

Boeing 737-700 Performance and Selected Limitations □ CFM56-7B20

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The information on the 737-700 has been kindly provided by Stamatis Vellis. Thanks Stamatis!

Weight Limitations

Weights	Kilograms
Maximum Taxi Weight	60,554
Maximum Takeoff Weight	60,327
Maximum Landing Weight	58,059
Maximum Zero Fuel Weight	54,657

Maximum Demonstrated Crosswind: 36 knots

Engines: CFM56-7B20

Autopilot/Flight Director System

Do not engage the autopilot for takeoff below 400' AGL.

Disengage the autopilot before descending more than 50' below the MDA unless coupled to an ILS glide slope and localizer or in the go-around mode.

The minimum height for single channel autopilot operation is defined as 150' AGL.

Use of aileron trim with the autopilot engaged is prohibited.

Stabilized Idle Indications, ISA conditions, Sea Level, CFM56-7

N1 RPM - 20%

N2 RPM - 59%

EGT - 410°C **

Fuel Flow - 272 kg/hour

** Idle EGT may vary from 320°C - 520°C depending on OAT, bleed configuration and engine condition.

Flap Maneuvering Speed Schedule (737-600/700/800)

The flap maneuvering speed schedule is based upon Vref 40 and will provide adequate maneuver margin above stall at all weights.

Flap Position	All Weights
Flaps 0	Vref 40 + 70
Flaps 1	Vref 40 + 50
Flaps 5	Vref 40 + 30
Flaps 10	Vref 40 + 30
Flaps 15	Vref 40 + 20
Flaps 25	Vref 40 + 10

Flap Limit Speeds (KIAS)

Flap Position	Limit Speed (KIAS)
1	250
2	250
5	250
10	210
15	195
25	170
30	165
40	156

Takeoff Flap Retraction Speed Schedule (737-600/700/800)

T/O FLAPS	SELECT FLAPS	ALL WEIGHTS
25	15	V2 + 15
	5	"15"
	1	"5"
	UP	"1"
15	5	V2 + 15
	1	"5"
	UP	"1"
10	5	V2 + 15
	1	"5"
	UP	"1"
5	1	V2 + 15
	UP	"1"
1	UP	"1"

UP - Flaps up maneuvering speed.

"1", "5", "10", "15", "25" - Number corresponding to flap maneuvering speed.

Note: Limit bank angle to 15° until reaching V2 + 15.

Typical Rate of Descent

Target Speed	Rate of Descent (Typical)	
	Clean	With Speed Brake
M 0.78 / 280 / 250	2200 fpm	3100 fpm
250	1700 fpm	2300 fpm
Vref 40 + 70	1100 fpm	1400 fpm

Normally, descend with idle thrust and in a clean configuration (no speed brakes). Use the speedbrakes if arriving too high or too fast. You should arrive at the traffic pattern altitude at flaps up maneuvering speed about 12 miles from the runway when making a straight-in approach or about 8 miles out when making an abeam approach. A good rule of thumb is to be at 10,000 feet AGL and 30 miles from the airport at 250 knots.

For planning purposes, the aircraft requires approximately 35 seconds and 3 nm to decelerate from 290 to 250 knots in level flight without using the speedbrakes. It requires an additional 35 seconds and 3 nm to decelerate to 210 knots (assuming average gross weights).

Aircraft Body Attitudes

Glide Path (deg)	Airplane Body Attitude (deg)	Threshold Height		Pilot Eye Height (feet)	Threshold to Main Gear Touchdown Point - No Flare (feet)	Main Gear Touchdown Point to Glideslope Transmitter (feet)
		Main Gear (feet)	ILS Antenna (feet)			
2.5	4.2	25	44	45	567	433
3.0	3.7	37	52	54	700	300

Note: All heights and distances relative to the threshold.

TAKEOFF

737-700 Takeoff Field & Climb Limit Weights - Dry Runway, Flaps 5, Sea Level

CORR'D FIELD LENGTH (M)	FIELD LIMIT WEIGHT (1000 KG)											
	OAT											
	°C	-40	14	18	22	24	26	28	30	42	46	50
	°F	-40	57	64	72	75	79	82	86	108	115	122
1220	54.1	50.3	50.0	49.7	49.5	49.4	49.2	49.1	44.6	43.1	41.8	
1400	58.0	53.9	53.6	53.3	53.1	53.0	52.8	52.6	47.9	46.4	45.0	
1600	61.9	57.7	57.3	57.0	56.8	56.7	56.5	56.3	51.3	49.7	48.2	
1800	65.6	61.1	60.8	60.4	60.2	60.0	59.9	59.7	54.4	52.7	51.1	
2000	69.1	64.3	63.9	63.6	63.4	63.2	63.0	62.8	57.2	55.4	53.7	
2200	72.3	67.3	66.9	66.5	66.3	66.1	65.9	65.7	59.8	57.9	56.2	
2400	75.4	70.1	69.7	69.3	69.1	68.9	68.7	68.5	62.3	60.3	58.5	
2600	78.4	72.9	72.5	72.0	71.8	71.6	71.4	71.1	64.7	62.6	60.7	
2800	81.3	75.6	75.1	74.7	74.4	74.2	74.0	73.7	67.0	64.9	62.8	
3000	81.6	78.1	77.6	77.2	76.9	76.7	76.5	76.2	69.3	67.1	65.1	
3200	81.6	80.3	79.8	79.3	79.1	78.9	78.6	78.4	71.2	69.0	66.8	
3400	81.6	81.6	81.6	81.4	81.2	80.9	80.7	80.4	73.0	70.7	68.5	
3600	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	74.8	72.4	70.1	
3800	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	76.5	74.0	71.6	
4000	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	78.1	75.6	73.2	
4200	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	79.8	77.1	74.7	
4400	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.5	78.7	76.2	
4600	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	80.3	77.7	
CLIMB LIMIT WT (1000 KG)	63.0	62.5	62.4	62.3	62.3	62.2	62.2	62.1	55.0	52.8	50.7	

737-700 Takeoff N1%, Packs On, Anti-Ice ON or OFF

AIRPORT OAT		AIRPORT PRESSURE ALTITUDE (FT)										
°C	°F	-2000	0	1000	2000	3000	4000	5000	6000	7000	8000	9000
60	140	84.0	84.7	86.1	87.3	88.1	89.1	89.3	89.5	88.8	88.2	87.9
55	131	84.8	85.8	87.0	88.1	89.0	90.0	90.1	90.3	89.6	88.8	88.1
50	122	85.8	86.8	87.9	88.9	89.8	90.8	90.9	91.0	90.3	89.6	88.7
45	113	86.8	87.7	88.8	89.7	90.7	91.7	91.7	91.7	91.1	90.4	89.5
40	104	87.7	88.6	89.7	90.6	91.6	92.5	92.4	92.4	91.8	91.2	90.3
35	95	88.4	89.5	90.6	91.5	92.4	93.4	93.3	93.2	92.6	91.9	91.0
30	86	88.2	90.1	91.1	92.1	93.0	94.0	94.0	94.0	93.4	92.7	91.8
25	77	87.5	89.7	90.7	91.8	92.7	93.7	94.2	94.3	94.1	93.5	92.6
20	68	86.8	89.0	90.0	91.1	91.9	93.0	93.4	93.9	94.5	94.2	93.4
15	59	86.0	88.3	89.3	90.3	91.2	92.2	92.6	93.1	93.7	94.2	94.0
10	50	85.3	87.5	88.5	89.6	90.4	91.4	91.9	92.3	92.9	93.4	93.7
5	41	84.6	86.8	87.7	88.8	89.6	90.7	91.1	91.6	92.1	92.6	92.9
0	32	83.8	86.0	87.0	88.0	88.9	89.9	90.3	90.8	91.3	91.8	92.1
-5	23	83.1	85.2	86.2	87.2	88.1	89.1	89.5	90.0	90.5	91.0	91.3
-10	14	82.3	84.5	85.4	86.4	87.3	88.3	88.7	89.2	89.7	90.2	90.5
-15	5	81.6	83.7	84.6	85.6	86.5	87.5	87.9	88.3	88.9	89.3	89.7
-20	-4	80.8	82.9	83.8	84.8	85.7	86.7	87.0	87.5	88.1	88.5	88.8
-25	-13	80.0	82.1	83.0	84.0	84.8	85.8	86.2	86.7	87.2	87.7	88.0
-30	-22	79.2	81.3	82.2	83.2	84.0	85.0	85.4	85.8	86.4	86.8	87.2
-35	-31	78.4	80.5	81.4	82.4	83.2	84.1	84.5	85.0	85.6	86.0	86.3
-40	-40	77.6	79.6	80.5	81.5	82.3	83.3	83.7	84.1	84.7	85.1	85.4
-45	-49	76.8	78.8	79.7	80.7	81.5	82.4	82.8	83.3	83.8	84.2	84.5
-50	-58	76.0	78.0	78.9	79.8	80.6	81.6	81.9	82.4	82.9	83.3	83.7
-55	-67	75.2	77.1	78.0	79.0	79.8	80.7	81.1	81.5	82.1	82.5	82.8

737-700 Takeoff Speeds, Max Takeoff Thrust

WEIGHT (1000 KG)	FLAPS 1			FLAPS 5			FLAPS 10			FLAPS 15			FLAPS 25		
	V1	VR	V2	V1	VR	V2	V1	VR	V2	V1	VR	V2	V1	VR	V2
72	147	147	150	144	144	147									
68	143	143	147	139	140	143									
64	138	138	142	134	135	139	128	128	133						
60	132	133	138	129	130	135	123	124	128	121	121	126	120	120	
56	126	127	133	123	125	130	118	118	124	116	116	122	115	115	121
52	120	121	128	118	119	125	113	113	120	111	111	118	110	110	117
48	114	115	123	112	113	120	107	108	115	106	106	114	104	105	112
44	108	109	118	105	107	115	102	102	111	100	101	109	99	100	108
40	101	102	112	99	100	110	96	97	106	94	95	105	93	94	103

Check V1 (MCG)

737-700 V1, VR, V2 Adjustments *

TEMP		V1						VR						V2					
		PRESS ALT (1000 FT)						PRESS ALT (1000 FT)						PRESS ALT (1000 FT)					
°C	°F	-2	0	2	4	6	8	-2	0	2	4	6	8	-2	0	2	4	6	8
60	140	4	5	5	6			4	5	5	6			-1	-1	-1	-1		
50	122	3	4	4	4	5	7	3	3	4	4	5	7	0	0	0	0	0	-1
40	104	1	2	2	2	4	6	1	2	2	3	4	6	0	0	0	0	0	0
30	86	0	0	1	1	3	5	0	0	1	2	3	5	0	0	0	0	0	0
20	68	0	0	0	0	2	3	0	0	0	1	2	4	0	0	0	0	1	1
-																			
60	-76	0	0	0	0	2	3	0	0	0	1	2	3	0	0	0	0	1	1

* V1 NOT TO EXCEED VR

737-700 Slope and Wind V1 Adjustments *

WEIGHT (1000 KG)	SLOPE (%)					WIND (KTS)							
	-2	-1	0	1	2	-15	-10	-5	0	10	20	30	
72	-3	-1	0	0	1	-1	-1	0	0	0	1	1	
68	-2	-1	0	0	1	-1	-1	0	0	0	1	1	
64	-2	-1	0	1	1	-1	-1	0	0	0	1	1	
60	-2	-1	0	1	1	-1	-1	0	0	0	1	1	
56	-2	-1	0	1	1	-1	-1	0	0	0	1	1	
52	-1	0	0	1	1	-1	-1	0	0	0	1	1	
48	-1	0	0	1	1	-1	-1	0	0	0	1	1	
44	-1	0	0	1	1	-1	-1	0	0	0	1	1	
40	-1	0	0	1	1	-1	-1	0	0	1	1	1	

* V1 NOT TO EXCEED VR

737-700 V1 (MCG), Max Takeoff Thrust

TEMP		PRESSURE ALTITUDE (FT)					
°C	°F	-2000	0	2000	4000	6000	8000
60	140	92	90	91	92		
5	122	94	92	92	92	90	87
40	104	99	97	96	95	91	87
30	86	102	101	101	99	95	90
20	68	102	102	101	100	97	94
-60	-76	103	103	102	101	99	96

CLIMB

737-700 Max Climb N1%, Bleeds ON or OFF, Anti-ice OFF

TAT (°C)	PRESSURE ALTITUDE FT/SPEED (KIAS/MACH)									
	0	5000	10000	15000	20000	25000	30000	35000	37000	41000
	280	280	280	280	280	280	280	.78	.78	.78
60	83.7	83.8	83.7	83.7	86.9	91.3	92.9	94.3	94.4	92.7
55	84.7	84.6	84.6	87.3	90.6	92.3	93.6	93.7	92.0	84.5
50	85.2	85.5	85.5	85.5	88.2	90.7	91.6	92.9	93.0	91.3
45	86.0	86.3	86.3	86.3	89.1	91.6	91.6	92.2	92.3	90.6
40	86.9	87.0	87.1	87.1	89.9	92.4	92.4	91.5	91.6	89.9
35	87.8	87.9	87.9	90.7	93.2	93.2	92.3	91.6	90.0	87.5
30	86.8	88.5	88.6	88.7	91.5	94.0	93.9	93.1	92.5	91.0
25	86.1	88.6	89.4	89.4	92.3	94.8	94.6	93.9	93.3	92.0
20	85.4	87.9	90.2	90.1	93.0	95.5	95.3	94.6	94.1	92.9
15	84.7	87.1	89.6	90.9	93.8	96.2	96.0	95.4	94.9	93.9
10	84.0	86.4	88.8	91.1	94.6	96.9	96.6	96.1	95.7	94.8
5	83.2	85.7	88.1	90.3	95.5	97.8	97.3	96.9	96.5	95.7
0	82.5	84.9	87.3	89.5	94.8	98.9	98.3	97.8	97.4	96.6
-5	81.8	84.1	86.5	88.7	94.0	98.8	99.3	98.5	98.2	97.7
-10	81.0	83.4	85.7	87.9	93.2	98.0	99.6	99.4	99.1	98.6
-15	80.3	82.6	85.0	87.1	92.4	97.3	98.8	100.4	100.1	99.6
-20	79.5	81.8	84.2	86.3	91.5	96.5	98.0	100.1	100.6	100.2
-25	78.7	81.0	83.3	85.5	90.7	95.7	97.2	99.2	99.8	99.4
-30	78.0	80.2	82.5	84.7	89.9	94.9	96.4	98.4	98.9	98.6
-35	77.2	79.4	81.7	83.8	89.0	94.0	95.5	97.6	98.1	97.7
-40	76.4	78.6	80.9	83.0	88.2	93.2	94.7	96.7	97.2	96.9

737-700 Enroute Climb, 280/.78

PRESSURE ALTITUDE (FT)	UNITS MIN/KG NM/KTAS	BRAKE RELEASE WEIGHT (1000 KG)										
		80	75	70	65	60	55	50	45	40	35	30
41000	TIME/FUEL DIST/SPD					25/1800 153/402	21/1550 126/399	18/1350 107/396	15/1150 92/395	13/1000 79/394	11/900 68/392	10/750 57/391
40000	TIME/FUEL DIST/SPD				27/2000 169/402	22/1700 137/398	19/1500 116/395	17/1300 100/393	15/1150 87/392	13/1000 75/391	11/850 64/390	9/750 54/389
39000	TIME/FUEL DIST/SPD			31/2250 192/403	24/1850 148/397	21/1650 125/394	18/1450 108/392	16/1250 94/390	14/1100 82/389	12/950 71/388	10/850 61/387	9/700 51/386
38000	TIME/FUEL DIST/SPD			26/2050 161/396	23/1800 135/392	20/1550 117/390	17/1400 102/389	15/1200 89/387	13/1100 78/386	12/950 67/385	10/800 58/385	9/700 49/384
37000	TIME/FUEL DIST/SPD		29/2250 175/395	24/1950 145/391	21/1700 125/388	19/1500 109/387	16/1350 96/385	15/1200 84/384	13/1050 74/384	11/900 64/383	10/800 55/382	8/700 47/381
36000	TIME/FUEL DIST/SPD	31/2450 191/394	26/2100 156/389	23/1850 134/387	20/1650 117/385	18/1450 103/383	16/1300 90/382	14/1150 80/381	12/1000 70/381	11/900 61/380	9/800 52/379	8/650 44/378
35000	TIME/FUEL DIST/SPD	28/2300 169/388	25/2000 144/385	22/1800 125/383	19/1600 110/382	17/1450 97/380	15/1250 86/379	13/1150 76/379	12/1000 67/378	10/900 58/377	9/750 50/376	8/650 43/375
34000	TIME/FUEL DIST/SPD	27/2200 155/383	23/1950 134/381	21/1750 118/380	18/1550 104/378	16/1400 93/377	15/1250 82/376	13/1100 72/376	11/950 64/375	10/850 56/374	9/750 48/374	7/650 41/373
33000	TIME/FUEL DIST/SPD	25/2100 145/379	22/1850 126/377	20/1700 112/376	18/1500 99/375	16/1350 88/374	14/1200 78/373	13/1050 69/373	11/950 61/372	10/850 53/371	8/700 46/371	7/600 39/370
32000	TIME/FUEL DIST/SPD	24/2000 134/374	21/1800 118/373	19/1600 105/372	17/1450 93/371	15/1300 83/370	14/1150 74/370	12/1050 65/369	11/900 58/368	9/800 50/368	8/700 43/367	7/600 37/366
31000	TIME/FUEL DIST/SPD	22/1900 124/369	20/1750 109/368	18/1550 97/367	16/1400 87/366	14/1250 77/366	13/1150 69/365	11/1000 61/365	10/900 54/364	9/800 47/363	8/700 41/363	7/600 34/362
30000	TIME/FUEL DIST/SPD	21/1850 115/364	19/1650 102/364	17/1500 91/363	15/1350 81/362	14/1200 73/362	12/1100 65/361	11/950 57/361	10/850 51/360	9/750 44/359	7/650 38/359	6/550 32/357

29000	TIME/FUEL DIST/SPD	20/1750 107/360	18/1600 95/359	16/1450 85/359	15/1300 76/358	13/1150 68/358	12/1050 61/357	11/950 54/357	9/850 48/356	8/750 42/356	7/650 36/355	6/550 30/354
28000	TIME/FUEL DIST/SPD	19/1700 99/356	17/1550 89/355	15/1400 79/355	14/1250 71/354	13/1150 64/354	11/1000 57/353	10/900 51/353	9/800 45/353	8/700 39/352	7/600 34/351	6/500 29/350
27000	TIME/FUEL DIST/SPD	18/1650 93/352	16/1450 83/352	15/1350 74/351	13/1200 67/351	12/1100 60/350	11/1000 54/350	10/900 48/350	9/800 42/349	8/700 37/348	7/600 32/348	6/500 27/346
26000	TIME/FUEL DIST/SPD	17/1550 87/349	16/1400 78/348	14/1300 70/348	13/1150 63/347	12/1050 56/347	10/950 51/347	9/850 45/346	8/750 40/346	7/650 35/345	6/550 30/344	5/500 25/343
25000	TIME/FUEL DIST/SPD	16/1500 82/345	15/1350 73/345	14/1250 66/345	12/1150 59/344	11/1000 53/344	10/900 48/343	9/800 42/343	8/700 37/343	7/650 33/342	6/550 28/341	5/450 24/340
24000	TIME/FUEL DIST/SPD	16/1450 76/342	14/1300 69/342	13/1200 62/342	12/1100 56/341	11/1000 50/341	9/900 45/340	8/800 40/340	8/700 35/340	7/600 31/339	6/550 27/338	5/450 23/337
23000	TIME/FUEL DIST/SPD	15/1400 72/339	14/1250 64/339	12/1150 58/339	11/1050 52/338	10/950 47/338	9/850 42/338	8/750 38/337	7/650 33/337	6/600 29/336	6/500 25/335	5/450 21/334
22000	TIME/FUEL DIST/SPD	14/1350 67/336	13/1200 60/336	12/1100 54/336	11/1000 49/335	10/900 44/335	9/800 39/335	8/750 35/334	7/650 31/334	6/550 27/333	5/500 23/332	4/450 20/331
21000	TIME/FUEL DIST/SPD	14/1300 63/333	12/1150 56/333	11/1050 51/333	10/950 46/332	9/900 41/332	8/800 37/332	7/700 33/331	7/650 29/331	6/550 26/330	5/500 22/329	4/400 19/328
20000	TIME/FUEL DIST/SPD	13/1200 58/331	12/1100 52/330	11/1000 47/330	10/950 43/330	9/850 39/329	8/750 35/329	7/700 31/329	6/600 27/328	6/550 24/327	5/450 21/326	4/400 17/325
18000	TIME/FUEL DIST/SPD	12/1100 50/325	11/1000 45/325	10/950 41/325	9/850 37/324	8/750 33/324	7/700 30/324	6/600 27/323	6/550 24/323	5/500 21/322	4/450 18/321	4/350 15/320
16000	TIME/FUEL DIST/SPD	10/1000 42/320	9/950 38/319	9/850 34/319	8/800 31/319	7/700 28/319	6/650 25/318	6/550 23/318	5/500 20/317	4/450 17/317	4/400 15/316	3/350 13/314
14000	TIME/FUEL DIST/SPD	9/900 34/314	8/850 31/314	7/750 28/314	7/700 26/313	6/650 23/313	6/550 21/313	5/500 13/312	4/450 16/312	4/400 14/311	3/350 12/310	3/300 11/308
10000	TIME/FUEL DIST/SPD	6/700 21/304	6/650 19/304	6/600 18/303	5/550 16/303	5/500 14/303	4/450 13/303	4/400 12/302	3/350 10/302	3/300 9/301	3/300 8/300	2/250 7/298
1500	TIME/FUEL	2/300	2/300	2/250	2/250	2/200	2/200	1/200	1/150	1/150	1/150	1/100
FUEL ADJUSTMENT FOR HIGH ELEVATION AIRPORTS EFFECT ON TIME AND DISTANCE IS NEGLIGIBLE					AIRPORT ELEVATION	2000	4000	6000	8000	10000	12000	
					FUEL ADJUSTMENT	-50	-100	-200	-250	-300	-350	

CRUISE

737-700 Mach .78 Cruise

PRESS ALT (1000 FT)	KIAS STD TAT KTAS		WEIGHT (1000 KG)										
			80	75	70	65	60	55	50	45	40	35	30
41	230 -30 447	%N1 FF/ENG						89.9 1040	87.4 948	85.7 886	84.3 844	83.1 806	82.3 779
40	235 -30 447	%N1 FF/ENG					91.5 1142	88.3 1028	86.5 956	85.0 899	83.7 863	82.7 828	82.0 804
39	241 -30 447	%N1 FF/ENG				93.2 1256	89.4 1117	87.2 1029	85.6 967	84.3 915	83.2 875	82.3 845	81.7 832
38	247 -30 447	%N1 FF/ENG				90.4 1213	87.8 1108	86.2 1038	84.9 980	83.7 935	82.7 898	82.0 871	81.4 852
37	252 -30 447	%N1 FF/ENG			91.5 1314	88.6 1191	86.8 1111	85.4 1050	84.2 997	83.2 956	82.3 923	81.6 900	81.2 884
36	258 -30 448	%N1 FF/ENG		92.7 1420	89.4 1281	87.3 1188	85.9 1121	84.7 1064	83.6 1018	82.7 981	82.0 952	81.4 931	81.0 917
35	264 -28 450	%N1 FF/ENG	93.9 1535	90.4 1379	88.2 1271	86.7 1197	85.5 1138	84.4 1087	83.4 1047	82.6 1013	82.0 988	81.5 970	81.2 959
34	271 -25 452	%N1 FF/ENG	91.4 1482	89.1 1362	87.5 1279	86.3 1217	85.2 1162	84.2 1117	83.3 1080	82.6 1050	82.1 1027	81.7 1011	81.5 1003
33	277 -23 454	%N1 FF/ENG	89.9 1459	88.3 1366	87.0 1299	85.9 1240	84.9 1190	84.0 1150	83.2 1115	82.7 1089	82.2 1069	81.9 1055	81.7 1048
32	283 -21 456	%N1 FF/ENG	88.9 1455	87.7 1383	86.6 1322	85.5 1267	84.7 1223	83.9 1185	83.2 1154	82.7 1130	82.3 1112	82.1 1101	81.9 1096
31	289 -19 458	%N1 FF/ENG	88.3 1468	87.2 1405	86.2 1347	85.3 1298	84.5 1258	83.8 1223	83.3 1196	82.8 1174	82.5 1159	82.3 1150	82.2 1146
30	296 -17 460	%N1 FF/ENG	87.8 1489	86.8 1429	85.9 1377	85.1 1334	84.4 1296	83.8 1264	83.3 1240	82.9 1221	82.6 1207	82.5 1201	82.4 1198
29	302 -14 462	%N1 FF/ENG	87.4 1514	86.5 1458	85.7 1411	84.9 1371	84.3 1336	83.8 1309	83.4 1286	83.1 1270	82.8 1259	82.7 1254	82.7 1251
28	309 -12 464	%N1 FF/ENG	87.0 1539	86.2 1490	85.5 1448	84.9 1410	84.3 1380	83.9 1355	83.5 1335	83.2 1321	83.1 1312	83.0 1308	83.0 1307
27	315 -10 466	%N1 FF/ENG	86.7 1570	86.0 1526	85.4 1487	84.8 1453	84.4 1427	84.0 1404	83.6 1387	83.4 1374	83.3 1368	83.2 1365	83.2 1364
26	322	%N1	86.5	85.9	85.3	84.8	84.4	84.1	83.8	83.6	83.5	83.5	83.5

	-8 468	FF/ENG	1607	1566	1530	1500	1476	1456	1441	1431	1426	1424	1424
25	329	%N1	86.4	85.8	85.3	84.9	84.5	84.2	84.0	83.9	83.8	83.8	83.8
	-5 470	FF/ENG	1648	1610	1577	1551	1529	1511	1498	1491	1487	1485	1487

Increase %N1 by 1% per 5°C above/below standard TAT.
Increase/decrease fuel flow 3% per 10°C above/below standard TAT.
Increase/decrease KTAS by 1 knot per 1°C above/below standard TAT.

DESCENT

737-700 .78/280/250 Descent

PRESSURE ALTITUDE (FT)	TIME (MIN)	FUEL (KG)	DISTANCE (NM)		
			LANDING WEIGHT (1000 KG)		
			40	50	60
41000	24	250	98	114	126
39000	23	240	93	109	121
37000	22	240	89	104	115
35000	22	240	85	99	110
33000	21	240	81	95	106
31000	20	230	77	90	100
29000	19	230	73	84	94
27000	19	220	68	79	87
25000	18	220	64	74	81
23000	17	210	59	68	75
21000	16	210	55	63	70
19000	15	200	51	58	64
17000	14	200	46	53	58
15000	13	190	42	48	52
10000	10	160	30	33	36
5000	7	130	17	19	20
1500	4	100	9	9	9

737-700 .78/250 Descent

PRESSURE ALTITUDE (FT)	TIME (MIN)	FUEL (KG)	DISTANCE (NM)		
			LANDING WEIGHT (1000 KG)		
			40	50	60
41000	27	260	110	126	136
39000	26	260	105	121	131
37000	25	260	100	115	125
35000	24	250	95	108	118
33000	23	250	89	102	111
31000	22	240	84	96	104
29000	21	240	78	90	97
27000	20	230	73	83	91
25000	19	230	68	77	84
23000	18	220	63	71	78
21000	17	210	58	65	71
19000	16	210	52	59	64
17000	14	200	47	54	58
15000	13	190	42	48	52
10000	10	160	30	33	36
5000	7	130	17	19	20
1500	4	100	9	9	9

LANDING

737-700 Vref

WEIGHT (1000 KG)	FLAPS		
	40	30	15
80	154	156	162
75	149	151	157
70	144	146	152
65	139	141	147
60	133	135	140
55	127	129	134
50	120	123	127
45	114	117	121

For approach speed add wind factor of 1/2 the headwind component + gust (max 20 knots).