85	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	146.8
90	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	143.6
95	148.0	148.0	148.0	148.0	148.0	148.0	148.0	145.8	140.3
100	148.0	148.0	148.0	148.0	148.0	148.0	147.9	142.4	136.9
105	148.0	148.0	148.0	148.0	148.0	148.0	144.4	138.9	133.4
110	148.0	148.0	148.0	148.0	148.0	146.3	140.8	135.3	130.0

RUNWAY LENGTH (1000 FRET)

WEIGHT 1000 LB8	AIRPORT ELEVATION (FRET) 0	1000	2000	3000	4000	5000	6000	7000	8000
110	4.43	4.52	4.62	4.72	4.82	4.93	5.04	5.15	5.27
115	4.58	4.67	4.78	4.08	4.99	5.10	5.21	5.33	5.46
120	4.73	4.83	4.94	5.05	5.16	5.20	5.40	5.52	5.66
125	4.88	4.99	5.10	5.22	5.33	5.46	5.59	5.72	5.86
130	5.04	5.15	5.27	5.39	5.52	5.64	5.78	5.92	6.06
135	5.20	5.32	5.44	5.57	5.70	5.83	5.97	6.12	6.27
140	5.37	5.49	5.62	5.75	5.88	6.02	6.17	6.32	6.47
145	5.53	5.66	5.79	5.93	6.07	6.21	6.36	6.52	6.67
150	5.70	5.83	5.97	6.11	6.25	6.40	6.56	6.71	6.86

TABLE 15. AIRCRAFT PERFORMANCE, TAKEOFF (BOEING 727-200 SERIES)
JT8D-9 ENGINE, 25" FLAPS

MAXIMUM ALLOWABLE TAKEOFF WEIGHT (1000 LBS)

TEMP °F	AIRPORT ELEVATION (FEET) 0	low	2000	3000	4000	5000	6000	7000	8000
50	170.6	169.6	163.3	157.3	151.5	145.9	140.5	135.3	130.1
53	170.6	166.6	160.6	154.8	149.1	143.7	138.4	133.3	128.2
60	170.6	164.4	158.4	152.7	147.2	142.0	136.9	131.8	126.7
65	170.6	164.4	158.4	152.7	147.2	142.0	136.9	131.8	126.7
70	170.6	164.4	158.4	152.7	147.2	142.0	136.9	131.8	126.7
75	170.6	164.4	158.4	152.7	147.2	142.0	136.9	131.8	126.7
80	170.6	164.4	158.4	152.7	147.2	142.0	136.9	131.8	126.7
85	170.0	163.0	157.8	152.1	146.7	141.4	136.2	131.2	126.2
90	166.4	160.3	154.5	148.9	143.5	138.3	133.3	126.3	123.4
95	162.6	156.8	151.2	145.7	140.4	135.3	130.3	125.4	120.7
100	159.1	153.4	147.8	142.5	137.3	132.2	127.4	122.6	118.0
105	155.5	149.9	144.5	139.2	134.1	129.2	124.4	119.8	115.4
110	151.9	146.4	141.1	136.0	131.0	126.2	121.6	117.1	

REFERENCE FACTOR "R"

TEMP °F	AIRPORT ELEVATION (FEET) 0	1000	2000	3000	4000	5000	6000	7000	8000
50	35.0	35.2	37.7	40.6	43.9	47.5	51.6	56.1	61.2
55	35.0	35.9	38.6	41.6	44.9	48.6	52.7	57.4	62.7
60	35.0	36.7	39.6	42.7	46.1	49.9	54.2	59.0	64.4
65	35.0	37.0	39.9	43.0	46.5	50.4	54.7	59.6	65.0
70	35.0	37.4	40.2	43.4	46.9	50.9	55.3	60.2	65.6
75	35.1	37.7	40.6	43.8	47.3	51.3	55.8	60.7	66.2
80	35.5	38.0	40.9	44.1	47.7	51.8	56.3	61.3	66.8
85	36.0	38.5	41.4	44.7	48.4	52.6	57.2	62.2	67.7
90	37.1	39.7	42.8	46.3	50.2	54.6	59.4	64.6	70.4
95	38.3	41.1	44.3	48.0	52.0	56.6	61.6	67.0	73.0
loo	39.6	42.6	45.9	49.7	54.0	58.7	63.9	69.5	75.6
105	41.0	44.1	47.6	51.6	56.0	60.9	66.2	72.1	78.4
110	42.3	45.7	49.4	53.6	58.2	63.2	68.8	74.7	

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	REFERENCE FACTOR "R" 35	40	45	50	55	60	65	70	75	80
110	3.50	3.50	3.77	4.16	4.55	4.95	5.36	5.77	6.20	6.63
115	3.50	3.68	4.13	4.57	5.01	5.46	5.91	6.36	6.82	7.26
120	3.50	4.00	4.51	5.01	5.50	6.00	6.50	7.00	7.50	8.02
125	3.76	4.35	4.91	5.47	6.02	6.57	7.12	7.67	8.23	8.81
130	4.06	4.71	5.35	5.96	6.57	7.16	7.76	8.37	8.99	
135	4.37	5.11	5.81	6.48	7.13	7.77	8.42	9.07		
140	4.70	5.53	6.29	7.02	7.71	8.39	9.07			
145	5.05	5.97	6.81	7.58	8.31	9.01				
150	5.43	6.44	7.34	8.15	8.91					
155	5.82	6.93	7.90	8.75						
160	6.23	7.45	8.48							
165	6.67	7.99	9.08							
170	7.12	8.56								
175	7.60	9.15								
180	8.09									

TABLE 16. AIRCRAFT PERFORMANCE, TAKEOFF (BOEING 727-200 SERIES)
JT8D-9 ENGINE, 15" FLAPS

MAXIMUM ALLOWABLE TAKEOFF WEIGHT (1000 LBS)

TEMP	AIRPORT ELEVATION (FEET)								
7	0	1000	2000	3000	4000	5000	6000	7000	8000
50	161.4	190.0	183.6	176.9	170.3	164.0	157.9	152.0	146.3
55	190.0	167.7	180.6	174.1	167.7	161.6	155.6	149.6	144.2
60	190.0	185.5	178.6	172.0	165.8	159.7	153.9	146.2	142.7
65	190.0	185.5	178.6	172.0	165.8	159.7	153.9	148.2	142.7
70	190.0	185.5	178.6	172.0	165.8	159.7	153.9	146.2	142.7
75	190.0	185.5	178.6	172.0	165.8	159.7	153.9	148.2	142.7
80	190.0	185.5	178.6	172.0	165.8	159.7	153.9	148.2	142.7
85	190.0	184.7	177.8	171.3	165.0	159.0	153.2	147.5	142.0
90	167.4	180.6	174.0	167.7	161.6	155.6	149.9	144.3	136.7
95	103.0	176.5	170.2	164.0	158.0	152.2	146.6	141.1	135.7
100	178.8	172.4	166.3	160.3	154.4	148.8	143.2	137.9	132.6
105	174.6	166.4	162.4	156.5	150.8	145.3	139.9	134.7	129.8
110	170.5	164.4	158.5	152.7	147.1	141.7	136.5	131.5	

REFERENCE FACTOR "R"

TEMP °F	AIRPORT ELEVATION (FEET)								
	0	1000	2000	3000	4000	5000	6000	7000	8000
50									
55	41.1 41.5	42.7 43.8	45.9 b7.2	49.5 50.9	53.4 54.9	57.7 59.3	62.4 64.1	67.5 69.3	73.0 75.0
60	41.8	44.9	48.4	52.1	56.3	60.8	65.8	71.1	76.9
65	42.1	45.3	48.8	52.6	56.8	61.3	66.3	71.7	77.6
70									
80	42.5 42.8	45.6 46.0	49.1 49.5	53.0 53.4	57.2 57.7	61.8 62.3	66.8 67.4	72.3 72.9	78.2 78.9
85	43.1 43.7	46.4 47.1	49.9 50.1	53.8 54.6	58.1 58.9	63.7	68.8	73.5 74.5	80.7 79.6
90	45.2	48.6	52.3	56.4	b0.9	65.8	71.2	77.1	83.5
95	46.7	50.2	54.1	58.3	63.0	68.1	73.7	79.8	86.4
100	48.2	51.9	55.9	60.4	65.2	70.5	76.3	82.6	89.6
105	49.9	53.8	58.0	62.5	67.6	73.1	79.1	85.7	93.0
110	51.8	55.8	60.1	64.9	70.1	75.8	82.1	89.1	

RUNWAY LENGTH (1000 FEET)

WEIGHT 1000 LBS	REFERENCE FACTOR "R"											
	40	45	50	55	60	65	70	75	80	85	90	95
110	4.00	4.00	4.00	4.24	4.62	5.00	5.38	5.75	6.12	6.46	6.84	7.19
115	4.00	4.00	4.22	4.65	5.07	5.48	5.89	6.30	6.71	7.11	7.51	7.90
120	4.00	4.14	4.61	5.07	5.52	5.98	6.43	6.68	7.33	1.76	8.23	8.67
125	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.01	9.52
130	4.33	4.87	5.42	5.96	6.50	7.05	7.60	8.15	6.71	9.26	9.06	10.45
135	4.67	5.26	5.85	6.44	7.03	7.63	6.23	6.85	9.48	10.13	10.80	11.49
140	5.02	5.66	6.30	6.94	7.59	8.25	8.92	9.61	10.32	11.06	11.83	12.64
145	5.39	6.09	6.78	7.48	8.19	8.91	9.66	10.43	11.24	lt.06		
150	5.77	6.53	7.28	8.05	8.82	9.63	10.46	11.33	12.24			
155	6.17	6.99	7.81	8.65	9.50	10.39	11.32	12.30				
160	6.57	7.47	8.37	9.29	10.23	11.22	12.26					
165	7.00	7.98	8.96	9.97	11.02	12.11						
170	7.44	8.51	9.59	10.70	11.86							
175	7.89	9.06	10.25	11.47								
180	6.37	9.64	10.95	12.30								
185	6.65	10.25	11.69									
190	9.36	10.90	12.47									