CAGE Code 81205

757-200/ -300 Airplane Characteristics for Airport Planning

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CONTENT OWNER:

Boeing Commercial Airplanes

All revisions to this document must be approved by the content owner before release.

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Revision Record

Revision Letter	**G**
Revision Date	**November 2023**
Changes in This Revision	Section 7.11 Add ACR/PCR Information
Revision Letter	**H**
Revision Date	**December 2024**
Changes in This Revision	Section 7.11 Updated ACR Information

Table of Contents

1.0 SCOPE AND INTRODUCTION

1.1 SCOPE

This document provides, in a standardized format, airplane characteristics data for general airport planning. Since operational practices vary among airlines, specific data should be coordinated with the using airlines prior to facility design. Boeing Commercial Airplanes should be contacted for any additional information required.

Content of the document reflects the results of a coordinated effort by representatives from the following organizations:

- Aerospace Industries Association
- Airports Council International - North America
- Air Transport Association of America
- International Air Transport Association

The airport planner may also want to consider the information presented in the "CTOL Transport Aircraft, Characteristics, Trends, and Growth Projections," available from the US AIA, 1250 Eye St., Washington DC 20005, for long-range planning needs. This document is updated periodically and represents the coordinated efforts of the following organizations regarding future aircraft growth trends:

- International Coordinating Council of Aerospace Industries Associations
- Airports Council International - North America
- Air Transport Association of America
- International Air Transport Association

1.2 INTRODUCTION

This document conforms to NAS 3601. It provides characteristics of the Boeing Model 757 family of airplanes for airport planners and operators, airlines, architectural and engineering consultant organizations, and other interested industry agencies. Airplane changes and available options may alter model characteristics; the data presented herein reflect typical airplanes in each model category.

For additional information contact:

Boeing Commercial Airplanes
2201 Seal Beach Blvd. M/C: 110-SB02
Seal Beach, CA 90740-1515
U.S.A.

Attention: Manager, Airport Operations Engineering
Email: AirportCompatibility@boeing.com

1.3 A BRIEF DESCRIPTION OF THE MODEL 757 AIRPLANE

The 757 is a twin-engine, new technology jet airplane designed for low fuel burn and short-to-medium range operations. This airplane uses new aerodynamics, materials, structures, and systems to fill market requirement that cannot be efficiently provided by existing equipment or derivatives.

The 757 is a low-noise airplane powered by either Rolls-Royce RB211-535C, -535E4, or -535E4B, or the Pratt & Whitney PW2037, PW2040, or PW2043 engines. These are high-bypass-ratio engines which are efficient, reliable, and easy to maintain. The following table shows the available engine options

ENGINE MANUFACTURER	ENGINE MODEL	ENGINE THRUST	AIRPLANE MODEL
PRATT & WHITNEY	PW2037	37,200 LB	757-200, -200PF
	PW 2040	41,700 LB	757-200,-200PF, -300
	PW 2043	43,850 LB	757-300
ROLLS ROYCE	RB211-535C	37,400 LB	757-200
	RB211-535E4	40,100 LB	757-200,-300
	RB211-535E4B	43,100 LB	757-200,-300

757-200

The 757-200 family of airplanes consists of passenger and package freighter versions.

The passenger version is available in two configurations:

- The basic configuration (overwing-exit) has three LH and RH passenger doors and two LH and RH overwing exit doors.
- An optional configuration (four-door) has the same three LH and RH passenger doors but with LH and RH exit door aft of the wing, in lieu of the overwing exit doors.

In the passenger configuration, the 757-200 can typically carry 186 passengers in a six-abreast, mixed class configuration over a 2,900-nautical-mile range with full load. High gross options can increase the range to about 3,900 nautical miles. High-density seating arrangements can accommodate as many as 239 passengers in an all-economy configuration.

The 757-200 can be equipped for Extended Range Operations (EROPS) to allow extended overwater operations. Changes include a backup hydraulic motor-generator set and an auxiliary fan for equipment cooling.

757-200PF

The Package Freighter (757-200PF) airplane is designed to carry an all-cargo payload. Main-deck cargo is either in cargo containers or pallets and are loaded through a large cargo door forward of left wing. The -200PF has no windows or passenger doors in the fuselage. A crew entry door is provided forward of the main deck cargo door.

757-300

The 757-300 is a second-generation derivative of the 757-200 airplane. Two body extensions are added to the airplane fuselage to provide additional seating and cargo capacity. The 757-300 can typically seat 243 passengers in a dual-class arrangement or 279 passengers in an all-economy configuration. The EROPS option has been incorporated in the 757-300.

The 757 has ground service connections compatible with existing ground support equipment and no special equipment is required.

2.0 AIRPLANE DESCRIPTION

2.1 GENERAL CHARACTERISTICS

Maximum Design Taxi Weight (MTW). Maximum weight for ground maneuver as limited by aircraft strength and airworthiness requirements. (It includes weight of taxi and run-up fuel.)

Maximum Design Landing Weight (MLW). Maximum weight for landing as limited by aircraft strength and airworthiness requirements.

Maximum Design Takeoff Weight (MTOW). Maximum weight for takeoff as limited by aircraft strength and airworthiness requirements. (This is the maximum weight at start of the takeoff run.)

Operating Empty Weight (OEW). Weight of structure, powerplant, furnishing systems, unusable fuel and other unusable propulsion agents, and other items of equipment that are considered an integral part of a particular airplane configuration. Also included are certain standard items, personnel, equipment, and supplies necessary for full operations, excluding usable fuel and payload.

Maximum Design Zero Fuel Weight (MZFW). Maximum weight allowed before usable fuel and other specified usable agents must be loaded in defined sections of the aircraft as limited by strength and airworthiness requirements.

Maximum Pay load. Maximum design zero fuel weight minus operational empty weight.

Maximum Seating Capacity. The maximum number of passengers specifically certificated or anticipated for certification.

Maximum Cargo Volume. The maximum space available for cargo.

Usable Fuel. Fuel available for aircraft propulsion.

2.1.1 General Characteristics: Model 757-200 (RB211-535C, -535E4, -535E4B Engines)

CHARACTERISTICS	UNITS	757-200				
MAX DESIGN TAXI WEIGHT	POUNDS	221,000	231,000	241,000	251,000	256,000
	KILOGRAMS	100,243	104,779	109,315	113,851	116,119
MAX DESIGN TAKEOFF WEIGHT	POUNDS	220,000	230,000	240,000	250,000	255,000(1)
	KILOGRAMS	99,790	104,326	108,862	113,398	115,666(1)
MAX DESIGN LANDING WEIGHT	POUNDS	198,000	198,000	198,000	198,000	210,000
	KILOGRAMS	89,811	89,811	89,811	89,811	95,254
MAX DESIGN ZERO FUEL WEIGHT	POUNDS	184,000	184,000	184,000	184,000	188,000
	KILOGRAMS	83,461	83,461	83,461	83,461	85,275
SPEC OPERATING EMPTY WEIGHT	POUNDS	134,090	125,110	132,280	136,940	136,940
	KILOGRAMS	60,822	56,748	60,001	62,114	62,114
MAX STRUCTURAL PAYLOAD	POUNDS	49,910	58,890	51,720	47,060	47,060
	KILOGRAMS	22,638	26,712	23,459	21,346	21,346
SEATING CAPACITY	TWO-CLASS	186 - 16 FIRST + 170 ECONOMY				
	ONE-CLASS	FAA EXIT LIMIT: 224 (2), 239(3)				
MAX CARGO - LOWER DECK (4)	CUBIC FEET	1,790	1,790	1,790	1,790	1,790
	CUBIC METERS	51	51	51	51	51
USABLE FUEL	U.S. GALLONS	11,276	11,276	11,276	11,276	11,276
	LITERS	42,684	42,684	42,684	42,684	42,684
	POUNDS	75,549	75,549	75,549	75,549	75,549
	KILOGRAMS	34,275	34,275	34,275	34,275	34,275

NOTES: WEIGHTS SHOWN ARE FOR TYPICAL AS-DELIVERED OR AS-OFFERRED CONFIGURATIONS. CONSULT WITH AIRLINE FOR ACTUAL WEIGHTS.

1. 255,500 LB (115,892 KG) FOR AIRPORT ALTITUDES BELOW 1,500 FT.
2. OVERWING-EXIT CONFIGURATION AIRPLANE.
3. FOUR-DOOR CONFIGURATION AIRPLANE.
4. VOLUME IS REDUCED BY 100 CU FT (3 CU M) WITH TELESCOPING BAGGAGE SYSTEM.

2.1.2 General Characteristics: Model 757-200 (PW2037, PW2040 Engines)

CHARACTERISTICS	UNITS	757-200				
MAX DESIGN TAXI WEIGHT	POUNDS	221,000	231,000	241,000	251,000	256,000
	KILOGRAMS	100,243	104,779	109,315	113,851	116,119
MAX DESIGN TAKEOFF WEIGHT	POUNDS	220,000	230,000	240,000	250,000	255,000(1)
	KILOGRAMS	99,790	104,326	108,862	113,398	115,666(1)
MAX DESIGN LANDING WEIGHT	POUNDS	198,000	198,000	198,000	198,000	210,000
	KILOGRAMS	89,811	89,811	89,811	89,811	95,254
MAX DESIGN ZERO FUEL WEIGHT	POUNDS	184,000	184,000	184,000	184,000	188,000
	KILOGRAMS	83,461	83,461	83,461	83,461	85,275
SPEC OPERATING EMPTY WEIGHT	POUNDS	128,380	130,850	130,860	130,875	130,875
	KILOGRAMS	58,232	59,352	59,357	59,363	59,363
MAX STRUCTURAL PAYLOAD	POUNDS	55,620	53,140	53,140	53,125	53,125
	KILOGRAMS	25,228	24,103	24,103	24,097	24,097
SEATING CAPACITY	TWO-CLASS	186 - 16 FIRST + 170 ECONOMY				
	ONE-CLASS	FAA EXIT LIMIT: 224 (2), 239(3)				
MAX CARGO - LOWER DECK (4)	CUBIC FEET	1,790	1,790	1,790	1,790	1,790
	CUBIC METERS	51	51	51	51	51
USABLE FUEL	U.S. GALLONS	11,276	11,276	11,276	11,276	11,276
	LITERS	42,684	42,684	42,684	42,684	42,684
	POUNDS	75,549	75,549	75,549	75,549	75,549
	KILOGRAMS	34,275	34,275	34,275	34,275	34,275

NOTES: WEIGHTS SHOWN ARE FOR TYPICAL AS-DELIVERED OR AS-OFFERRED CONFIGURATIONS. CONSULT WITH AIRLINE FOR ACTUAL WEIGHTS.

1. 255,500 LB (115,900 KG) FOR AIRPORT ALTITUDES BELOW 1,500 FT.
2. OVERWING-EXIT CONFIGURATION AIRPLANE.
3. FOUR-DOOR CONFIGURATION AIRPLANE.
4. VOLUME IS REDUCED BY 100 CU FT (3 CU M) WITH TELESCOPING BAGGAGE SYSTEM.

2.1.3 General Characteristics: Model 757-200PF

CHARACTERISTICS	UNITS	757-200PF	
MAX DESIGN TAXI WEIGHT	POUNDS	251,000	256,000
	KILOGRAMS	113,851	116,119
MAX DESIGN TAKEOFF WEIGHT	POUNDS	250,000	255,000(1)
	KILOGRAMS	113,398	116,666(1)
MAX DESIGN LANDING WEIGHT	POUNDS	210,000	210,000
	KILOGRAMS	92,254	92,254
MAX DESIGN ZERO FUEL WEIGHT	POUNDS	200,000	200,000
	KILOGRAMS	90,718	90,718
SPEC OPERATING EMPTY WEIGHT	POUNDS	114,000	114,000
	KILOGRAMS	51,709	51,709
MAX STRUCTURAL PAYLOAD	POUNDS	86,000	86,000
	KILOGRAMS	39,008	39,008
MAX CARGO LOWER DECK (2)	CUBIC FEET	1,830	1,830
	CUBIC METERS	52	52
MAX CARGO - MAIN DECK (3)	CUBIC FEET	6,600	6,600
	CUBIC METERS	187	187
USABLE FUEL	U.S. GALLONS	11,276	11,276
	LITERS	42,684	42,684
	POUNDS	75,549	75,549
	KILOGRAMS	34,275	34,275

NOTES: WEIGHTS SHOWN ARE FOR TYPICAL AS-DELIVERED OR AS-OFFERRED CONFIGURATIONS. CONSULT WITH AIRLINE FOR ACTUAL WEIGHTS.

1. 255,500 LB (115,900 KG) FOR AIRPORT ALTITUDES BELOW 1,500 FT.
2. VOLUME IS REDUCED BY 100 CU FT (3 CU M) WITH TELESCOPING BAGGAGE SYSTEM.
3. 15 UNIT LOAD DEVICES (ULD) AT 440 CU FT (12.36 CU M) EACH.

2.1.4 General Characteristics: Model 757-300

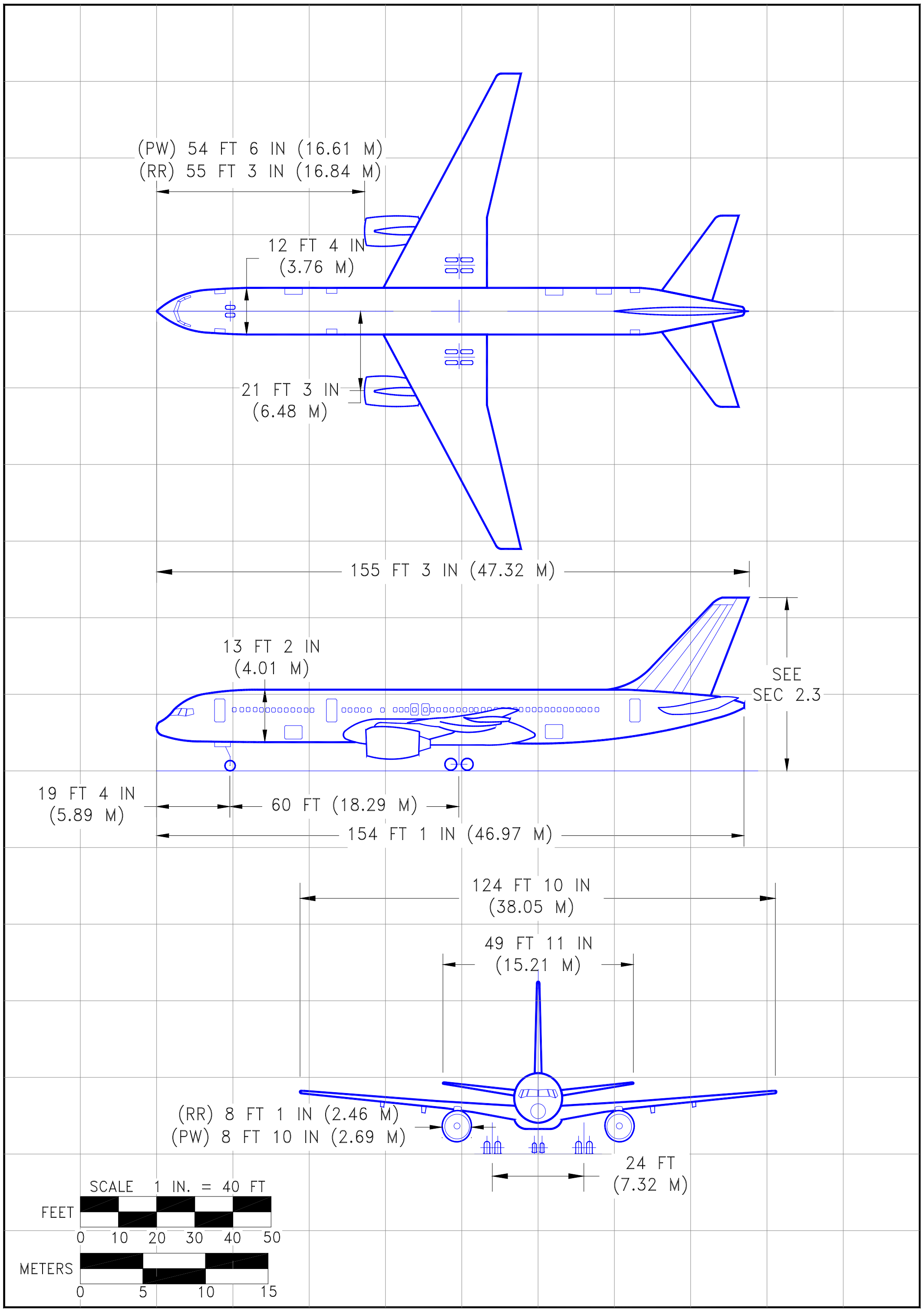
CHARACTERISTICS	UNITS	PW2040, PW 2043 ENGINES	RB211-535E4, -535E4B ENGINES
MAX DESIGN TAXI WEIGHT	POUNDS	271,000	271,000
	KILOGRAMS	122,923	122,923
MAX DESIGN TAKEOFF WEIGHT	POUNDS	270,000	270,000
	KILOGRAMS	122,449	122,449
MAX DESIGN LANDING WEIGHT	POUNDS	224,000	224,000
	KILOGRAMS	101,604	101,604
MAX DESIGN ZERO FUEL WEIGHT	POUNDS	210,000	210,000
	KILOGRAMS	95,254	95,254
SPEC OPERATING EMPTY WEIGHT (1)	POUNDS	141,800	142,350
	KILOGRAMS	64,319	64,568
MAX STRUCTURAL PAYLOAD	POUNDS	68,200	67,650
	KILOGRAMS	30,935	30,685
SEATING CAPACITY (1)	TWO-CLASS	243 - 12 FIRST + 231 ECONOMY	
	ONE-CLASS	279 ALL-ECONOMY	
MAX CARGO - LOWER DECK	CUBIC FEET	2,382 (2)	2,382 (2)
	CUBIC METERS	67.5 (2)	67.5 (2)
USABLE FUEL	U.S. GALLONS	11,490	11,490
	LITERS	43,494	43,494
	POUNDS	76,983	79,983
	KILOGRAMS	34,925	34,925

NOTES:

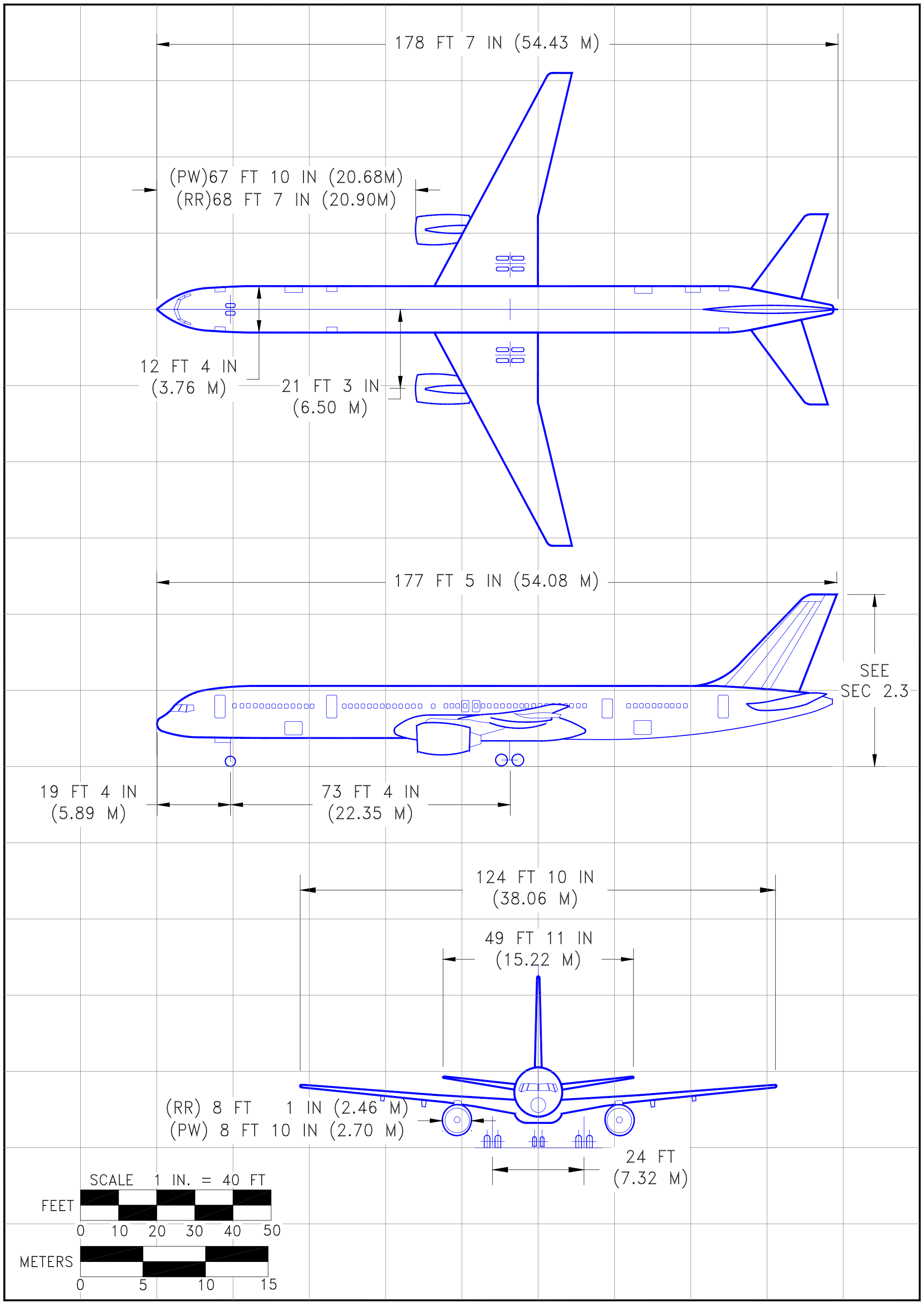
1. SPEC WEIGHT FOR BASELINE CONFIGURATION OF 243 PASSENGERS. CONSULT WITH AIRLINE FOR SPECIFIC WEIGHTS AND CONFIGURATIONS.
2. FWD CARGO = 1,070 CU FT (30.3 CU M). AFT CARGO = 1,312 CU FT (37.2 CU M).

2.2 GENERAL DIMENSIONS

2.2.1 General Dimensions: Model 757-200, -200PF

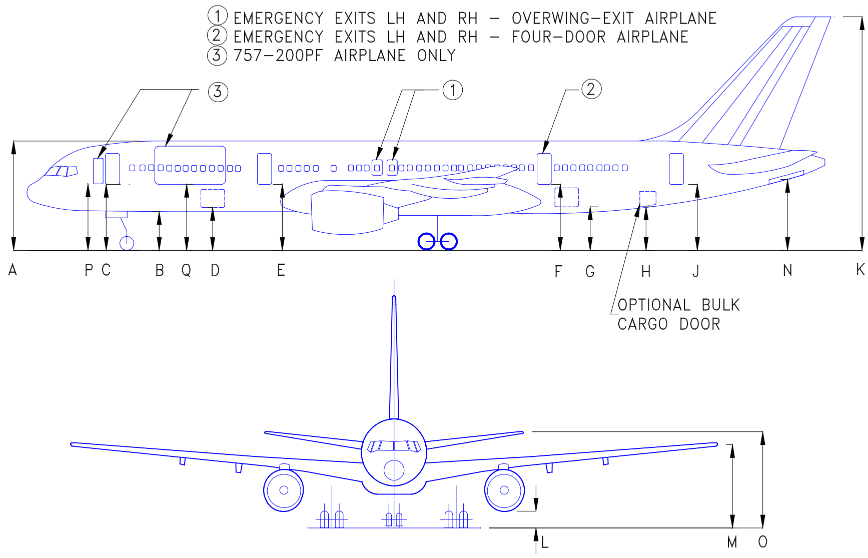


2.2.2 General Dimensions: Model 757-300



2.3 GROUND CLEARANCES

2.3.1 Ground Clearances: Model 757-200, 200PF

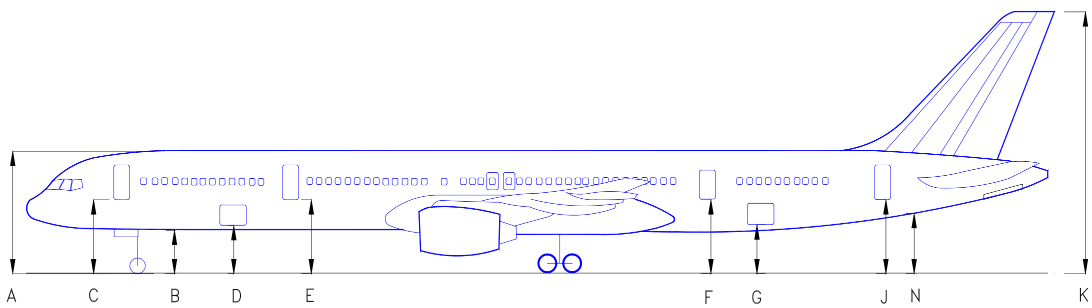


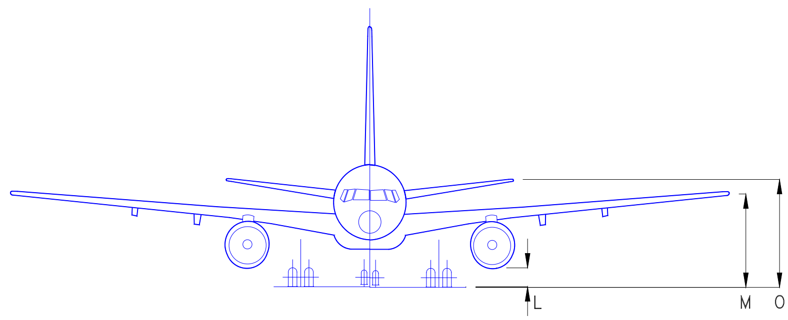
Dimension	MINIMUM		MAXIMUM		MODEL
	FT - IN	M	FT - IN	M	APPLICABILITY
A	20 - 6	6.25	21 - 2	6.45	-200, -200PF
B	7 - 4	2.24	8 - 0	2.44	-200, -200PF
C	12 - 5	3.79	13 - 2	4.01	-200
D	8 - 1	2.46	8 - 9	2.67	-200, -200PF
E	12 - 7	3.84	13 - 2	4.01	-200
F	12 - 9	3.89	13 - 3	4.04	-200
G	7 - 9	2.36	8 - 3	2.51	-200, -200PF
H	8 - 6	2.59	9 - 1	2.77	-200
J	12 - 9	3.89	13 - 7	4.14	-200
K	44 - 3	13.49	45 - 1	13.74	-200, -200PF
L	2 - 5	0.74	2 - 10	0.86	-200, -200PF
M	15 - 4	4.67	16 - 1	4.90	-200, -200PF
N	12 - 5	3.78	13 - 3	4.04	-200, -200PF
O	18 - 7	5.66	19 - 8	5.99	-200, -200PF
P	12 - 5	3.79	13 - 2	4.01	-200PF
Q	12 - 6	3.81	13 - 2	4.01	-200PF

NOTES: VERTICAL CLEARANCES SHOWN OCCUR DURING MAXIMUM VARIATIONS OF AIRPLANE ATTITUDE. COMBINATIONS OF AIRPLANE LOADING AND UNLOADING ACTIVITIES THAT PRODUCE THE GREATEST POSSIBLE VARIATIONS IN ATTITUDE WERE USED TO ESTABLISH THE VARIATIONS SHOWN.

* NOMINAL DIMENSIONS

2.3.2 Ground Clearances: Model 757-300





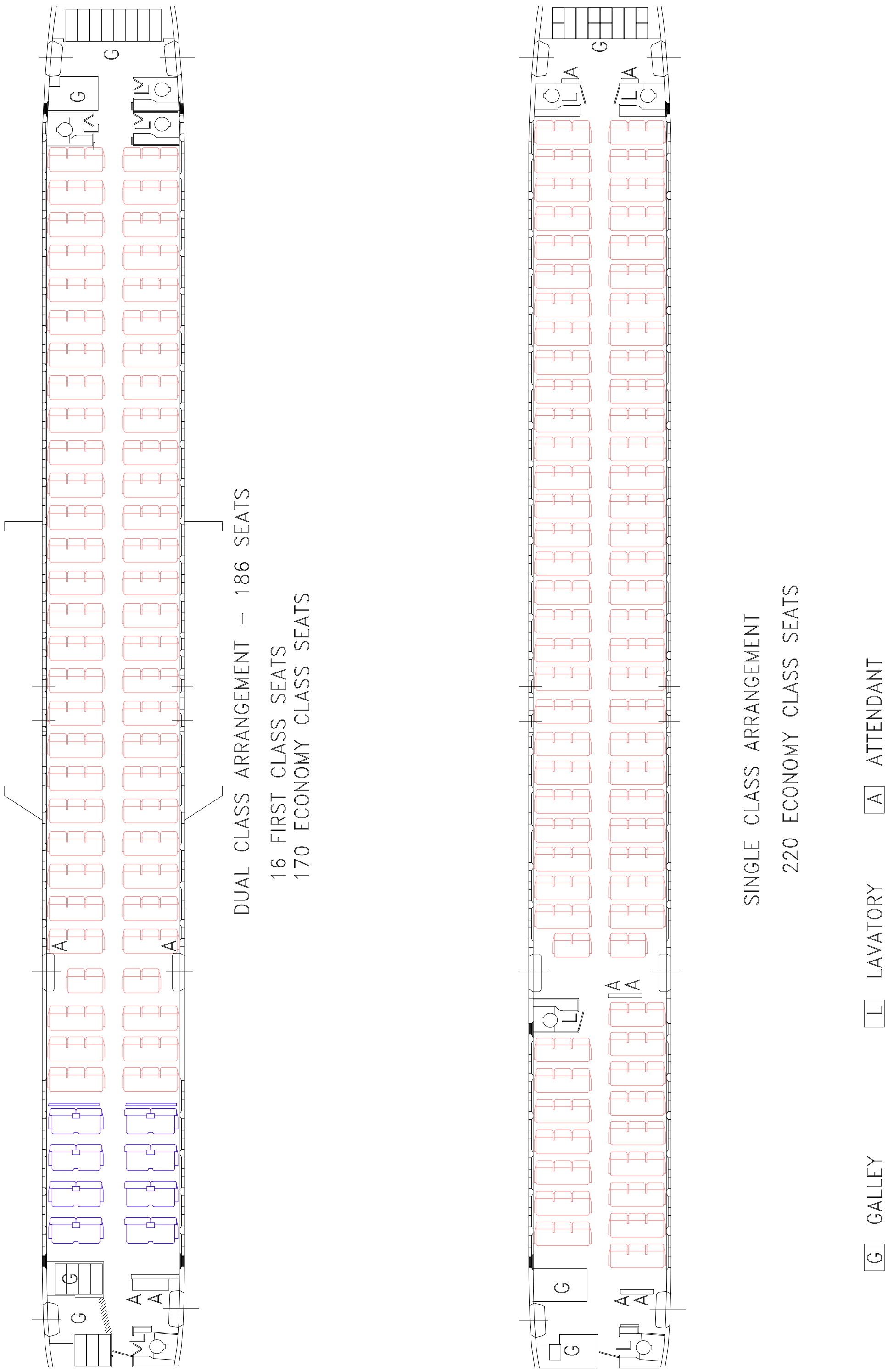
Dimension	MINIMUM		MAXIMUM	
	FT - IN	M	FT - IN	M
A	20 - 7	6.27	21 - 4	6.50
B	7 - 5	2.26	8 - 2	2.49
C	12 - 5	3.79	13 - 2	4.01
D	8 - 0	2.44	8 - 9	2.67
E	12 - 7	3.84	13 - 2	4.01
F	12 - 11	3.94	13 - 4	4.06
G	7 - 6	2.29	7 - 10	2.39
J	13 - 0	3.96	13 - 4	4.06
K	44 - 6	13.56	44 - 9	13.64
L (RB211)	3 - 0	0.91	3 - 7	1.09
L (PW2043)	2 - 8	0.81	3 - 3	0.99
M	16 - 1	4.90	16 - 6	5.03
N (TAIL SKID)	9 - 0	2.74	9 - 4	2.85
O	18 - 10	5.74	19 - 1	5.82

NOTES: VERTICAL CLEARANCES SHOWN OCCUR DURING MAXIMUM VARIATIONS OF AIRPLANE ATTITUDE. COMBINATIONS OF AIRPLANE LOADING AND UNLOADING ACTIVITIES THAT PRODUCE THE GREATEST POSSIBLE VARIATIONS IN ATTITUDE WERE USED TO ESTABLISH THE VARIATIONS SHOWN.

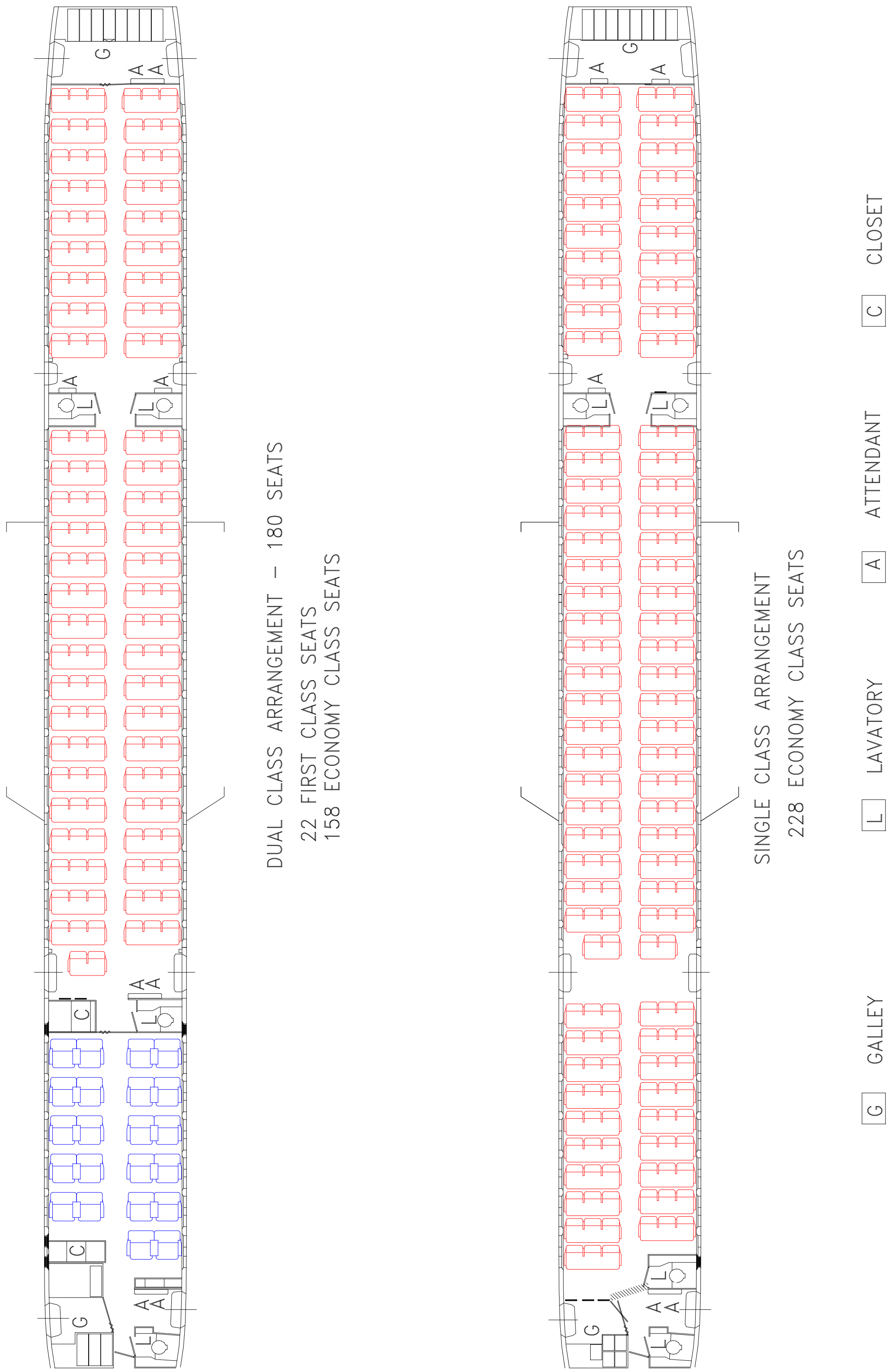
* NOMINAL DIMENSIONS

2.4 INTERIOR ARRANGEMENTS

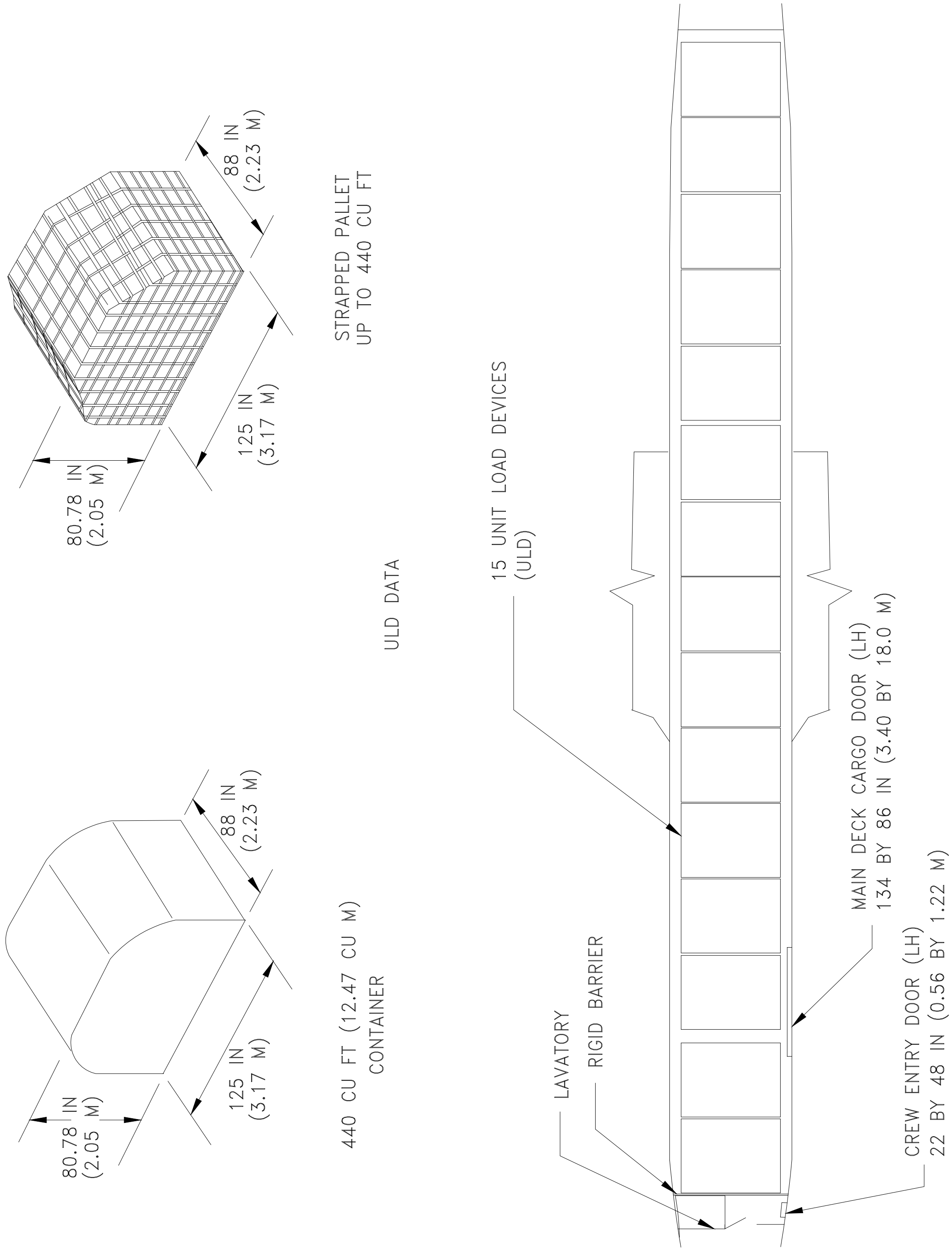
2.4.1 Interior Arrangements: Model 757-200, Overwing-Exit Airplane



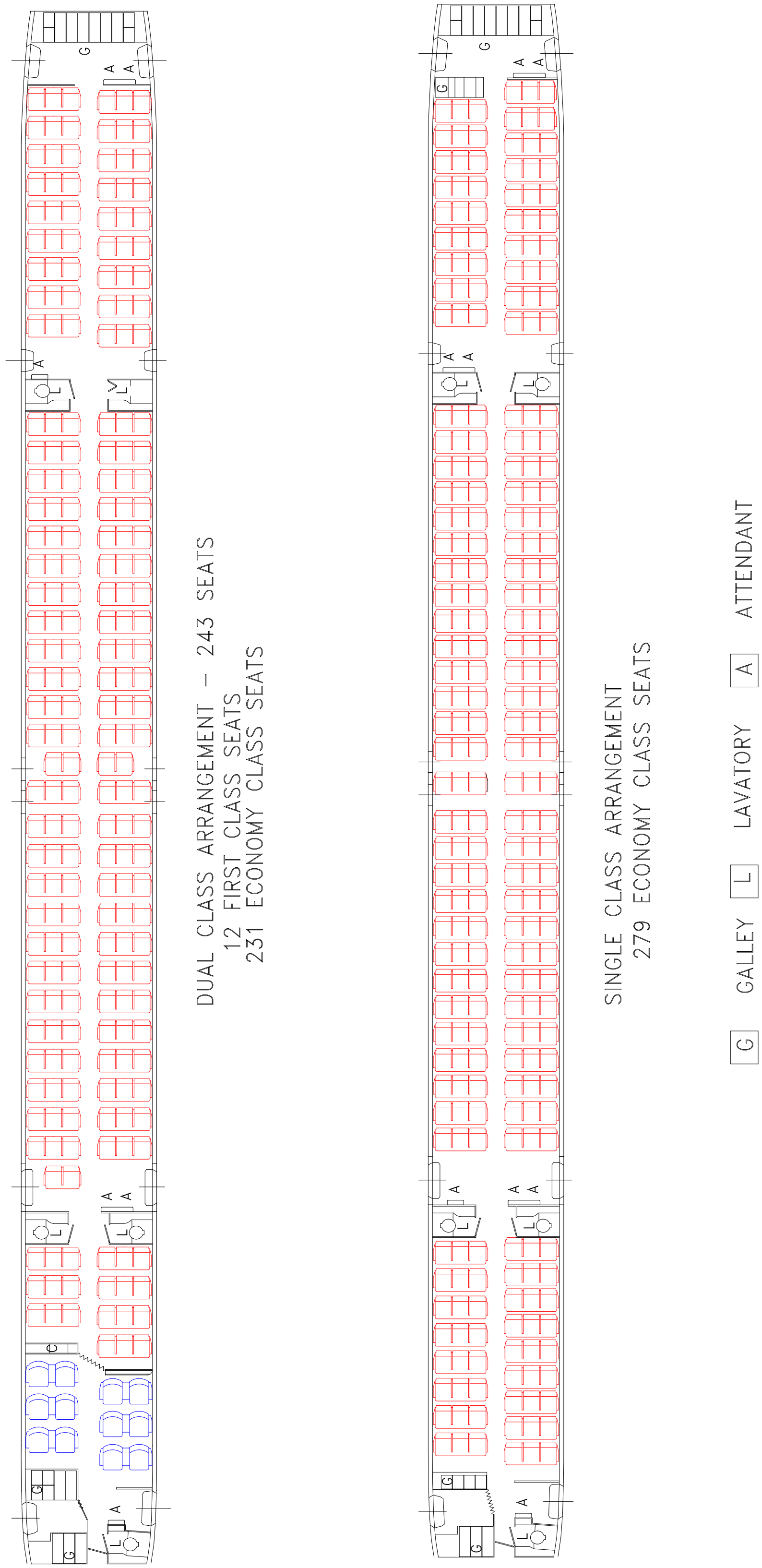
2.4.2 Interior Arrangements: Model 757-200, Four-Door Airplane



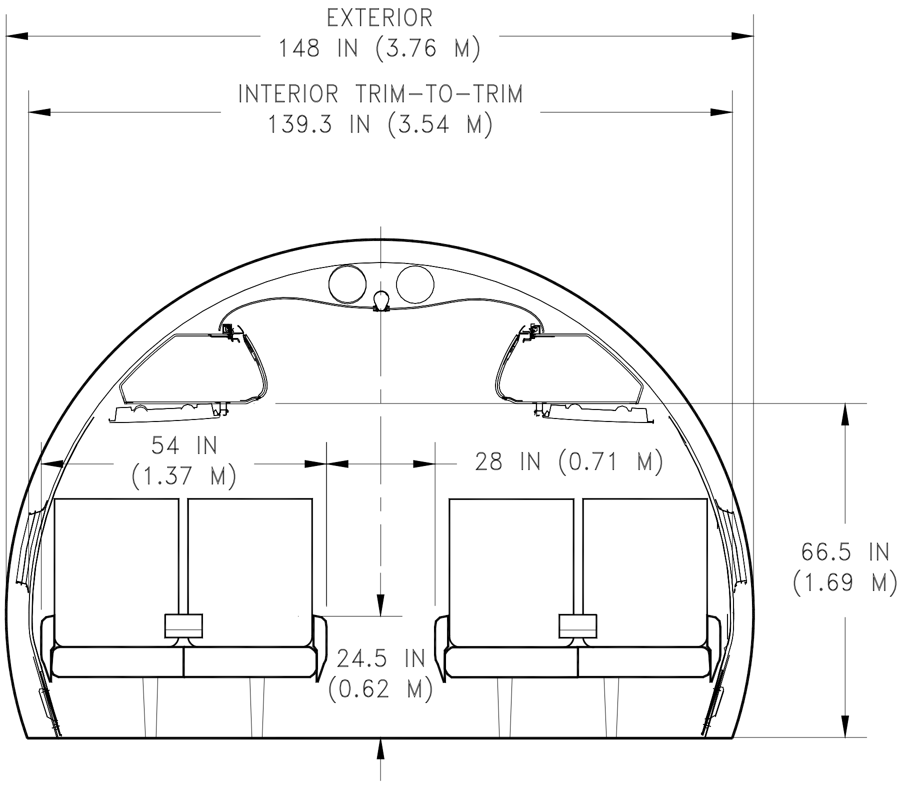
2.4.3 Interior Arrangements: Model 757-200PF, Main Deck Cargo



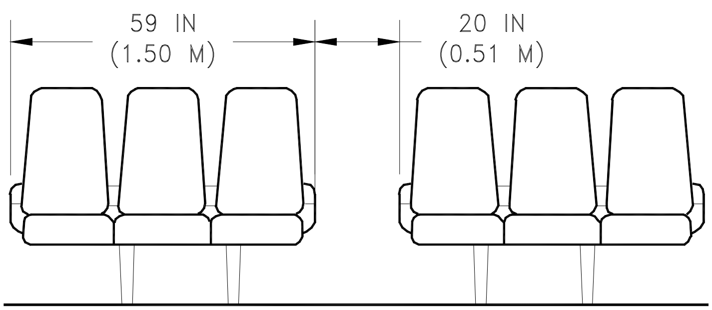
2.4.4 Interior Arrangements: Model 757-300



2.5 CABIN CROSS SECTIONS: MODEL 757-200, -300



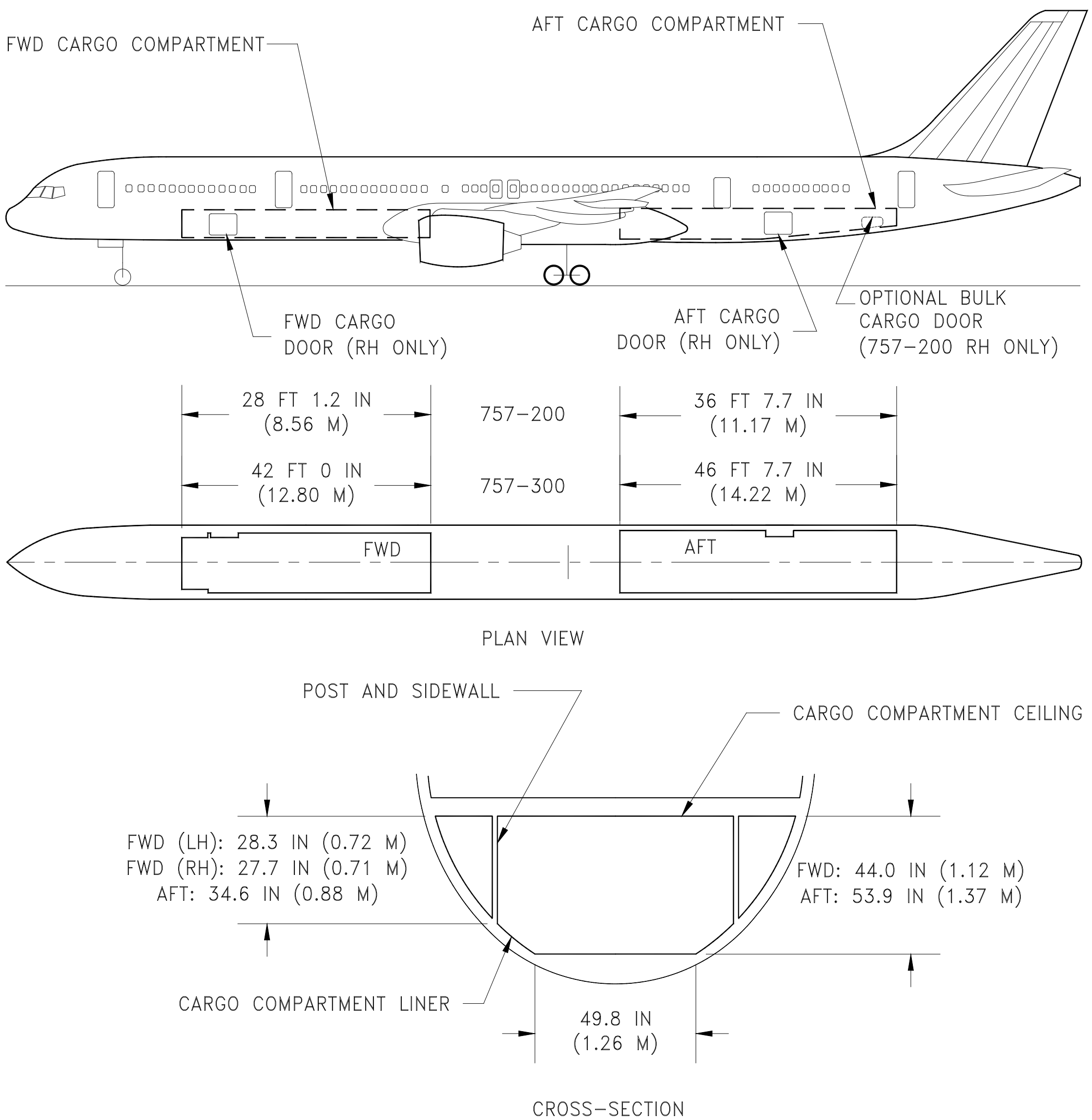
FIRST CLASS



ECONOMY CLASS

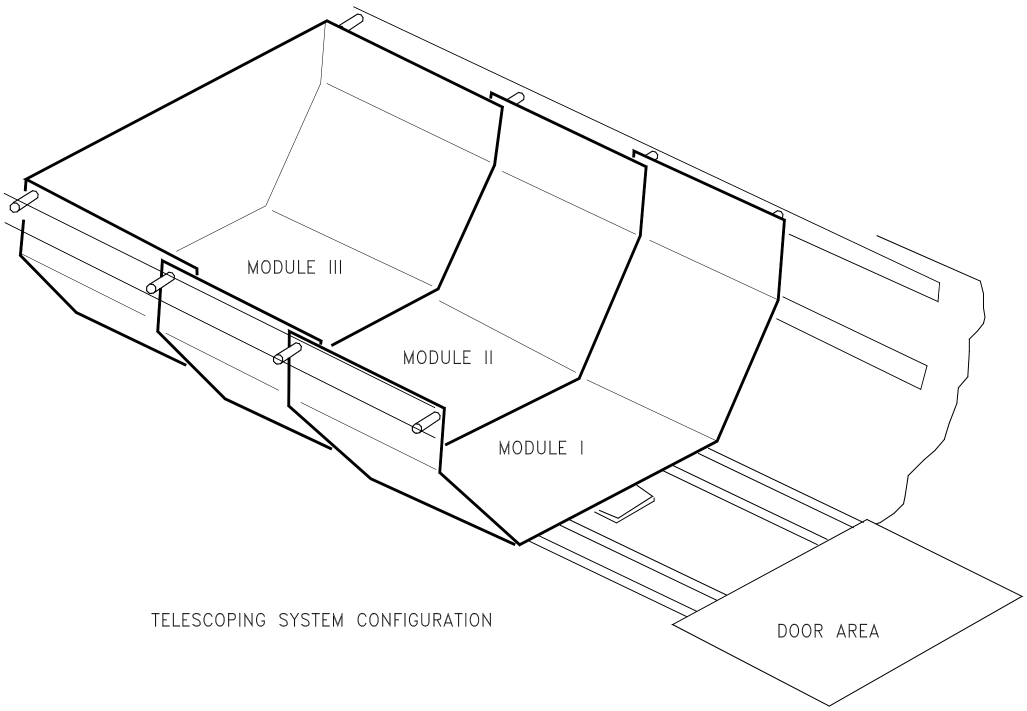
2.6 LOWER CARGO COMPARTMENTS

2.6.1 Lower Cargo Compartments: Model 757-200, -300, Bulk Cargo Capacities



2.6.2 Lower Cargo Compartments: Model 757-200, -300, Bulk Cargo Capacities

- SYSTEM AVAILABLE IN EITHER OR BOTH CARGO COMPARTMENTS
- FORWARD CARGO COMPARTMENT USES A THREE-MODULE SYSTEM AFT OF THE CARGO DOOR
- AFT CARGO COMPARTMENT USES A TWO-MODULE SYSTEM FORWARD OF THE CARGO DOOR

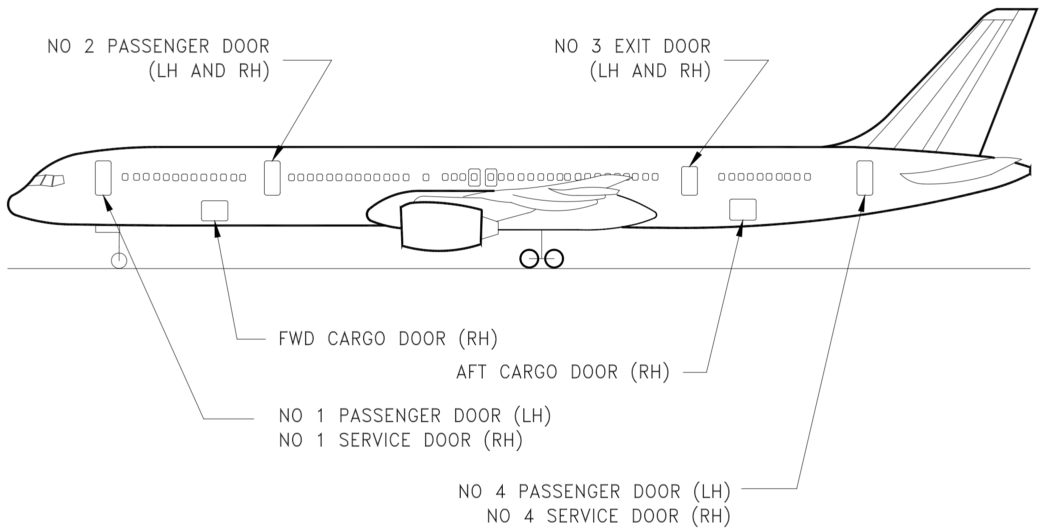


		BULK CARGO CAPACITIES - TELESCOPING SYSTEM				TOTAL(1)
		FWD COMPARTMENT		AFT COMPARTMENT		
		3 MODULES	ADD'L BULK	2 MODULES	ADD'L BULK	
VOLUME	CU FT	420	220	420	630	1,690
	CU M	11.9	6.2	11.9	17.8	47.8

NOTE: 1. OPTIONAL THIRD CARGO DOOR REDUCES VOLUME BY 100 CU FT

2.7 DOOR CLEARANCES

2.7.1 Door Clearances: Model 757-200, -300, Passenger, Service and Cargo Door Locations

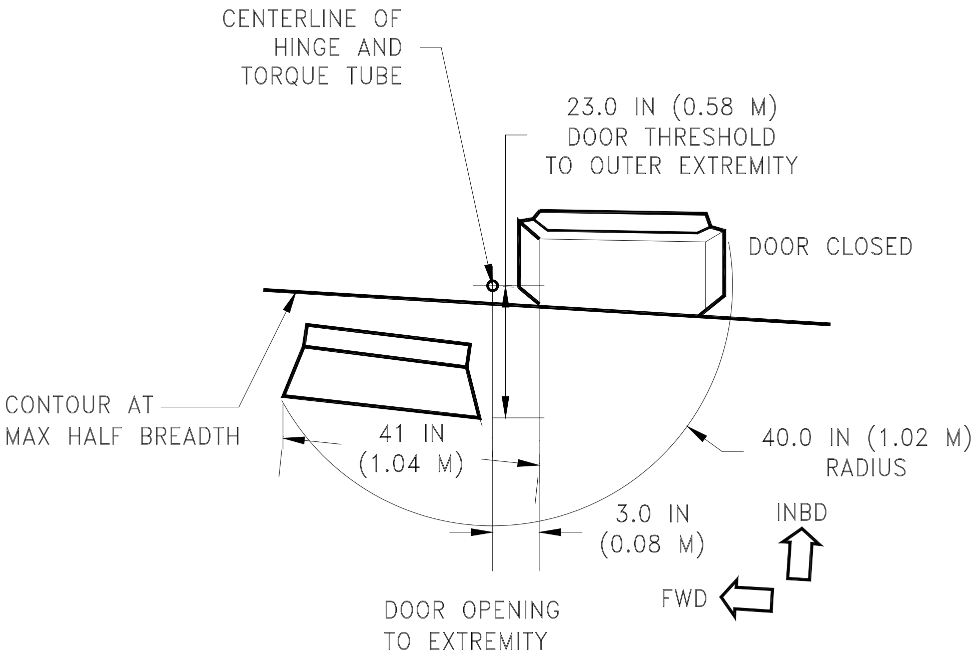


DOOR NAME	DISTANCE FROM NOSE (1) – 757-200	DISTANCE FROM NOSE (1) – 757-200	DOOR OPENING SIZE
NO. 1 PASSENGER DOOR (LH)	16 FT 7 IN (5.05 M)	16 FT 7 IN (5.05 M)	33 BY 72 IN (0.84 BY 1.83 M)
NO. 1 SERVICE DOOR (RH)	15 FT 8 IN (4.78 M)	15 FT 8 IN (4.78 M)	30 BY 65 IN (0.76 B7 1.65 M)
NO. 2 PASSENGER DOOR (LH & RH)	45 FT 11 IN (13.99 M)	45 FT 11 IN (13.99 M)	33 BY 72 IN (0.84 BY 1.83 M)
NO. 3 EXIT DOOR (LH & RH)	(N/A)	121 FT 4 IN (35.99 M)	24 BY 44 IN (0.61 BY 1.18 M)
NO. 4 PASSENGER DOOR (LH & RH)	125 FT 5 IN (38.23 M)	148 FT 9 IN (45.34 M)	30 BY 72 IN (0.76 BY 1.83 M)
FWD CARGO DOOR (RH)	35 FT11 IN (10.95 M)	35 FT11 IN (10.95 M)	55 BY 42.5 IN (1.40 BY 1.08 M)
AFT CARGO DOOR (RH)	104 FT 3 IN (31.78 M)	127 FT 7 IN (38.89 M)	55 BY 45 IN (1.40 BY 1.14 M)
BULK CARGO DOOR (2)	117 FT 3 IN (35.74 M)	(N/A)	48 BY 32 IN (1.22 BY 0.81 M)

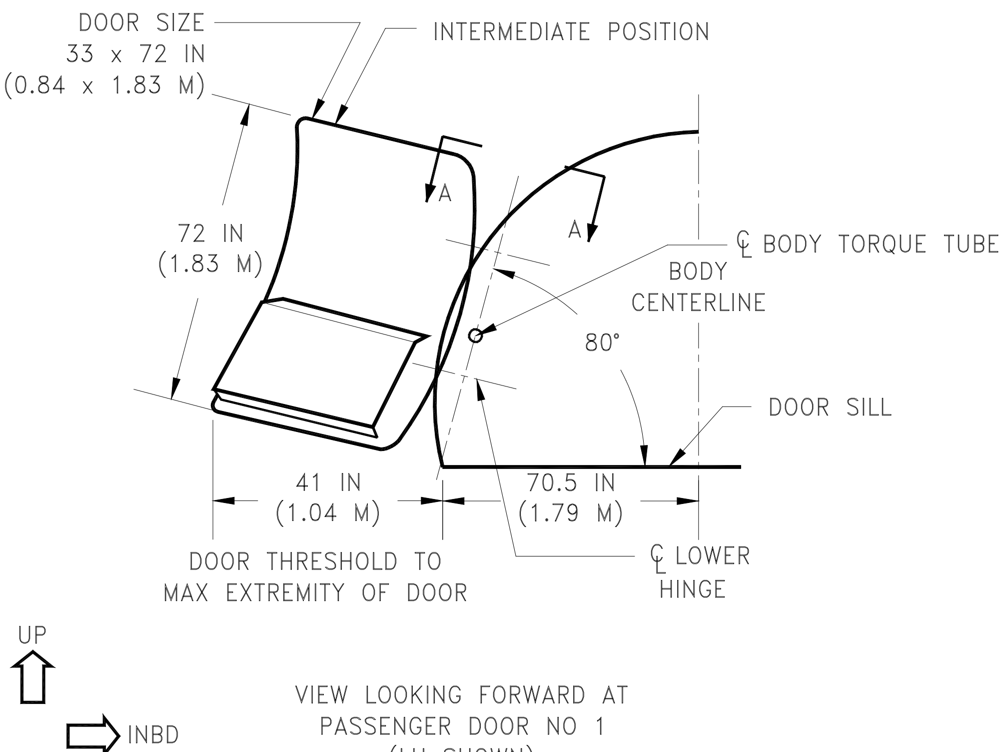
NOTES:

1. LONGITUDINAL DISTANCE FROM NOSE TO CENTER OF DOOR
2. EARLY PRODUCTION 757-200 AIRPLANES ONLY

2.7.2 Door Clearances: Model 757-200, -300, Main Deck Door No 1

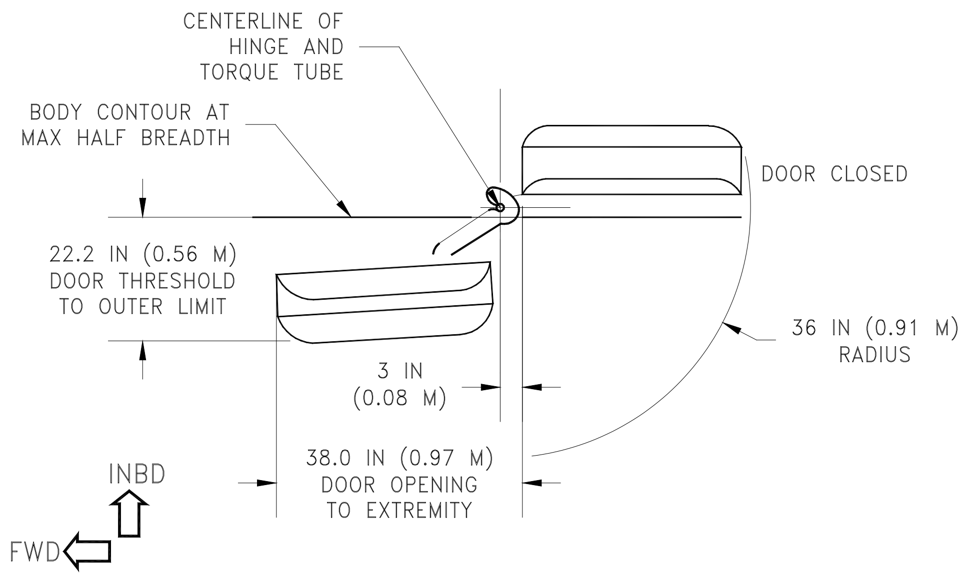


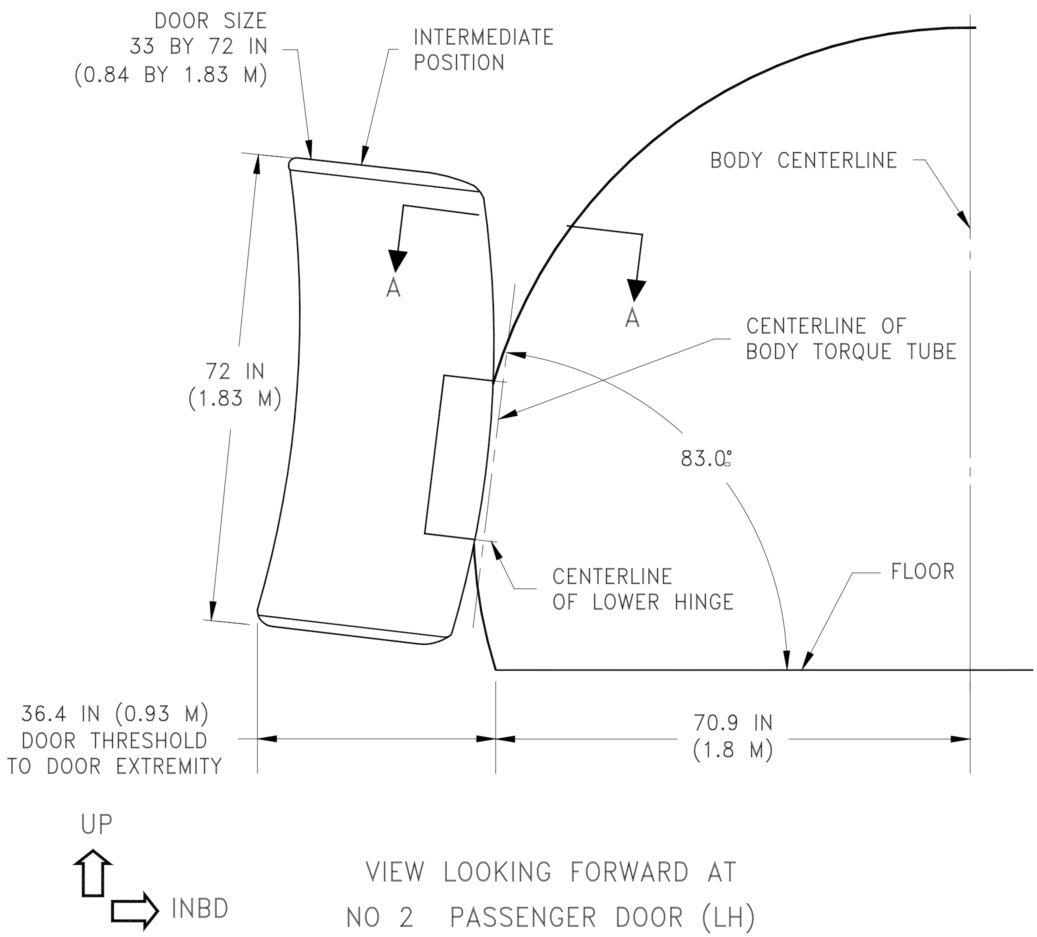
SECTION A–A



VIEW LOOKING FORWARD AT
PASSENGER DOOR NO 1
(LH SHOWN)

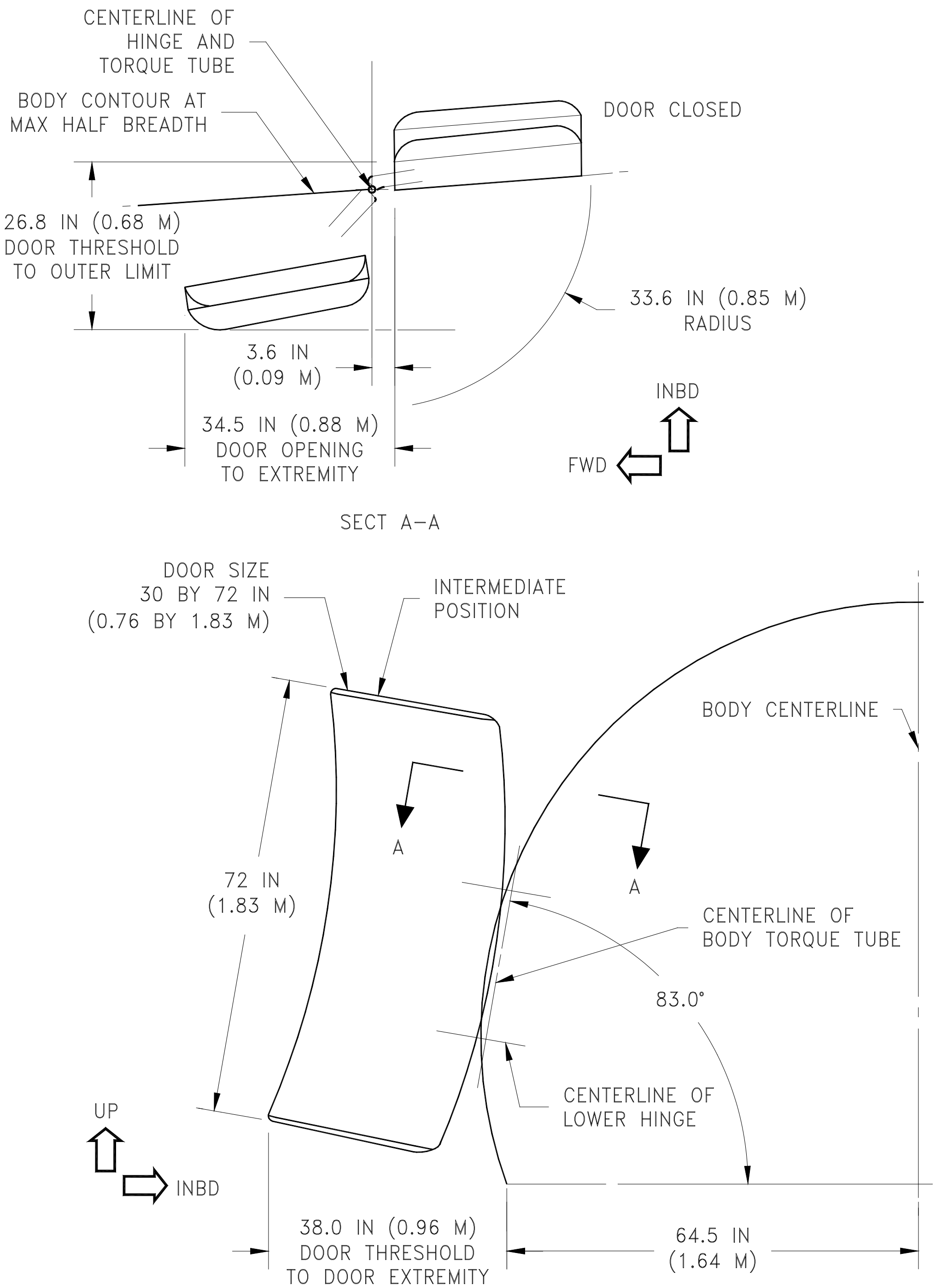
2.7.3 Door Clearances: Model 757-200, -300, Main Deck Door No 2





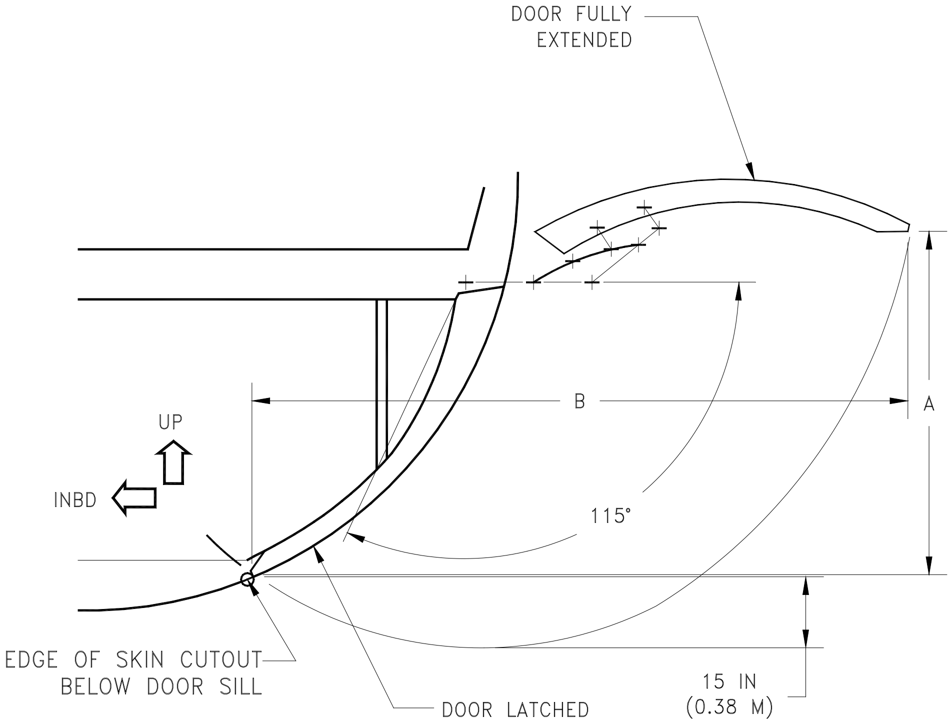
VIEW LOOKING FORWARD AT
NO 2 PASSENGER DOOR (LH)

2.7.4 Door Clearances: Model 757-200, -300, Main Deck Door No 4

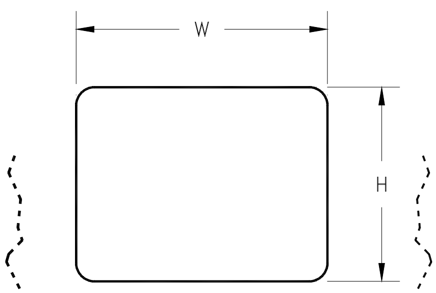


VIEW LOOKING FORWARD AT
NO 4 PASSENGER DOOR (LH)

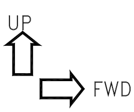
2.7.5 Door Clearances: Model 757-200, -300, Cargo Doors



VIEW LOOKING FORWARD
FWD AND AFT CARGO DOORS

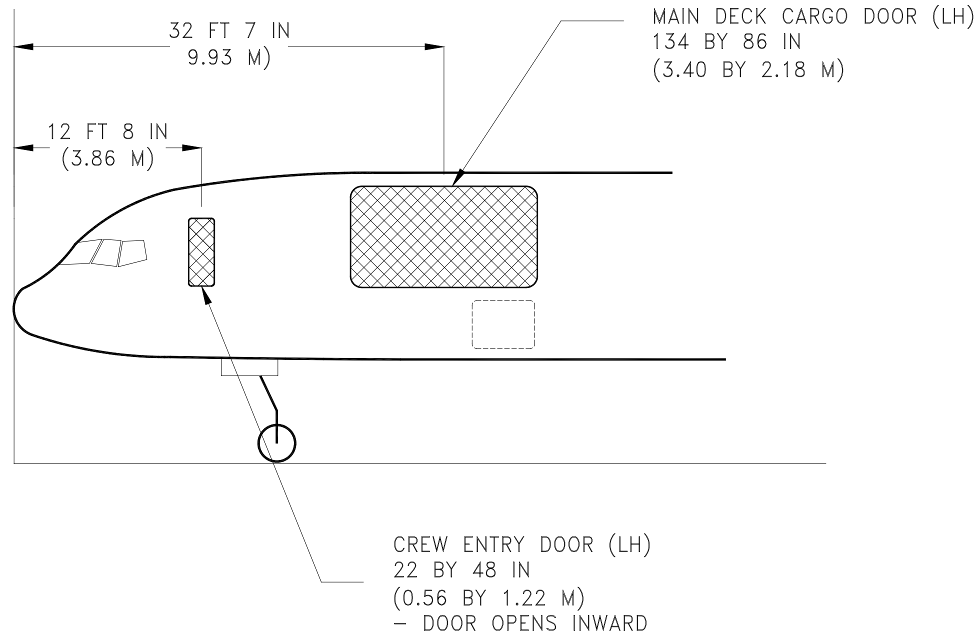


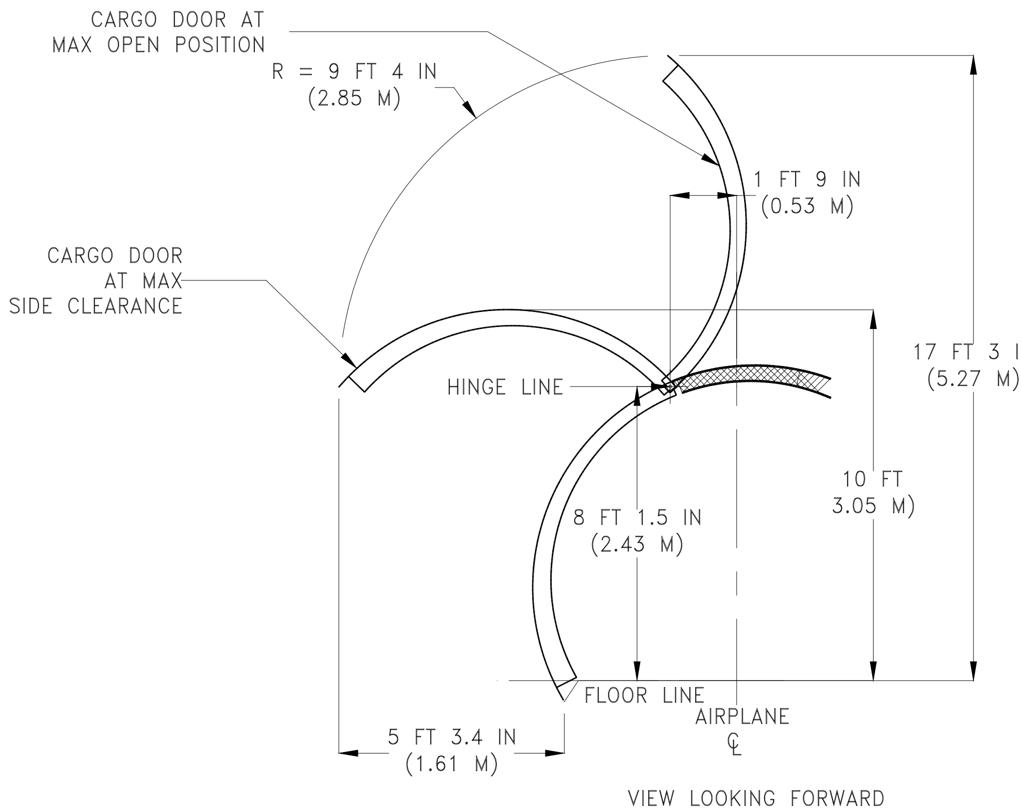
RIGHT SIDE VIEW
FWD & AFT CARGO DOORS



	W WIDTH	H HEIGHT	A VERTICAL	B LATERAL
FWD CARGO DOOR	55.0 IN (1.40 M)	42.5 IN (1.08 M)	57.0 IN (1.45 M)	111.1 IN (2.82 M)
AFT CARGO DOOR	55.0 IN (1.40 M)	45.0 IN (1.14 M)	61.0 IN (1.55 M)	111.3 IN (2.83 M)

2.7.6 Door Clearances: Model 757-200PF, Main Deck Doors





3.0 AIRPLANE PERFORMANCE

3.1 GENERAL INFORMATION

The graphs in Section 3.2 provide information on operational empty weight (OEW) and payload, trip range, brake release gross weight, and fuel limits. To use this graph, if the trip range and zero fuel weight (OEW + payload) are known, the approximate brake release weight can be found, limited by fuel quantity.

The graphs in Section 3.3 provide information on F.A.R. takeoff runway length requirements with typical engines at different pressure altitudes. Maximum takeoff weights shown on the graphs are the heaviest for the particular airplane models with the corresponding engines. Standard day temperatures for pressure altitudes shown on the F.A.R. takeoff graphs are given below:

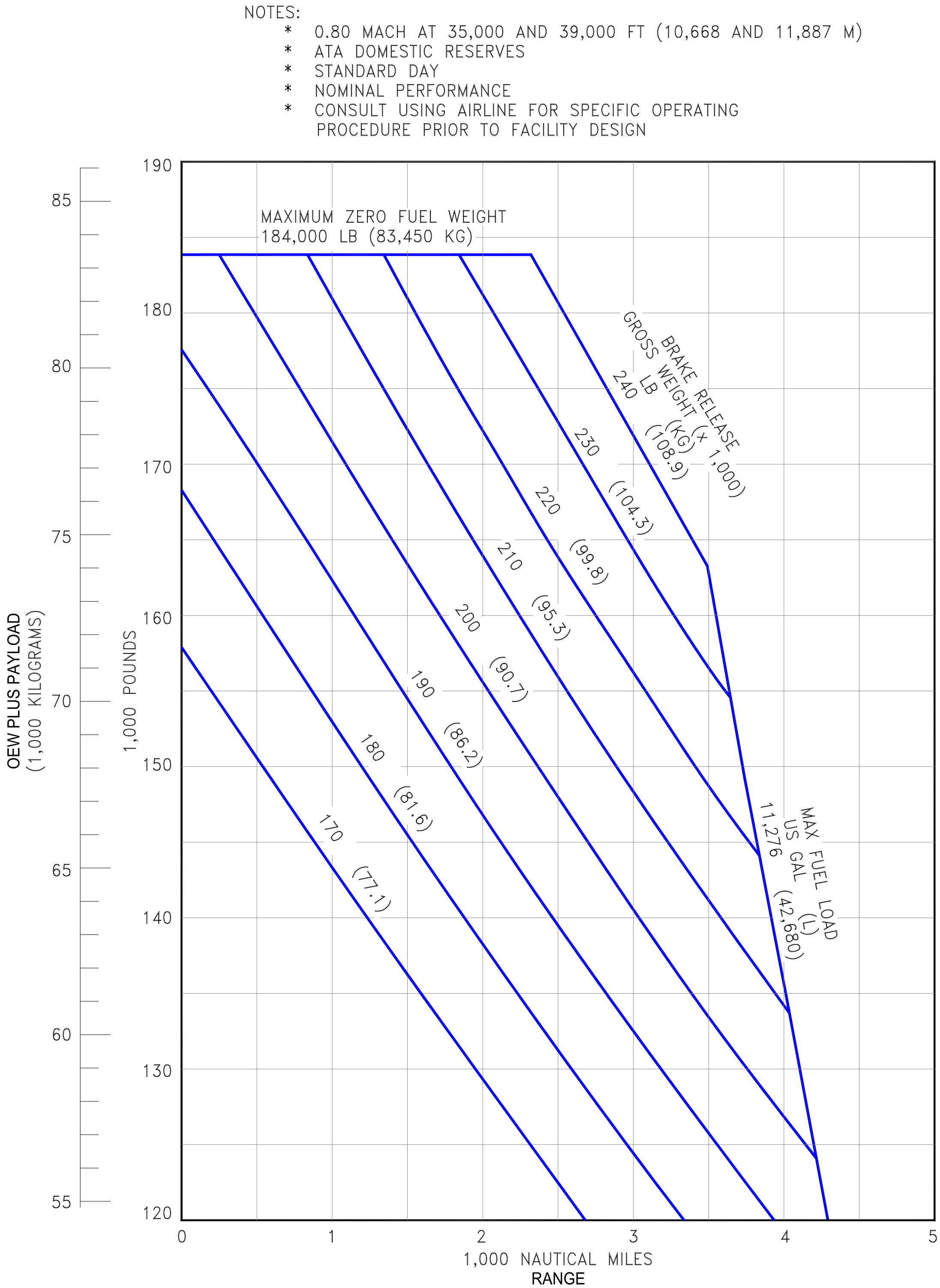
PRESSURE ALTITUDE		STANDARD DAY TEMP	
FEET	**METERS**	**°F**	**°C**
0	0	59.0	15.00
2,000	609	51.9	11.04
4,000	1,219	44.7	7.06
6,000	1,828	37.6	3.11
8,000	2,438	30.5	-0.85

Wet runway performance for the 757-300 airplane is shown in accordance with JAR-OPS 1 Subpart F, with wet runways defined in Paragraph 1.480(a)(10). Skid-resistant runways (grooved or PFC treated) per FAA or ICAO specifications exhibit runway length requirements that remove some or all of the length penalties associated with wet smooth (non-grooved) runways. Under predominantly wet conditions, the wet runway performance characteristics may be used to determine runway length requirements, if it is longer than the dry runway performance requirements. This is not required for the 757-200 airplanes.

The graphs in Section 3.4 provides information on landing runway length requirements for different airplane weights and airport altitudes. The maximum landing weights shown are the heaviest for the particular airplane model.

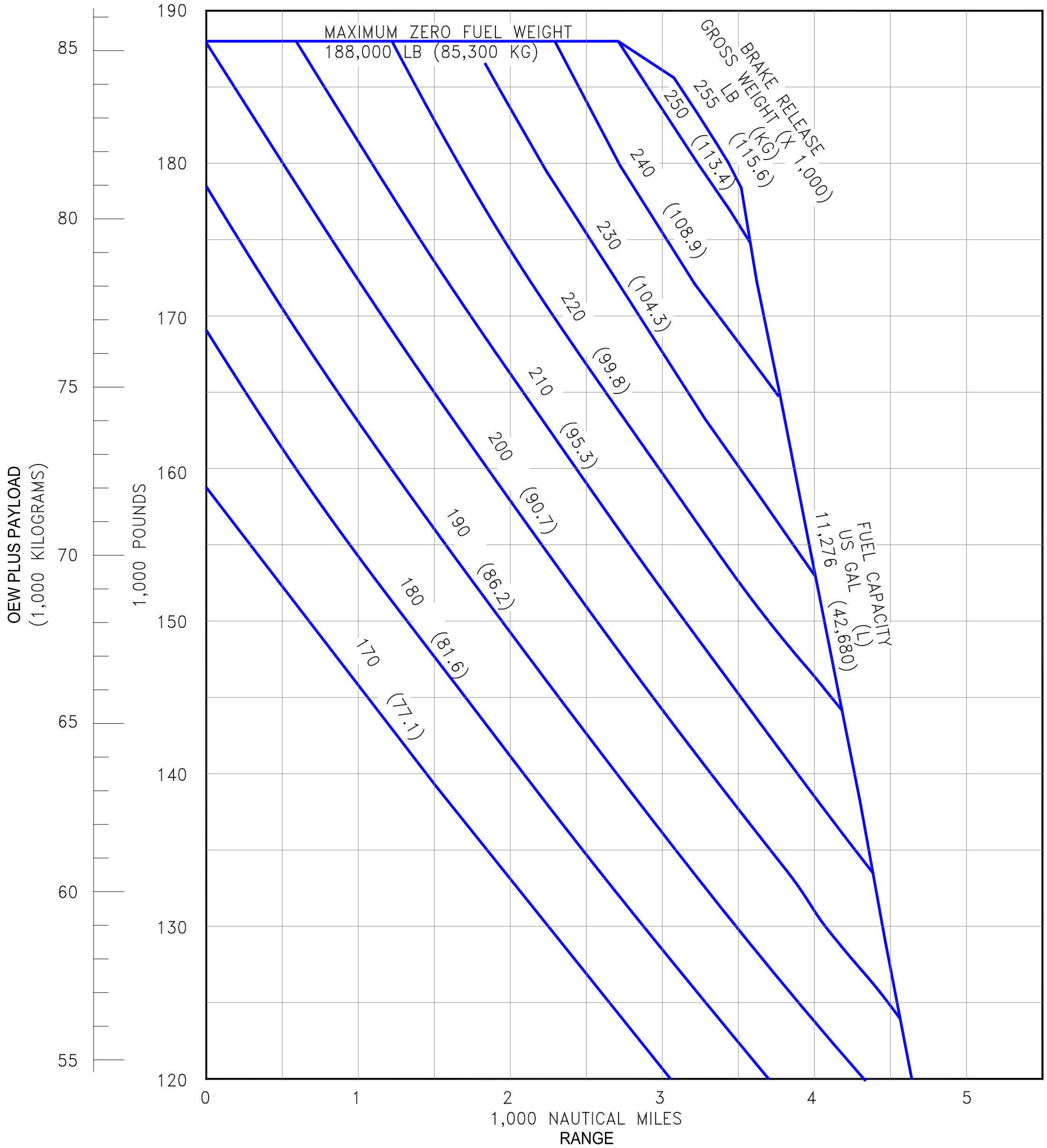
3.2 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

3.2.1 Payload/Range for Long-Range Cruise: Model 757-200 (RB211-535C Engines)

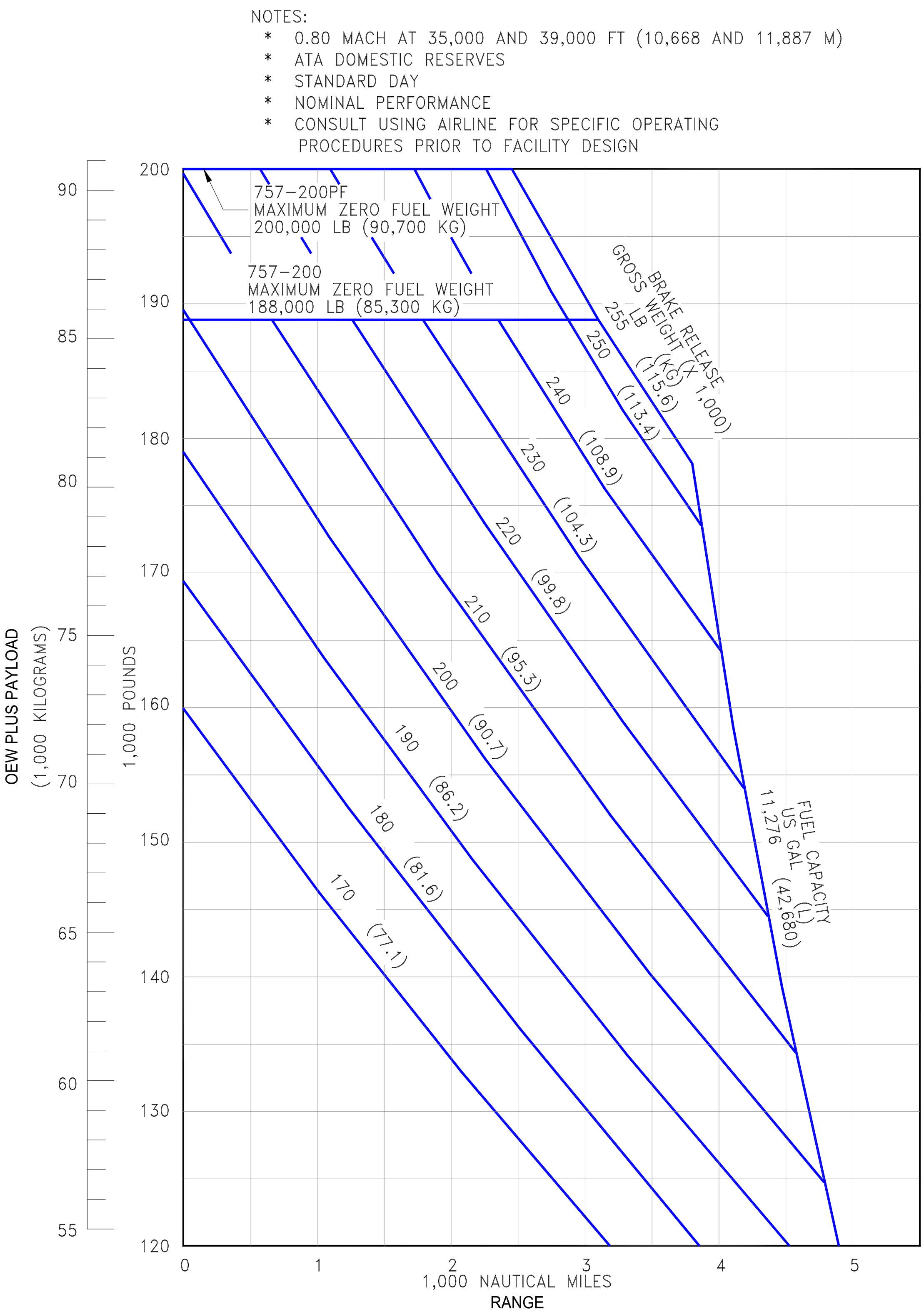


3.2.2 Payload/Range for Long-Range Cruise: Model 757-200 (RB211-53E4, -535E4B Engines)

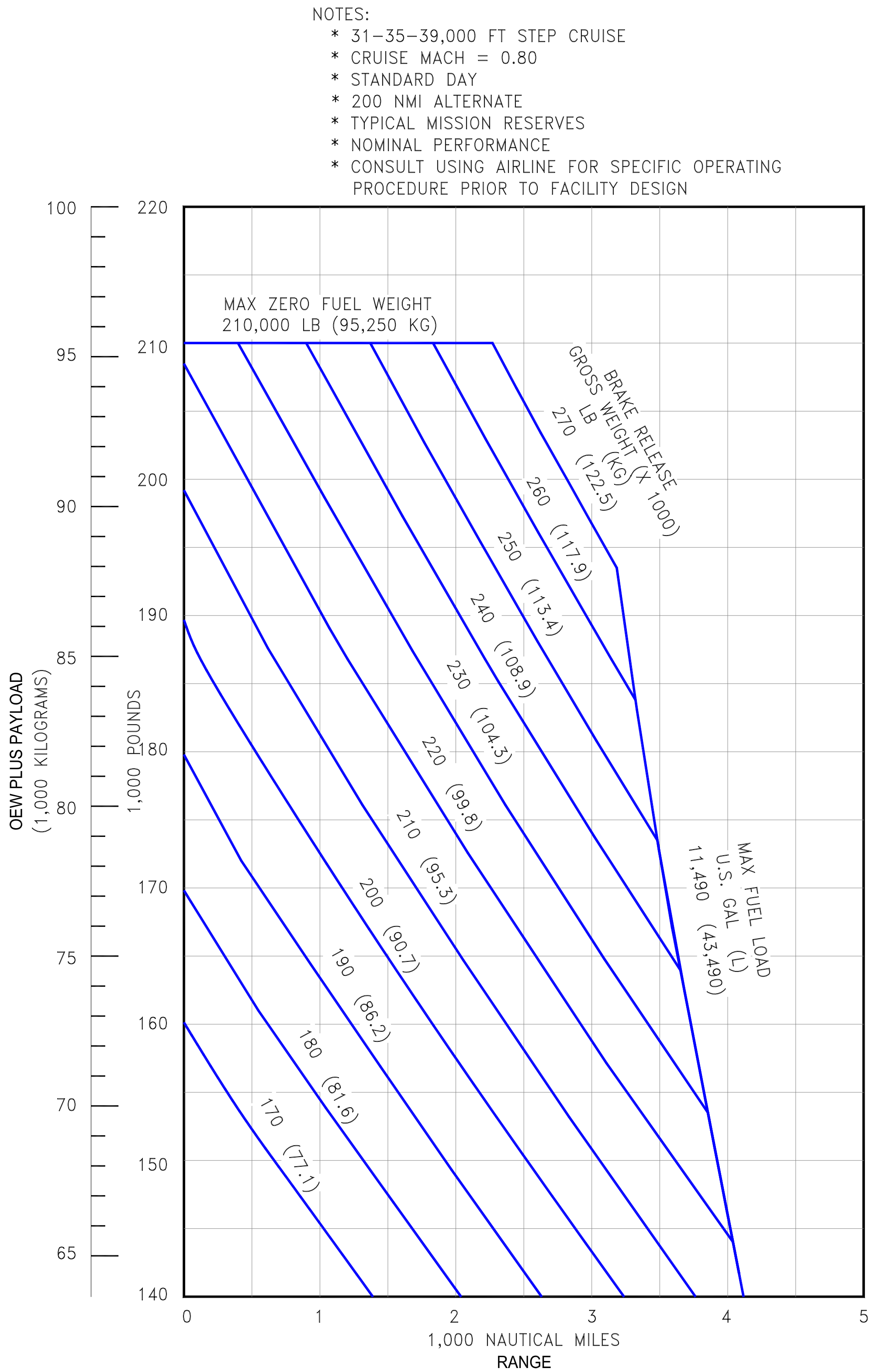
NOTES:
* 0.80 MACH AT 35,000 AND 39,000 FT (10,668 AND 11,887 M)
* ATA DOMESTIC RESERVES
* STANDARD DAY
* NOMINAL PERFORMANCE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



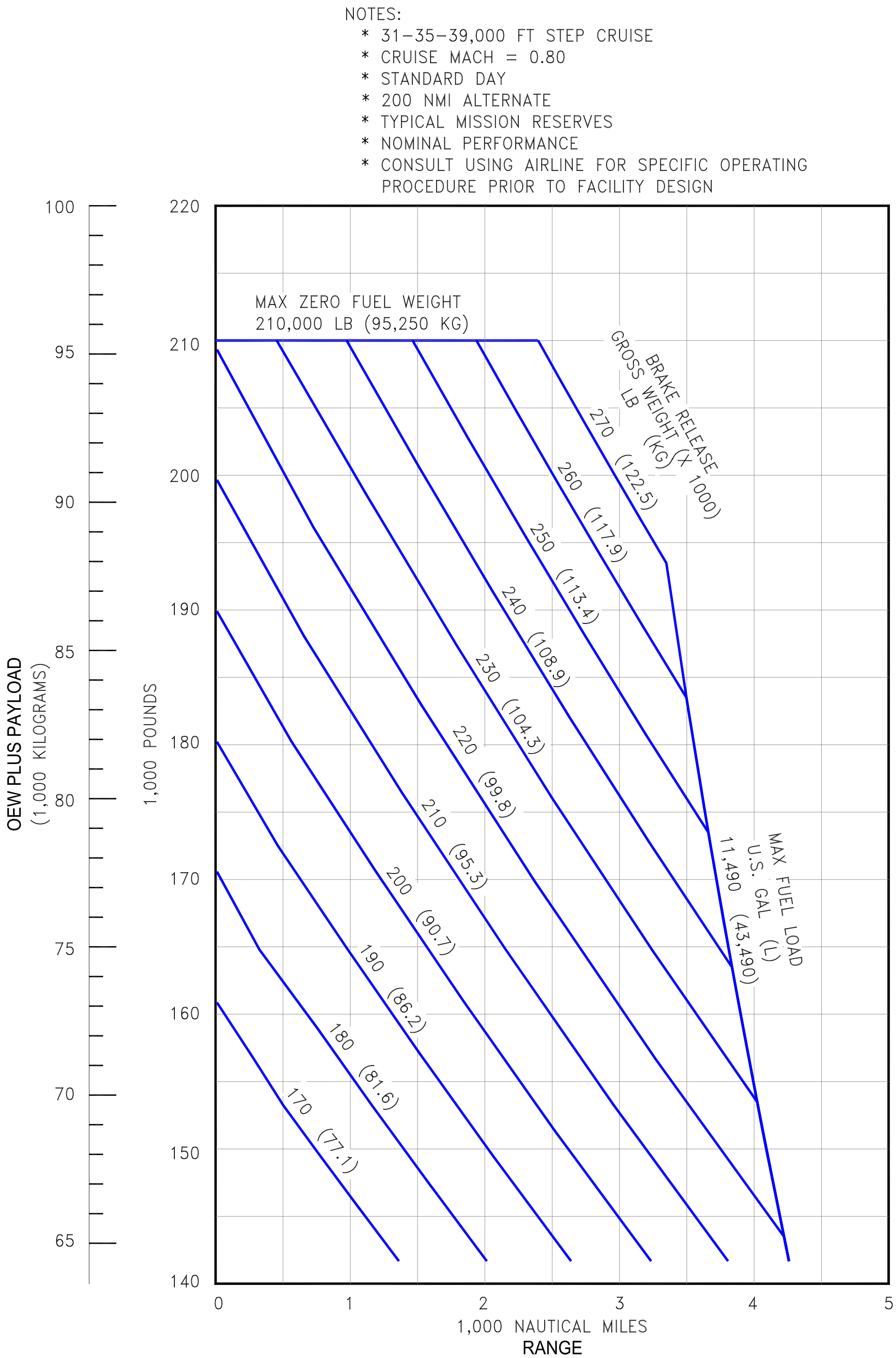
3.2.3 Payload/Range for Long-Range Cruise: Model 757-200, -200PF (PW2037, PW2040 Engines)



3.2.4 Payload/Range for 0.80 Mach Cruise: Model 757-300, (RB211-535E4, -535E4B Engines)



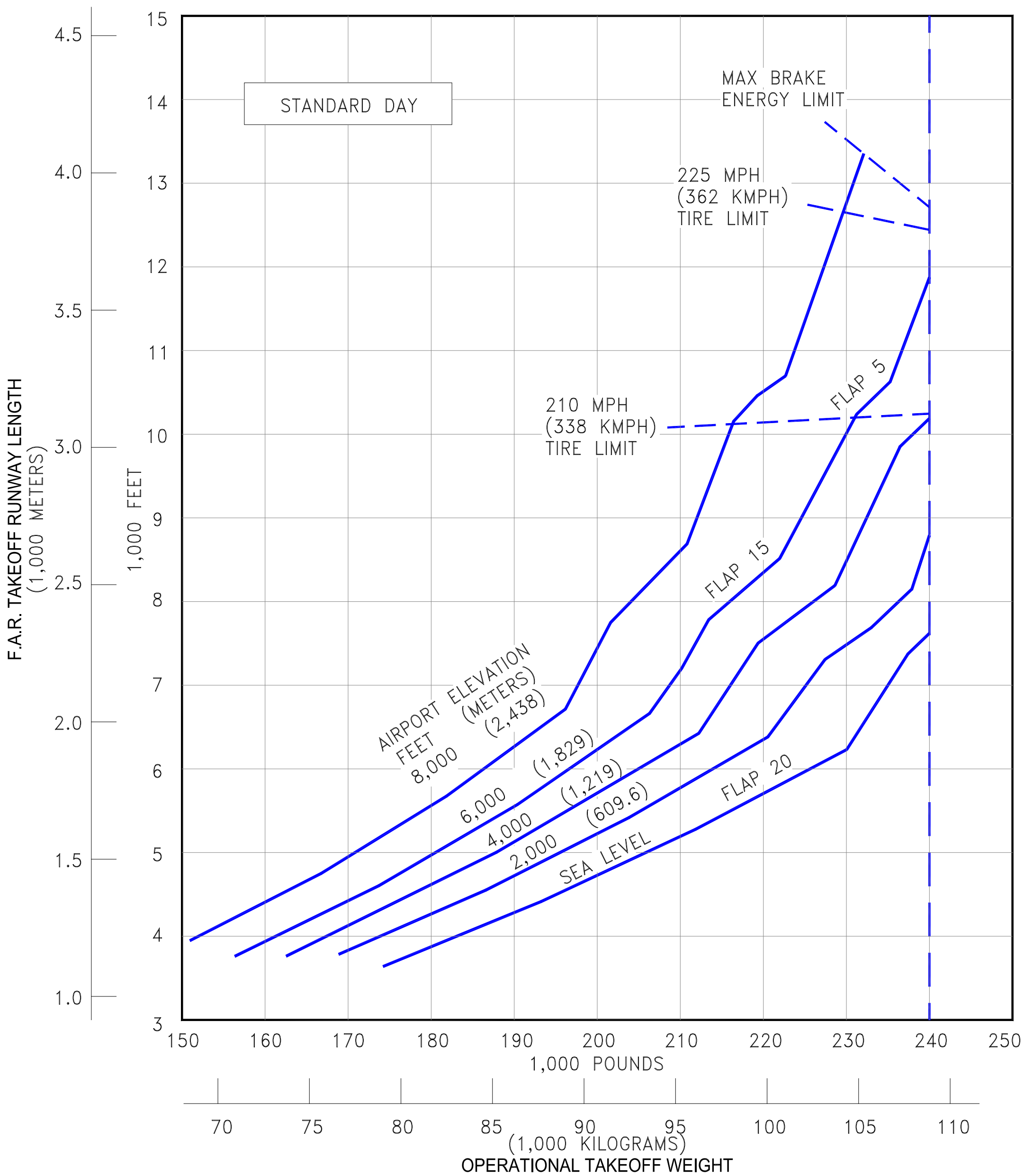
3.2.5 Payload/Range for 0.80 Mach Cruise: Model 757-300, (PW2040, PW2043 Engines)



3.3 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

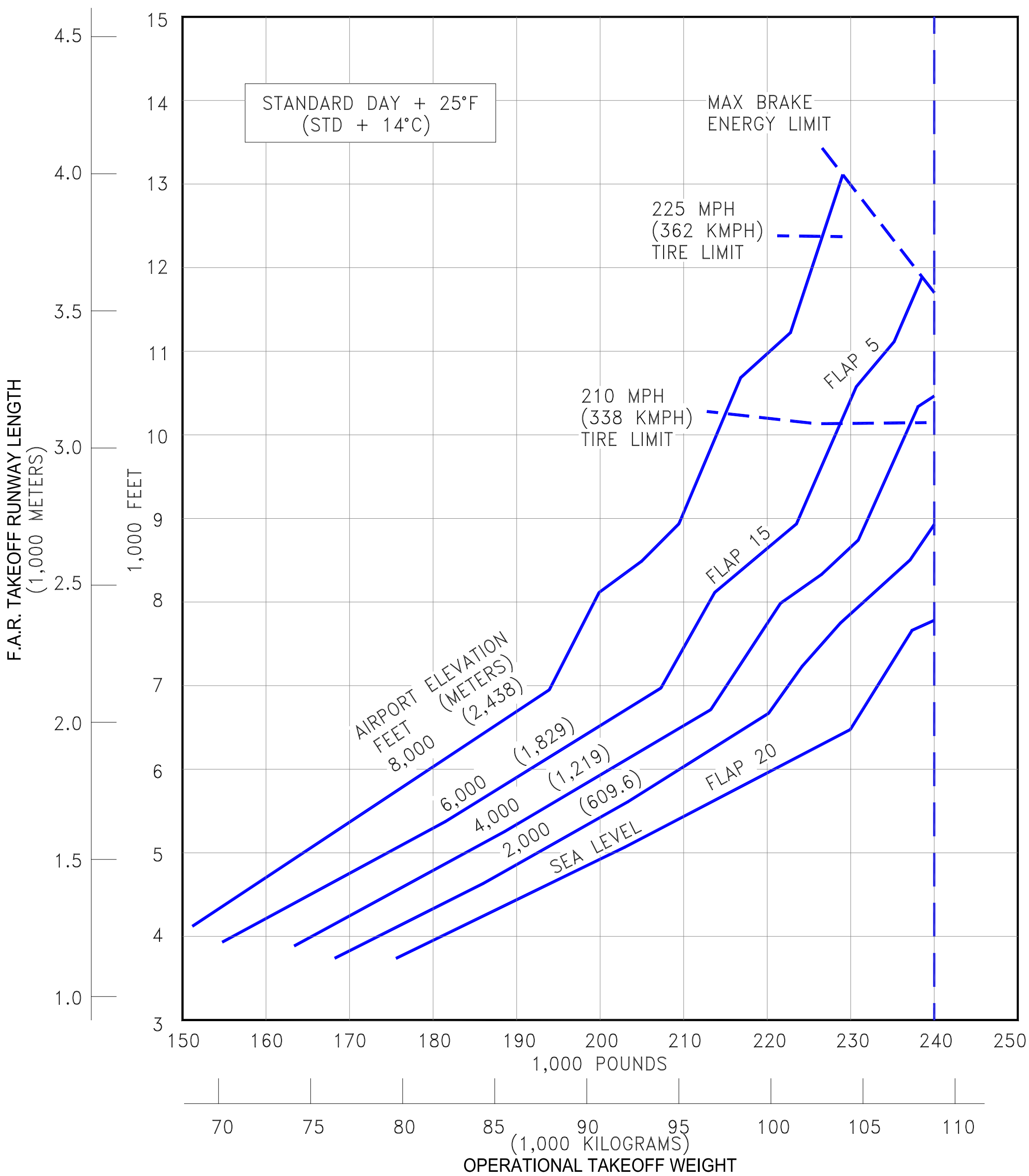
3.3.1 F.A.R. Takeoff Runway Length Requirements - Standard Day: Model 757-200 (RB211-535C Engines)

NOTES:
* RB211–535C ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* NOMINAL PERFORMANCE



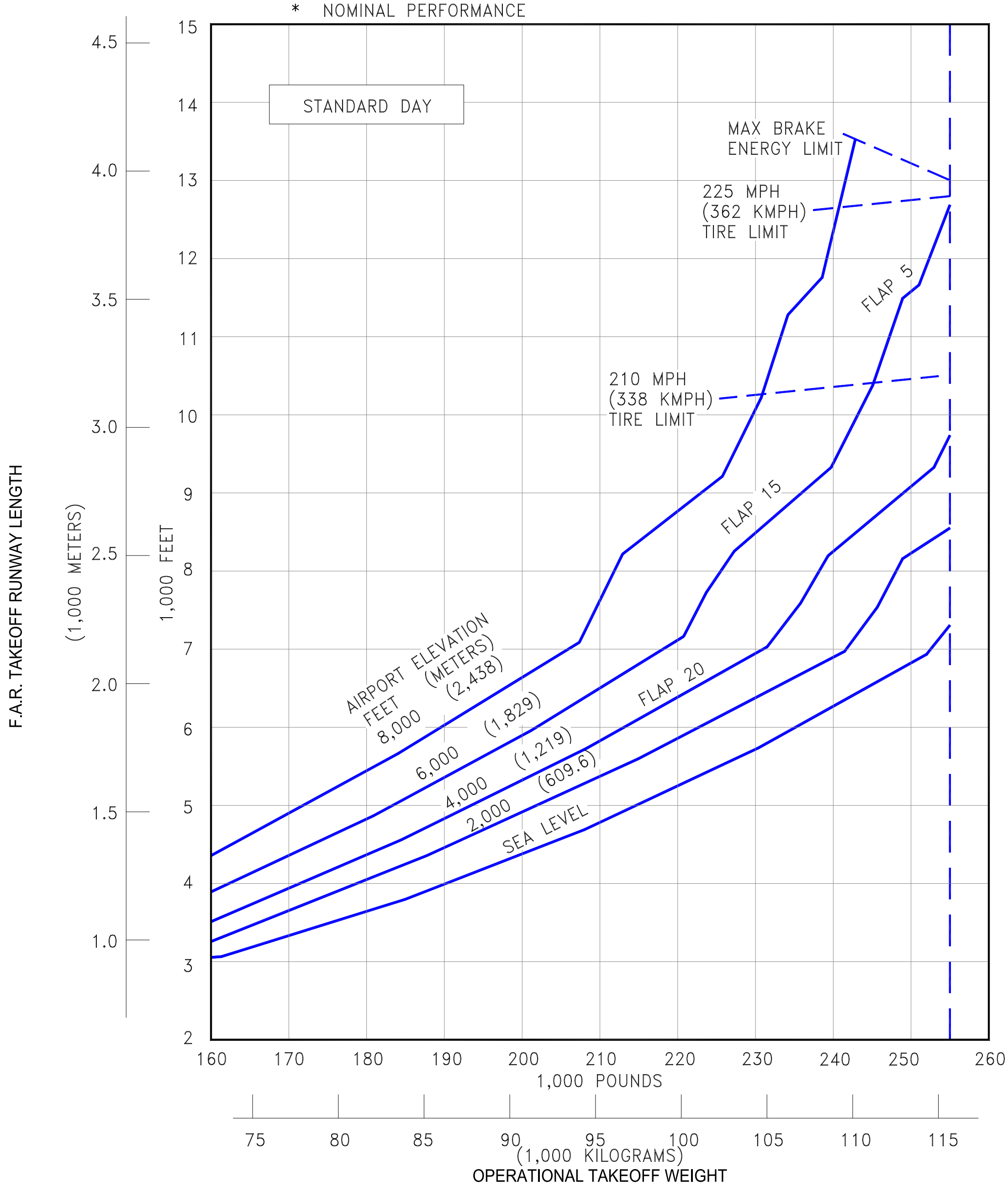
3.3.2 F.A.R. Takeoff Runway Length Requirements - Standard Day + 25°F (STD + 14°C): Model 757-200 (RB211-535C Engines)

NOTES:
* RB211–535C ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* NOMINAL PERFORMANCE



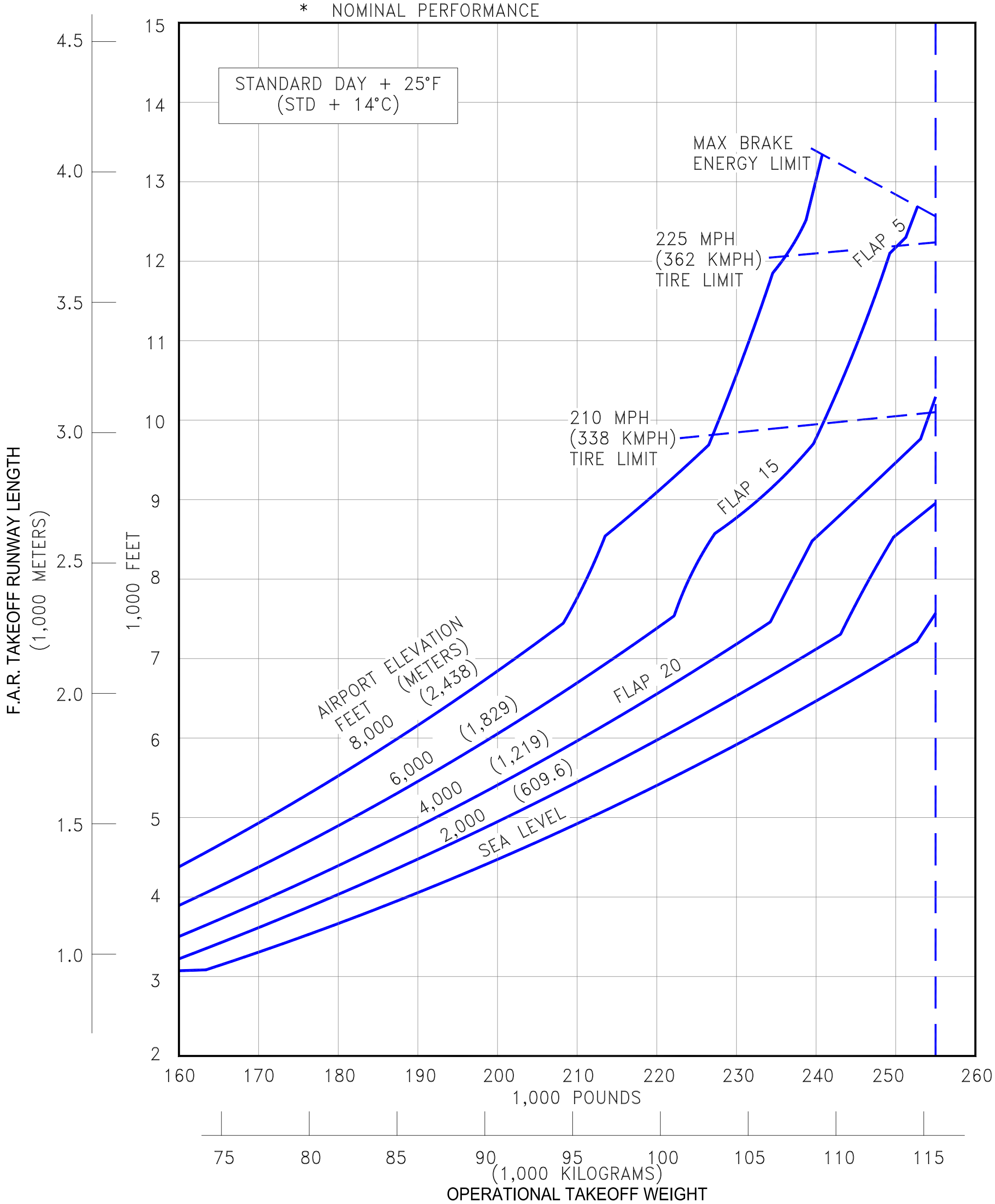
3.3.3 F.A.R. Takeoff Runway Length Requirements - Standard Day: Model 757-200 (RB211-535E4 Engines)

NOTES:
- * RB211-535E4 ENGINES
- * NO ENGINE AIRBLEED FOR AIR CONDITIONING
- * ZERO WIND, ZERO RUNWAY GRADIENT
- * CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- * LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
- * LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
- * NOMINAL PERFORMANCE

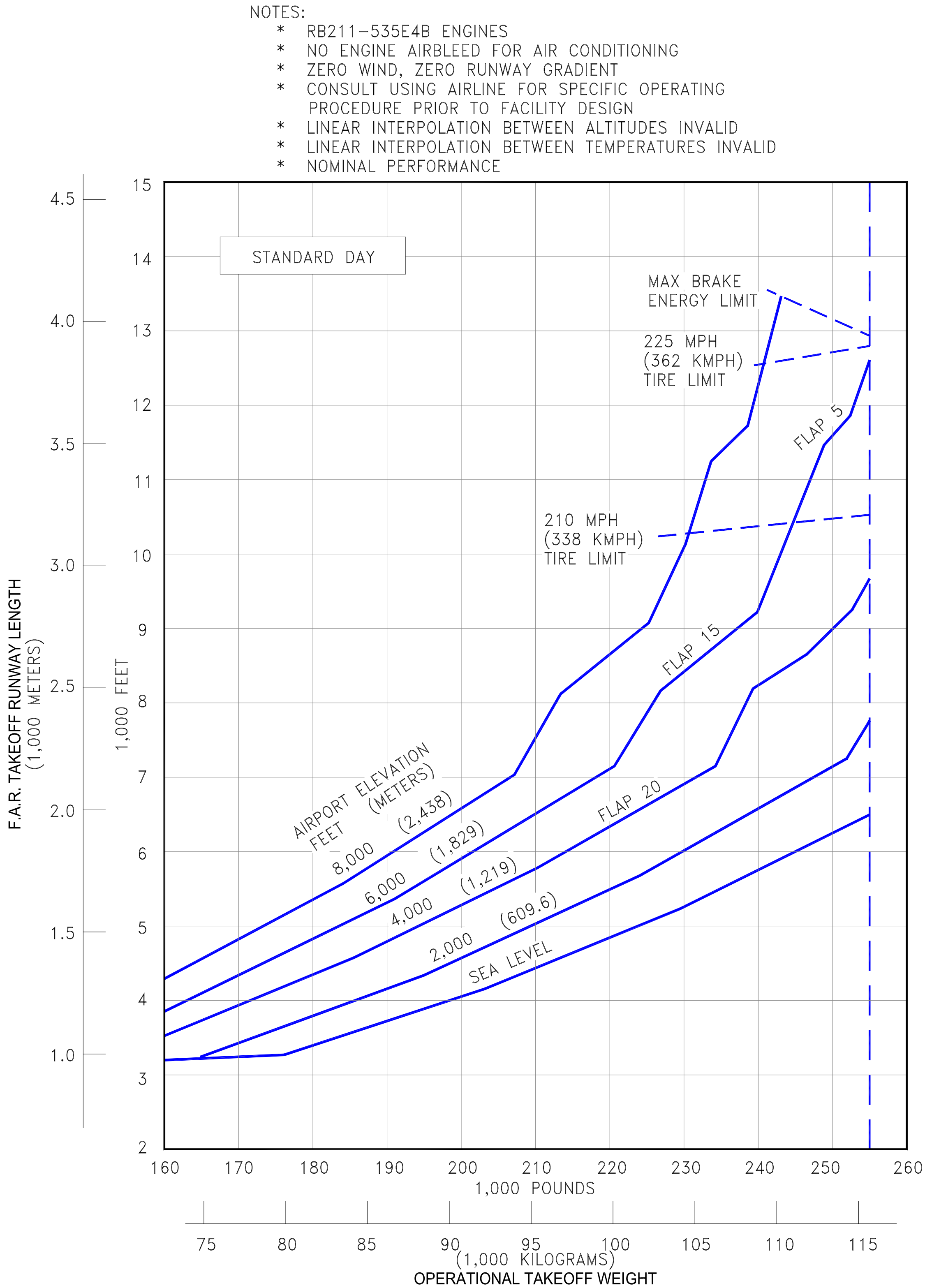


3.3.4 F.A.R. Takeoff Runway Length Requirements - Standard Day + 25°F (STD + 14°C): Model 757-200 (RB211-535E4 Engines)

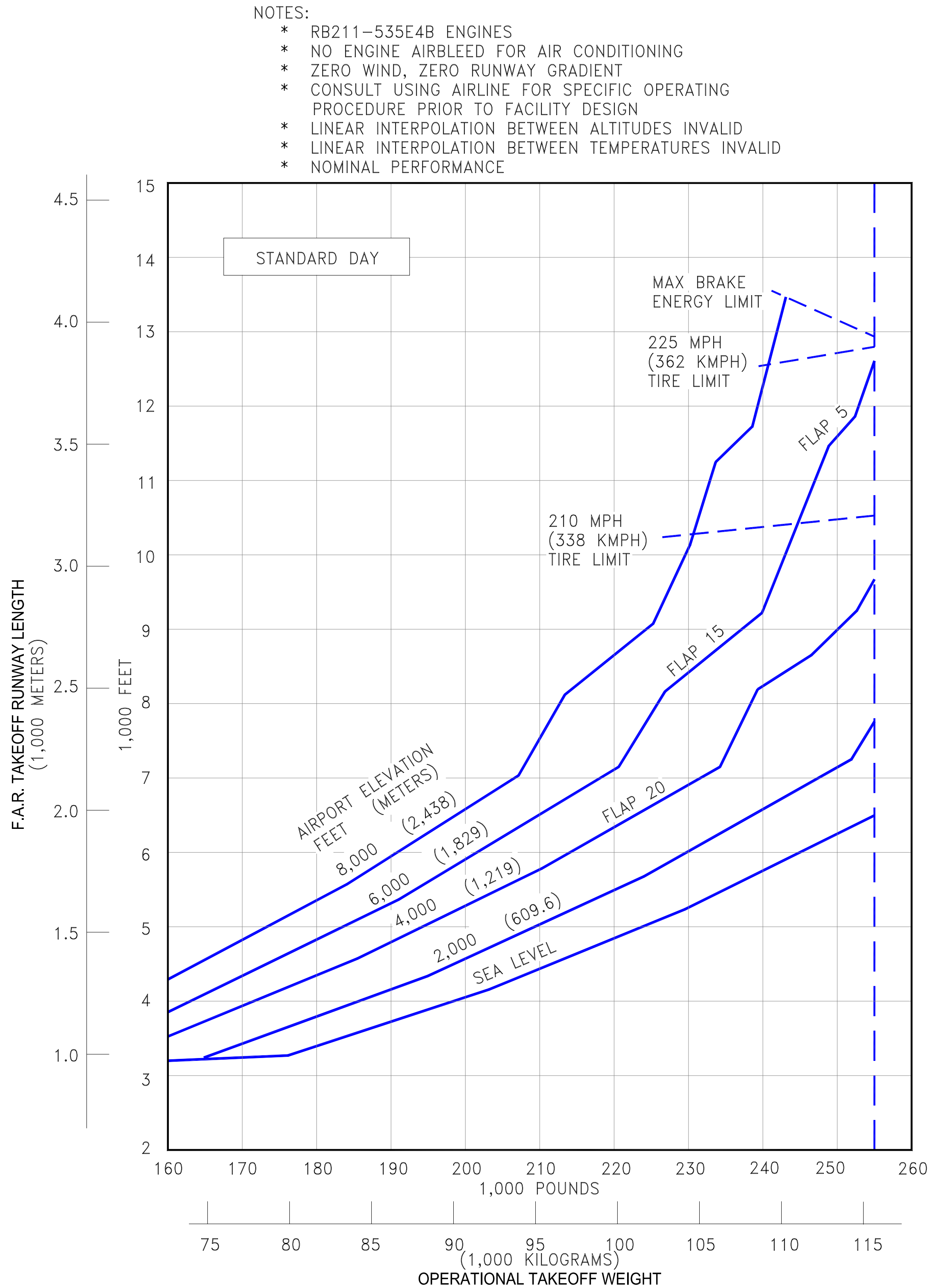
NOTES:
* RB211-535E4 ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* NOMINAL PERFORMANCE



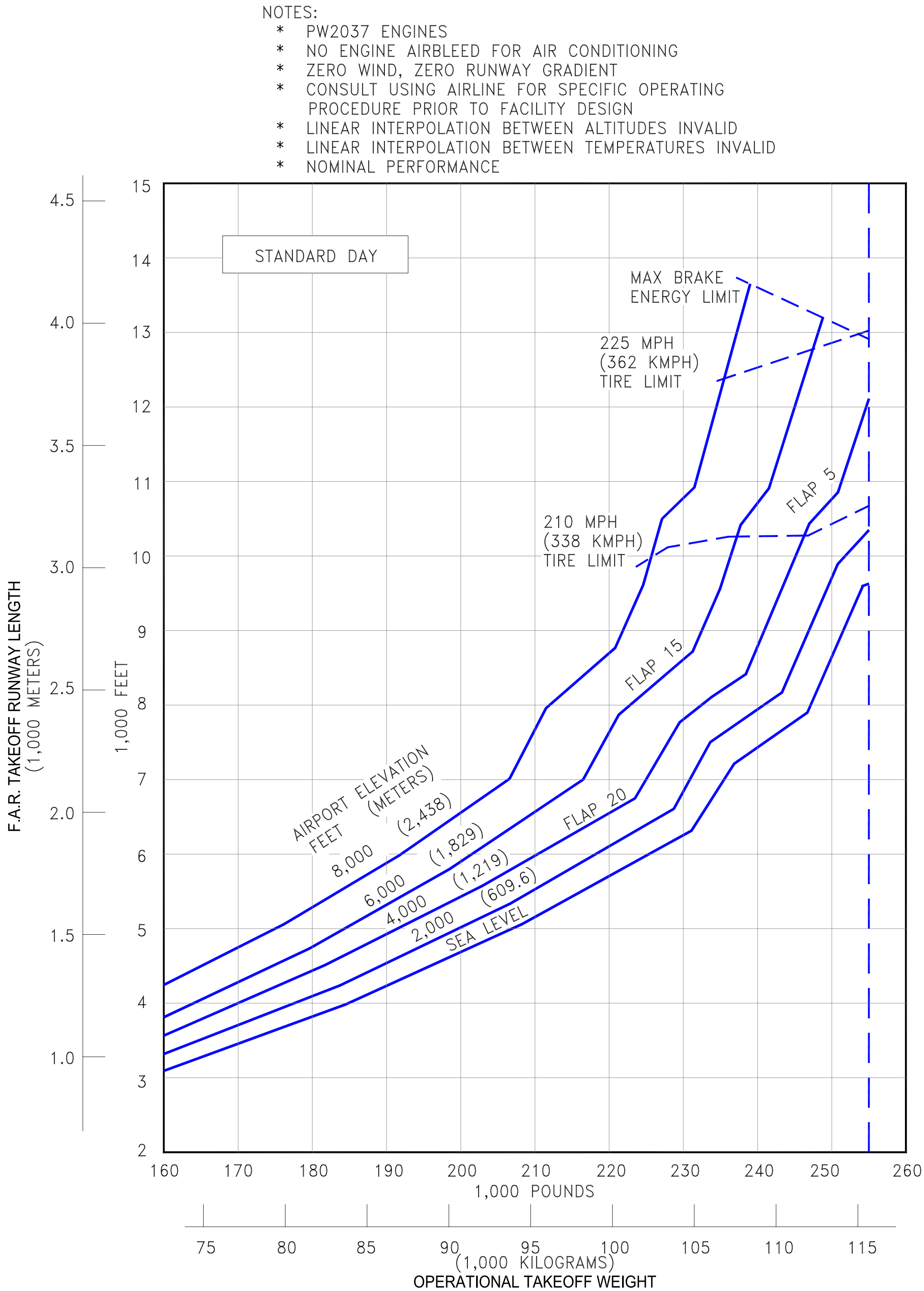
3.3.5 F.A.R. Takeoff Runway Length Requirements - Standard Day: Model 757-200 (RB211-535E4B Engines)



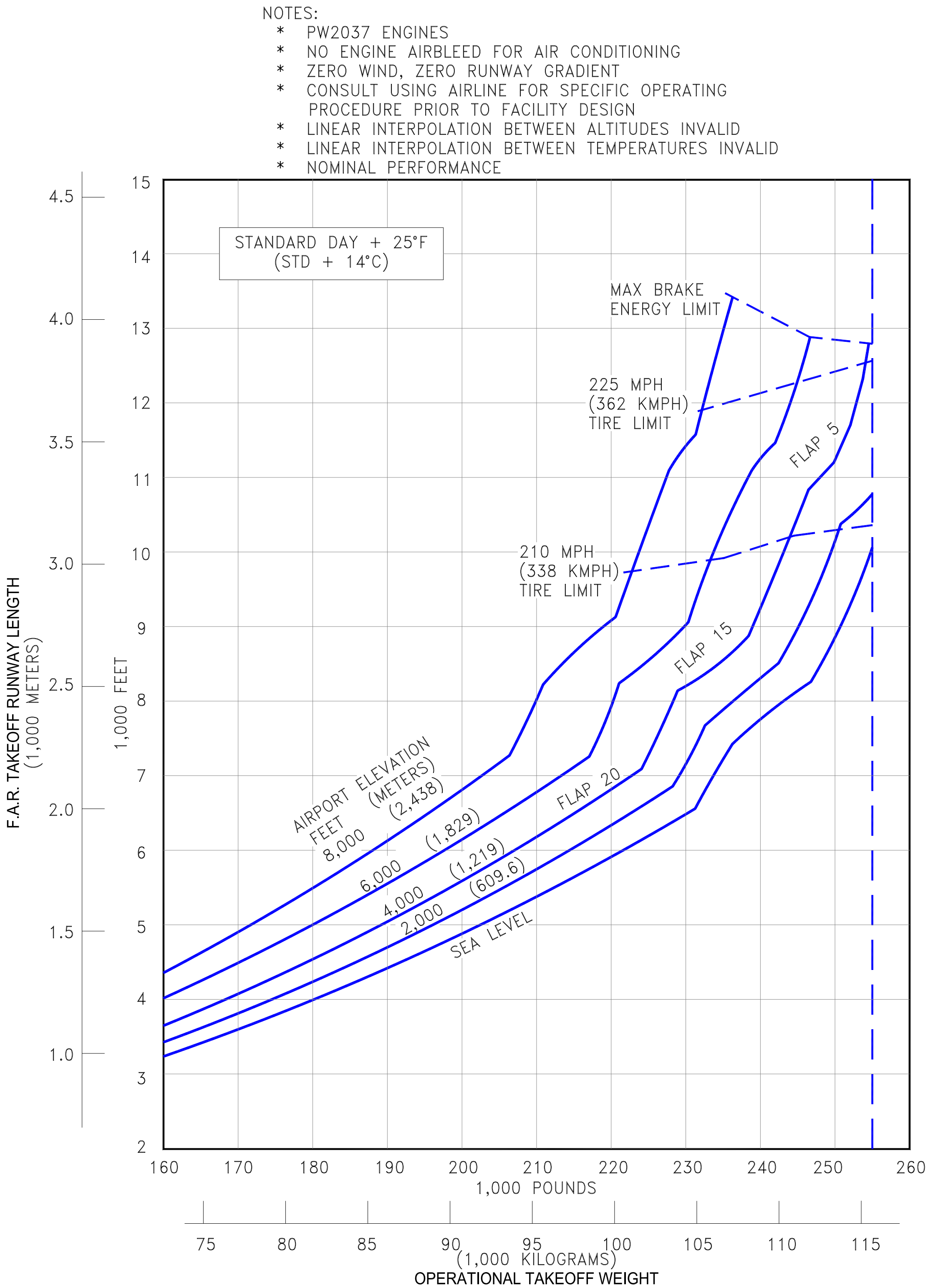
3.3.6 F.A.R. Takeoff Runway Length Requirements - Standard Day + 25°F (STD + 14°C): Model 757-200 (RB211-535E4B Engines)



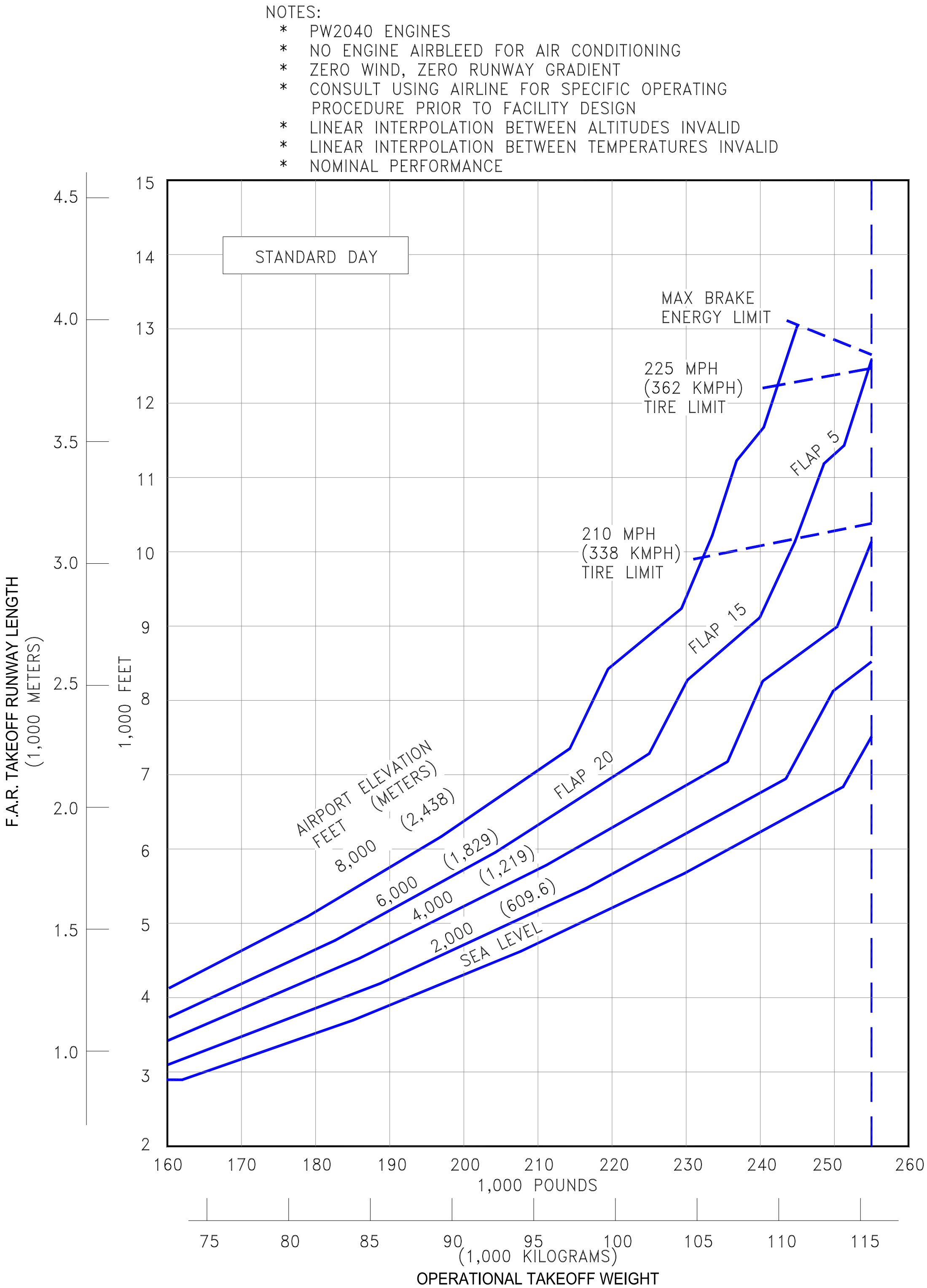
3.3.7 F.A.R. Takeoff Runway Length Requirements - Standard Day: Model 757-200 (PW2037 Engines)



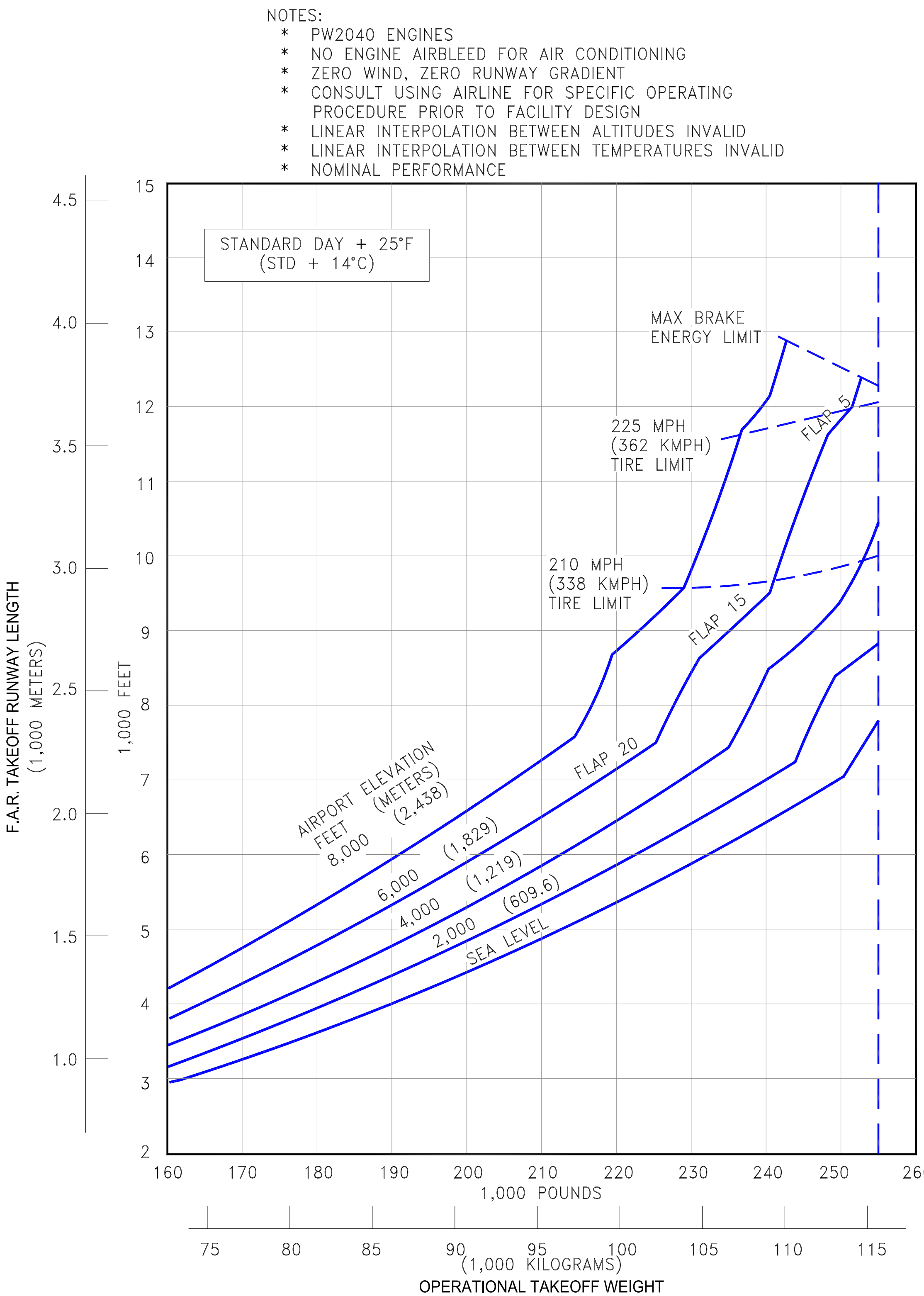
3.3.8 F.A.R. Takeoff Runway Length Requirements - Standard Day + 25°F (STD + 14°C): Model 757-200 (PW2037 Engines)



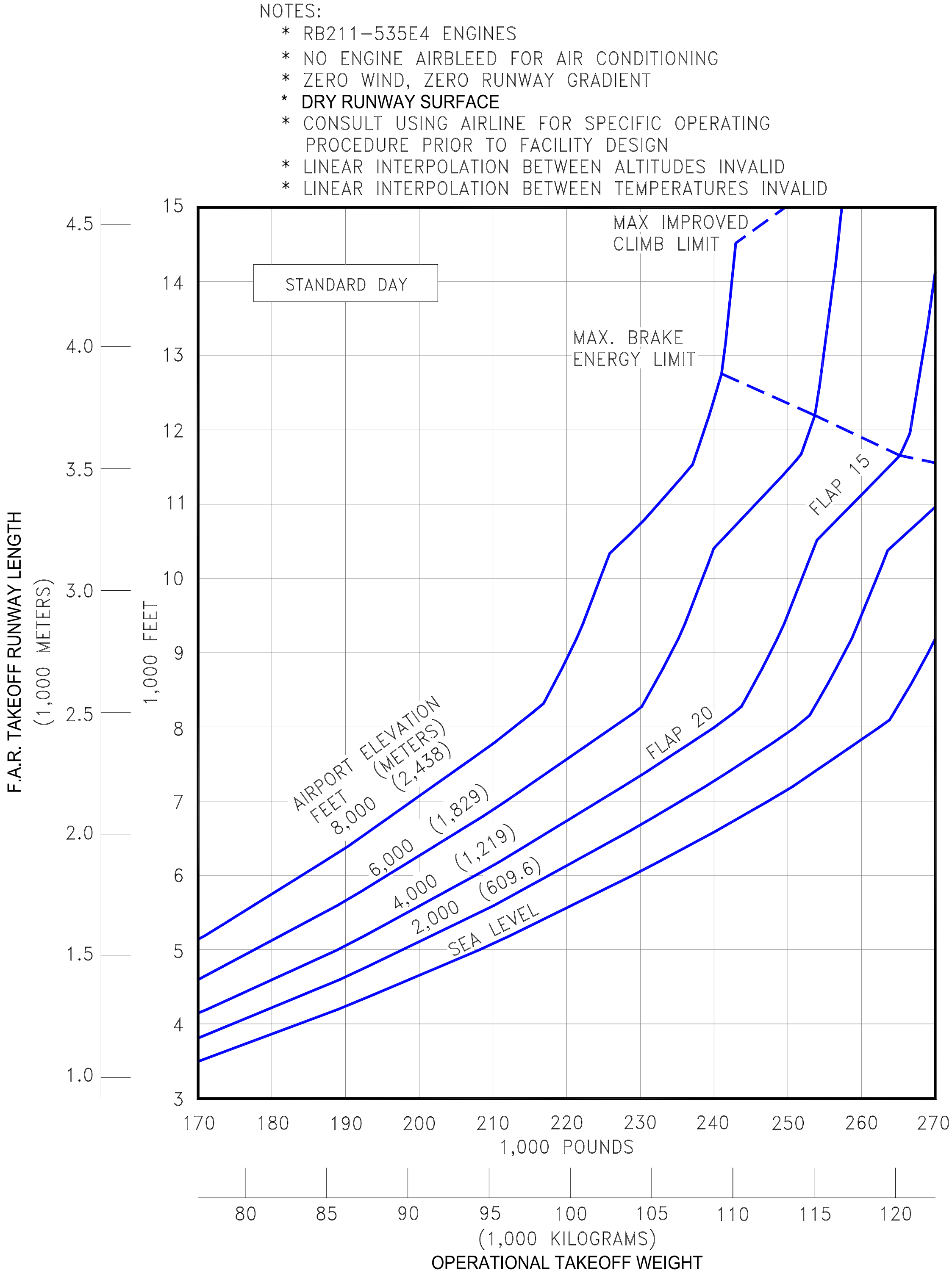
3.3.9 F.A.R. Takeoff Runway Length Requirements – Standard Day: Model 757-200 (PW2040 Engines)



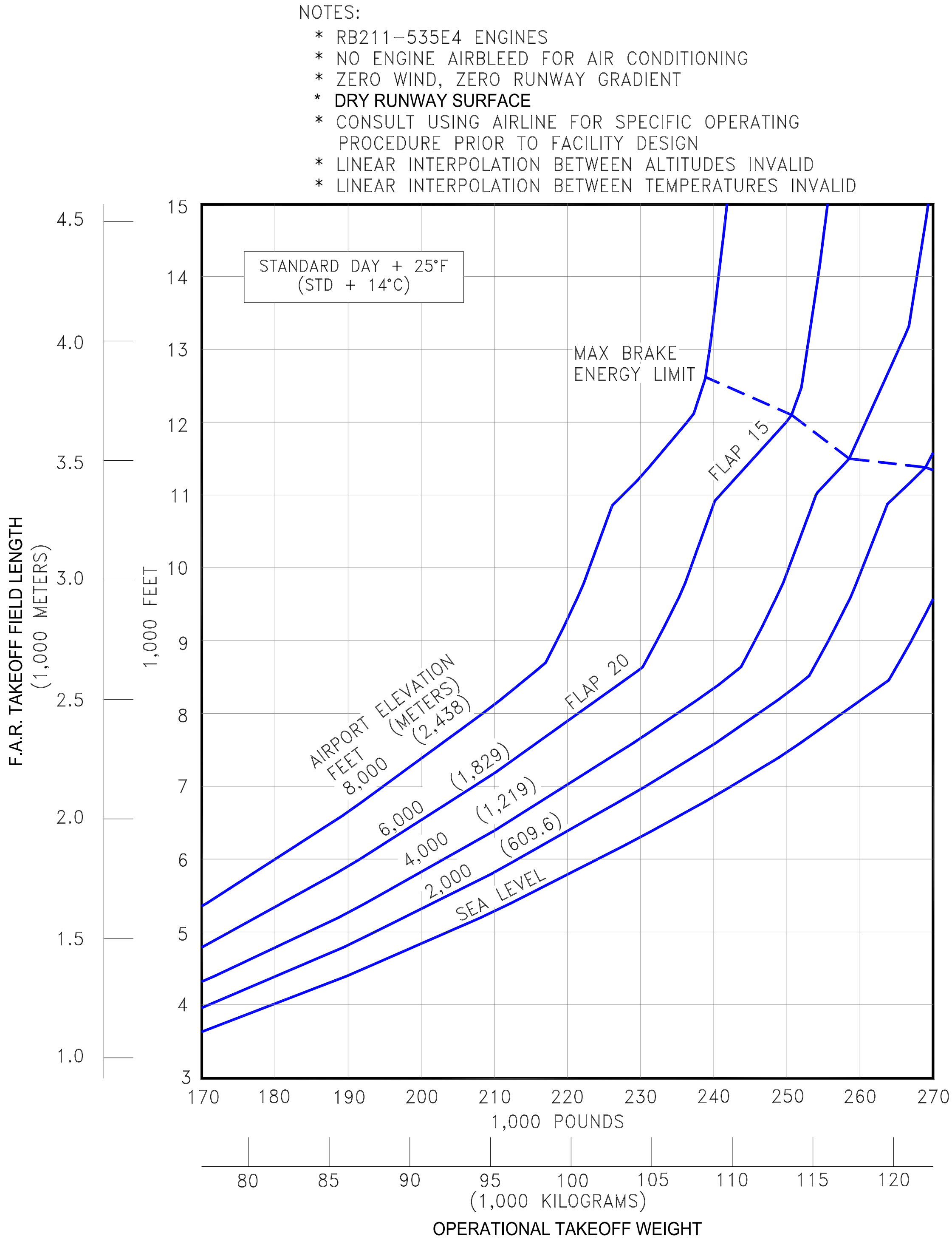
3.3.10 F.A.R. Takeoff Runway Length Requirements – Standard Day +25°F (STD + 14°C): Model 757-200 (PW2040 Engines)



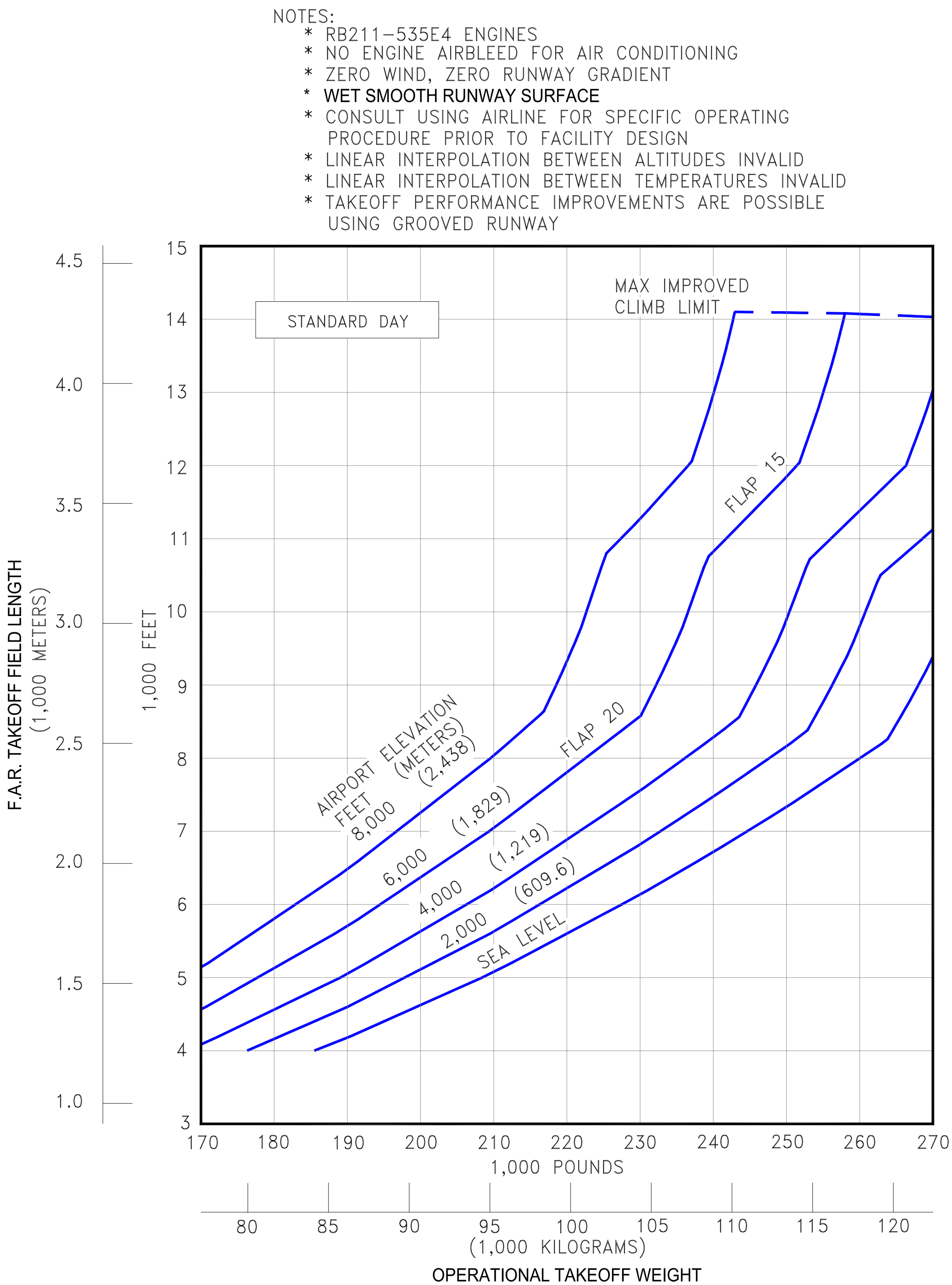
3.3.11 F.A.R. Takeoff Runway Length Requirements – Standard Day: Model 757-300 (RB211-535E4 Engines)



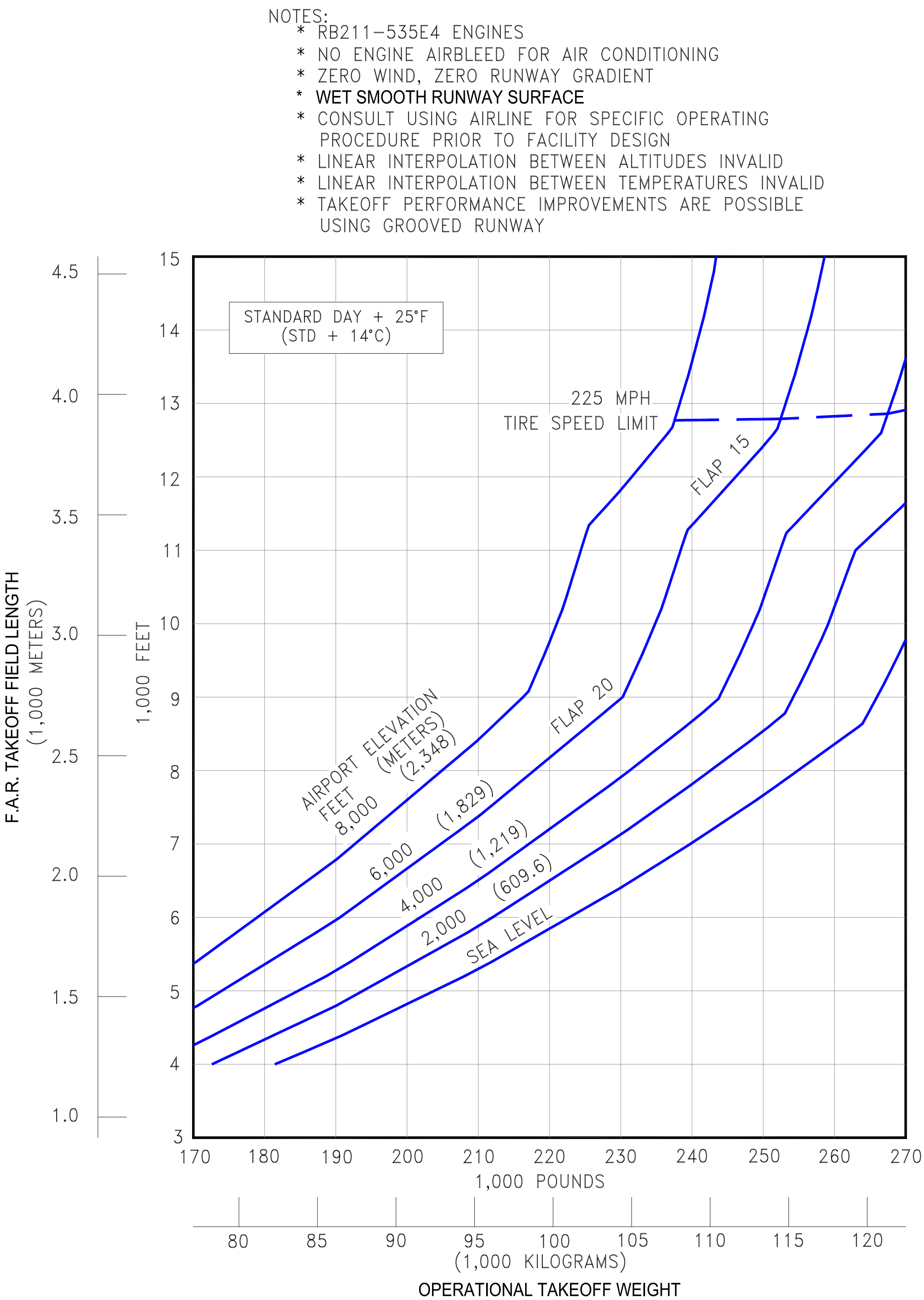
3.3.12 F.A.R. Takeoff Runway Length Requirements – Standard Day +25°F (STD + 14°C): Model 757-300 (RB211-535E4 Engines)



3.3.13 J.A.R. Takeoff Runway Length Requirements – Standard Day - Wet Runway: Model 757-300 (RB211-535E4 Engines)

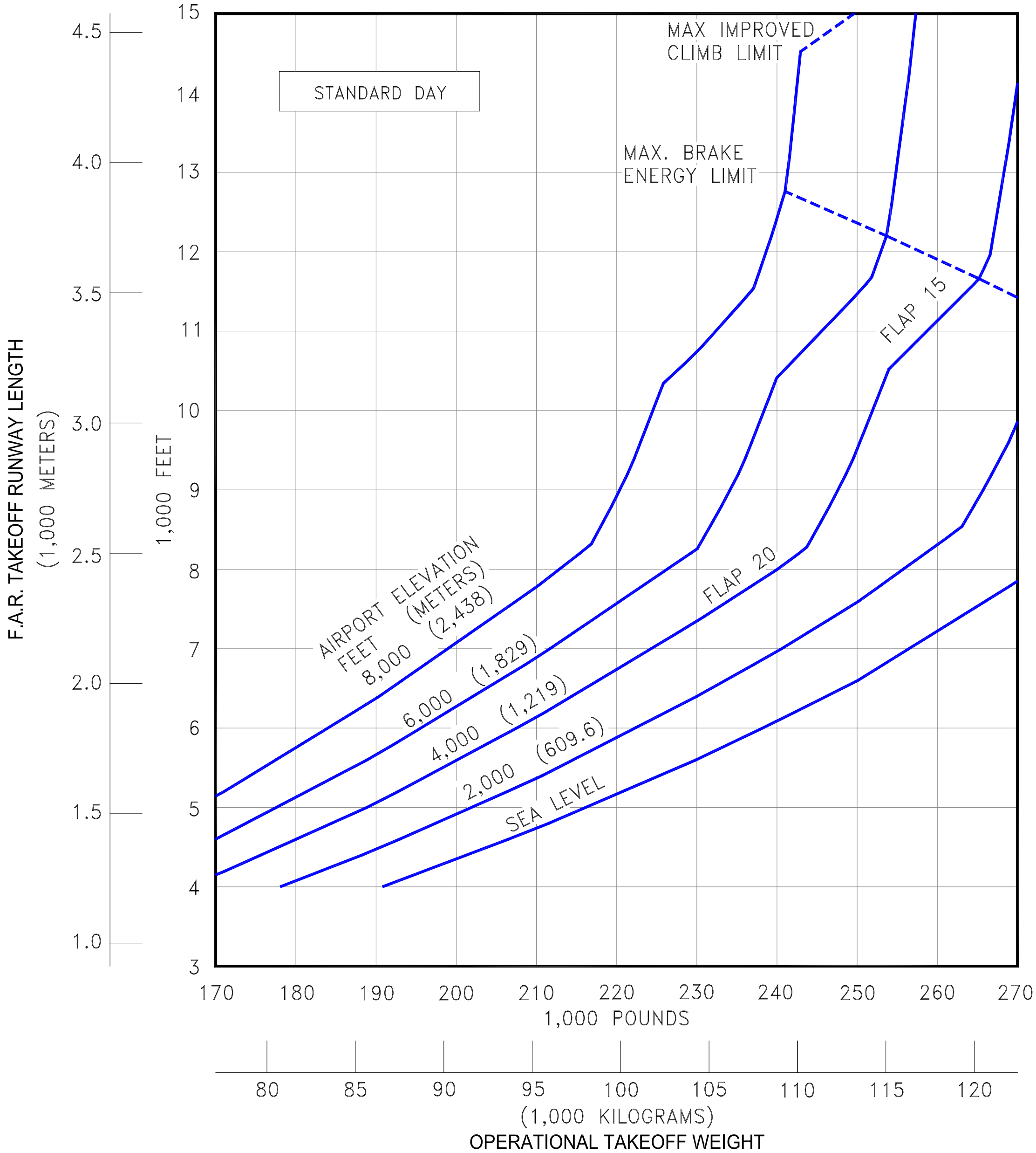


3.3.14 J.A.R. Takeoff Runway Length Requirements – Standard Day – Wet Runway +25°F (STD + 14°C): Model 757-300 (RB211-535E4 Engines)

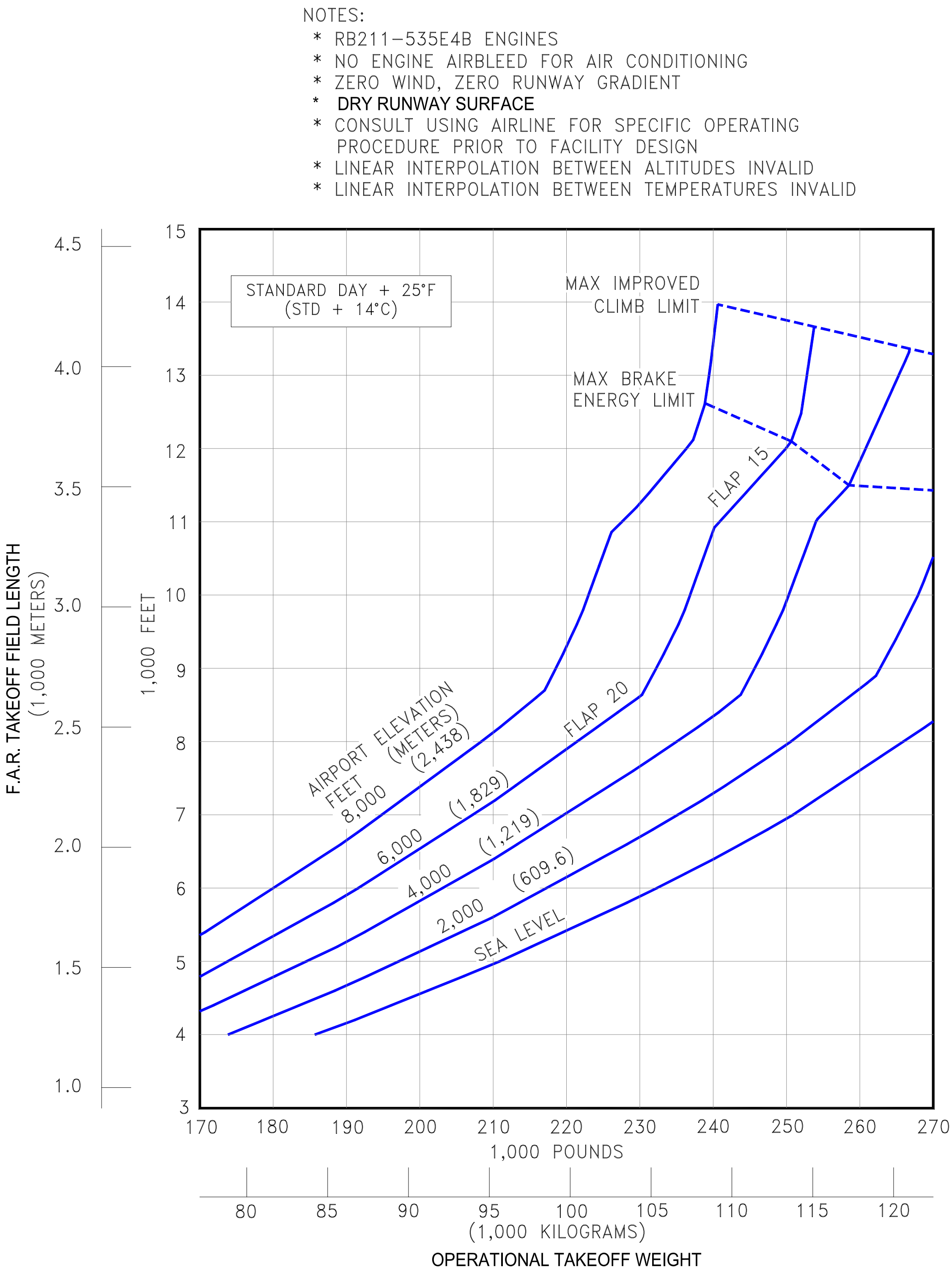


3.3.15 F.A.R. Takeoff Runway Length Requirements – Standard Day: Model 757-300 (RB211-535E4B Engines)

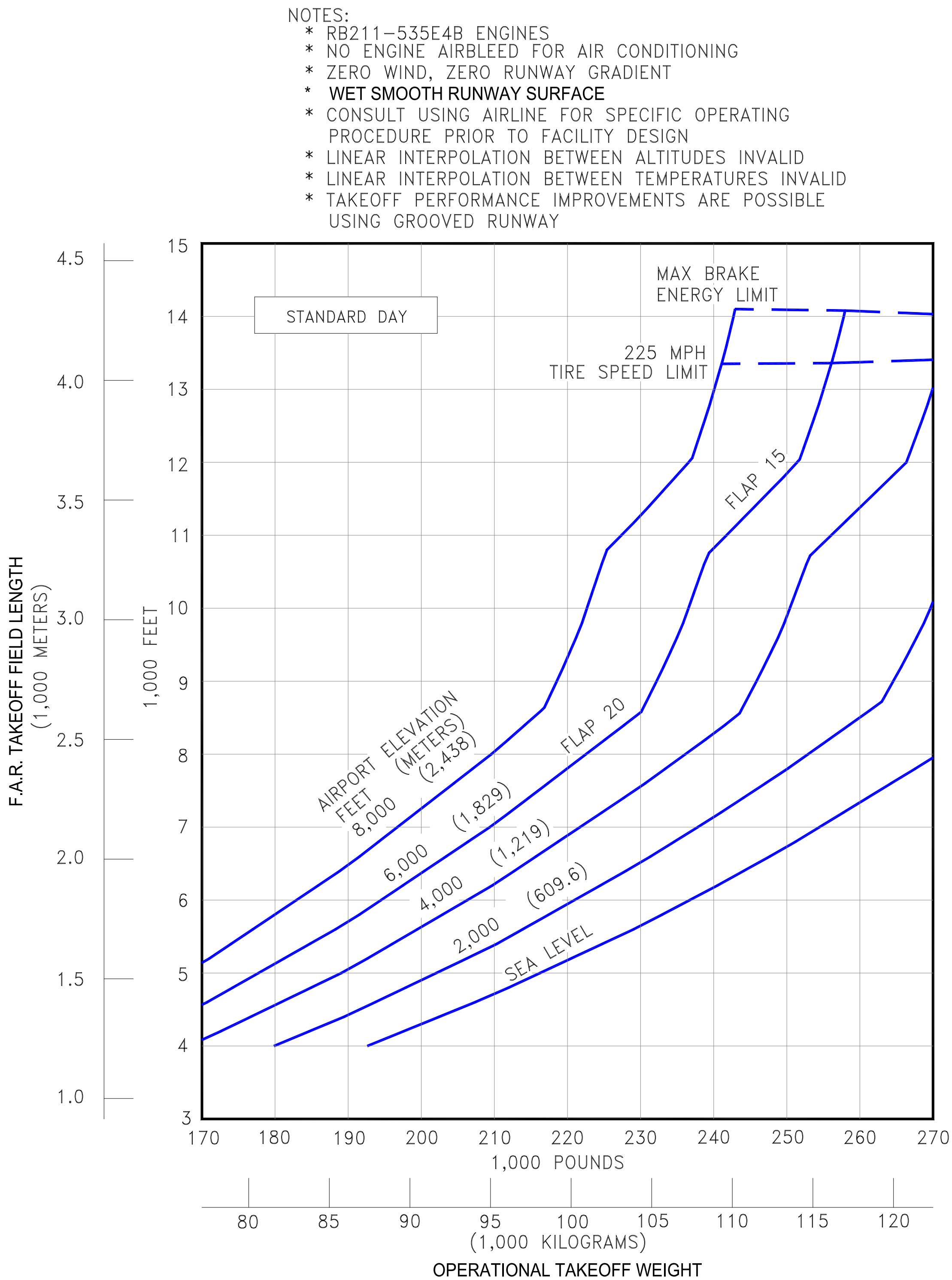
NOTES:
* RB211-535E4B ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* DRY RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID



3.3.16 F.A.R. Takeoff Runway Length Requirements – Standard Day +25°F (STD + 14°C): Model 757-300 (RB211-535E4B Engines)

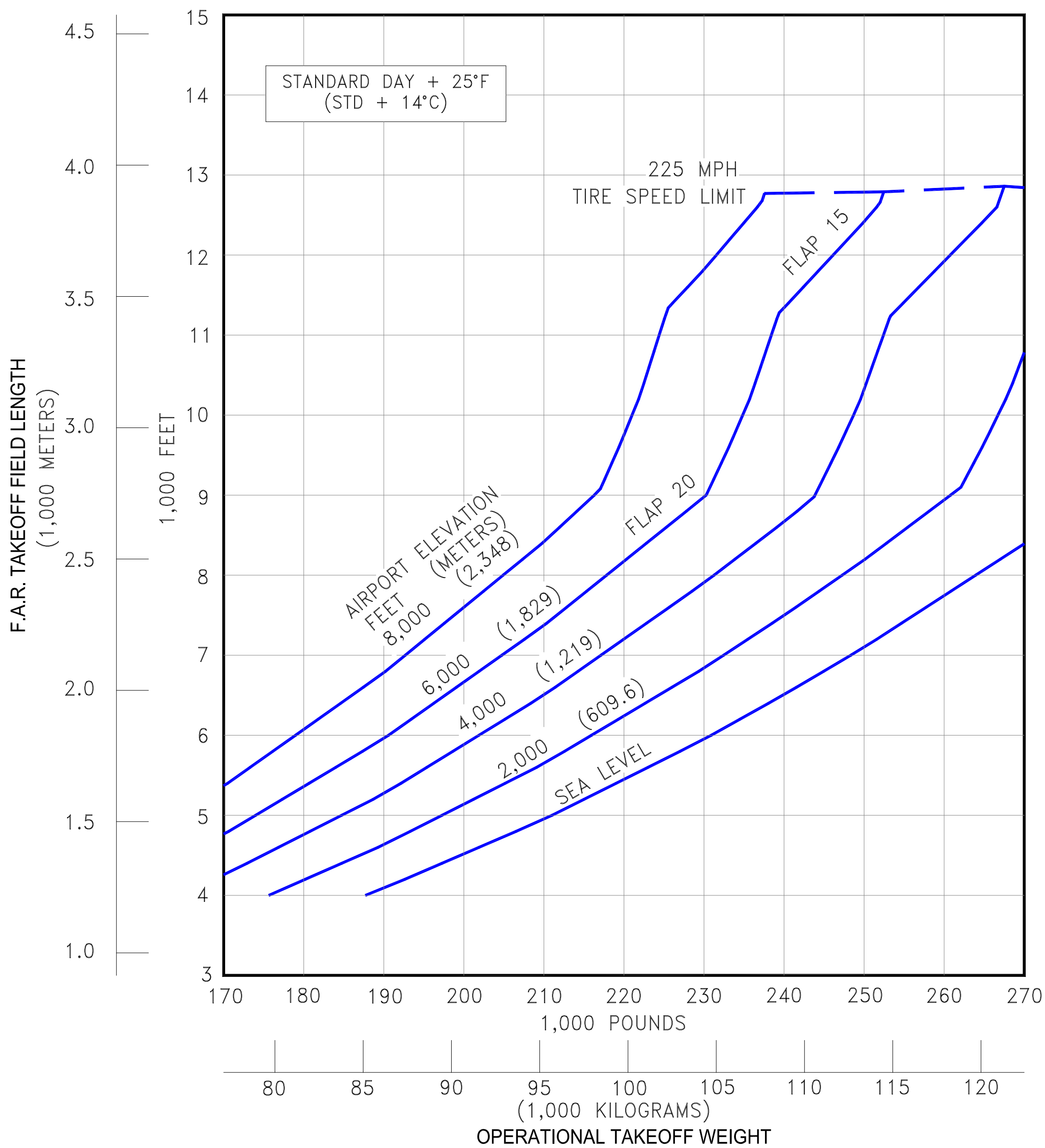


3.3.17 J.A.R. Takeoff Runway Length Requirements – Standard Day - Wet Runway: Model 757-300 (RB211-535E4B Engines)

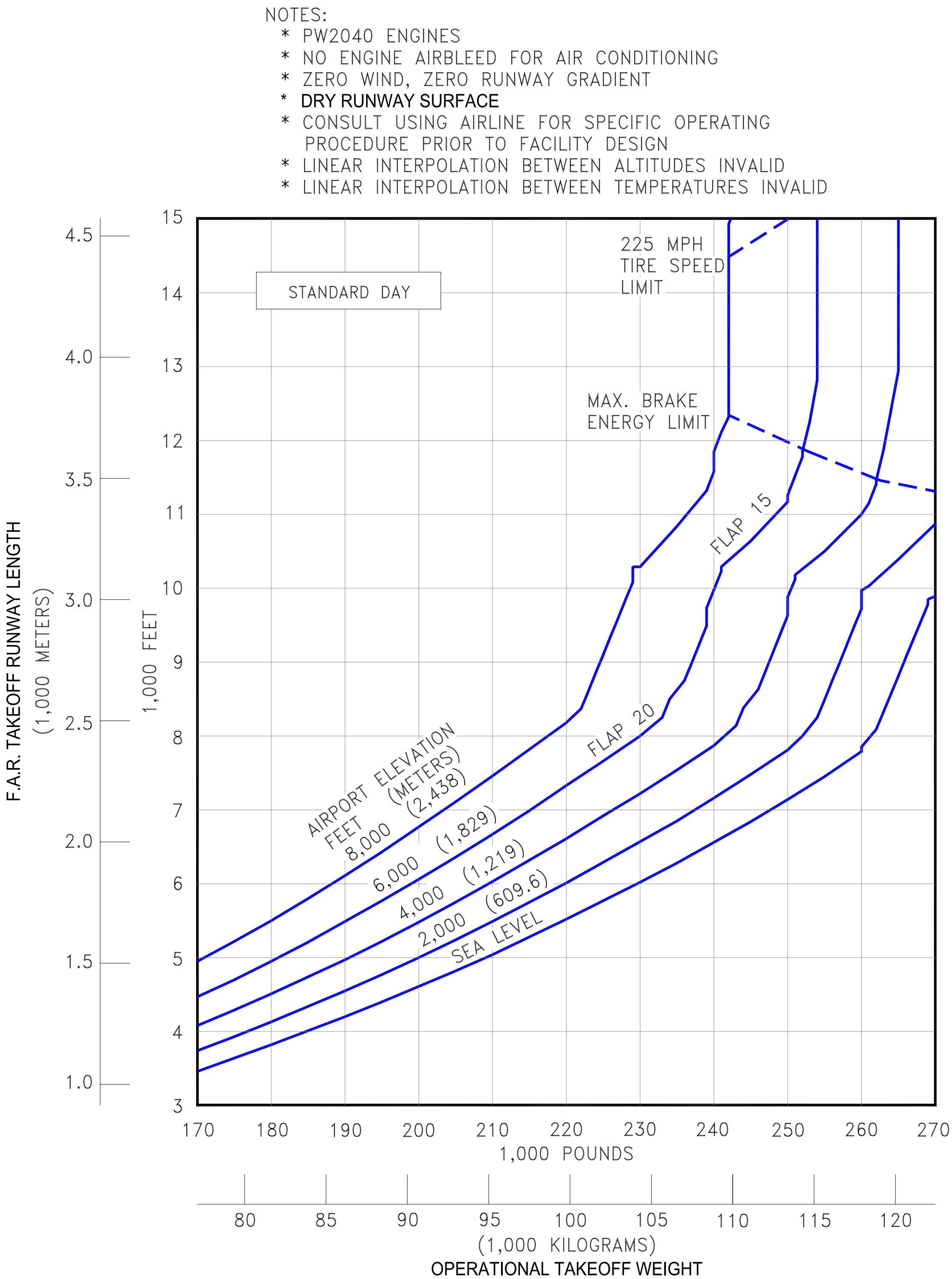


3.3.18 J.A.R. Takeoff Runway Length Requirements – Standard Day – Wet Runway +25°F (STD + 14°C): Model 757-300 (RB211-535E4B Engines)

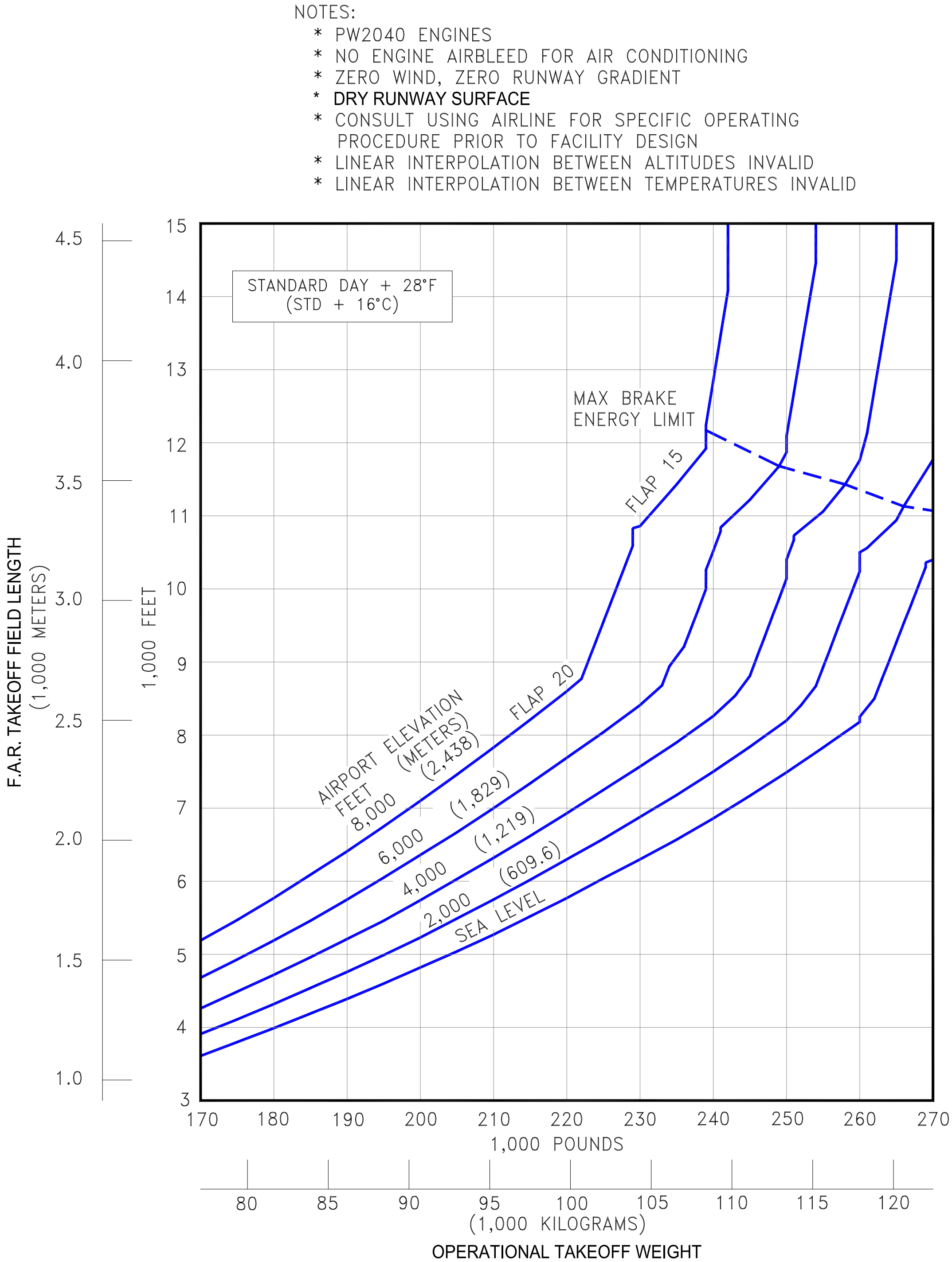
NOTES:
* RB211-535E4B ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* WET SMOOTH RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* TAKEOFF PERFORMANCE IMPROVEMENTS ARE POSSIBLE USING GROOVED RUNWAY



3.3.19 F.A.R. Takeoff Runway Length Requirements – Standard Day: Model 757-300 (PW2040 Engines)

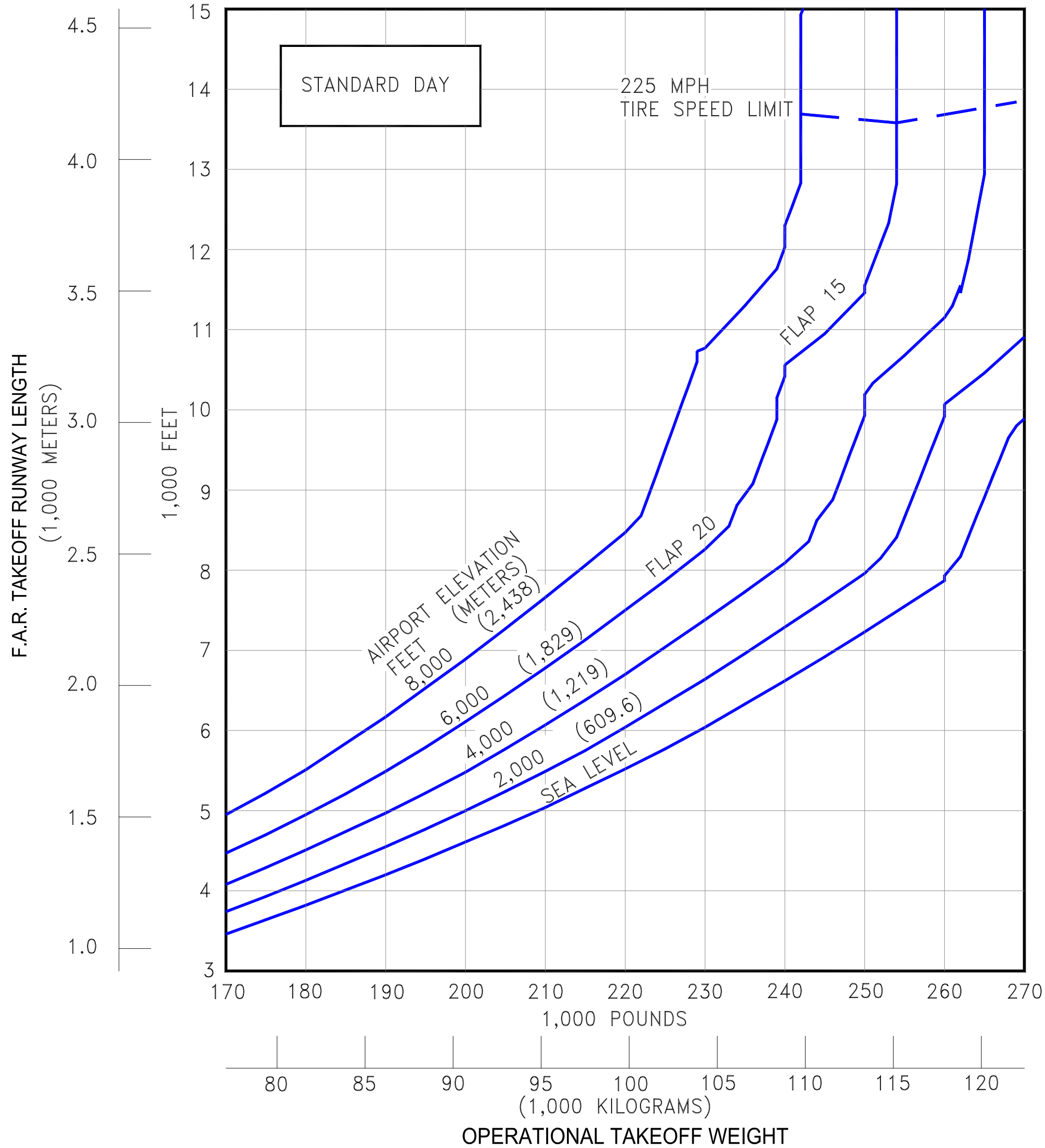


3.3.20 F.A.R. Takeoff Runway Length Requirements – Standard Day +28°F (STD + 16°C): Model 757-300 (PW2040 Engines)

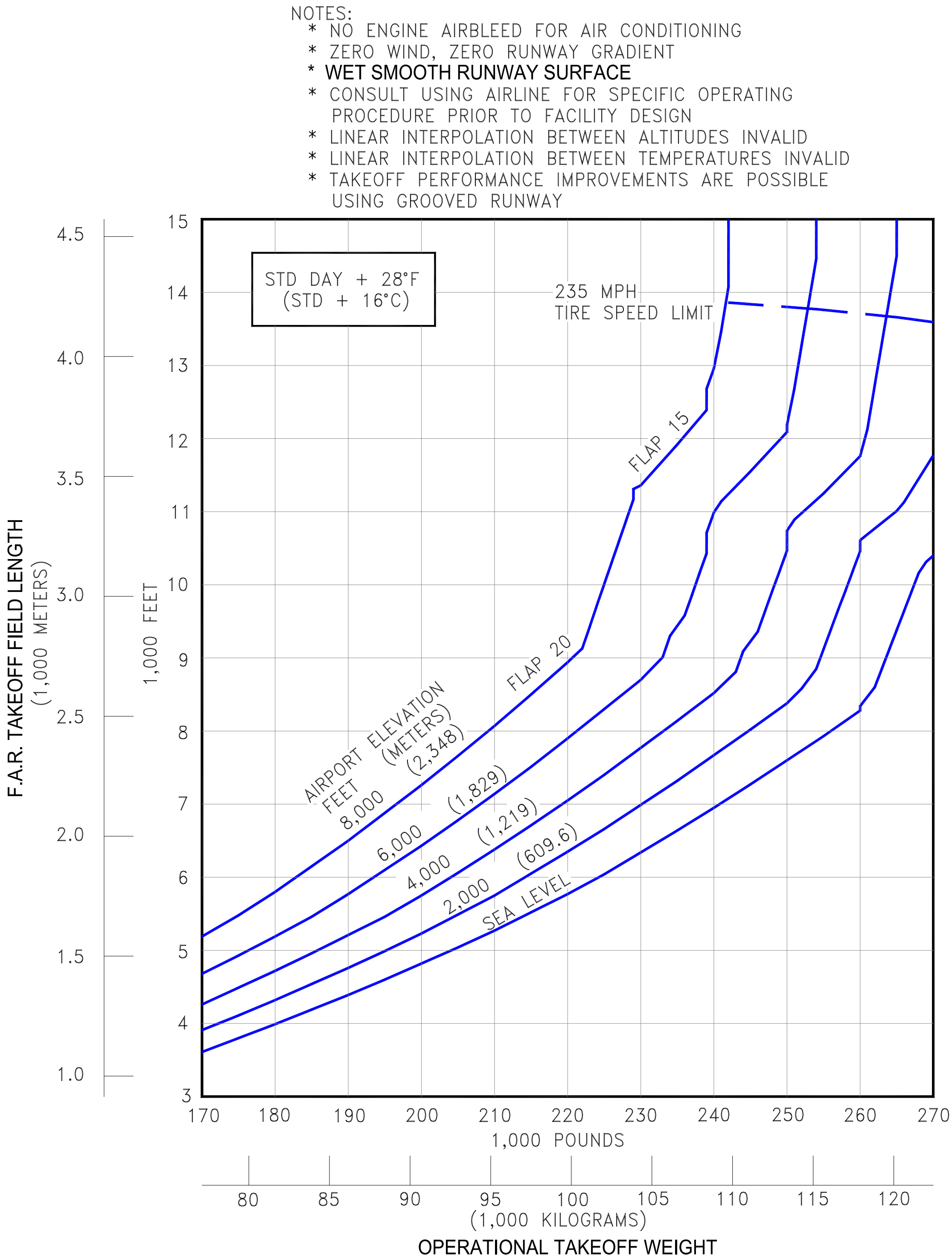


3.3.21 J.A.R. Takeoff Runway Length Requirements – Standard Day - Wet Runway: Model 757-300 (PW2040 Engines)

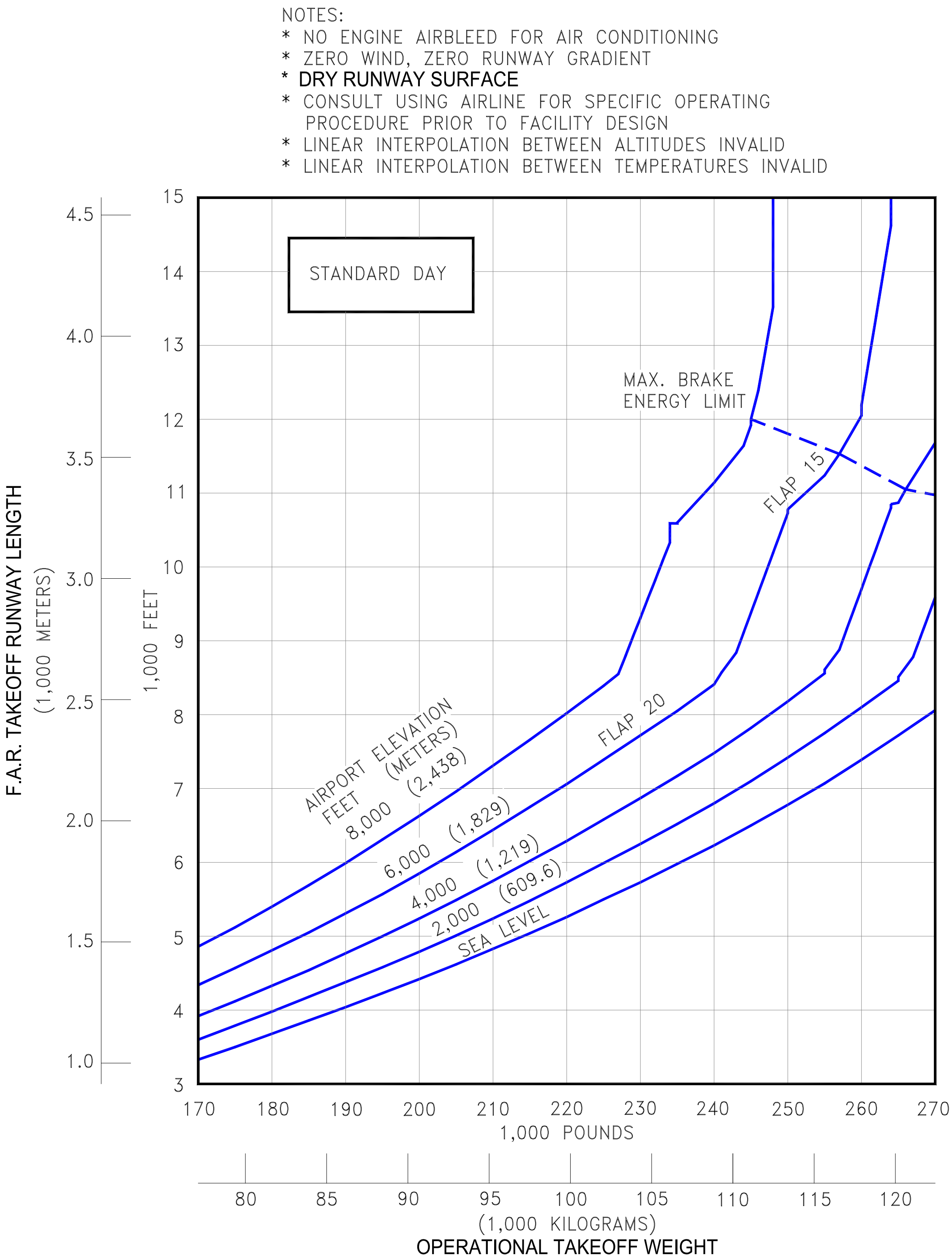
NOTES:
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* WET SMOOTH RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* TAKEOFF PERFORMANCE IMPROVEMENTS ARE POSSIBLE USING GROOVED RUNWAY



3.3.22 J.A.R. Takeoff Runway Length Requirements – Standard Day – Wet Runway +28°F (STD + 16°C): Model 757-300 (PW2040 Engines)

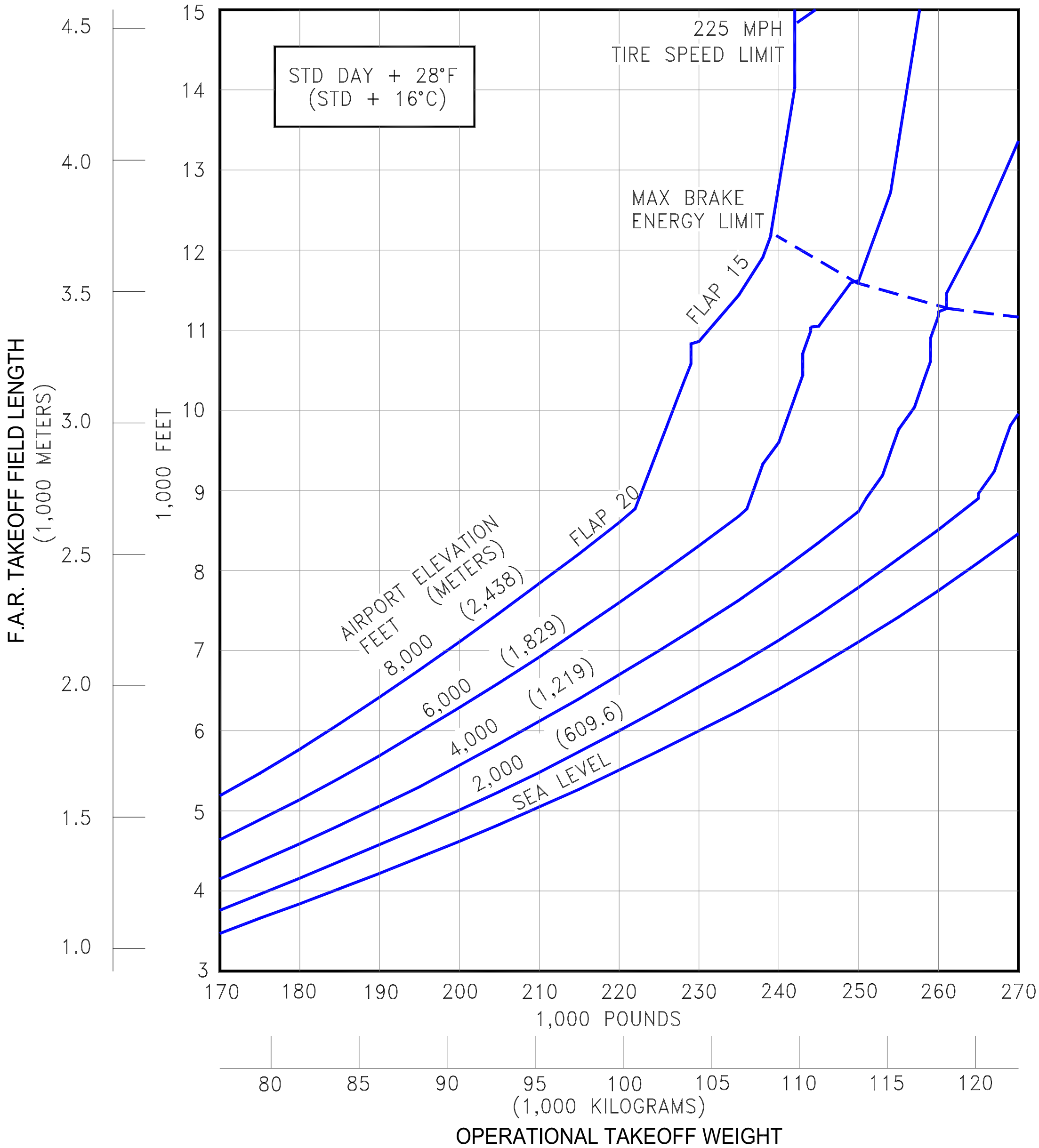


3.3.23 F.A.R. Takeoff Runway Length Requirements – Standard Day: Model 757-300 (PW2043 Engines)



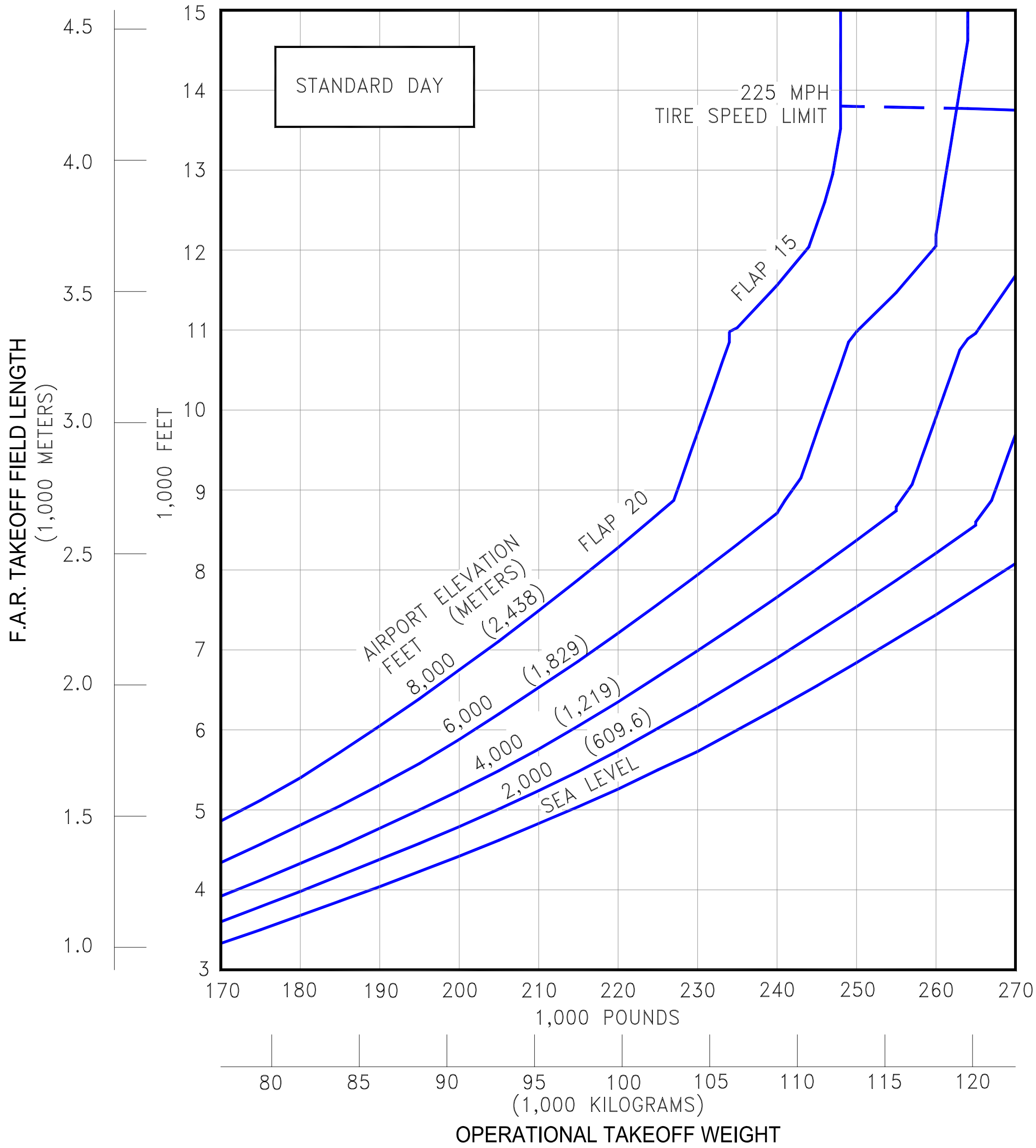
3.3.24 F.A.R. Takeoff Runway Length Requirements – Standard Day: +28°F (STD + 16°C): Model 757-300 (PW2043 Engines)

NOTES:
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* DRY RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID

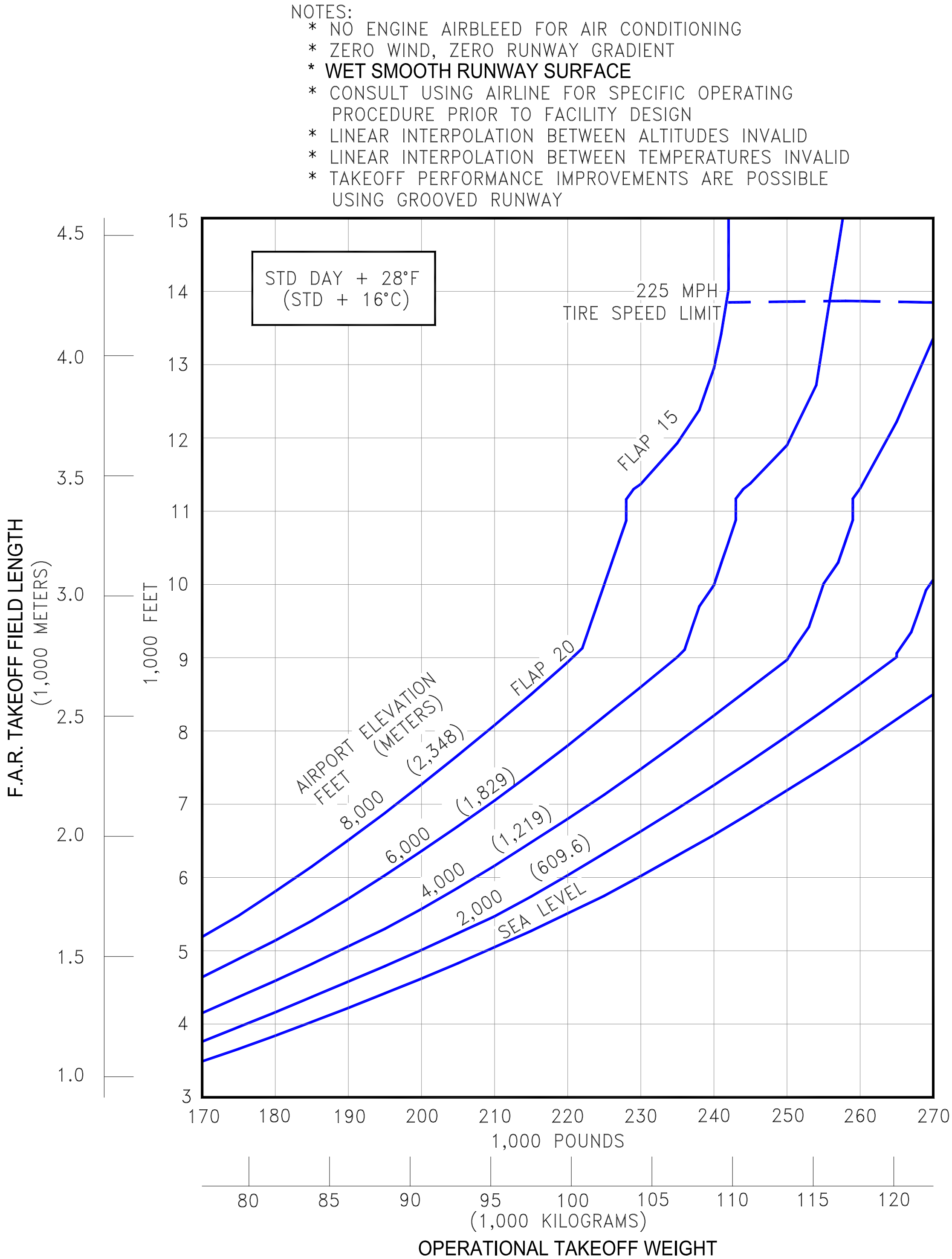


3.3.25 J.A.R. Takeoff Runway Length Requirements – Standard Day - Wet Runway: Model 757-300 (PW2043 Engines)

NOTES:
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* WET SMOOTH RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* TAKEOFF PERFORMANCE IMPROVEMENTS ARE POSSIBLE USING GROOVED RUNWAY

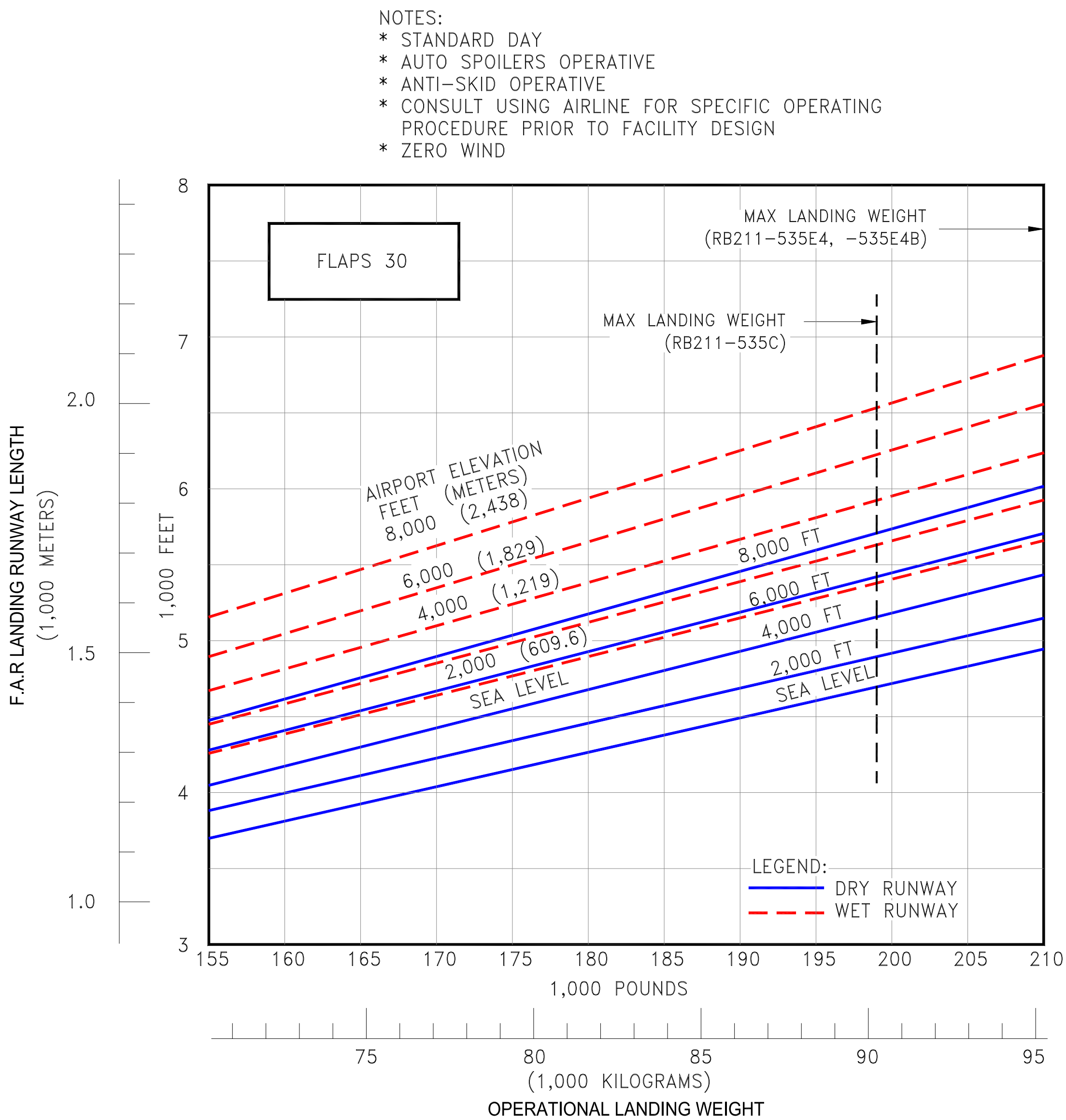


3.3.26 J.A.R. Takeoff Runway Length Requirements – Standard Day - Wet Runway +28°F (STD + 15°C): Model 757-300 (PW2043 Engines)

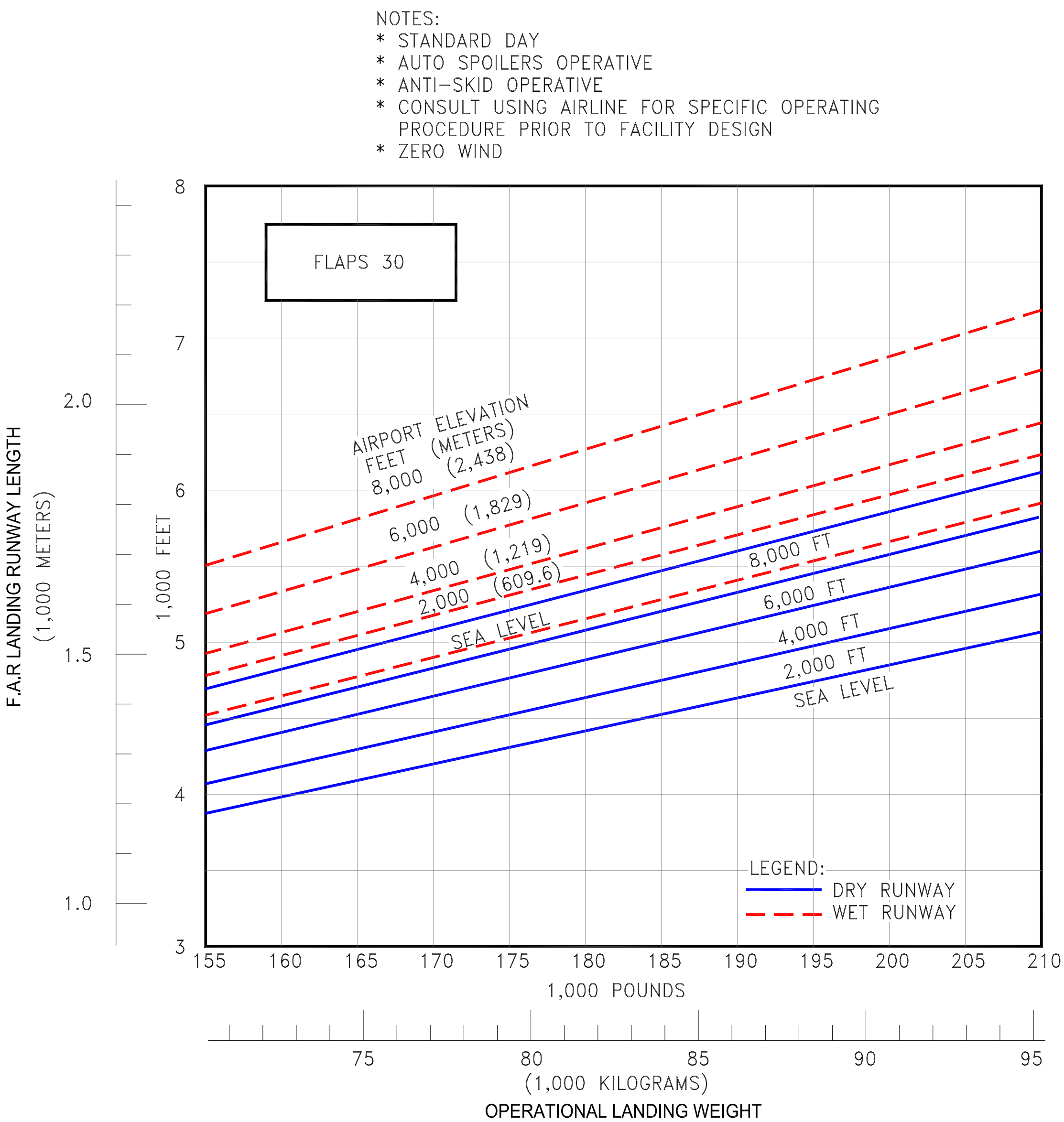


3.4 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS

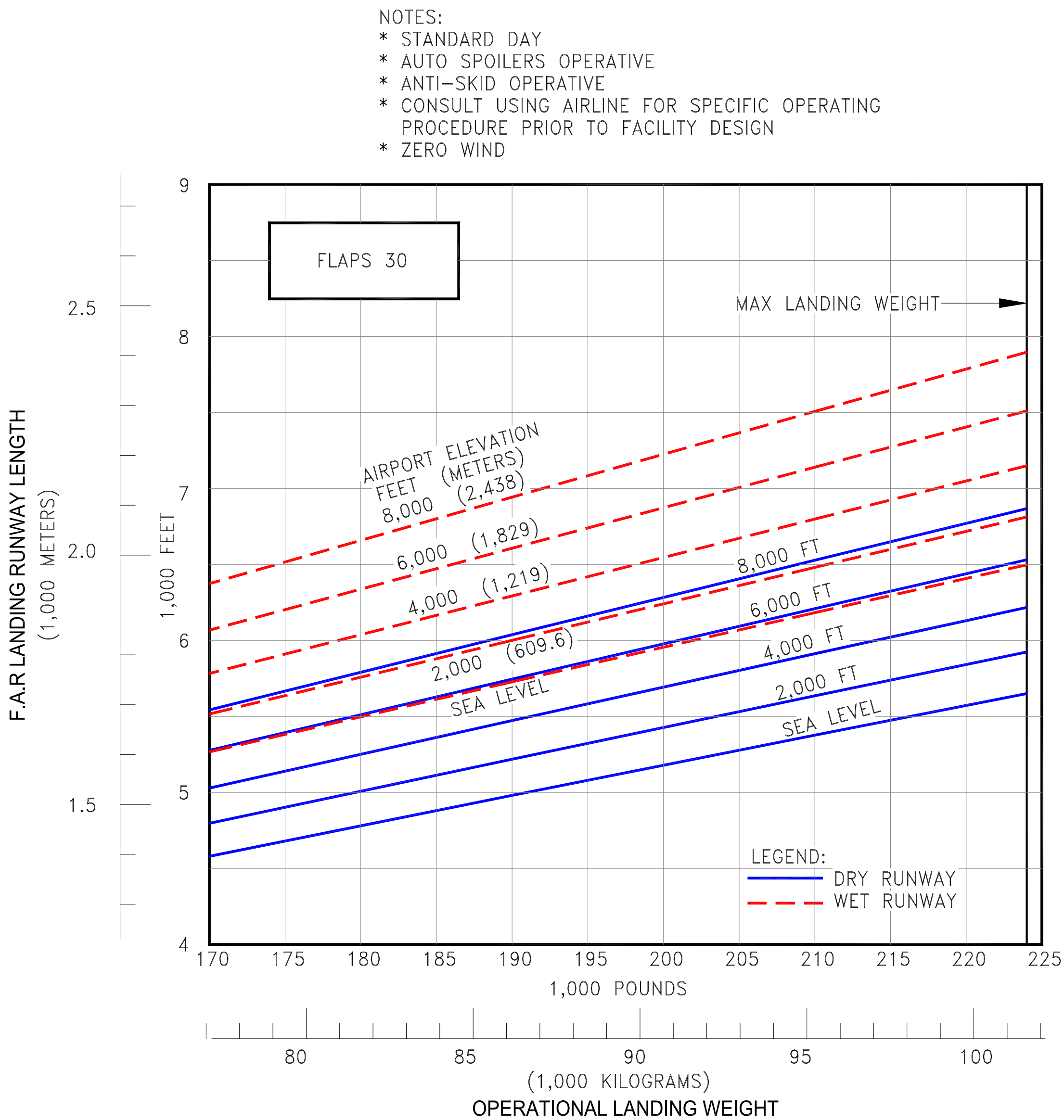
3.4.1 F.A.R. Landing Runway Length Requirements: Model 757-200 (RB211-535C, -535E4, -535E4B Engines)



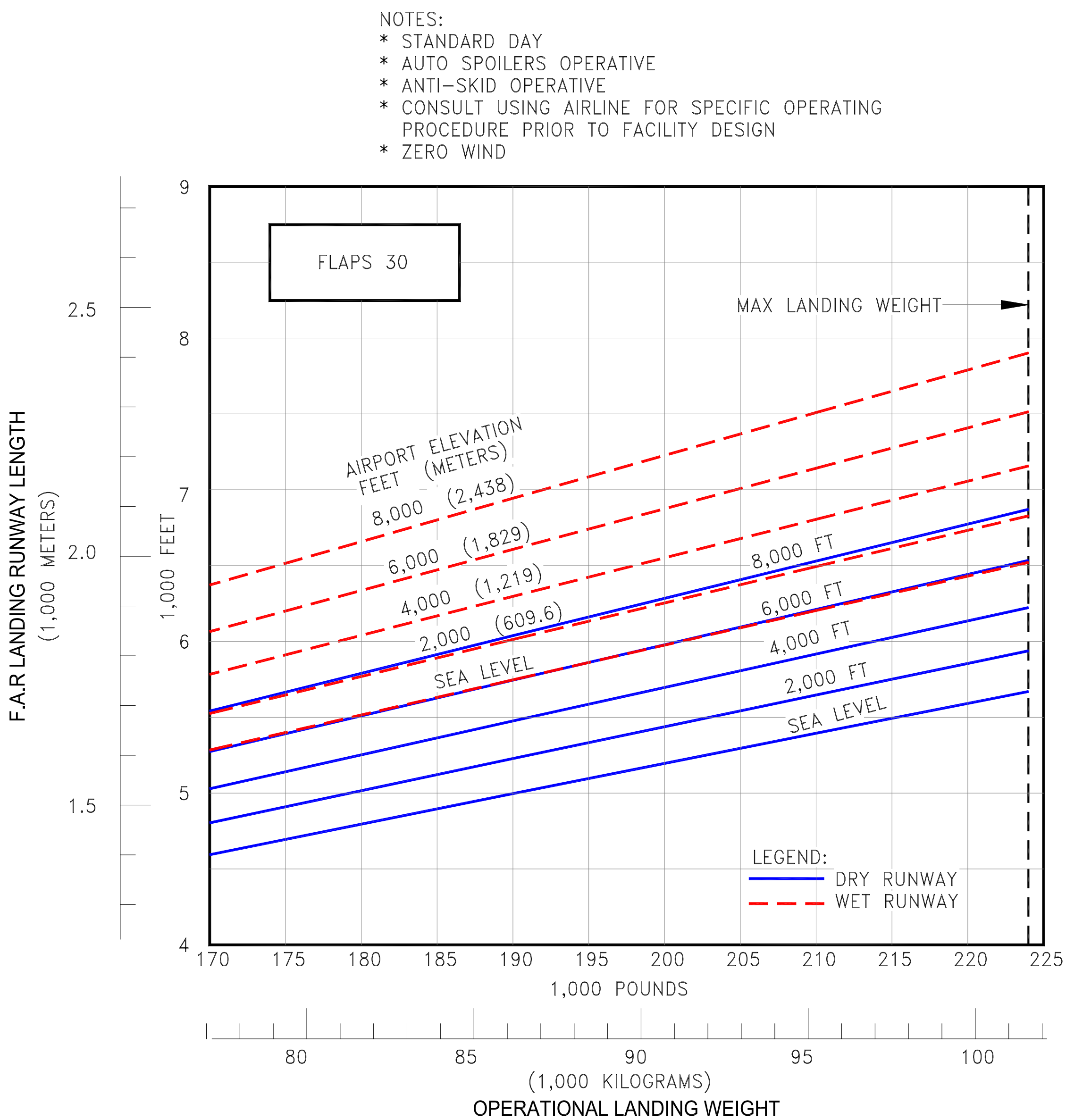
3.4.2 F.A.R. Landing Runway Length Requirements: Model 757-200, -200PF (PW2037, PW2040 Engines)



3.4.3 F.A.R. Landing Runway Length Requirements: Model 757-300, (RB211-535E4, -535E4B Engines)



3.4.4 F.A.R. Landing Runway Length Requirements: Model 757-300, (PW2040, PW2043 Engines)



4.0 AIRPLANE PERFORMANCE

4.1 GENERAL INFORMATION

This section provides airplane turning capability and maneuvering characteristics.

For ease of presentation, these data have been determined from the theoretical limits imposed by the geometry of the aircraft, and where noted, provide for a normal allowance for tire slippage. As such, they reflect the turning capability of the aircraft in favorable operating circumstances. These data should be used only as guidelines for the method of determination of such parameters and for the maneuvering characteristics of this aircraft.

In the ground operating mode, varying airline practices may demand that more conservative turning procedures be adopted to avoid excessive tire wear and reduce possible maintenance problems. Airline operating procedures will vary in the level of performance over a wide range of operating circumstances throughout the world. Variations from standard aircraft operating patterns may be necessary to satisfy physical constraints within the maneuvering area, such as adverse grades, limited area, or high risk of jet blast damage. For these reasons, ground maneuvering requirements should be coordinated with the using airlines prior to layout planning.

Section 4.2 shows turning radii for various nose gear steering angles. Radii for the main and nose gears are measured from the turn center to the outside of the tire.

Section 4.3 provides data on minimum width of pavement required for 180^{o} turn.

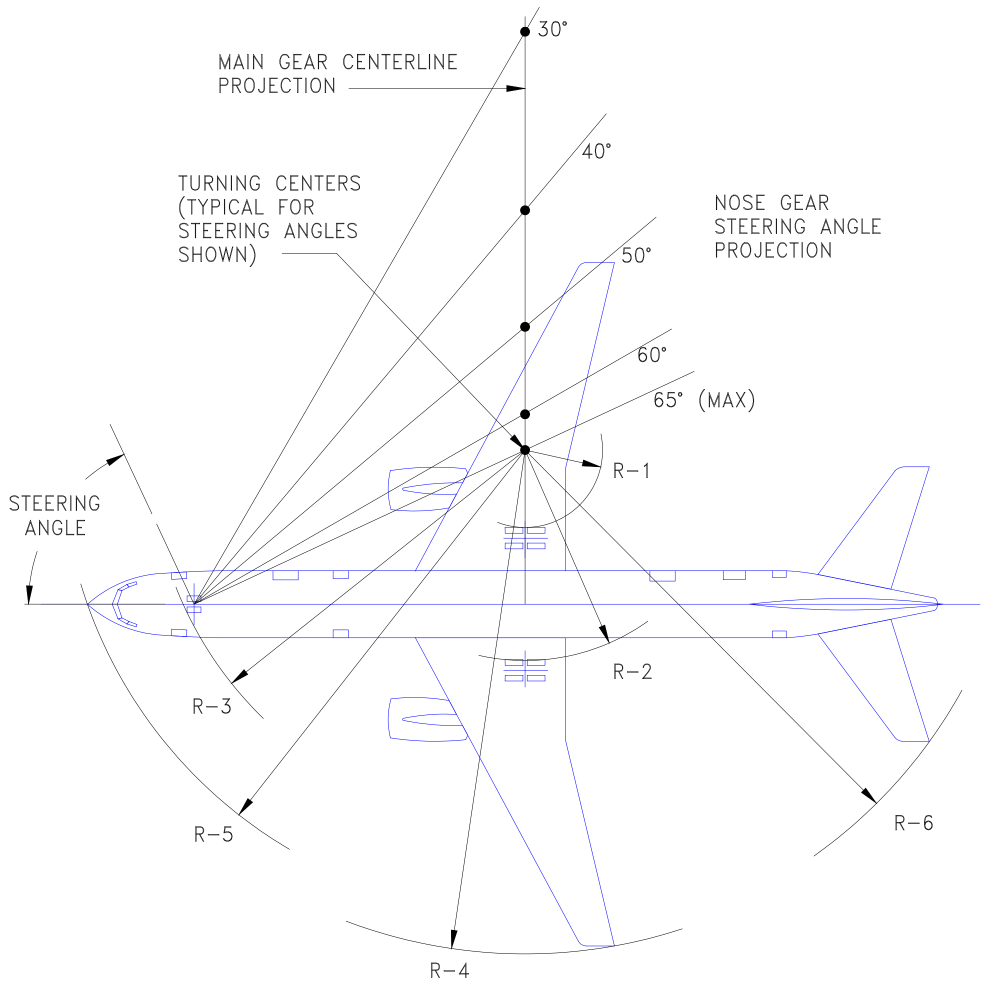
Section 4.4 shows the pilot’s visibility from the cockpit and the limits of ambinocular vision through the windows. Ambinocular vision is defined as the total field of vision seen simultaneously by both eyes.

Section 4.5 shows wheel paths of a 757-300 on runway to taxiway, and taxiway to taxiway turns. Wheel paths for the 757-200 would be slightly less than the 757-300 configurations.

Section 4.6 illustrates a typical runway holding bay configuration for the 757-300.

4.2 TURNING RADII

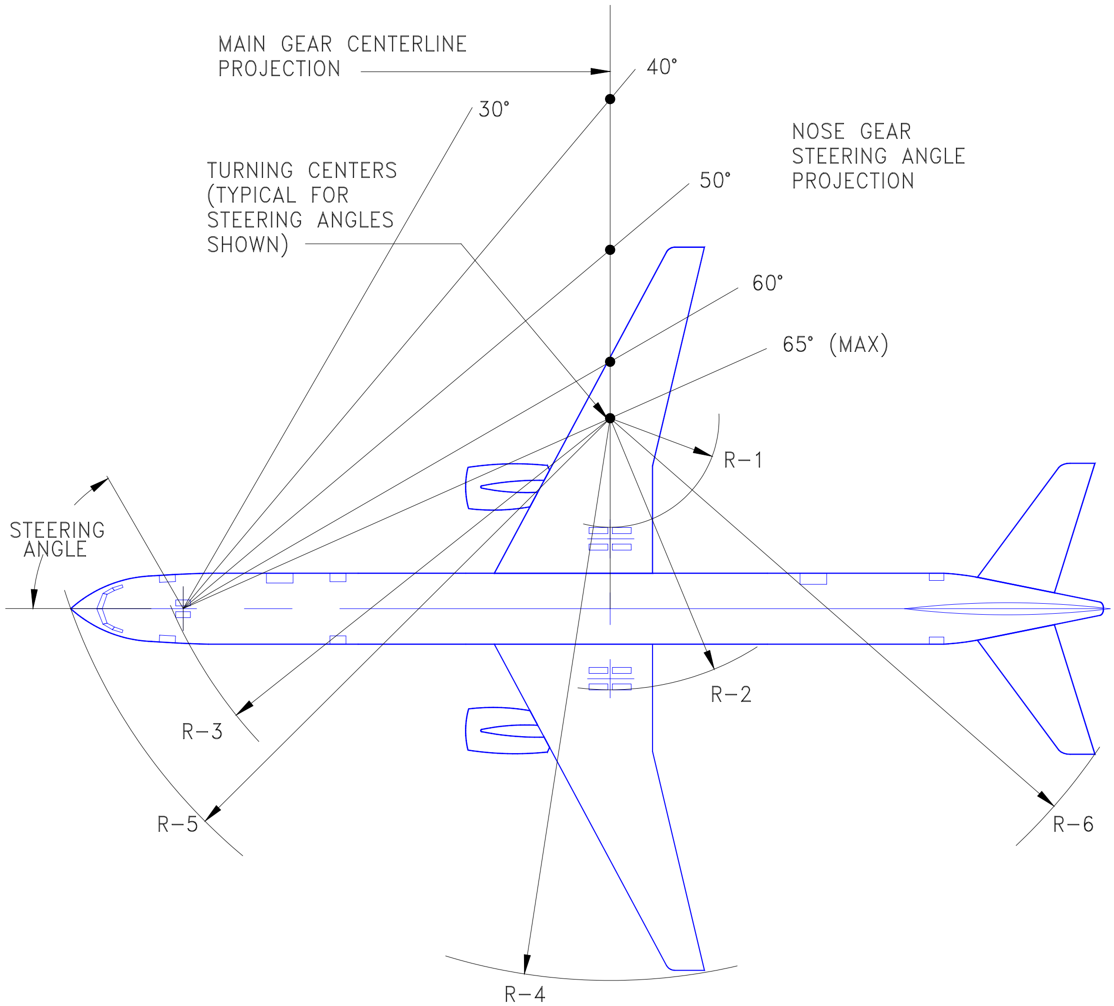
4.2.1 Turning Radii – No Slip Angle: Model 757-200



NOTES: *ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN SHOWN.
*CONSULT WITH AIRLINE FOR SPECIFIC OPERATING PROCEDURE
*DIMENSIONS ROUNDED TO NEAREST FOOT AND 0.1 METER.

STEERING ANGLE	R1 INNER GEAR		R2 OUTER GEAR		R3 NOSE GEAR		R4 WINGTIP		R5 NOSE		R6 TAIL	
(DEG)	**FT**	**M**	**FT**	**M**	**FT**	**M**	**FT**	**M**	**FT**	**M**	**FT**	**M**
30	90	27.4	118	35.9	122	37.0	167	50.9	131	39.9	149	45.3
35	72	21.9	100	30.4	106	32.3	149	45.4	117	35.6	133	40.6
40	58	17.5	86	26.1	95	28.9	135	41.1	107	32.6	121	37.0
45	46	14.0	74	22.6	86	26.3	124	37.6	99	30.3	112	34.3
50	36	11.1	64	19.6	80	24.4	114	34.7	94	28.6	105	32.1
55	28	8.5	56	17.1	75	22.8	106	32.2	90	27.3	100	30.4
60	21	6.3	49	14.8	71	21.6	98	30.0	87	26.4	95	28.9
65 (MAX)	14	4.3	42	12.8	68	20.6	92	28.0	84	25.6	91	27.6

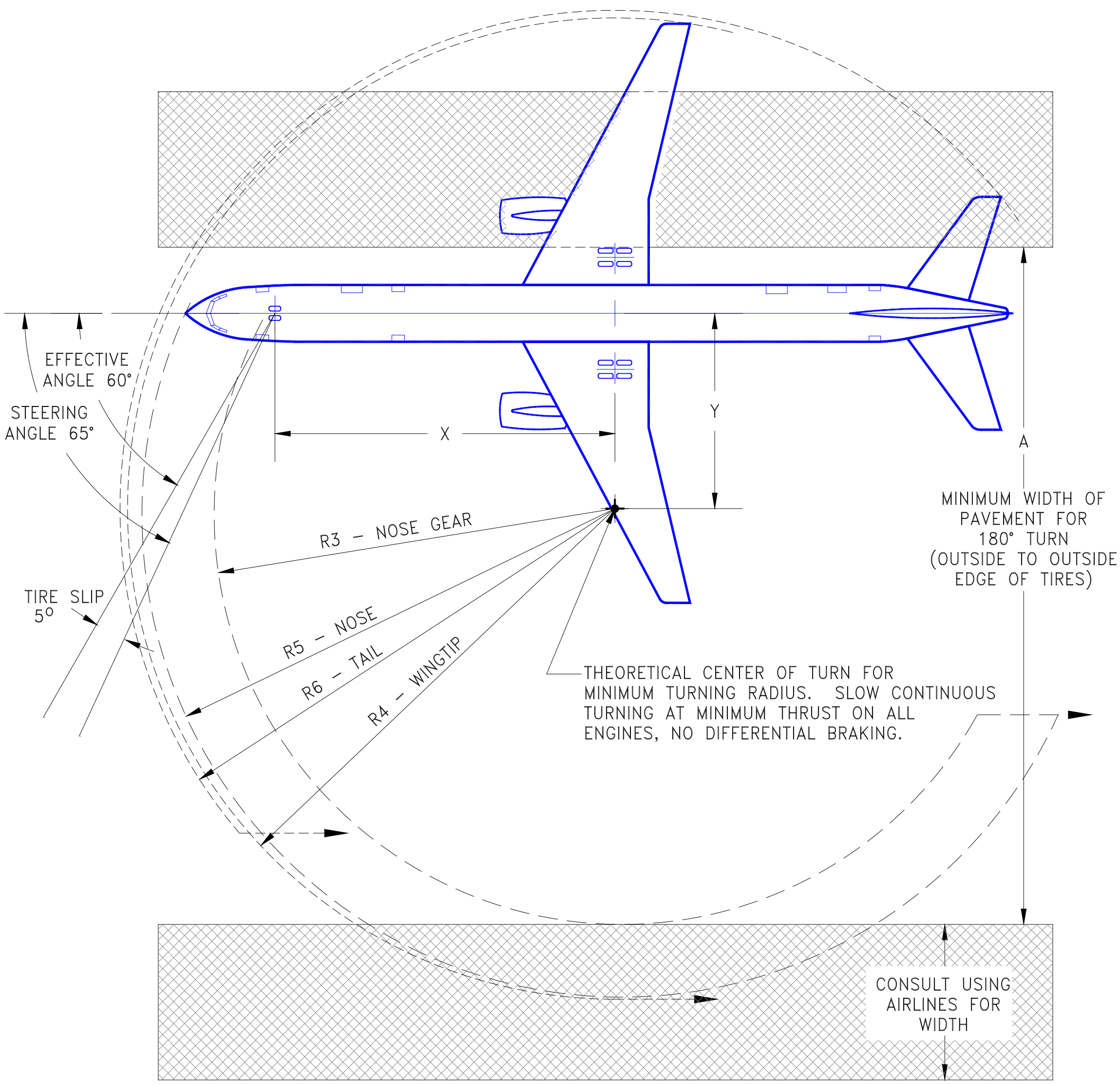
4.2.2 Turning Radii – No Slip Angle: Model 757-300



NOTES: *ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN SHOWN.
*CONSULT WITH AIRLINE FOR SPECIFIC OPERATING PROCEDURE
*DIMENSIONS ROUNDED TO NEAREST FOOT AND 0.1 METER.

STEERING ANGLE	R1 INNER GEAR		R2 OUTER GEAR		R3 NOSE GEAR		R4 WINGTIP		R5 NOSE		R6 TAIL	
(DEG)	FT	M	FT	M	FT	M	FT	M	FT	M	FT	M
30	113	34.4	141	43.0	148	45.2	190	57.9	157	47.9	173	52.9
35	91	27.6	119	36.2	129	39.4	168	51.2	140	42.6	154	47.0
40	73	22.4	101	30.9	115	35.2	151	45.9	127	38.8	140	42.7
45	59	18.1	87	26.6	105	32.1	137	41.7	118	36.0	129	39.3
50	47	14.5	76	23.0	97	29.6	125	38.1	111	33.9	120	36.7
55	37	11.4	65	19.9	91	27.7	115	35.0	106	32.3	113	34.5
60	28	8.6	56	17.2	86	26.3	106	32.3	102	31.0	107	32.7
65 (MAX)	20	6.2	48	14.7	82	25.1	98	29.8	99	30.1	102	31.2

4.3 CLEARANCE RADII: MODEL 757-200, -300



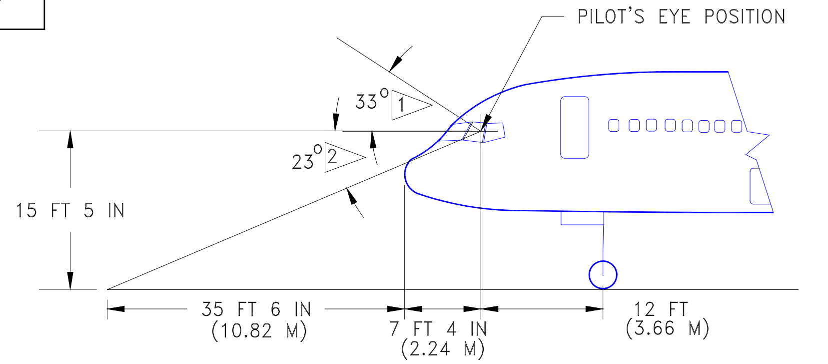
NOTES:
- 5° TIRE SLIP ANGLE APPROXIMATE FOR 65° STEERING ANGLE.
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE
- DIMENSIONS ROUNDED TO NEAREST FOOT AND 0.10 METER.

AIRPLANE MODEL	EFFECTIVE TURNING ANGLE (DEG)	X		Y		A		R3		R4		R5		R6	
		FT	M	FT	M	FT	M	FT	M	FT	M	FT	M	FT	M
757-200	60	60	18.3	35	10.5	120	36.4	71	21.6	98	30.0	87	26.4	95	28.9
757-300	60	73	22.3	42	12.9	141	43.0	86	26.3	106	32.3	102	31.0	107	32.7

4.4 VISIBILITY FROM COCKPIT IN STATIC POSITION: MODEL 757-200, -300

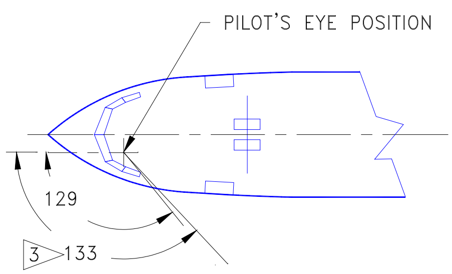
NOT TO BE USED
FOR LANDING
APPROACH VISIBILITY

NOT TO SCALE



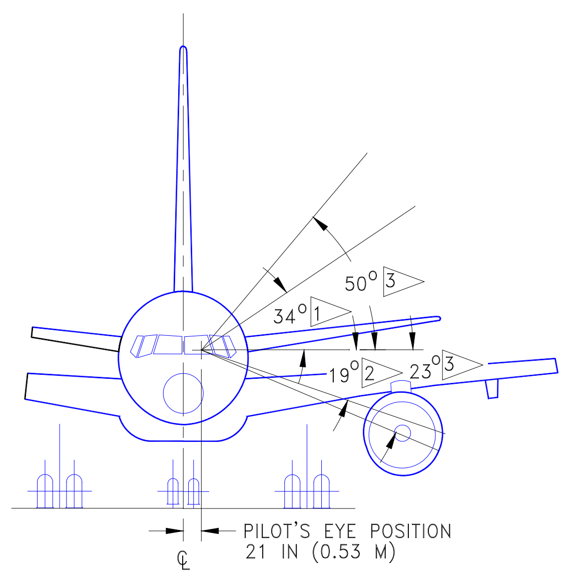
VISUAL ANGLES IN PLANE PARALLEL
TO LONGITUDINAL AXIS THROUGH
PILOT'S EYE POSITION

NOTE: AIRPLANE RESTS AT 3.2° NOSE-DOWN ANGLE ON RUNWAY



VISUAL ANGLES IN HORIZONTAL PLANE
THROUGH PILOT'S EYE POSITION

NOTE:
HEAD ROTATED ABOUT POINT
3.3 IN (0,88 M) AFT OF
PILOT'S EYE POSITION



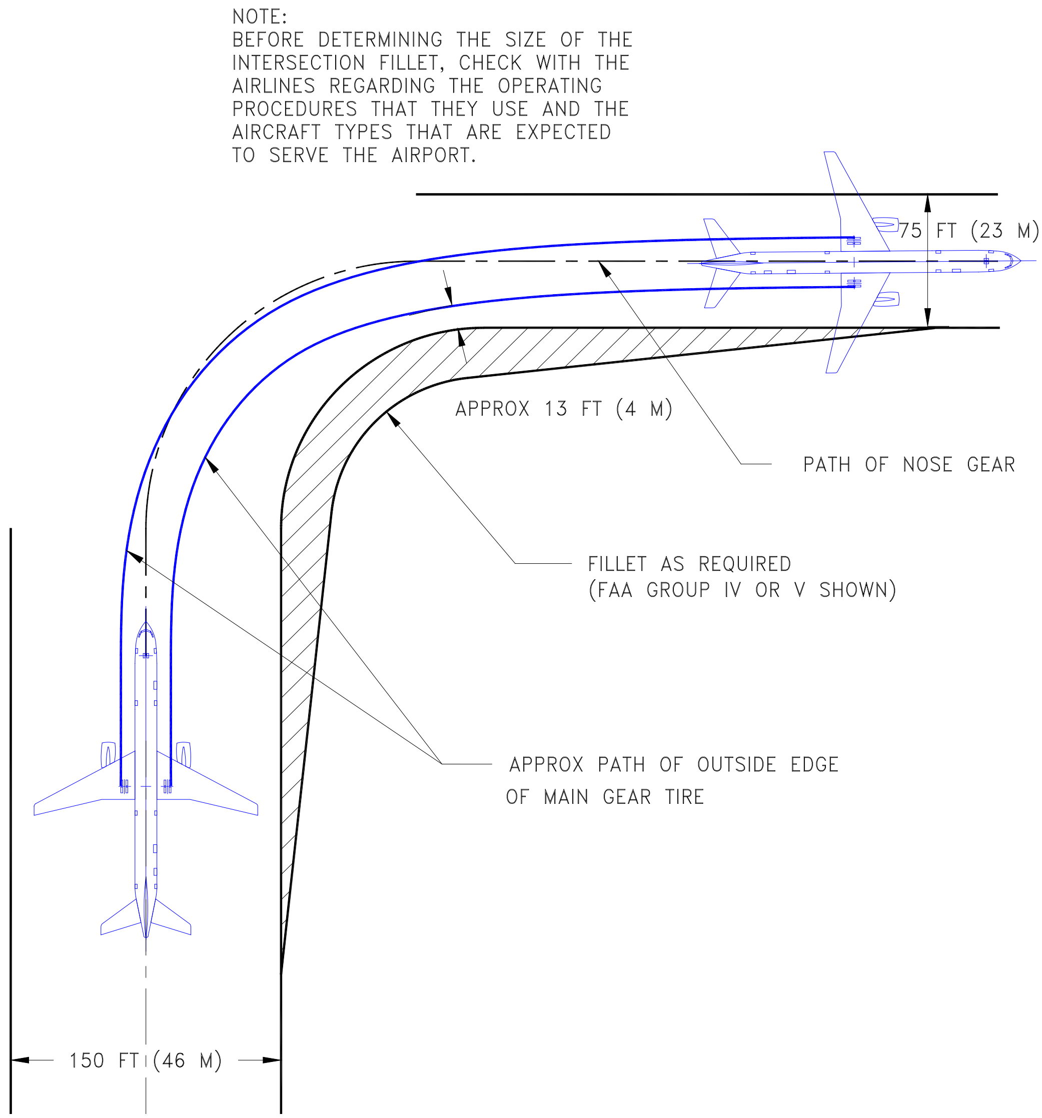
VISUAL ANGLES IN PLANE
PERPENDICULAR TO LONGITUDINAL AXIS
THROUGH PILOT'S EYE POSITION

1. UPWARD VISION THROUGH MAIN WINDOW
2. DOWNWARD VISION THROUGH MAIN WINDOW
3. WITH HEAD MOVED 5 IN (0.13 M) OUTBOARD

NOTE: IF HEAD IS MOVED 2 IN (0.05 M) FORWARD, SO VISION WILL CLEAR WINDOW POST, DOWN VISION 2 BECOMES 29° AND DOWN VISION 3 BECOMES 35°

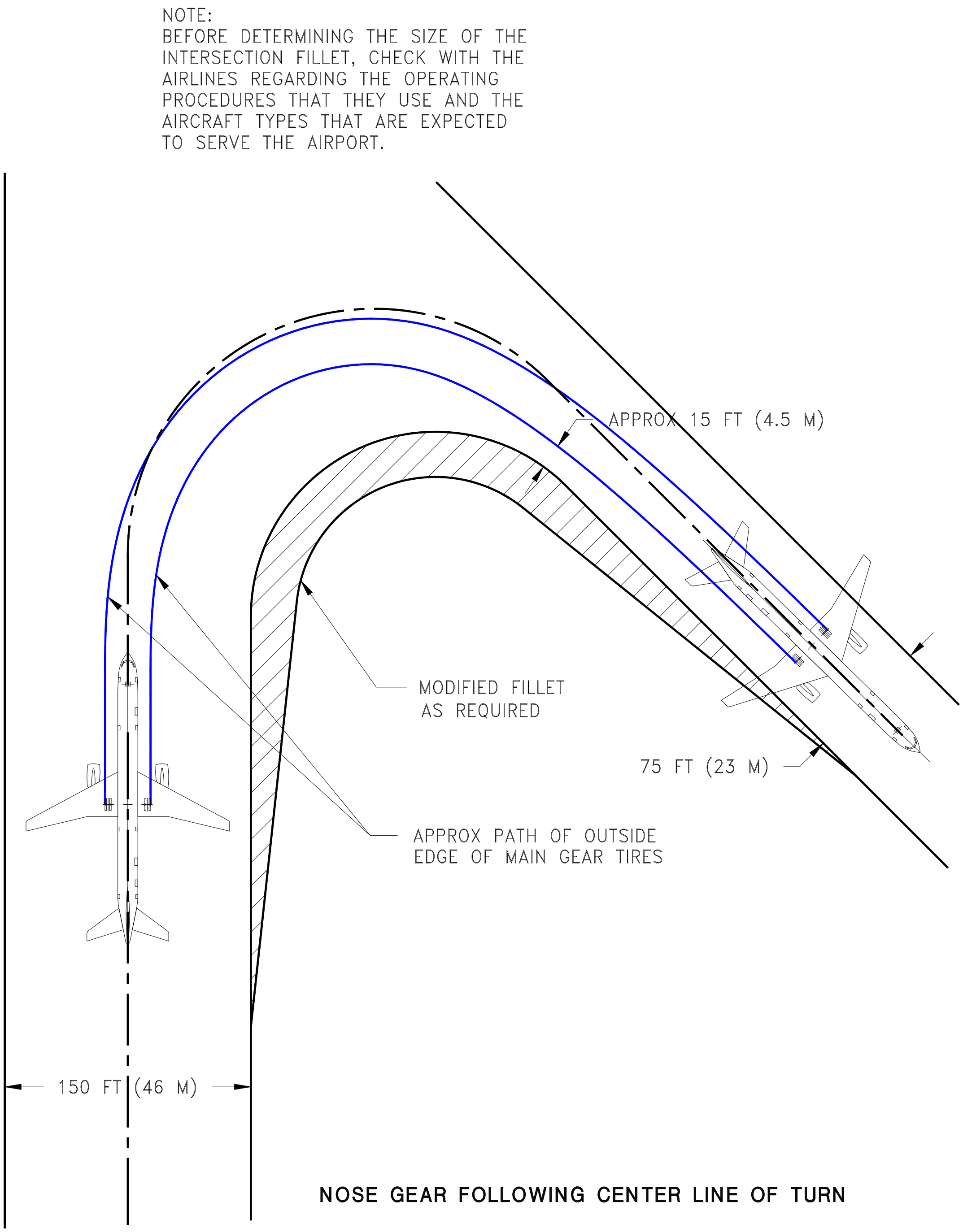
4.5 RUNWAY AND TAXIWAY TURN PATHS

4.5.1 Runway and Taxiway Turn Paths - Runway-to-Taxiway, 90 Degrees Turn: Model 757-300



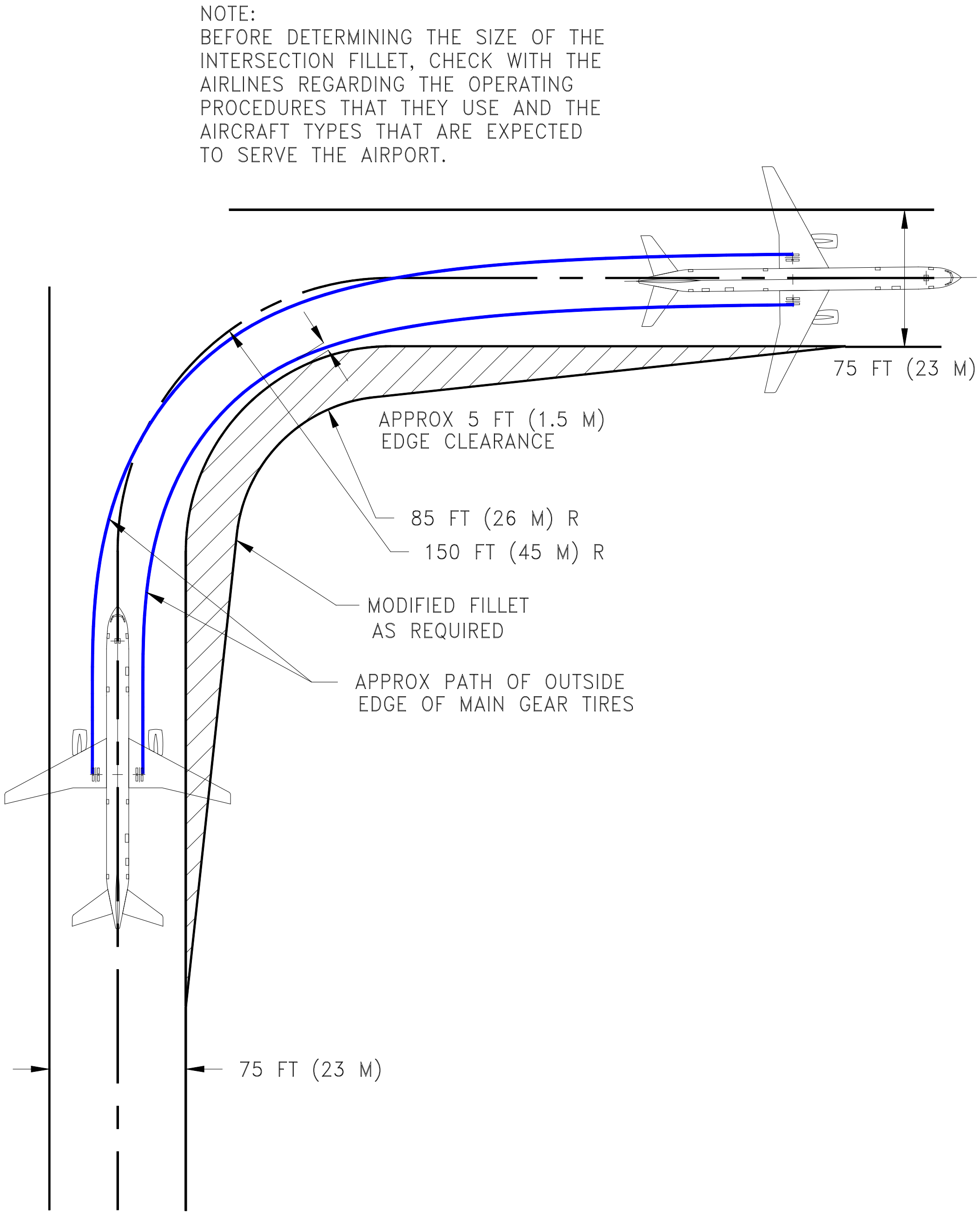
NOSE GEAR FOLLOWING CENTER LINE OF TURN

4.5.2 Runway and Taxiway Turn Paths - Runway-to-Taxiway, More Than 90 Degrees: Model 757-300



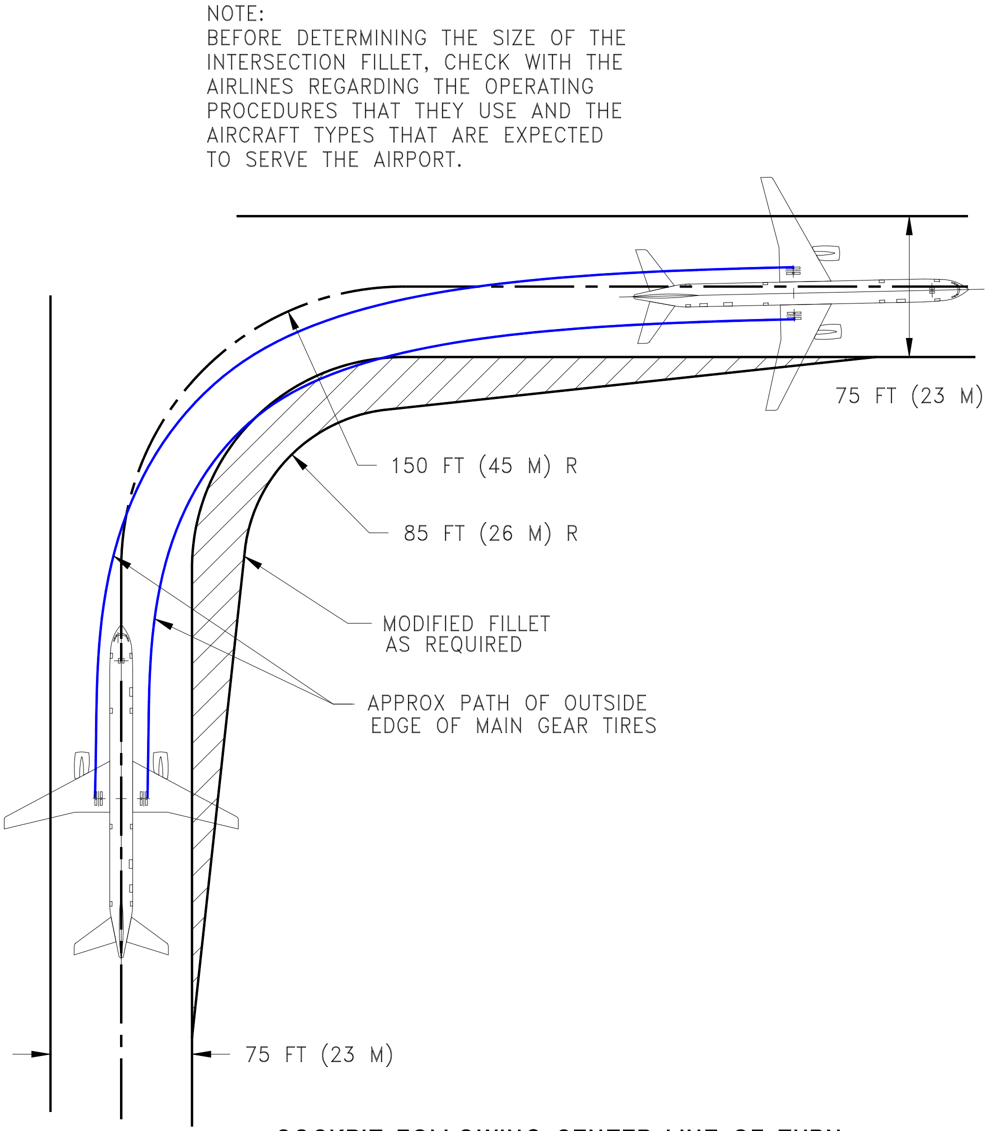
NOSE GEAR FOLLOWING CENTER LINE OF TURN

4.5.3 Runway and Taxiway Turn Paths - Taxiway-to-Taxiway, 90 Degrees, Nose Gear Tracks Centerline: Model 757-300



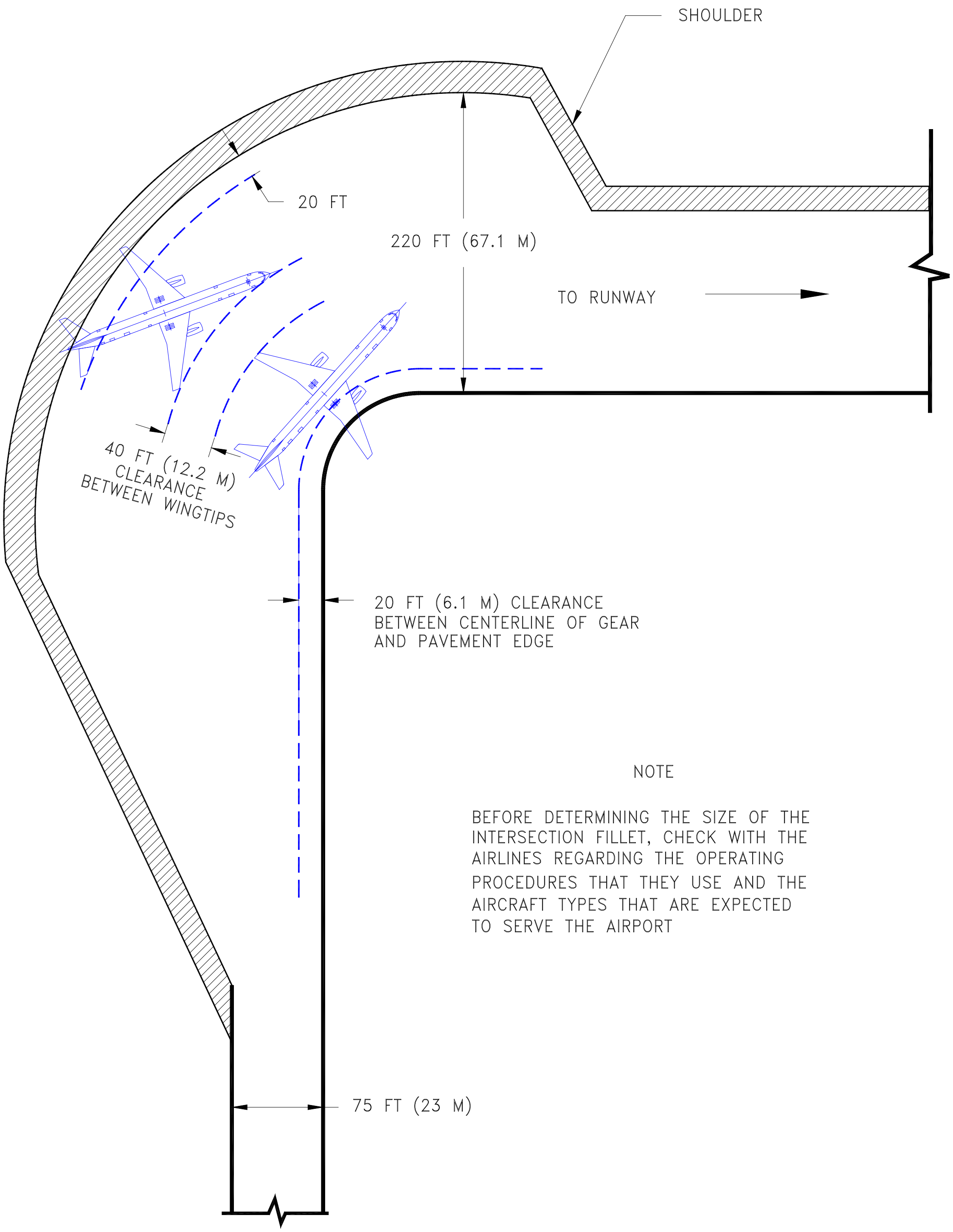
NOSE GEAR FOLLOWING CENTER LINE OF TURN

4.5.4 Runway and Taxiway Turn Paths - Taxiway-to-Taxiway, 90 Degrees, Cockpit Tracks Centerline: Model 757-300



COCKPIT FOLLOWING CENTER LINE OF TURN

4.6 RUNWAY HOLDING BAY: MODEL 757-300



5.0 TERMINAL SERVICING

During turnaround at the terminal, certain services must be performed on the aircraft, usually within a given time, to meet flight schedules. This section shows service vehicle arrangements, schedules, locations of service points, and typical service requirements. The data presented in this section reflect ideal conditions for a single airplane. Service requirements may vary according to airplane condition and airline procedure.

Section 5.1 shows typical arrangements of ground support equipment during turnaround. As noted, if the auxiliary power unit (APU) is used, the electrical, air start, and air-conditioning service vehicles would not be required. Passenger loading bridges or portable passenger stairs could be used to load or unload passengers.

Sections 5.2 and 5.3 show typical service times at the terminal. These charts give typical schedules for performing service on the airplane within a given time. Service times could be rearranged to suit availability of personnel, airplane configuration, and degree of service required.

Section 5.4 shows the locations of ground service connections in graphic and in tabular forms. Typical capacities and service requirements are shown in the tables. Services with requirements that vary with conditions are described in subsequent sections.

Section 5.5 shows typical sea level air pressure and flow requirements for starting different engines. The curves are based on an engine start time of 90 seconds.

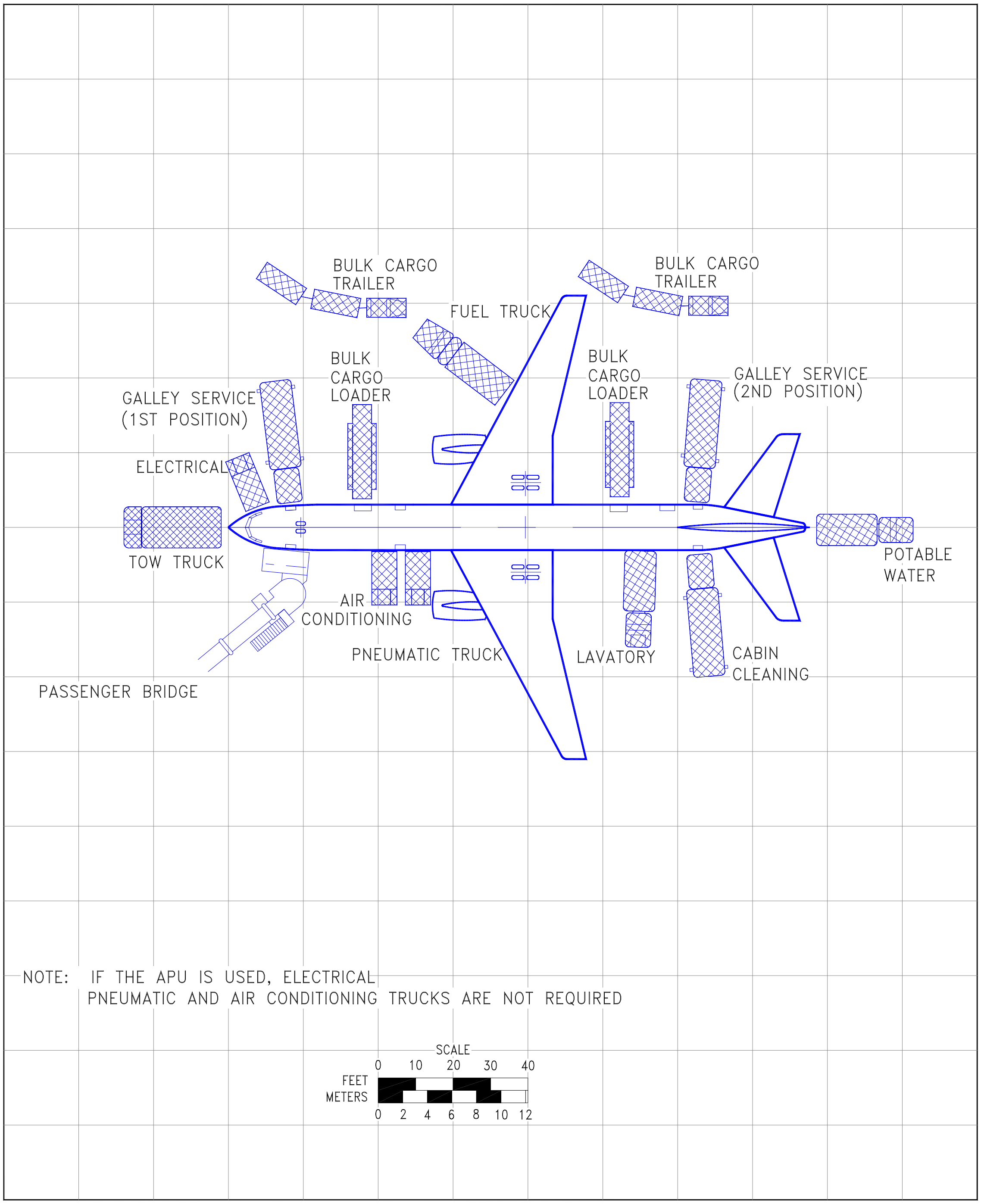
Section 5.6 shows air conditioning requirements for heating and cooling (pull-down and pull-up) using ground conditioned air. The curves show airflow requirements to heat or cool the airplane within a given time at ambient conditions.

Section 5.7 shows air conditioning requirements for heating and cooling to maintain a constant cabin air temperature using low pressure conditioned air. This conditioned air is supplied through an 8-in ground air connection (GAC) directly to the passenger cabin, bypassing the air cycle machines.

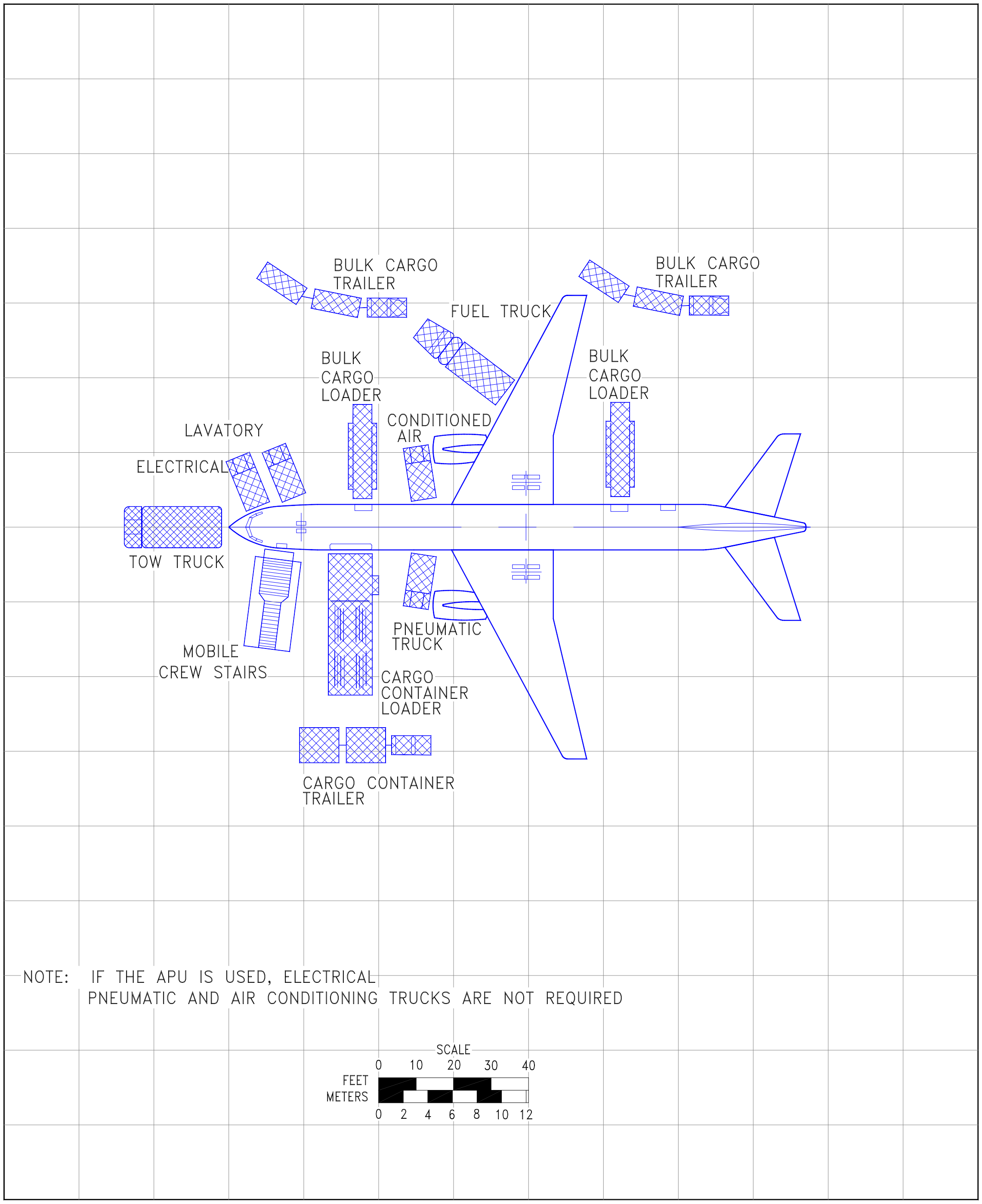
Section 5.8 shows ground towing requirements for various ground surface conditions.

5.1 AIRPLANE SERVICING ARRANGEMENT - TYPICAL TURNAROUND

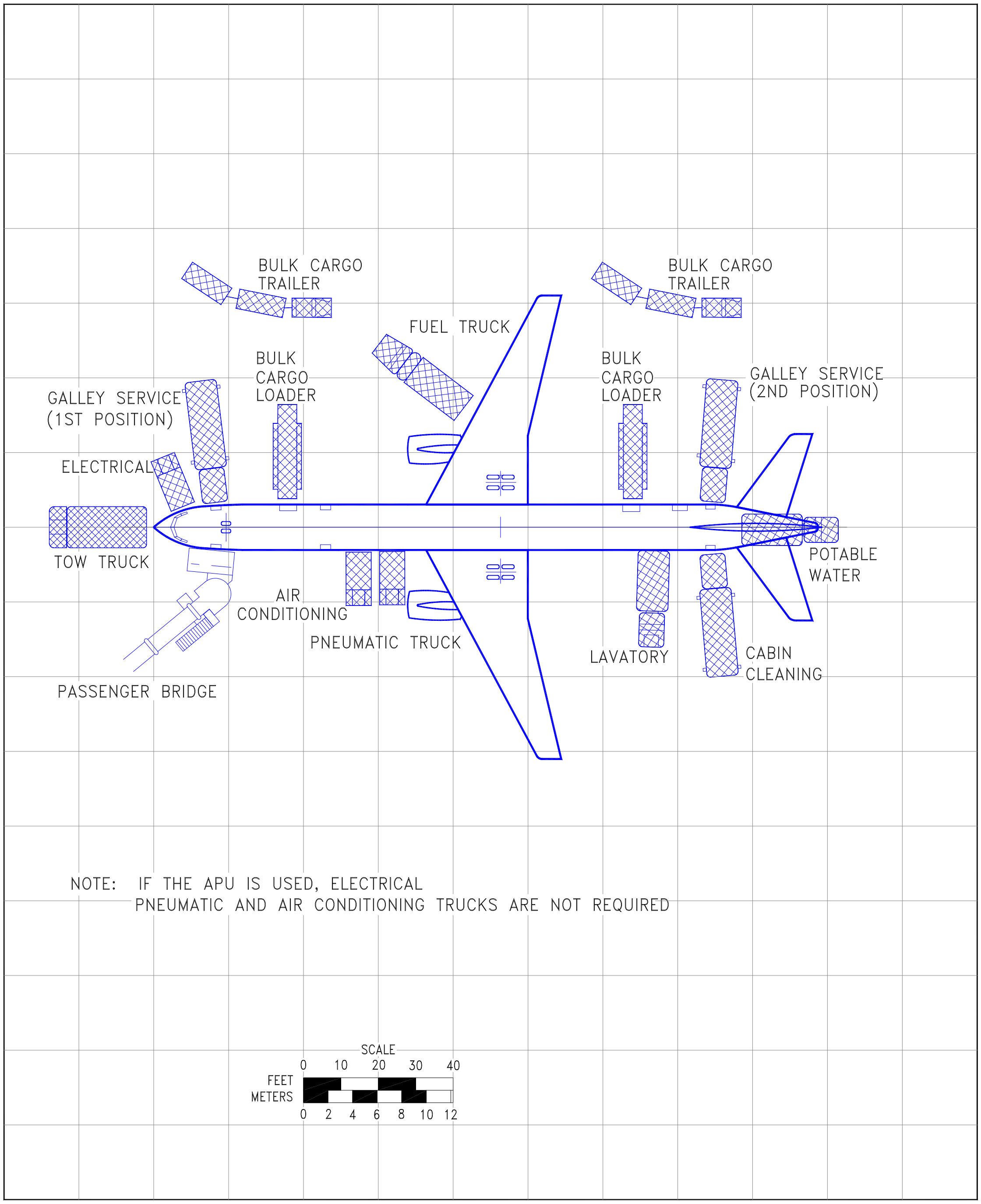
5.1.1 Airplane Servicing Arrangement - Typical Turnaround: Model 757-200



5.1.2 Airplane Servicing Arrangement - Typical Turnaround: Model 757-200PF

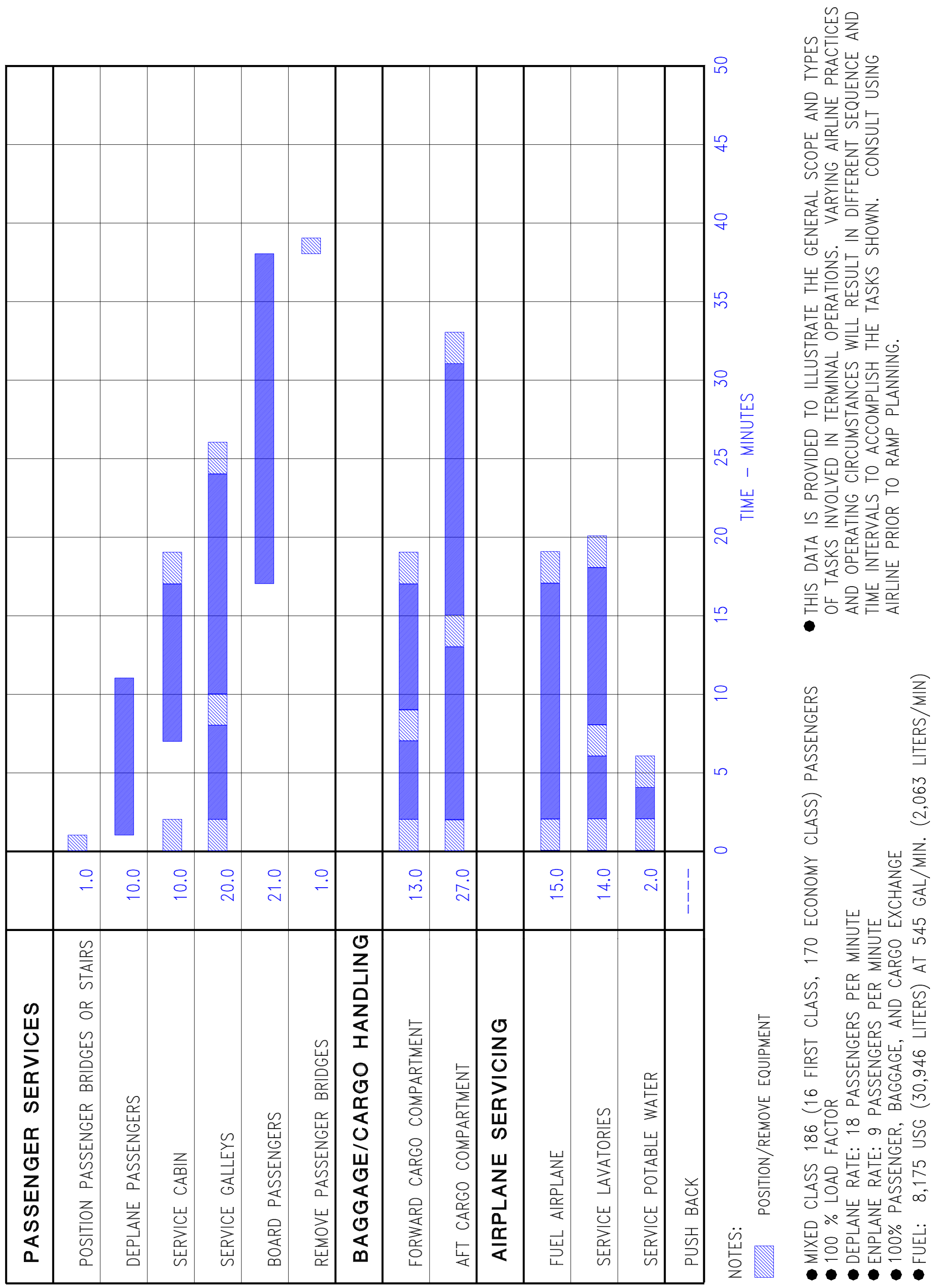


5.1.3 Airplane Servicing Arrangement - Typical Turnaround: Model 757-300

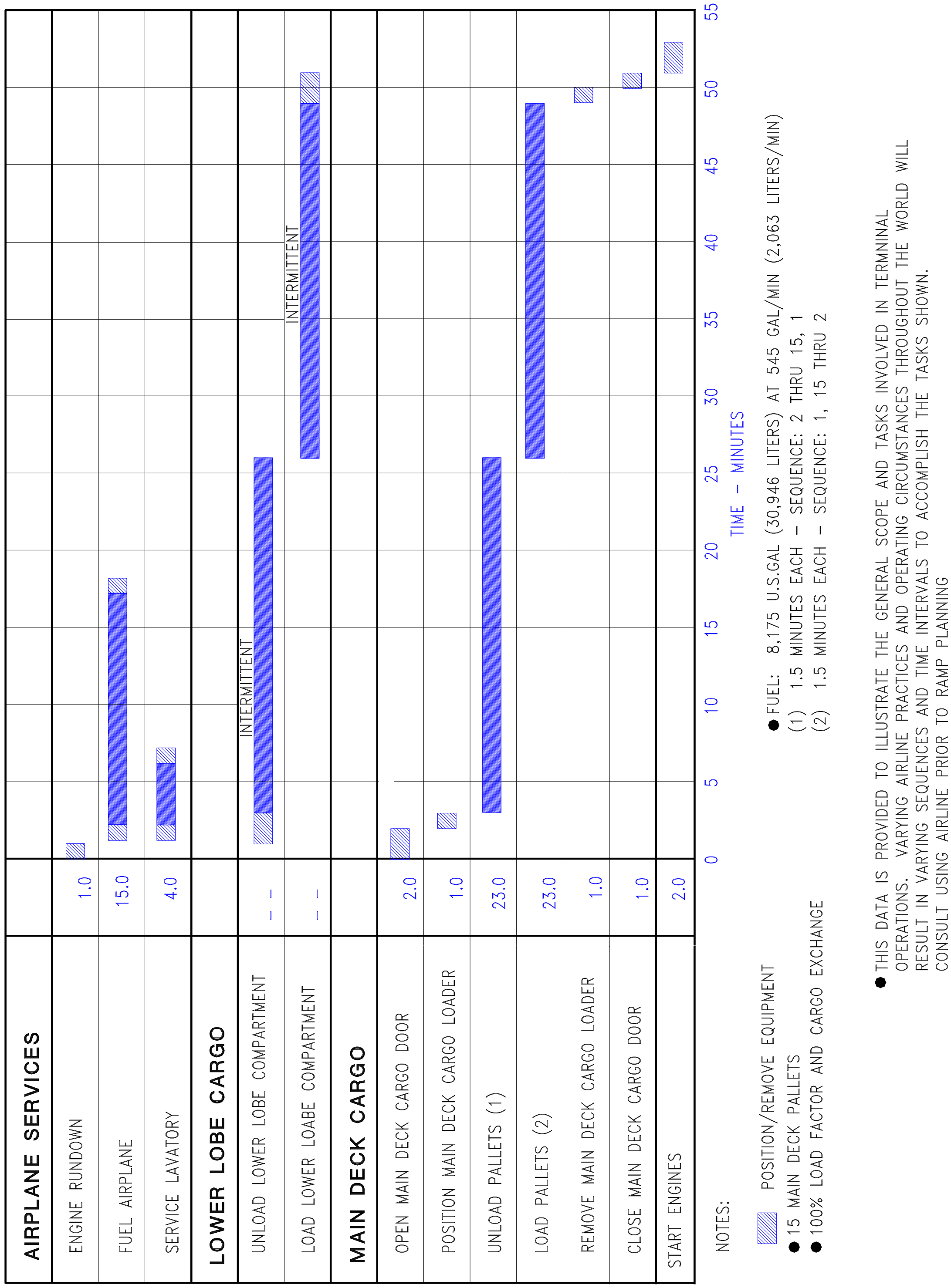


5.2 TERMINAL OPERATIONS - TURNAROUND STATION

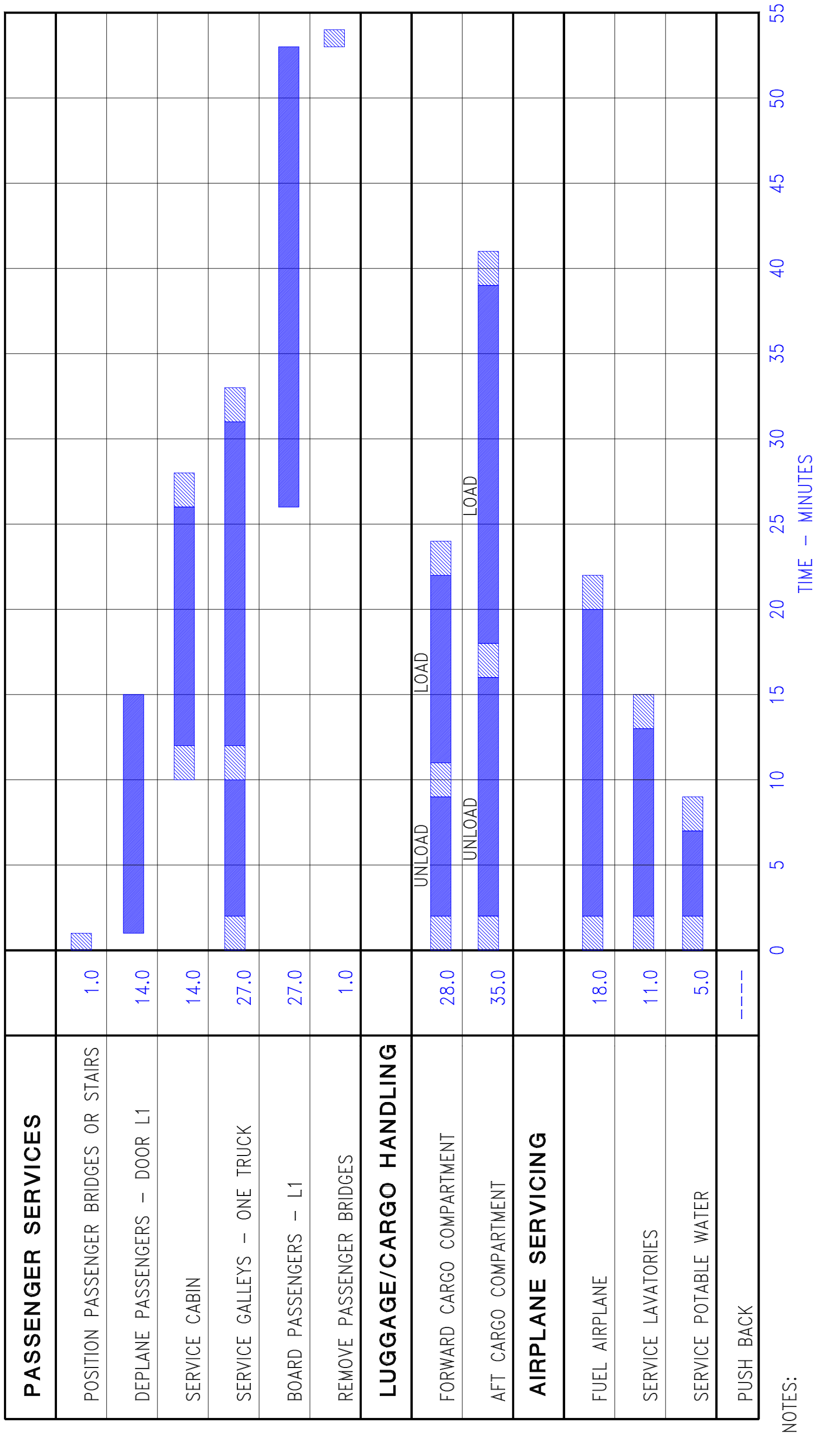
5.2.1 Terminal Operations - Turnaround Station: Model 757-200



5.2.2 Terminal Operations - Turnaround Station: Model 757-200PF



5.2.3 Terminal Operations - Turnaround Station: Model 757-300

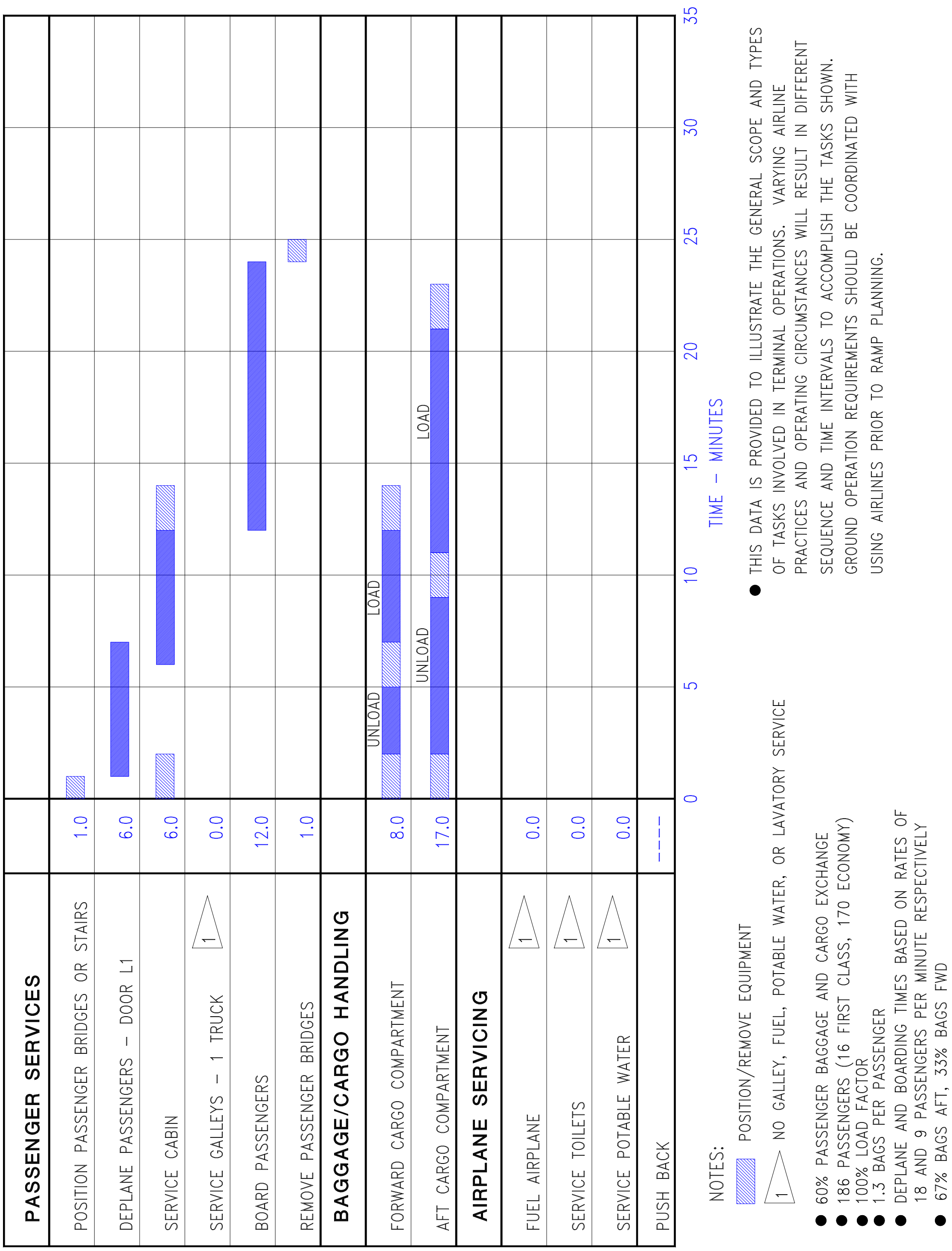


NOTES:

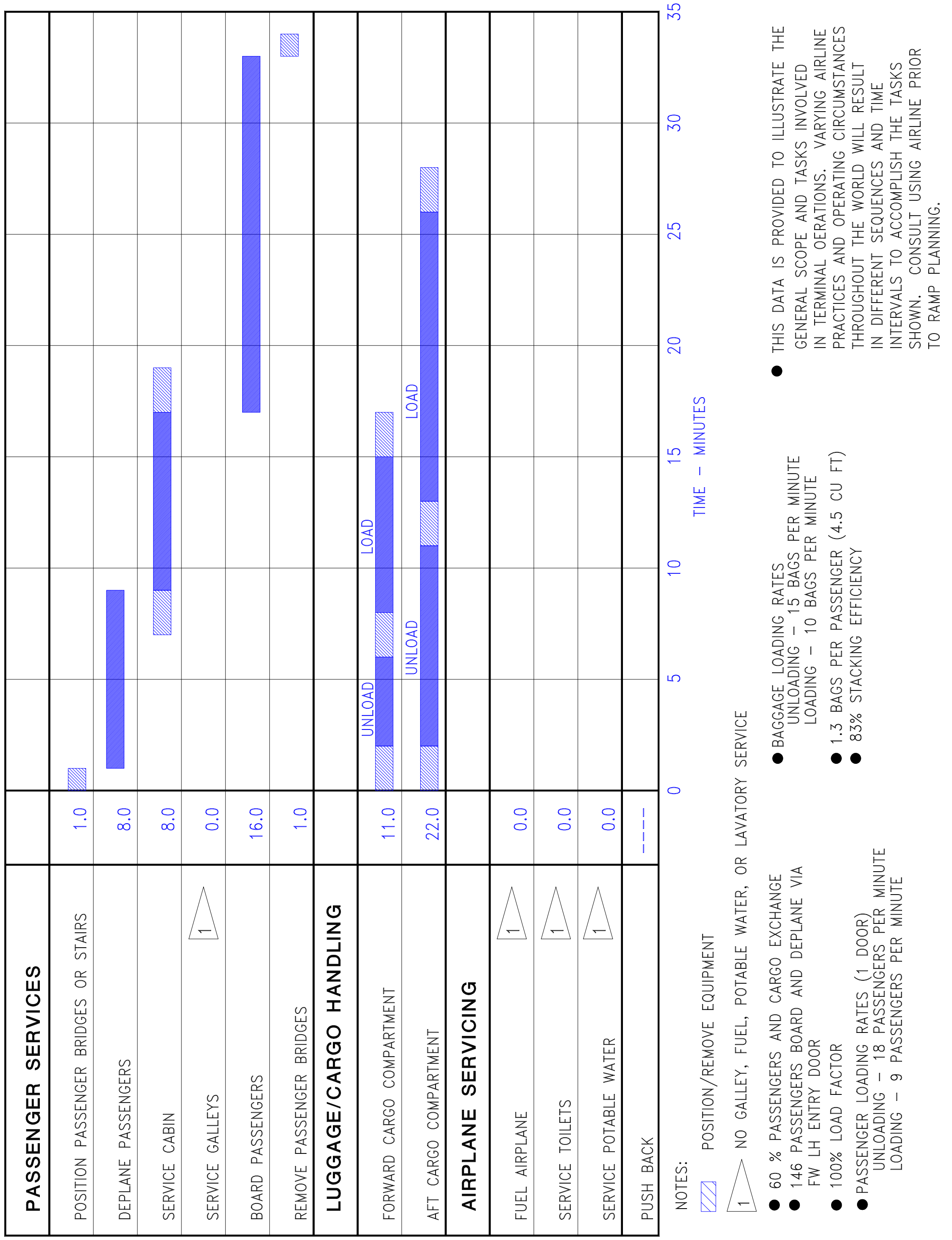
- POSITION/REMOVE EQUIPMENT (hatched)
- 243 PASSENGERS BOARD AND DEPLANE VIA FWD LH ENTRY DOOR
- 100% LOAD FACTOR
- 100% PASSENGER AND BAGGAGE EXCHANGE, NO CARGO EXCHANGE
- ASSUMES MECHANIZED CARGO HANDLING EQUIPMENT (FWD AND AFT)
- FUEL: 9600 USG AT 545 GAL/MIN.
- PASSENGER LOADING RATES (ONE DOOR)
  DEPLANE RATE: 18 PASSENGERS PER MINUTE
  ENPLANE RATE: 9 PASSENGERS PER MINUTE
- BAGGAGE LOADING RATES
  UNLOADING - 15 BAGS PER MINUTE
  LOADING - 10 BAGS PER MINUTE
- 1.3 BAGS PER PASSENGER (4.5 CU FT)
  83% STACKING EFFICIENCY
  67% BAGS AFT, 33% BAGS FWD
- ONE GALLEY TRUCK USED
- THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN VARYING SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. CONSULT USING AIRLINE PRIOR TO RAMP PLANNING

5.3 TERMINAL OPERATIONS - EN ROUTE STATION

5.3.1 Terminal Operations - En Route Station: Model 757-200

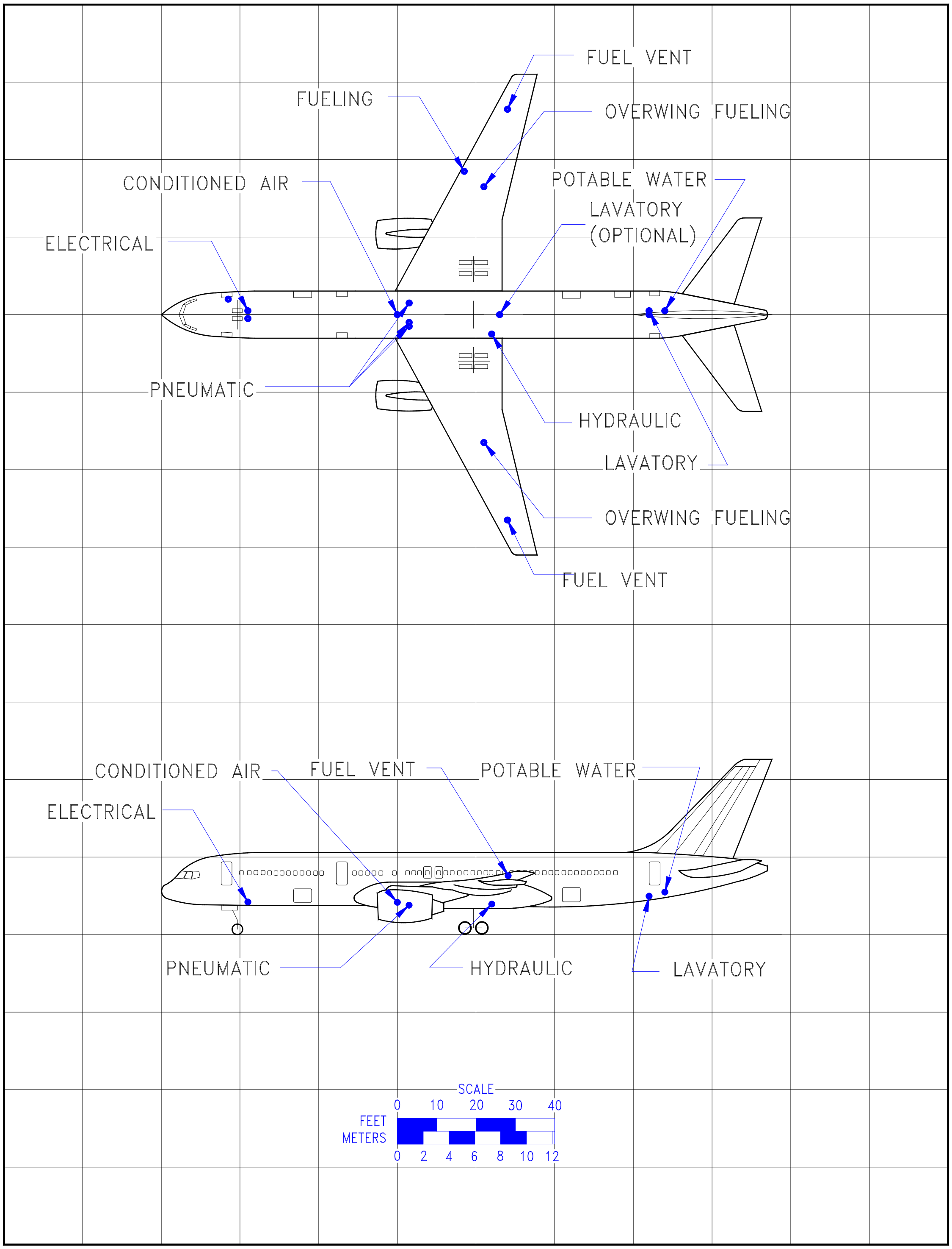


5.3.2 Terminal Operations - En Route Station: Model 757-300

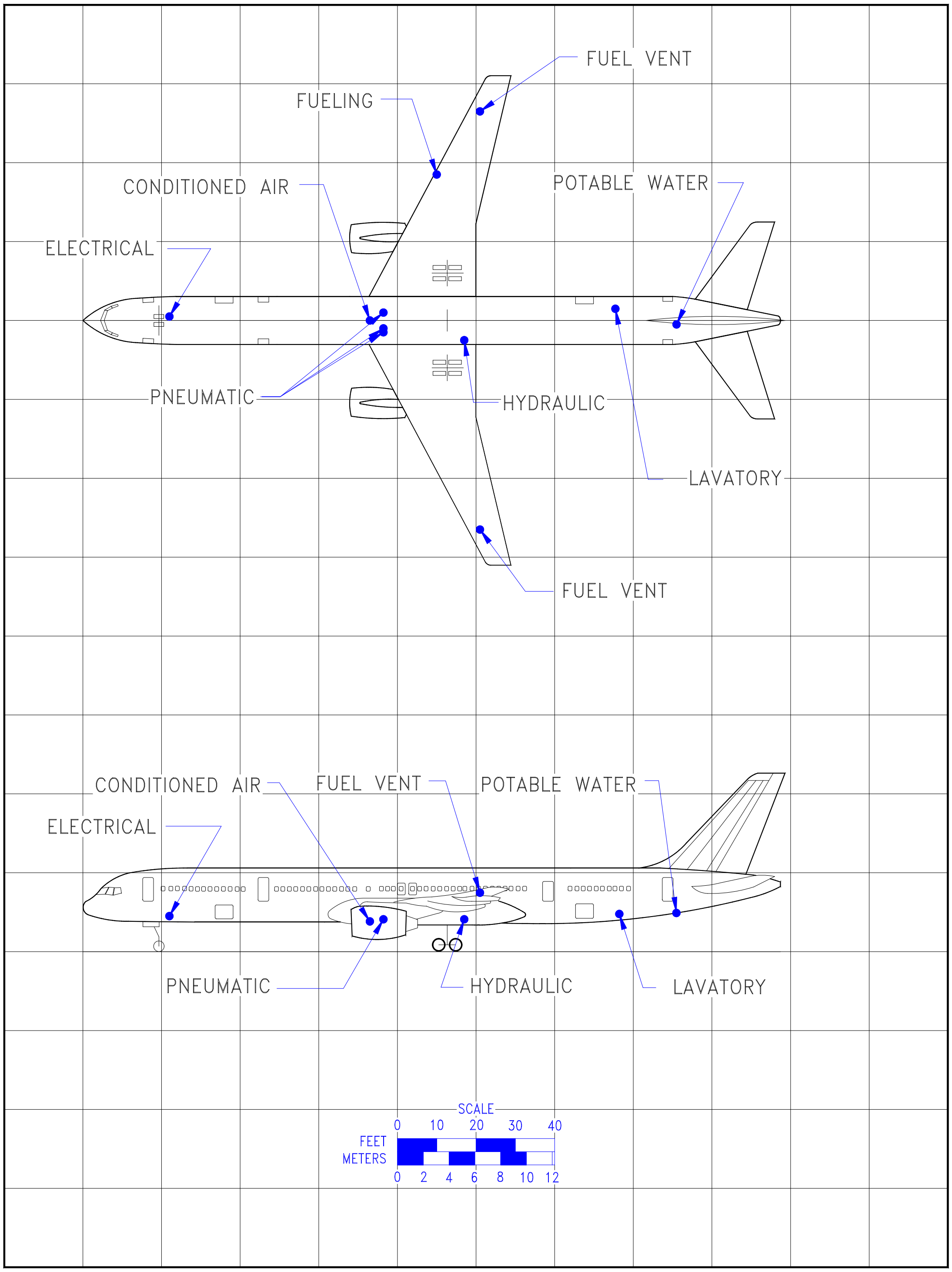


5.4 GROUND SERVICING CONNECTIONS

5.4.1 Ground Service Connections: Model 757-200



5.4.2 Ground Service Connections: Model 757-300



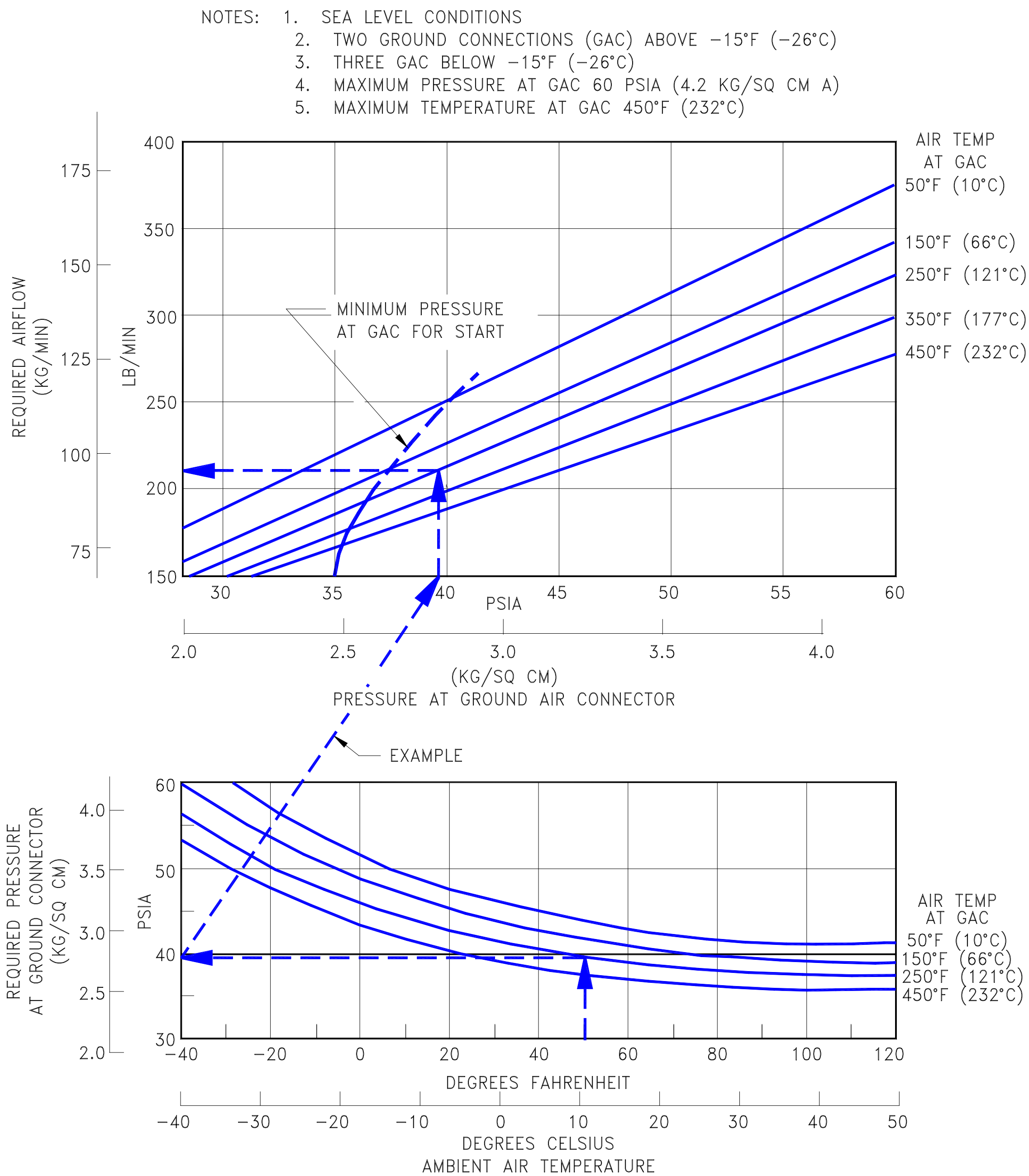
5.4.3 Ground Service Connections: Model 757-200,-300

SYSTEM	MODEL	DISTANCE AFT OF		DISTANCE FROM AIRPLANE CENTERLINE				MAX HEIGHT ABOVE	
		NOSE		LH SIDE		RH SIDE		GROUND	
		FT-IN	M	FT-IN	M	FT-IN	M	FT-IN	M
CONDITIONED AIR ONE 8-IN (20.3 CM) PORT	757-200	60	18.3	0	0	0	0	7	2.1
	757-300	73	22.4	0	0	0	0	7	2.1
ELECTRICAL ONE CONNECTION - 90 KVA, 200/115 V AC 400 HZ, 3-PHASE EACH	757-200	22	6.6	-	-	1	0.3	8	2.4
	757-300	22	6.6	-	-	1	0.3	8	2.4
FUEL TWO UNDERWING-PRESSURE CONNECTORS ON RIGHT WING (SEE SEC 2.2 FOR CAPACITIES) TWO OVERWING- GRAVITY PORTS *TOP OF THE WING FUEL VENTS	757-200	77	23.5	-	-	37	11.3	14	4.3
	757-300	90	27.5	-	-	37	11.3	14	4.3
	757-200	82	24.9	33	10.1	33	10.1	*	*
	757-300	95	29.1	33	10.1	33	10.1	*	*
	757-200	88	26.9	53	16.3	53	16.3	15	4.6
	757-300	101	30.1	53	16.3	53	16.3	15	4.6
HYDRAULIC TOTAL SYSTEM CAPACITY = 72 GAL (273 L) FILL PRESSURE = 150 PSIG (10.55 KG/CM^2)	757-200	84	25.6	5	1.5	-	-	12	3.7
	757-300	97	29.6	5	1.5	-	-	12	3.7
LAVATORY TWO CONNECTIONS – 757-200 * OVERWING EXIT AIRPLANE ** FOUR-DOOR AIRPLANE ONE SERVICE CONNECTION - 757-200PF ONE SERVICE CONNECTION - 757-300	757-200	22	6.7	1	0.3	-	-	8	2.4
		* 128	39.0	-	-	-	-	10	3.1
		** 86	26.2	0	0	0	0	7	2.1
	757-200PF	17	5.0	0	0	0	0	9	2.9
	757-300	135	41.2	1	0.3	-	-	12	3.7
PNEUMATIC THREE 3-IN(7.6-CM) PORTS (RB211) TWO 3-IN (7.6-CM) PORTS (PW) ** RB211 ENGINES ONLY	757-200	**63	19.2	2	0.6	-	-	7	2.1
		63	19.2	-	-	3	0.9	7	2.1
		63	19.2	3	0.9	-	-	7	2.1
	757-300	**76	23.3	2	0.6	-	-	7	2.1
		76	23.3	-	-	2	0.6	7	2.1
		76	23.3	3	0.9	-	-	7	2.1
POTABLE WATER ONE SERVICE CONNECTION * OVERWING-EXIT AIRPLANE ** FOUR-DOOR AIRPLANE	757-200	* 124	37.8	1	0.3	-	-	10	3.1
		**124	37.8	0	0	0	0	10	3.1
	757-300	147	44.8	1	0.3	-	-	13	4.0

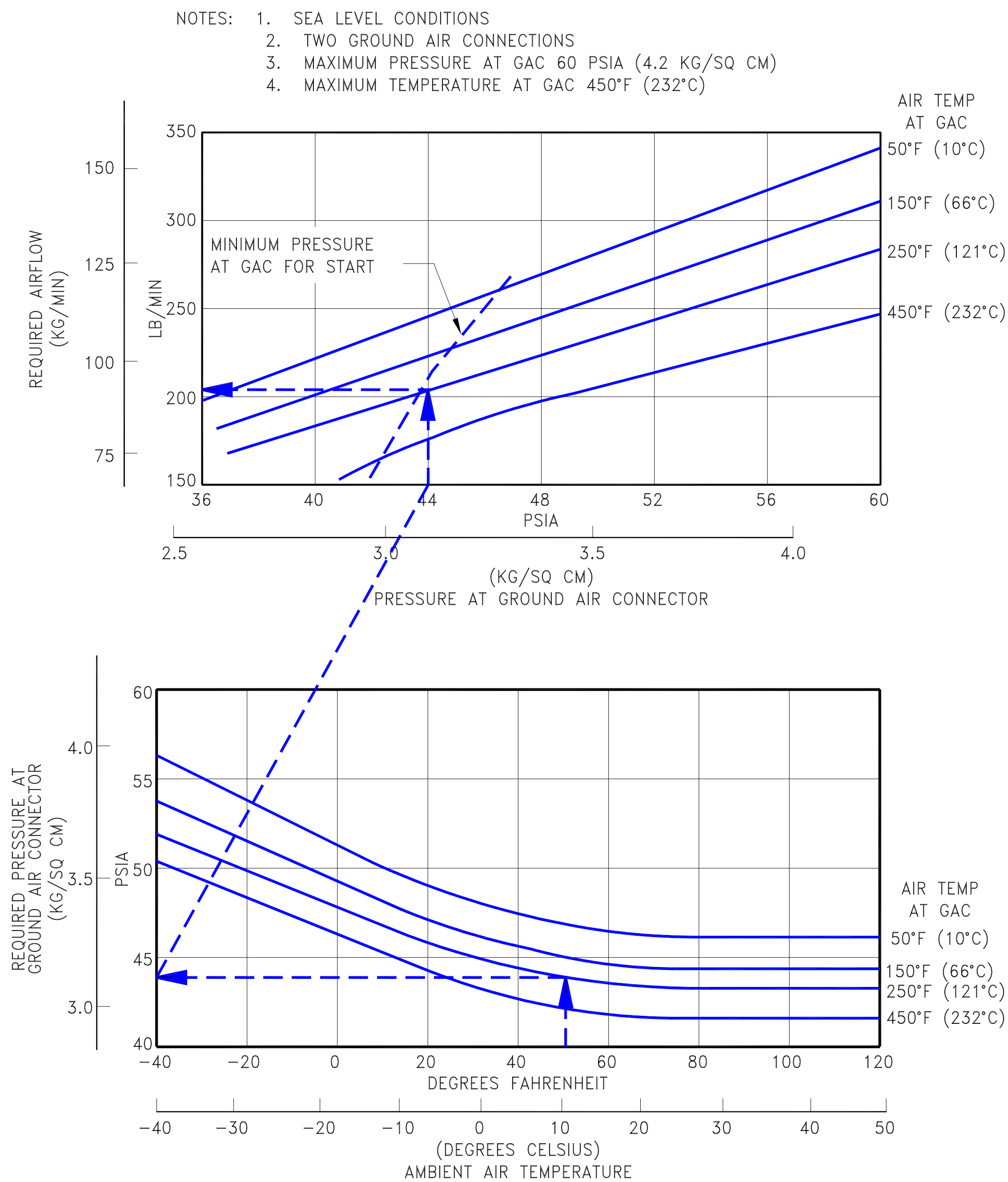
NOTE: DISTANCES ROUNDED TO THE NEAREST FOOT AND 0.1 METER.

5.5 ENGINE STARTING PNEUMATIC REQUIREMENTS

5.5.1 Engine Start Pneumatic Requirements - Sea Level: Model 757-200, -300 (Rolls Royce Engines)

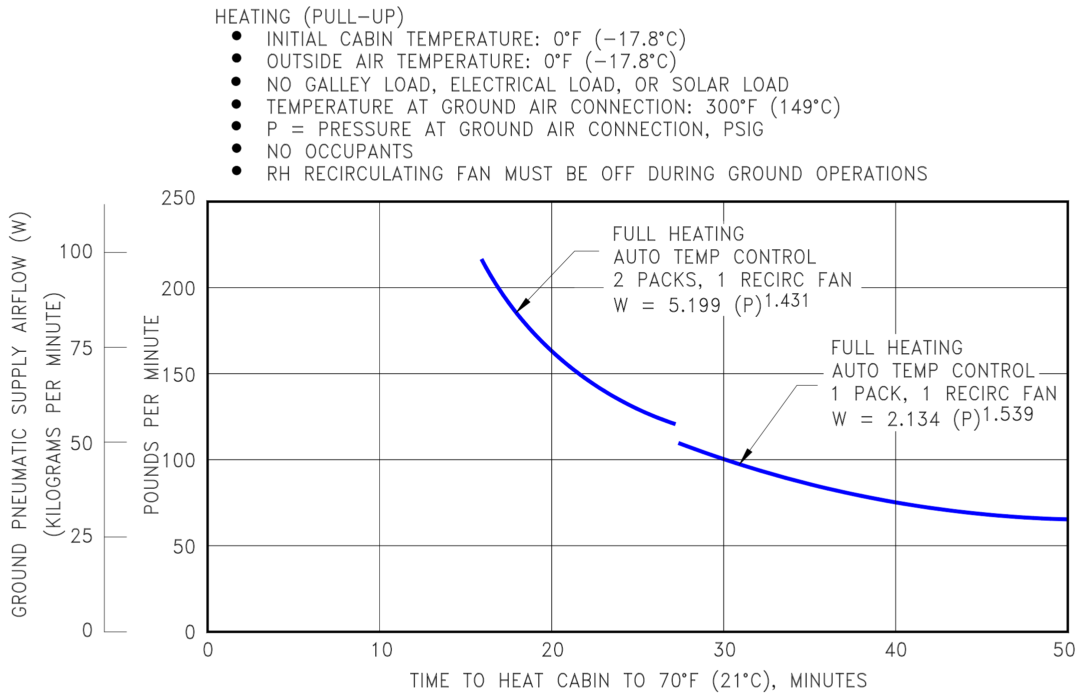


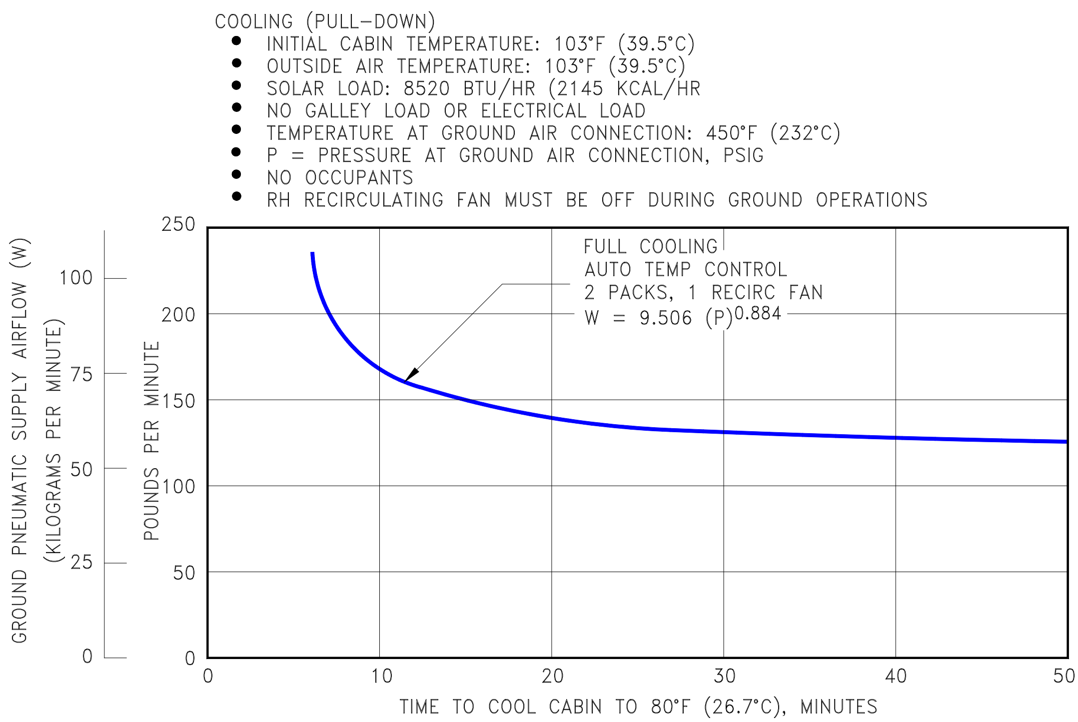
5.5.2 Engine Start Pneumatic Requirements - Sea Level: Model 757-200, -300 (Pratt & Whitney Engines)



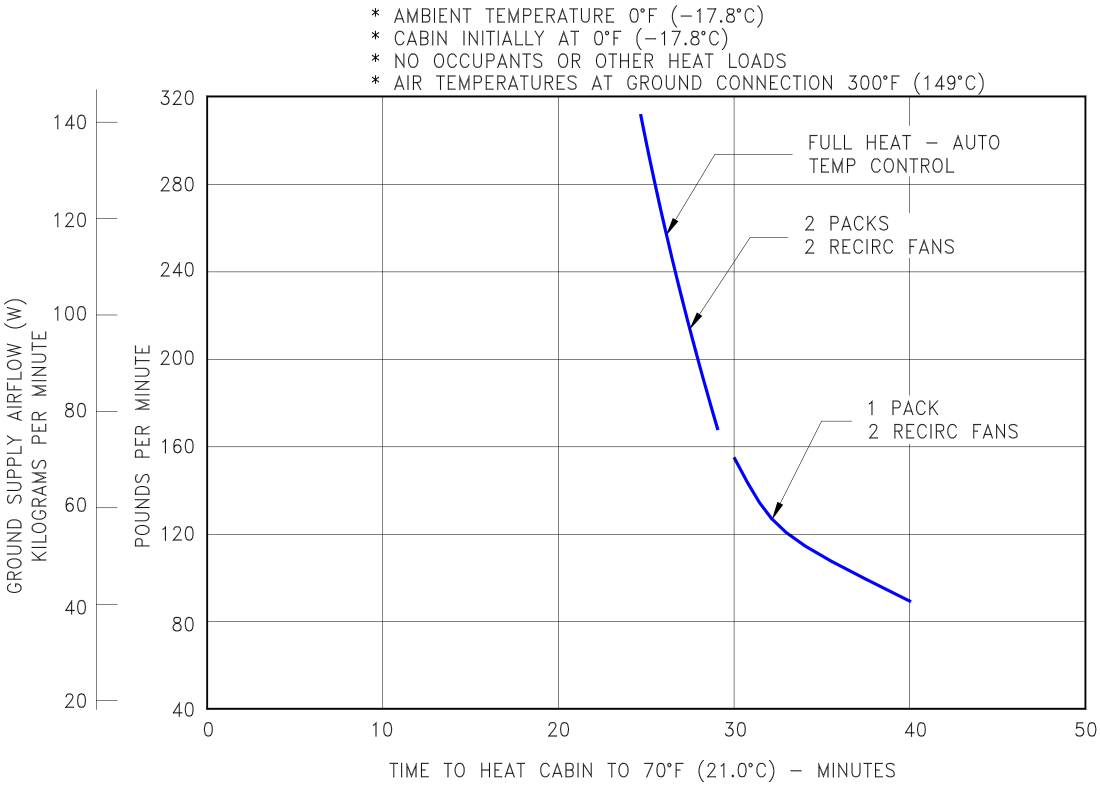
5.6 GROUND PNEUMATIC POWER REQUIREMENTS

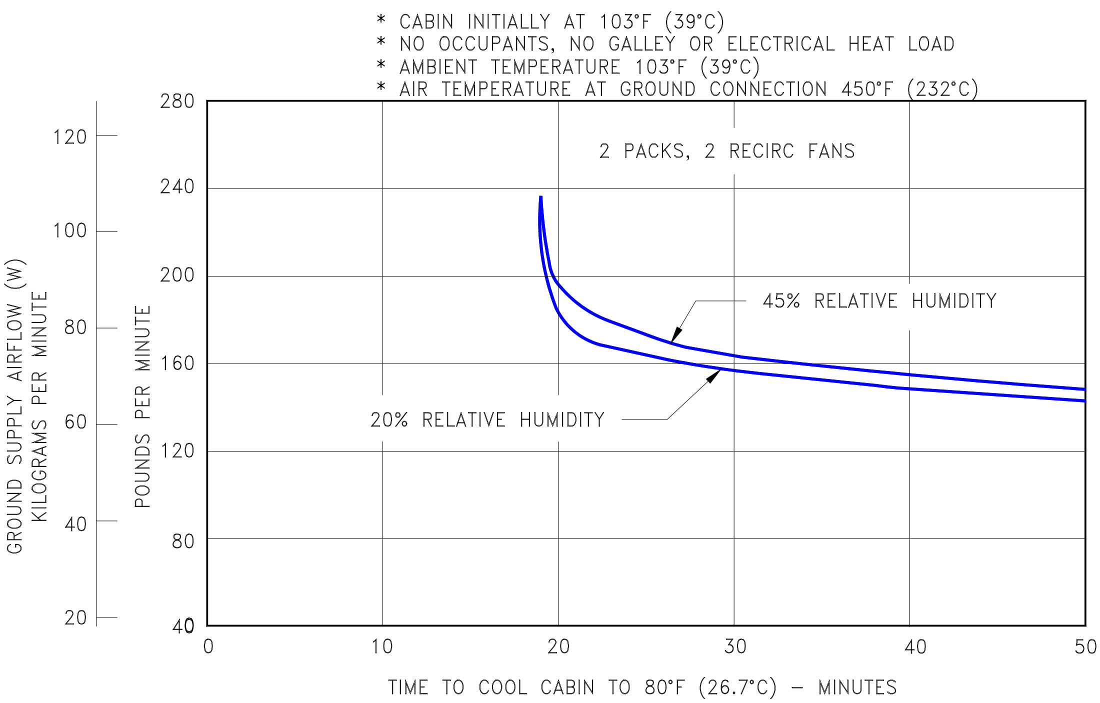
5.6.1 Ground Pneumatic Power Requirements – Heating & Cooling: Model 757-200





5.6.2 Ground Pneumatic Power Requirements Heating & Cooling: Model 757-300



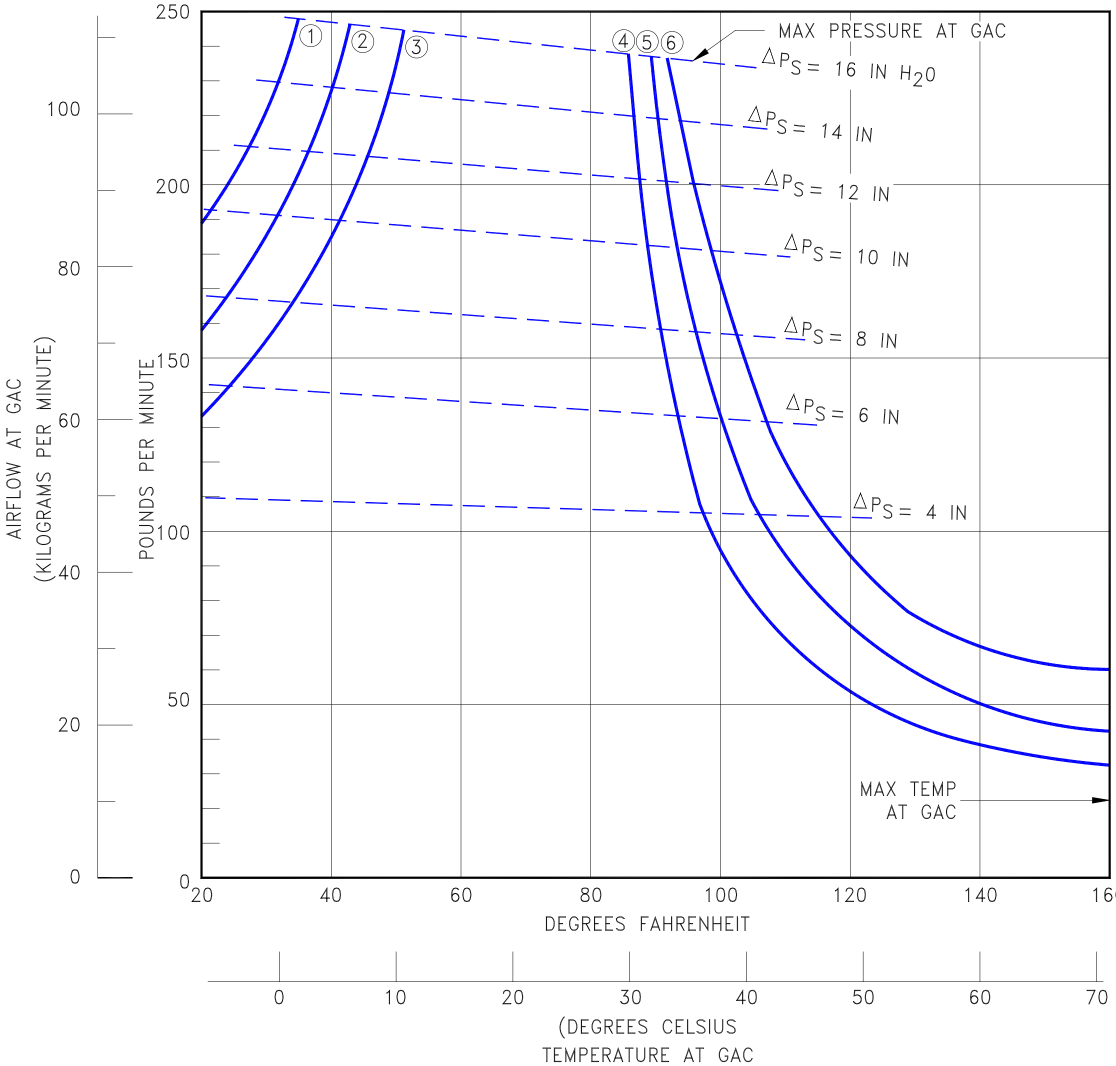


5.7 CONDITIONED AIR REQUIREMENTS

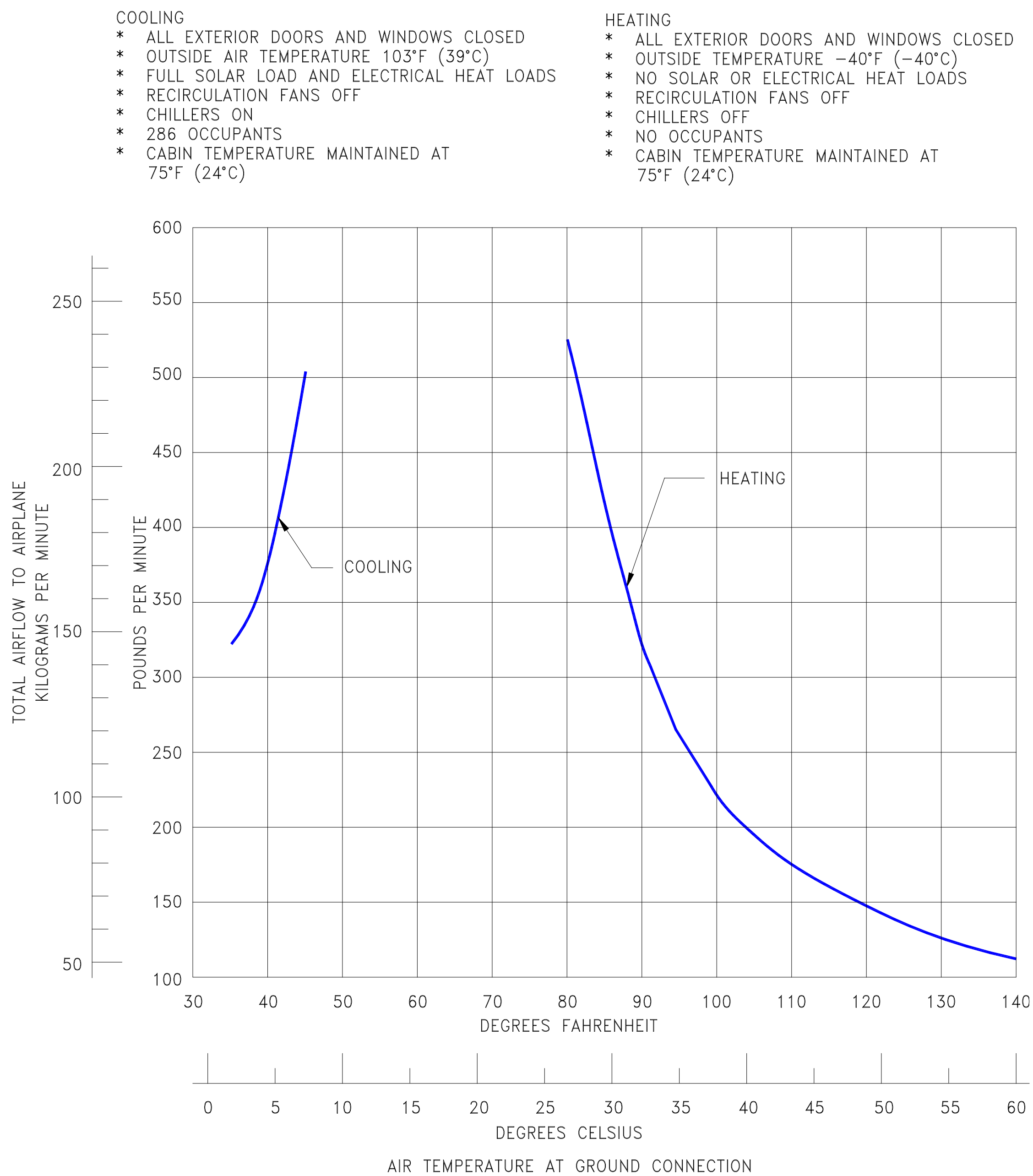
5.7.1 Conditioned Air Flow Requirements - Steady State Airflow: Model 757-200

NOTES:
1. ALL DATA WITH LH RECIRCULATING FAN ON FOR ELECTRONIC COOLING AIRFLOW
2. GROUND OPERATION IS LIMITED TO ONE RECIRCULATING FAN OPERATION
3. MAXIMUM STATIC PRESSURE Δ PS AT 8-IN SUPPLY DUCT AT GROUND AIR CONNECTION (GAC) TO MIX MANIFOLD LIMITED TO 16 INCHES OF WATER.
4. MAXIMUM TEMPERATURE OF GAC SUPPLY FLOW TO MIX MANIFOLD IS 160°F

CONDITIONS	TAMB	SOLAR LOAD	ELECTRICAL LOAD	PASS	CABIN TEMPERATURE
①	103°F(39°C)	142 BTU/MIN	160 BTU/MIN	186	70°F(21°C)
②	103°F(39°C)	39 KG CAL/MIN	40 KG CAL/MIN	186	75°F(24°C)
③	103°F(39°C)	39 KG CAL/MIN	40 KG CAL/MIN	186	80°F(27°C)
④	0°F(−18°C)	0	0	0	75°F(24°C)
⑤	−20°F(−29°C)	0	0	0	75°F(24°C)
⑥	−40°F(−40°C)	0	0	0	75°F(24°C)

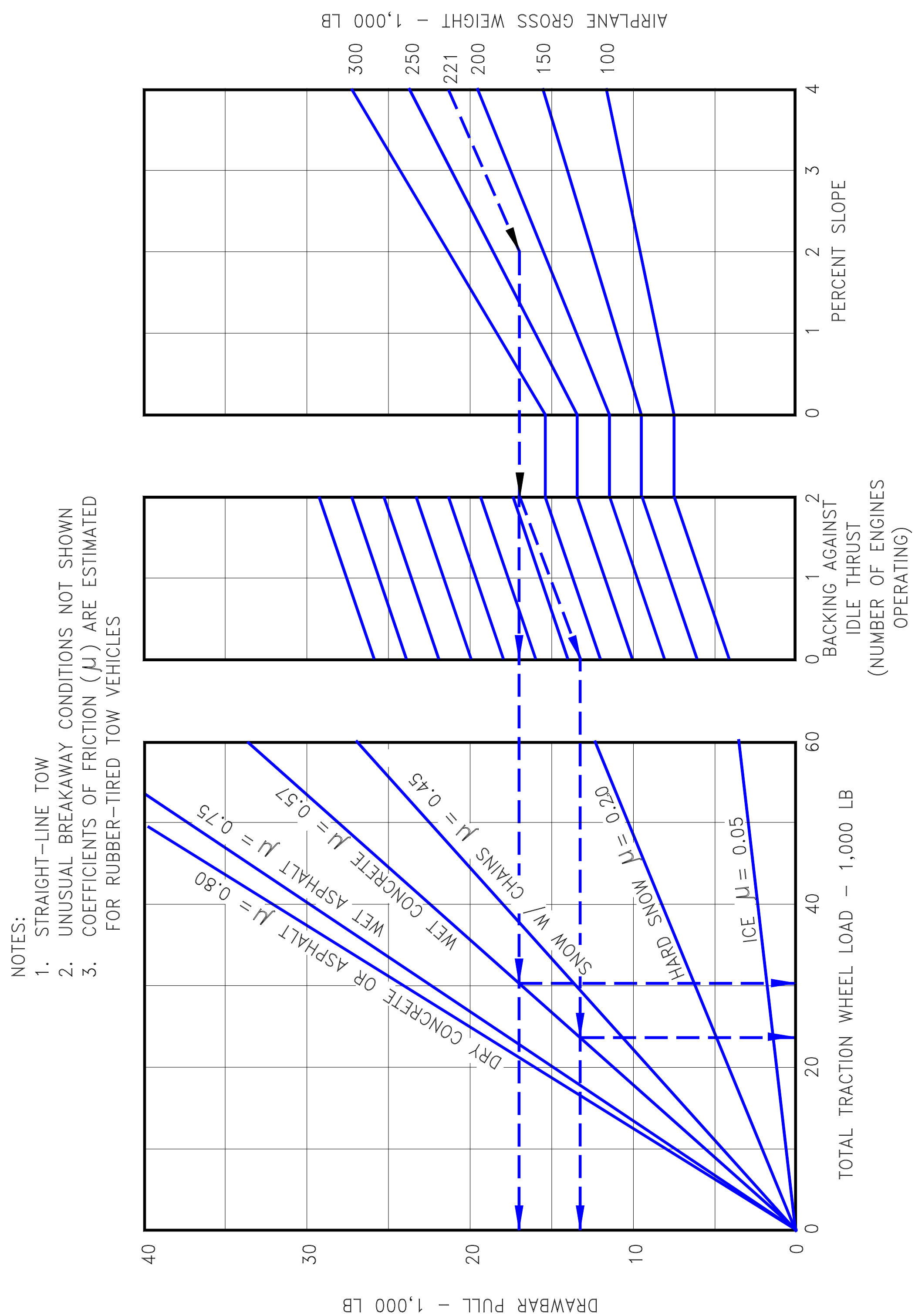


5.7.2 Conditioned Air Flow Requirements - Steady State Airflow: Model 757-300

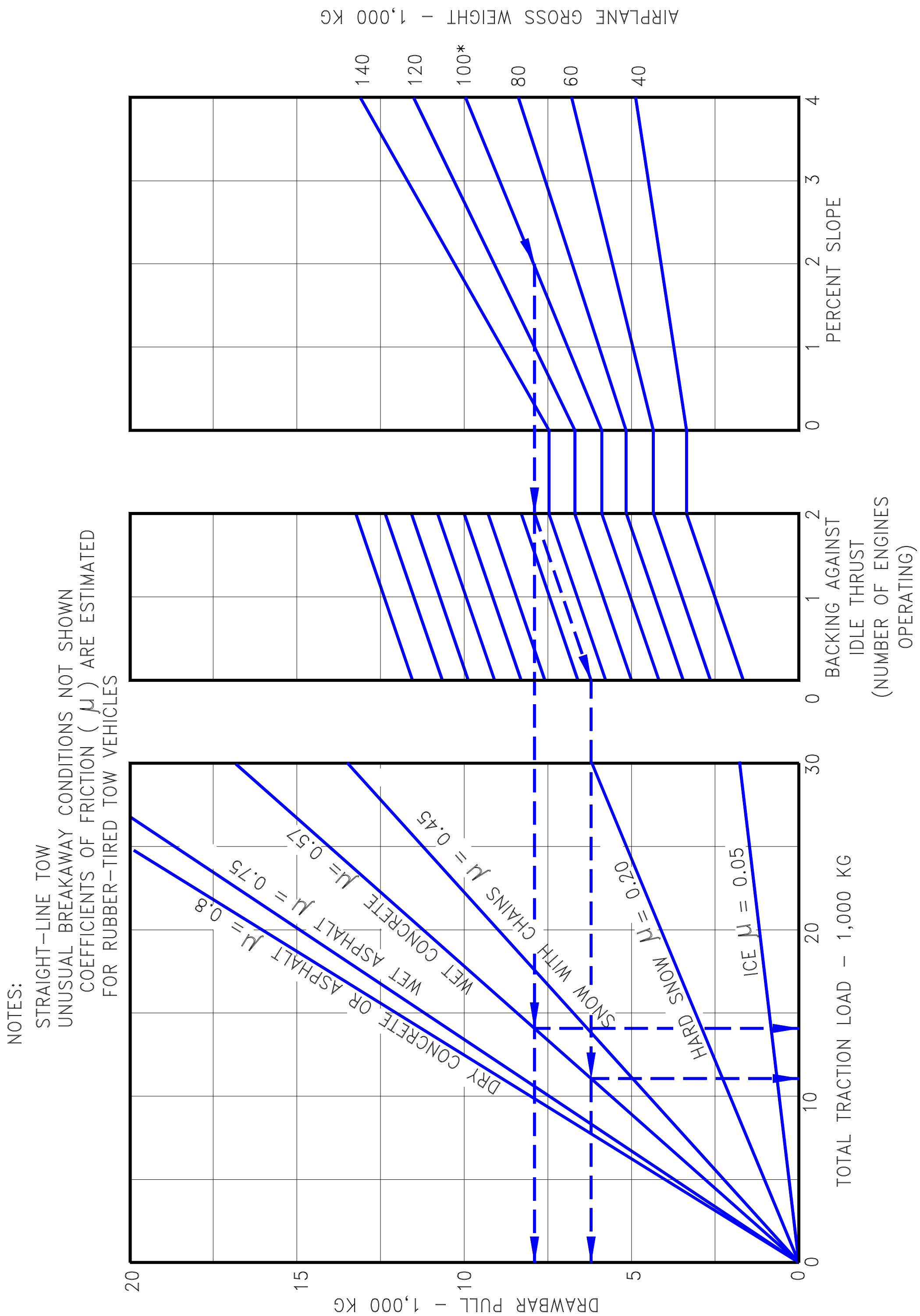


5.8 GROUND TOWING REQUIREMENTS

5.8.1 Ground Towing Requirements - English Units: Model 757-200, -300



5.8.2 Ground Towing Requirements - Metric Units: Model 757-200, -300



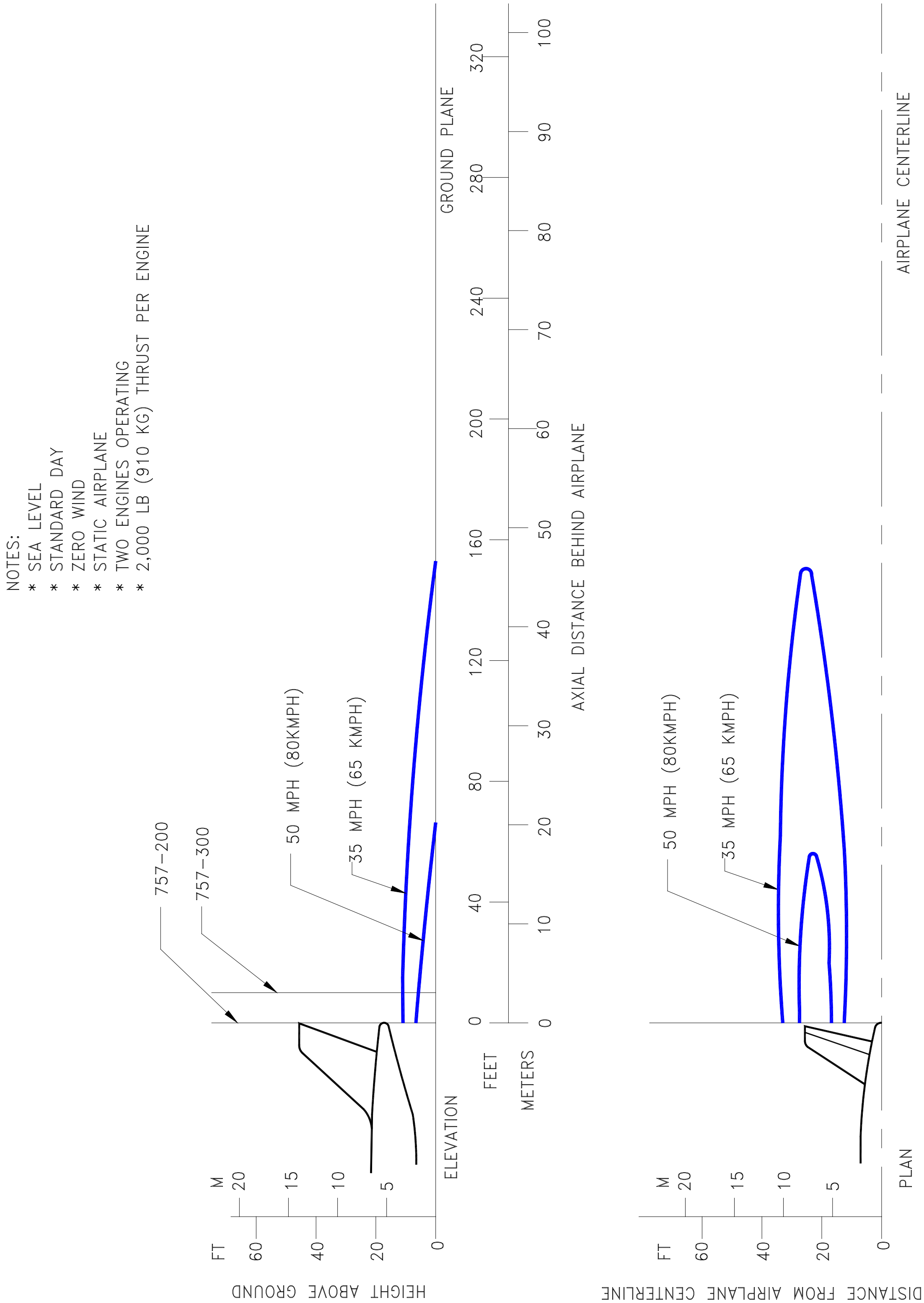
6.0 JET ENGINE WAKE AND NOISE DATA

6.1 JET ENGINE EXHAUST VELOCITIES AND TEMPERATURES

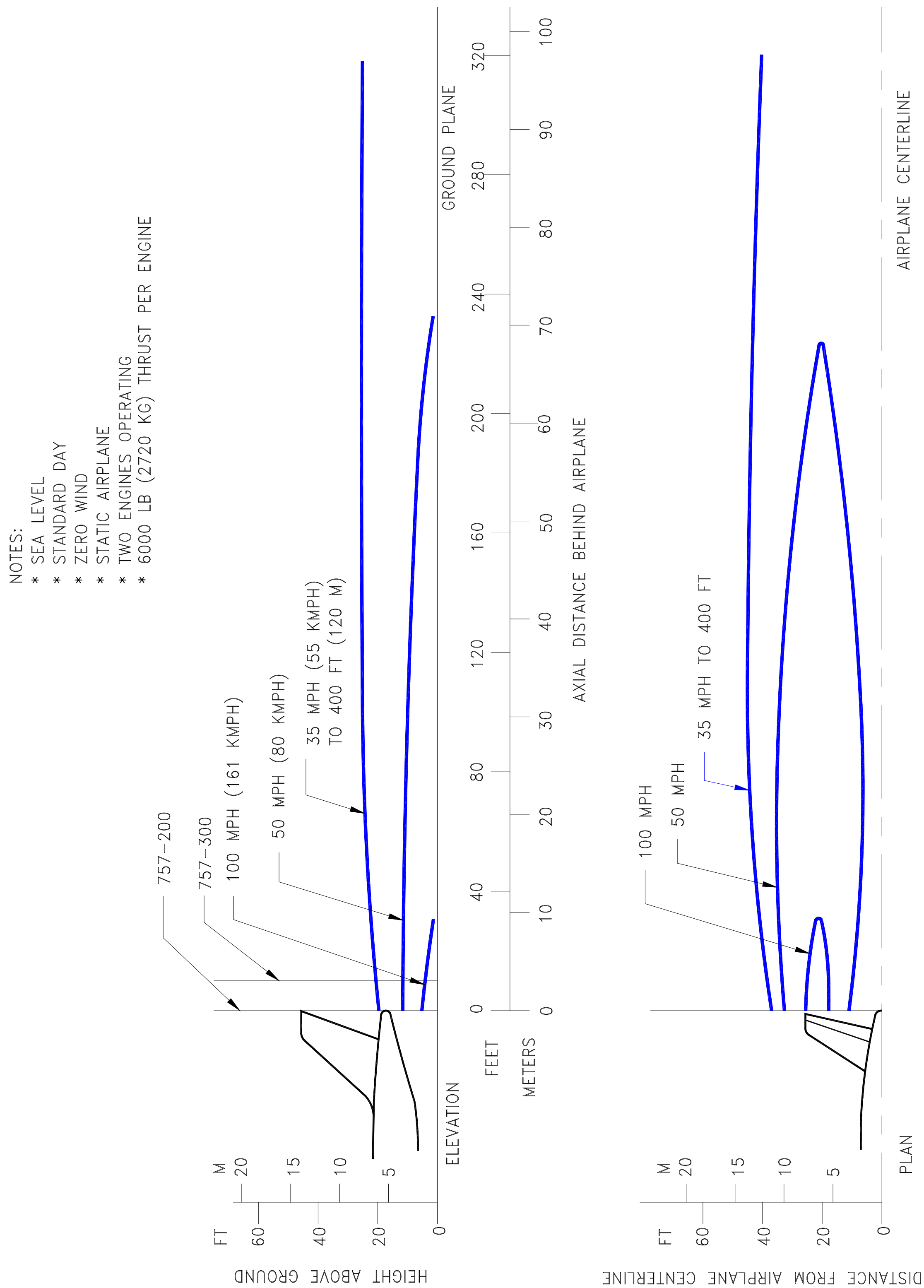
This section shows exhaust velocity and temperature contours aft of the 757 airplane. The contours were calculated from a standard computer analysis using three-dimensional viscous flow equations with mixing of primary, fan, and free-stream flow. The presence of the ground plane is included in the calculations as well as engine tilt and toe-in. Mixing of flows from the engines is also calculated. The analysis does not include thermal buoyancy effects which tend to elevate the jet wake above the ground plane. The buoyancy effects are considered to be small relative to the longitudinal velocity and therefore are not included.

The graphs show jet wake velocity and temperature contours for a representative engine. The results are valid for sea level, static, standard day conditions. The effect of wind on jet wakes was not included. There is evidence to show that a downwind or an upwind component does not simply add or subtract from the jet wake velocity, but rather carries the whole envelope in the direction of the wind. Crosswinds may carry the jet wake contour far to the side at large distances behind the airplane.

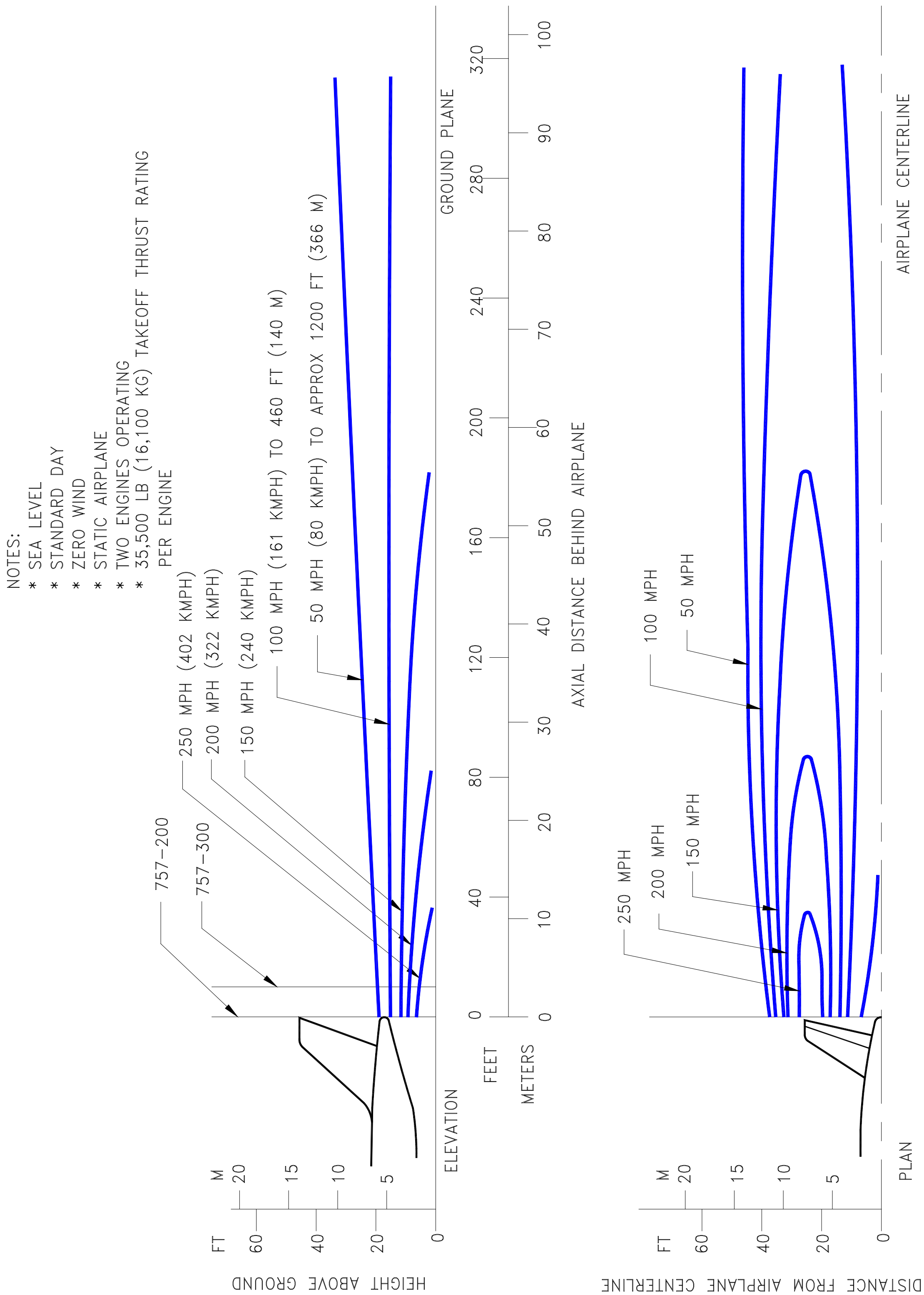
6.1.1 Predicted Jet Engine Exhaust Velocity Contours – Idle Thrust: Model 757-200, -300



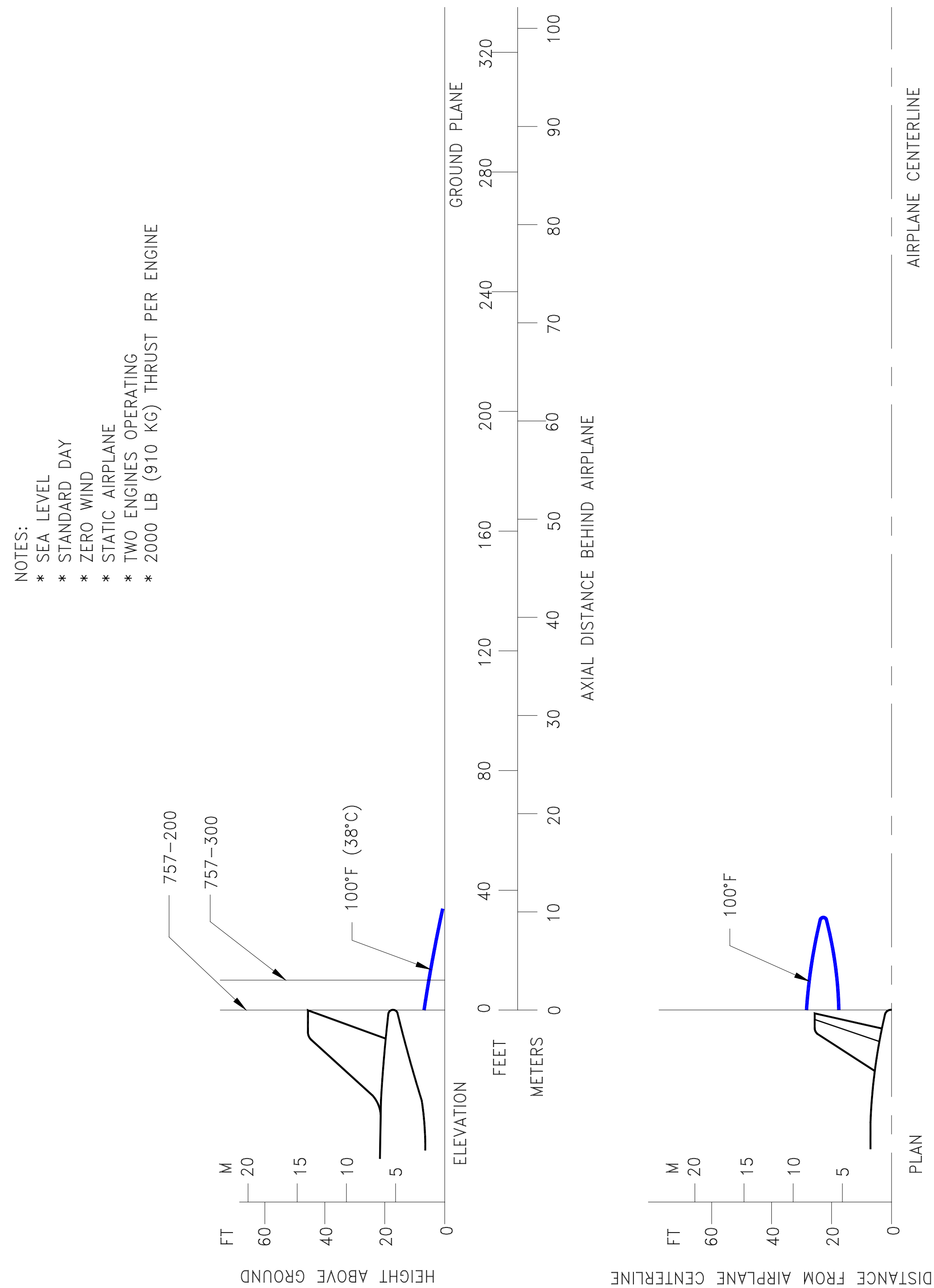
6.1.2 Predicted Jet Engine Exhaust Velocity Contours - Breakaway Thrust: Model 757-200, -300



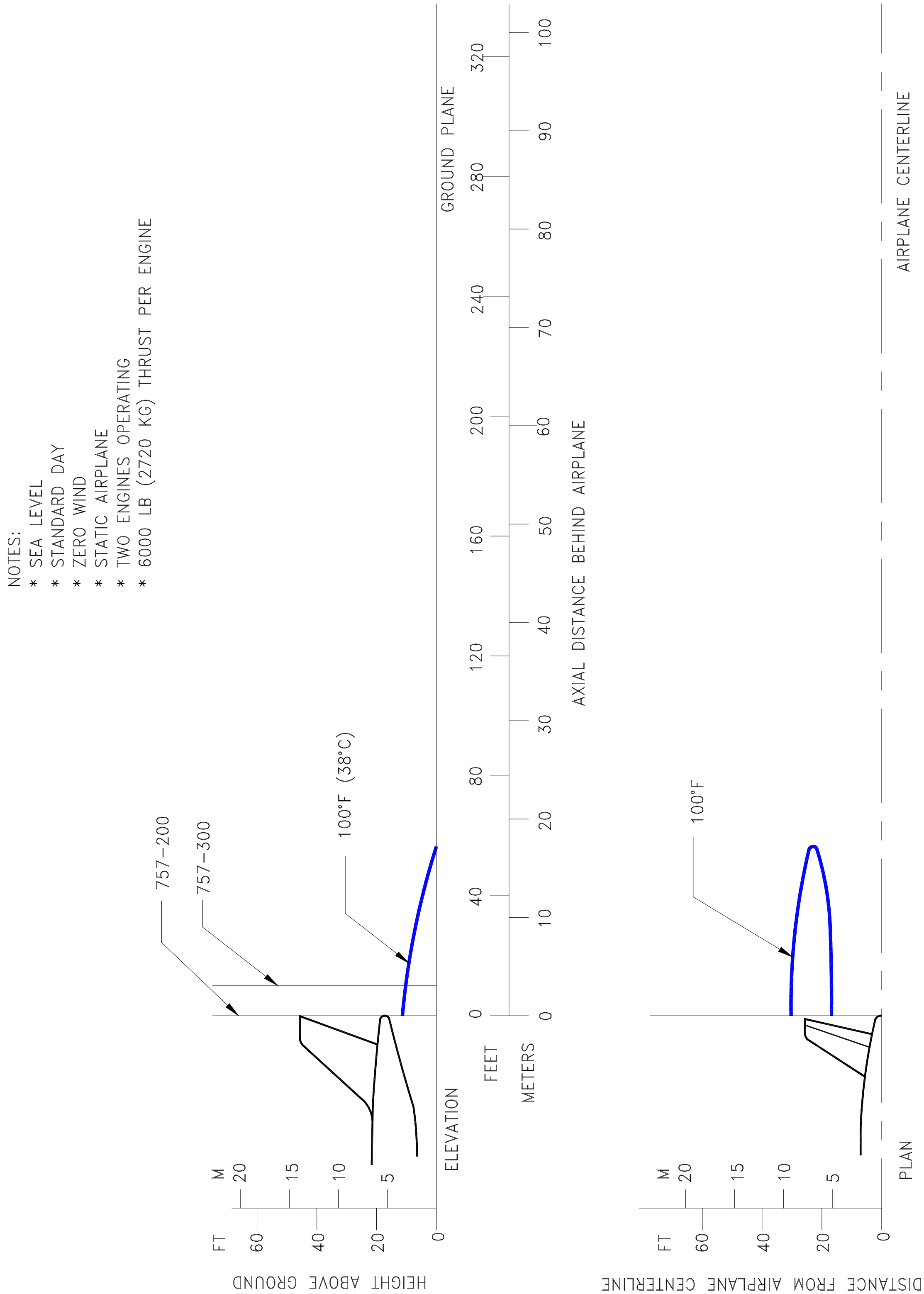
6.1.3 Predicted Jet Engine Exhaust Velocity Contours - Takeoff Thrust: Model 757-200, -300



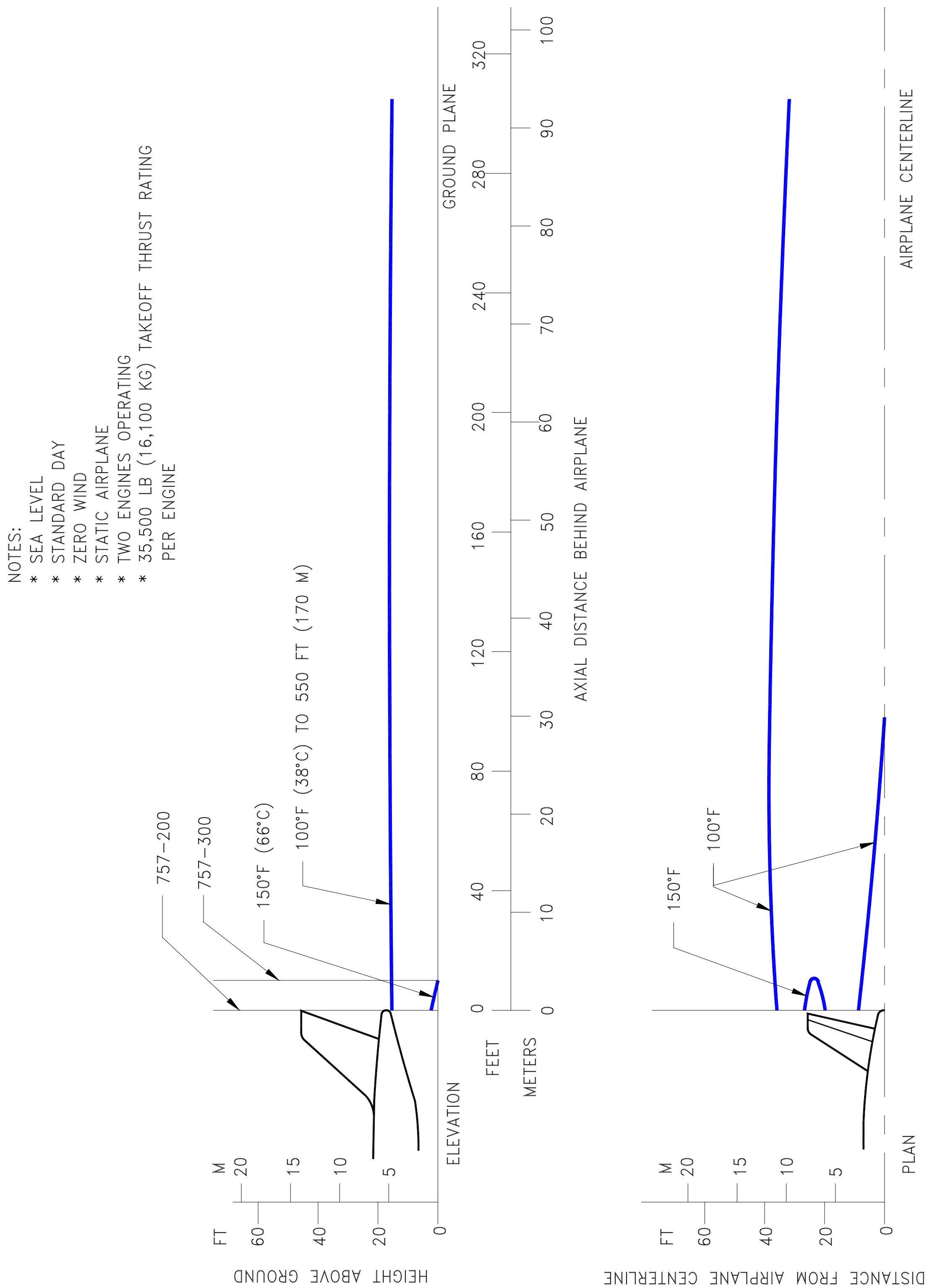
6.1.4 Predicted Jet Engine Exhaust Temperature Contours - Idle Thrust: Model 757-200, -300



6.1.5 Predicted Jet Engine Exhaust Temperature Contours – Breakaway Thrust: Model 757-200, -300



6.1.6 Predicted Jet Engine Exhaust Temperature Contours – Takeoff Thrust: Model 757-200, -300



6.2 AIRPORT AND COMMUNITY NOISE

Airport noise is of major concern to the airport and community planner. The airport is a major element in the community's transportation system and, as such, is vital to its growth. However, the airport must also be a good neighbor, and this can be accomplished only with proper planning. Since aircraft noise extends beyond the boundaries of the airport, it is vital to consider the impact on surrounding communities. Many means have been devised to provide the planner with a tool to estimate the impact of airport operations. Too often they oversimplify noise to the point where the results become erroneous. Noise is not a simple subject; therefore, there are no simple answers.

The cumulative noise contour is an effective tool. However, care must be exercised to ensure that the contours, used correctly, estimate the noise resulting from aircraft operations conducted at an airport.

The size and shape of the single-event contours, which are inputs into the cumulative noise contours, are dependent upon numerous factors. They include the following:

1. Operational Factors

    a. Aircraft Weight-Aircraft weight is dependent on distance to be traveled, en route winds, payload, and anticipated aircraft delay upon reaching the destination.

    b. Engine Power Settings-The rates of ascent and descent and the noise levels emitted at the source are influenced by the power setting used.

    c. Airport Altitude-Higher airport altitude will affect engine performance and thus can influence noise.

2. Atmospheric Conditions-Sound Propagation

    a. Wind-With stronger headwinds, the aircraft can take off and climb more rapidly relative to the ground. Also, winds can influence the distribution of noise in surrounding communities.

    b. Temperature and Relative Humidity-The absorption of noise in the atmosphere along the transmission path between the aircraft and the ground observer varies with both temperature and relative humidity.

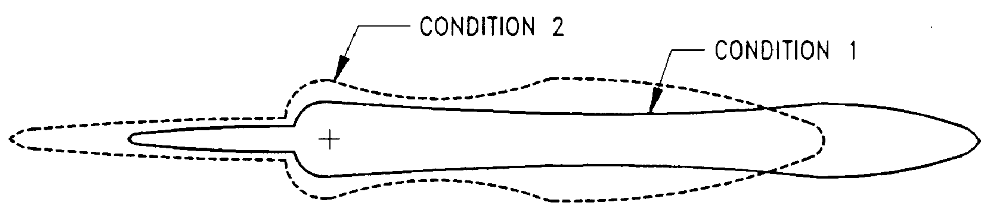
3. Surface Condition-Shielding, Extra Ground Attenuation (EGA)

    a. Terrain-If the ground slopes down after takeoff or up before landing, noise will be reduced since the aircraft will be at a higher altitude above ground. Additionally, hills, shrubs, trees, and large buildings can act as sound buffers.

All these factors can alter the shape and size of the contours appreciably. To demonstrate the effect of some of these factors, estimated noise level contours for two different operating conditions are shown below. These contours reflect a given noise level upon a ground level plane at runway elevation.

<u>Condition 1</u>

Landing	Takeoff
Maximum Structural Landing Weight	Maximum Gross Takeoff Weight
10-knot Headwind	Zero Wind
3° Approach	84 °F
84 °F	Humidity 15%
Humidity 15%	



<u>Condition 2</u>

Landing	Takeoff
85% of Maximum Structural Landing Weight	80% of Maximum Gross Takeoff Weight
10-knot Headwind	10-knot Headwind
3° Approach	59 °F
59 °F	Humidity 70%
Humidity 70%	

As indicated from these data, the contour size varies substantially with operating and atmospheric conditions. Most aircraft operations are, of course, conducted at less than maximum gross weights because average flight distances are much shorter than maximum aircraft range capability and average load factors are less than 100%. Therefore, in developing cumulative contours for planning purposes, it is recommended that the airlines serving a particular city be contacted to provide operational information.

In addition, there are no universally accepted methods for developing aircraft noise contours or for relating the acceptability of specific zones to specific land uses. It is therefore expected that noise contour data for particular aircraft and the impact assessment methodology will be changing. To ensure that the best currently available information of this type is used in any planning study, it is recommended that it be obtained directly from the Office of Environmental Quality in the Federal Aviation Administration in Washington, D.C.

It should be noted that the contours shown herein are only for illustrating the impact of operating and atmospheric conditions and do not represent the single-event contour of the family of aircraft described in this document. It is expected that the cumulative contours will be developed as required by planners using the data and methodology applicable to their specific study.

7.0 PAVEMENT DATA

7.1 GENERAL INFORMATION

A brief description of the pavement charts that follow will help in their use for airport planning. A brief description of the pavement charts that follow will help in their use for airport planning. Each airplane configuration is depicted with a minimum range of five loads imposed on the main landing gear to aid in interpolation between the discrete values shown. All curves for any single chart represent data based on rated loads and tire pressures considered normal and acceptable by current aircraft tire manufacturer's standards. Tire pressures, where specifically designated on tables and charts, are at values obtained under loaded conditions as certificated for commercial use.

Section 7.2 presents basic data on the landing gear footprint configuration, maximum design taxi loads, and tire sizes and pressures.

Maximum pavement loads for certain critical conditions at the tire-to-ground interface are shown in Section 7.3, with the tires having equal loads on the struts.

Pavement requirements for commercial airplanes are customarily derived from the static analysis of loads imposed on the main landing gear struts. The charts in Section 7.4 are provided in order to determine these loads throughout the stability limits of the airplane at rest on the pavement. These main landing gear loads are used as the point of entry to the pavement design charts, interpolating load values where necessary.

The flexible pavement design curves (Section 7.5) are based on procedures set forth in Instruction Report No. S-77-1, Procedures for Development of CBR Design Curves, June 1977, and as modified according to the methods described in FAA Advisory Circular 150/5320-6D, Airport Pavement Design and Evaluation, July 1995. Instruction Report No. S-77-1 was prepared by the U.S. Army Corps of Engineers Waterways Experiment Station, Soils and Pavements Laboratory, Vicksburg, Mississippi. The line showing 10,000 coverages is used to calculate Aircraft Classification Number (ACN).

The following procedure is used to develop the curves, such as shown in Section 7.5:

1. Having established the scale for pavement depth at the bottom and the scale for CBR at the top, an arbitrary line is drawn representing 5,000 annual departures.

2. Values of the aircraft gross weight are then plotted.

3. Additional annual departure lines are drawn based on the load lines of the aircraft gross weights already established.

4. An additional line representing 10,000 coverages (used to calculate the flexible pavement Aircraft Classification Number) is also placed.

All Load Classification Number (LCN) curves (Sections 7.6 and 7.8) have been developed from a computer program based on data provided in International Civil Aviation Organization (ICAO) Document 9157-AN/901, Aerodrome Design Manual, Part 3, “Pavements”, Second Edition, 1983. LCN values are shown directly for parameters of weight on main landing gear, tire pressure, and radius of relative stiffness (l) for rigid pavement or pavement thickness or depth factor (h) for flexible pavement.

Rigid pavement design curves (Section 7.7) have been prepared with the Westergaard equation in general accordance with the procedures outlined in the Design of Concrete Airport Pavement, 1955 edition, by Robert G. Packard, published by the Portland Cement Association, 5420 Old Orchard Road, Skokie, Illinois 60077-1083. These curves are modified to the format described in the Portland Cement Association publication XP6705-2, Computer Program for Airport Pavement Design (Program PDILB), 1968, by Robert G. Packard.

The following procedure is used to develop the rigid pavement design curves shown in Section 7.7:

5. Having established the scale for pavement thickness to the left and the scale for allowable working stress to the right, an arbitrary load line is drawn representing the main landing gear maximum weight to be shown.

6. Values of the subgrade modulus (k) are then plotted.

7. Additional load lines for the incremental values of weight on the main landing gear are drawn on the basis of the curve for k = 300, already established.

The rigid pavement design curves (Section 7.9) have been developed based on methods used in the FAA Advisory Circular AC 150/5320-6D, July 1995. The following procedure is used to develop the curves, such as shown in Section 7.9:

8. Having established the scale for pavement flexure strength on the left and temporary scale for pavement thickness on the right, an arbitrary load line is drawn representing the main landing gear maximum weight to be shown at 5,000 coverages.

9. Values of the subgrade modulus (k) are then plotted.

10. Additional load lines for the incremental values of weight are then drawn on the basis of the subgrade modulus curves already established.

11. The permanent scale for the rigid-pavement thickness is then placed. Lines for other than 5,000 coverages are established based on the aircraft pass-to-coverage ratio.

The ACN/PCN system (Section 7.10) as referenced in ICAO Annex 14, Aerodromes, Volume I, “Aerodrome Design and Operations,” Ninth Edition, July 2022, provides a standardized international airplane/pavement rating system replacing the various S, T, TT, LCN, AUW, ISWL, etc., rating systems used throughout the world. ACN is the Aircraft Classification Number and PCN is the Pavement Classification Number. An aircraft having an ACN equal to or less than the PCN can operate on the pavement subject to any limitation on the tire pressure. Numerically, the ACN is two times the derived single-wheel load expressed in thousands of kilograms, where the derived single wheel load is defined as the load on a single tire inflated to 181 psi (1.25 MPa) that would have the same pavement requirements as the aircraft. Computationally, the ACN/PCN system uses the PCA program PDILB for rigid pavements and S-77-1 for flexible pavements to calculate ACN values.

The ACR-PCR system (Section 7.11) follows ICAO Annex 14, Aerodromes, Volume I, “Aerodrome Design and Operations,” Ninth Edition, July 2022, and guidance from ICAO Doc 9157-AN/901, Aerodrome Design Manual, Part 3, “Pavements,” Third Edition, 2022, replacing the ACN/PCN system used throughout the world. ACR is the Aircraft Classification Rating and PCR is the Pavement Classification Rating. The ACR-PCR system allows an aircraft having an ACR equal to or less than the PCR to operate on the pavement subject to any limitation on the tire pressure. Numerically, the ACR is two times the derived single-wheel load expressed in hundreds of kilograms, where the derived single wheel load is defined as the load on a single tire inflated to 218 psi (1.5 MPa) that would have the same pavement requirements as the aircraft.

The method of pavement evaluation is left up to the airport with the results of their evaluation presented as follows:

PCN/PCR	PAVEMENT TYPE	SUBGRADE CATEGORY	TIRE PRESSURE CATGORY	EVALUATION METHOD
	R = Rigid	A = High	W = No Limit	T = Technical
	F = Flexible	B = Medium	X = To 254 psi (1.75 MPa)	U = Using Aircraft
		C = Low	Y = To 181 psi (1.25 MPa)	
		D = Ultra Low	Z = To 73 psi (0.5 MPa)	

ACN values for flexible pavements are calculated for the following four subgrade categories:

Code A - High strength; characterized by CBR 15 and representing all CBR values above 13.

Code B - Medium strength; characterized by CBR 10 and representing a range in CBR of 8 to 13.

Code C - Low strength; characterized by CBR 6 and representing a range in CBR of 4 to 8.

Code D - Ultra-low strength; characterized by CBR 3 and representing all CBR values below 4.

ACN values for rigid pavements are calculated for the following four subgrade categories:

Code A - High strength; characterized by k = 150 MN/m^3 (552.6 pci) and representing all k values above 120 MN/m^3.

Code B - Medium strength; characterized by k = 80 MN/m^3 (294.7 pci) and representing a range in k values of 60 to 120 MN/m^3.

Code C - Low strength; characterized by k = 40 MN/m^3 (147.4 pci) and representing a range in k values of 25 to 60 MN/m^3.

Code D - characterized by k = 20 MN/m^3 (73.7 pci) and representing all k values below 25 MN/m^3.

ACR values at any mass on rigid and flexible pavements are calculated for the following four subgrade categories:

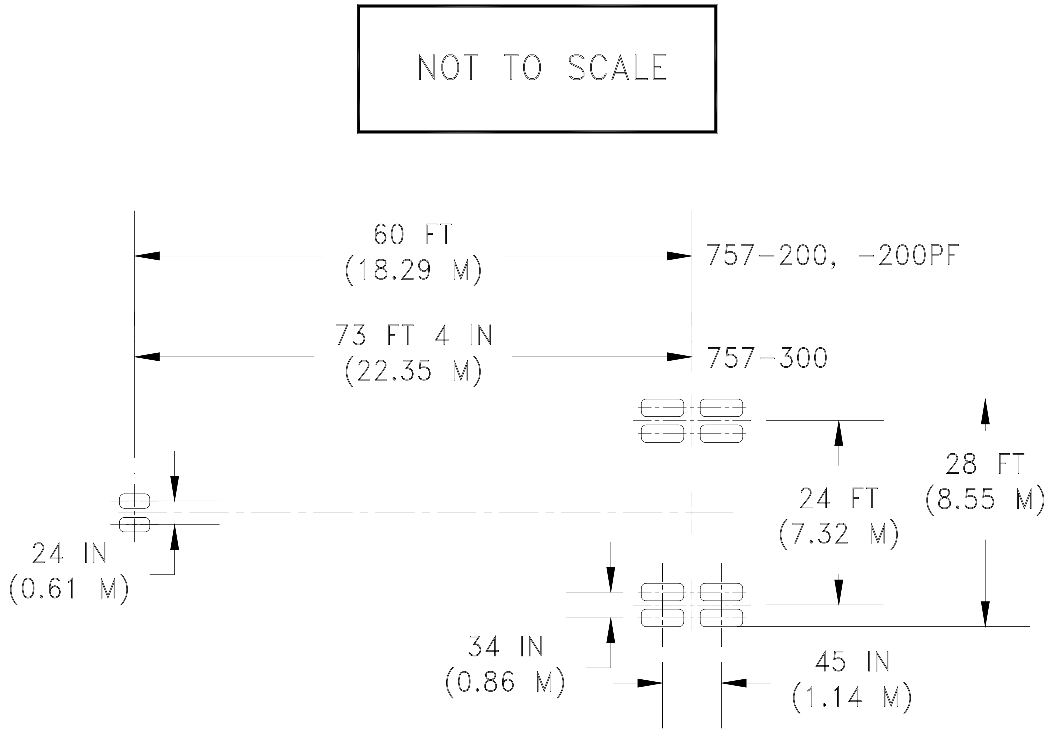
Code A - High strength; characterized by E = 200 MPa (29,008 psi) and representing all E values equal to or above 150 MPa, for rigid and flexible pavements.

Code B - Medium strength; characterized by E = 120 MPa (17,405 psi) and representing a range in E equal to or above 100 MPa and strictly less than 150 MPa, for rigid and flexible pavements.

Code C - Low strength; characterized by E = 80 MPa (11,603 psi) and representing a range in E equal to or above 60 MPa and strictly less than 100 MPa, for rigid and flexible pavements.

Code D - Ultra-low strength; characterized by E = 50 MPa (7,252 psi) and representing all E values strictly less than 60 MPa, for rigid and flexible pavements.

7.2 LANDING GEAR FOOTPRINT: MODEL 757-200, -200PF, -300



	UNITS	757-200, -200PF					757-300
MAXIMUM DESIGN TAXI WEIGHT	LB	221,000	231,000	241,000	251,000	256,000	271,000
	KG	100,243	104,779	109,315	113,851	116,119	122,923
PERCENT OF WEIGHT ON MAIN GEAR	%	SEE SECTION 7.4					
NOSE GEAR TIRE SIZE	IN.	H31x13.0-12, 20PR					
NOSE GEAR TIRE PRESSURE	PSI	150			155		136
	KG/CM^2	10.55			10.90		9.56
MAIN GEAR TIRE SIZE	IN.	H40x14.5-19, 22PR			H40x14.5-19, 24PR		H40x14.5-19, 26PR
MAIN GEAR TIRE PRESSURE	PSI	162	168	170	179	183	200
	KG/CM^2	11.39	11.81	11.95	12.80	12.87	14.06

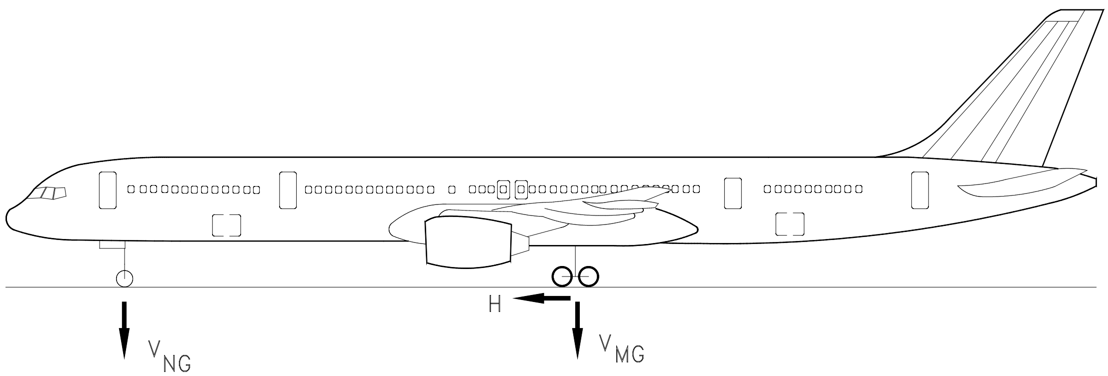
7.3 MAXIMUM PAVEMENT LOADS: MODEL 757-200, 300

V_{NG} = MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FORWARD CENTER OF GRAVITY

V_{MG} = MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT MOST AFT CENTER OF GRAVITY

H = MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

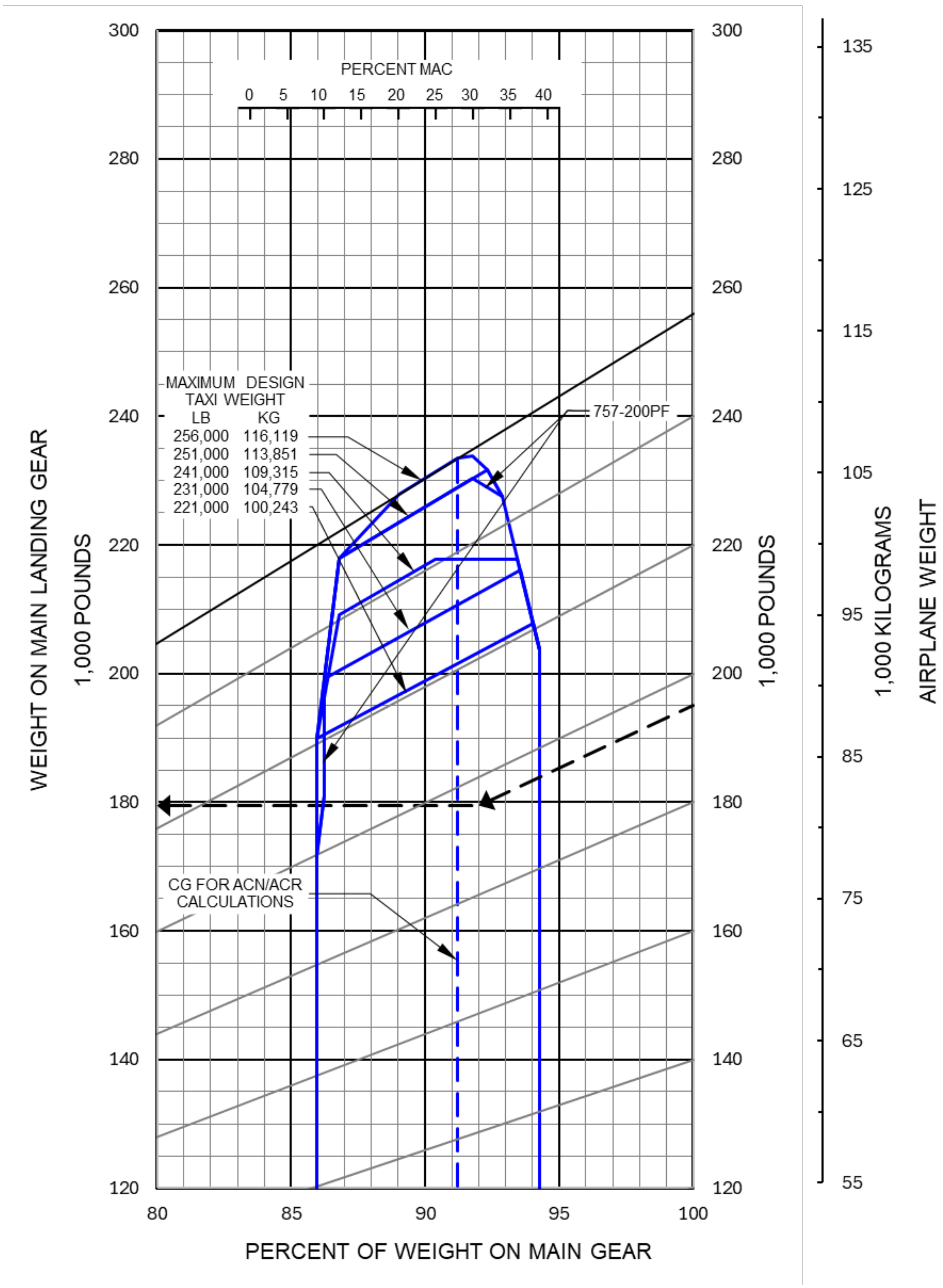
NOTE: ALL LOADS CALCULATED USING AIRPLANE MAXIMUM DESIGN TAXI WEIGHT



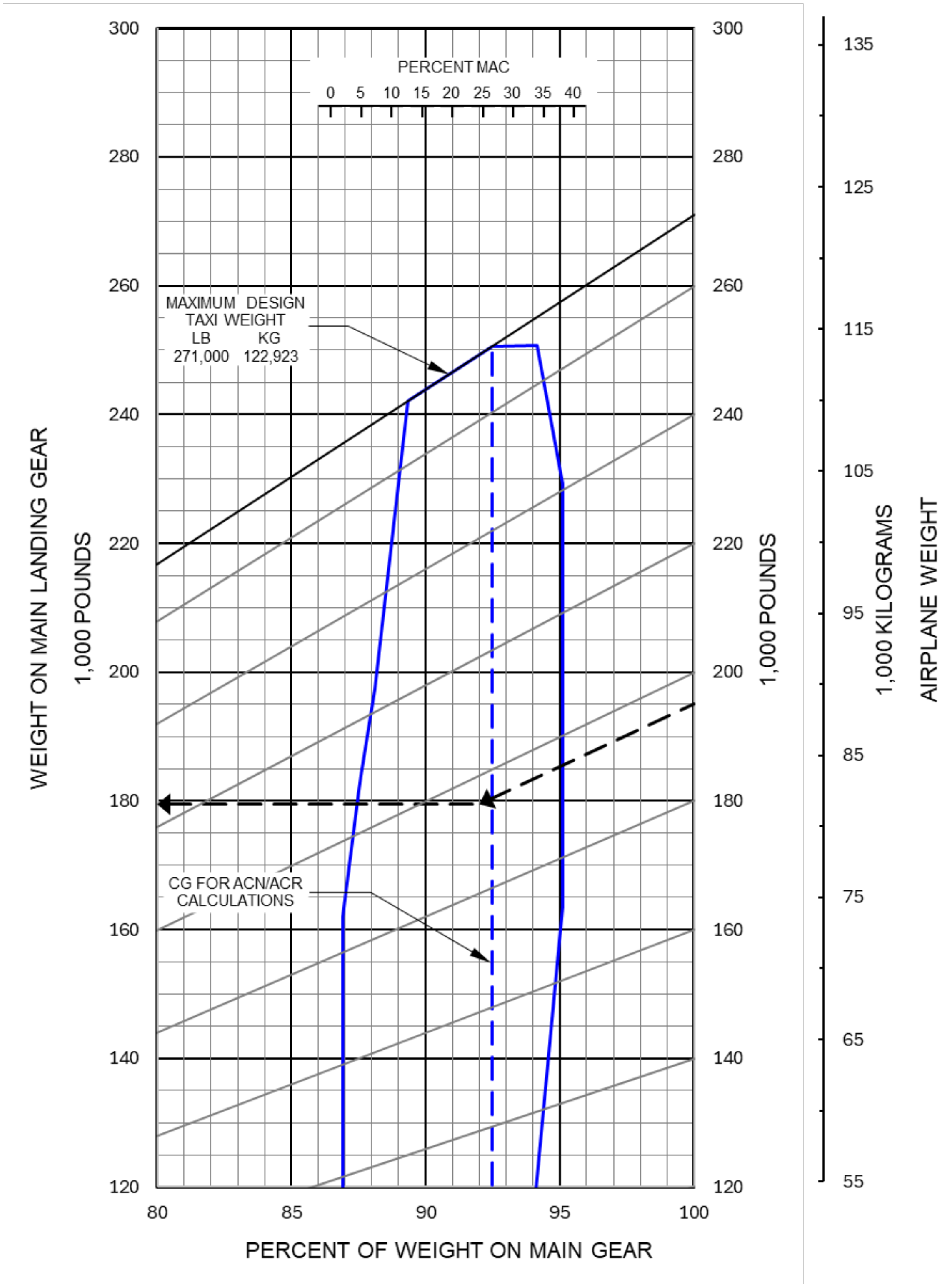
AIRPLANE MODEL	UNITS	MAX DESIGN TAXI WEIGHT	V_{NG}		V_{MG} PER STRUT AT MAX LOAD AT STATIC AFT C.G.	H PER STRUT (4)	
			STATIC AT MOST FWD C.G.	STATIC + BRAKING 10 FT/SEC^2 DECEL		STEADY BRAKING 10 FT/SEC^2 DECEL	AT INSTANTANEOUS BRAKING (μ = 0.8)
757-200,-200PF	LB	221,000	31,100	45,100	102,900	34,300	82,300
	KG	100,243	14,100	20,450	46,650	15,550	37,350
757-200,-200PF	LB	231,000	31,700	46,400	105,600	35,900	84,500
	KG	104,779	14,400	21,050	47,900	16,300	38,350
757-200,-200PF	LB	241,000	31,900	47,200	108,900	37,400	87,100
	KG	109,315	14,450	21,400	49,400	16,950	37,500
757-200,-200PF	LB	251,000	33,300	48,900	115,800	39,000	92,700
	KG	113,851	15,100	22,200	52,550	17,700	42,050
757-200,-200PF	LB	256,000	28,200	44,800	116,700	39,800	93,400
	KG	116,119	12,800	20,300	52,950	18,050	42,350
757-300	LB	271,000	28,600	42,800	125,500	42,100	100,400
	KG	122,923	12,980	19,400	56,900	19,100	45,550

7.4 LANDING GEAR LOADING ON PAVEMENT

7.4.1 Landing Gear Loading on Pavement: Model 757-200, -200PF



7.4.2 Landing Gear Loading on Pavement: Model 757-300



7.5 FLEXIBLE PAVEMENT REQUIREMENTS - U.S. ARMY CORPS OF ENGINEERS METHOD S-77-1

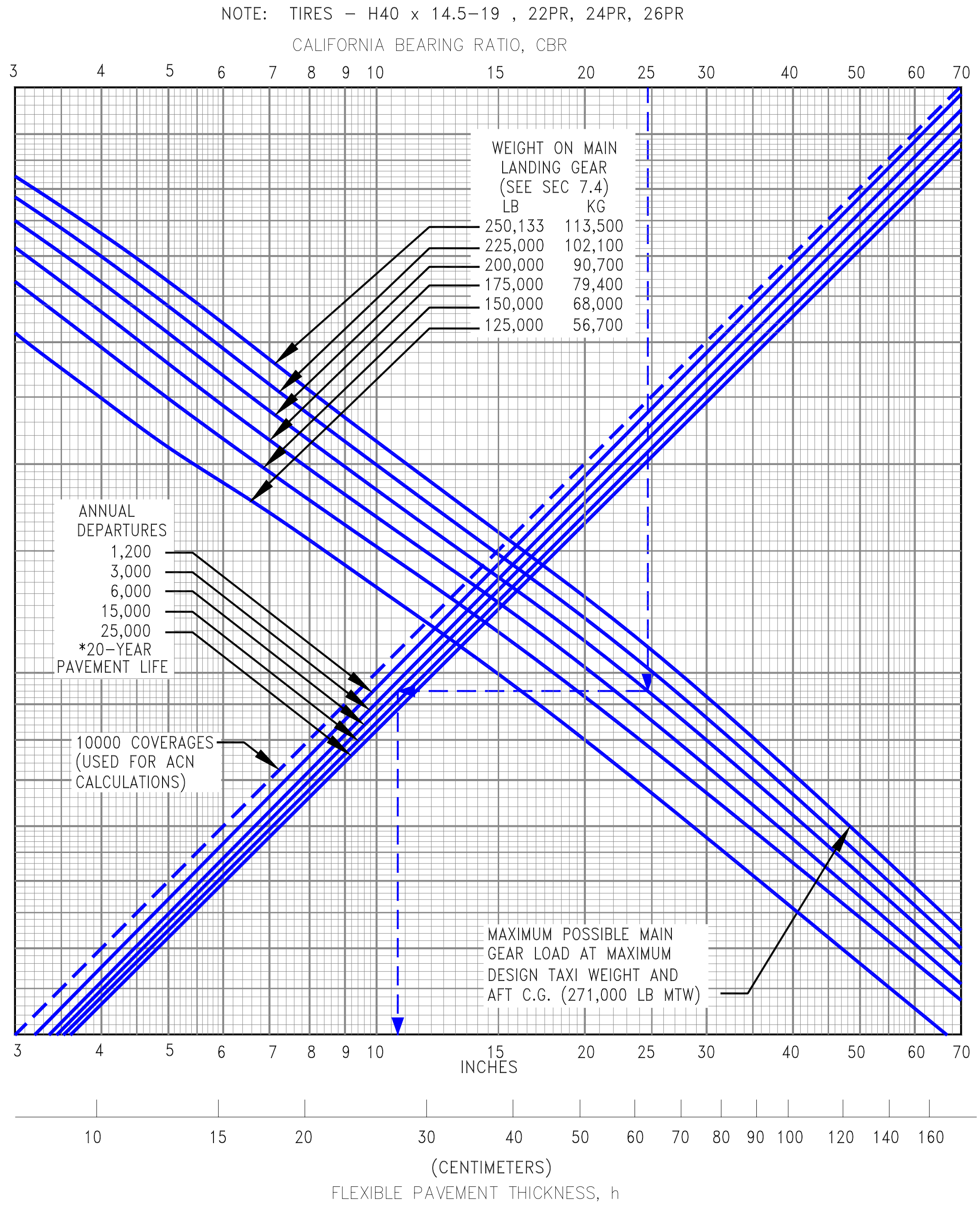
The following flexible-pavement design chart presents the data of six incremental main-gear loads at the minimum tire pressure required at the maximum design taxi weight.

In the example shown in the next page, for a CBR of 24.5 and an annual departure level of 6,000, the required flexible pavement thickness for an airplane with a main gear loading of 200,000 pounds is 10.7 inches.

The line showing 10,000 coverages is used for ACN calculations (see Section 7.10).

The FAA design method uses a similar procedure using total airplane weight instead of weight on the main landing gears. The equivalent main gear loads for a given airplane weight could be calculated from Section 7.4.

7.5.1 Flexible Pavement Requirements - U.S. Army Corps of Engineers Design Method (S-77-1): Model 757-200, -200PF, -300



7.6 FLEXIBLE PAVEMENT REQUIREMENTS - LCN CONVERSION

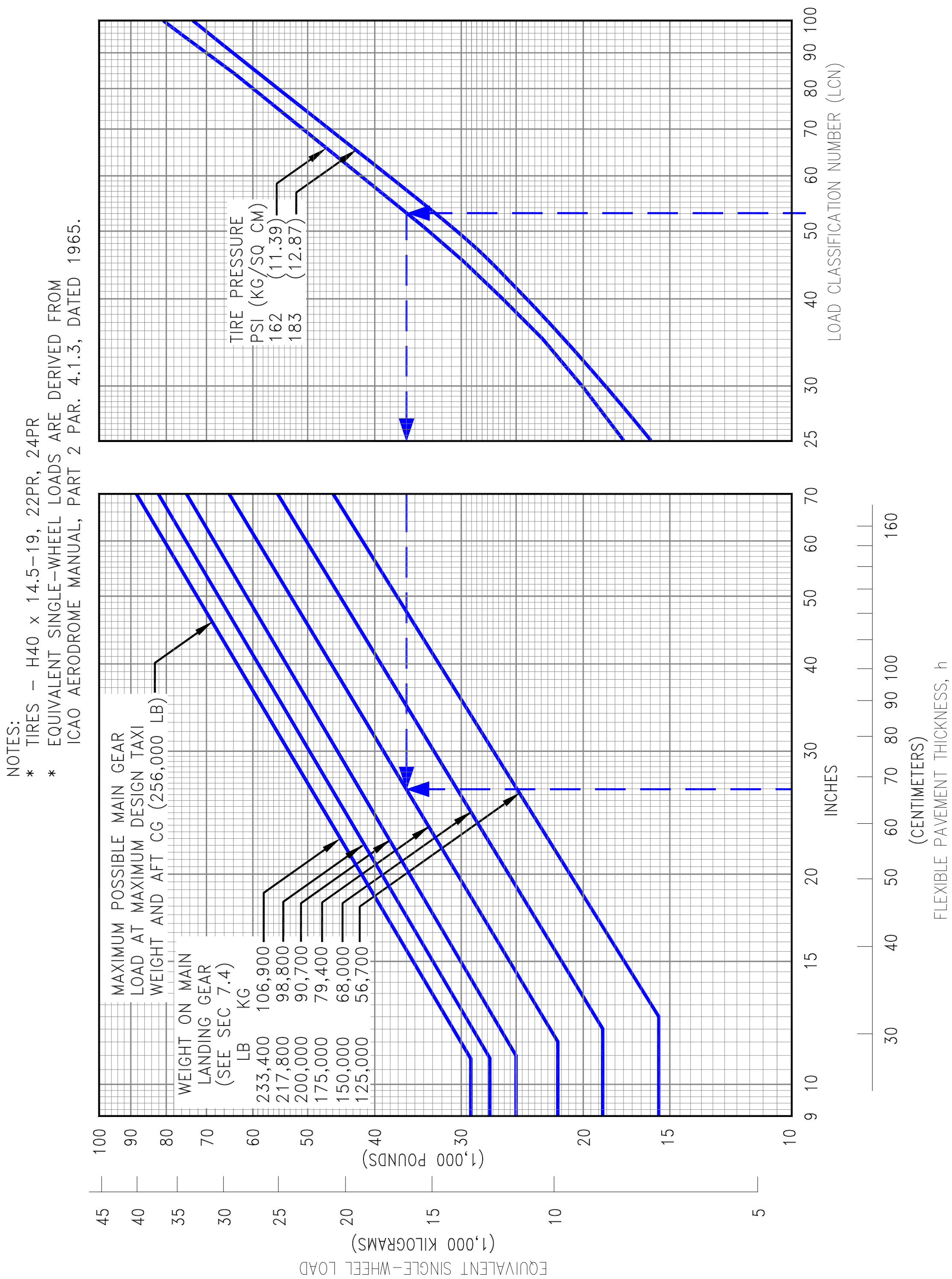
To determine the airplane weight that can be accommodated on a particular flexible pavement, both the Load Classification Number (LCN) of the pavement and the thickness must be known.

In the example shown in Section 7.6.1, flexible pavement thickness is shown at 26.5 in. with an LCN of 53. For these conditions, the apparent maximum allowable weight permissible on the main landing gear of a 757-200 airplane with 162-psi main gear tires is 175,000 lb.

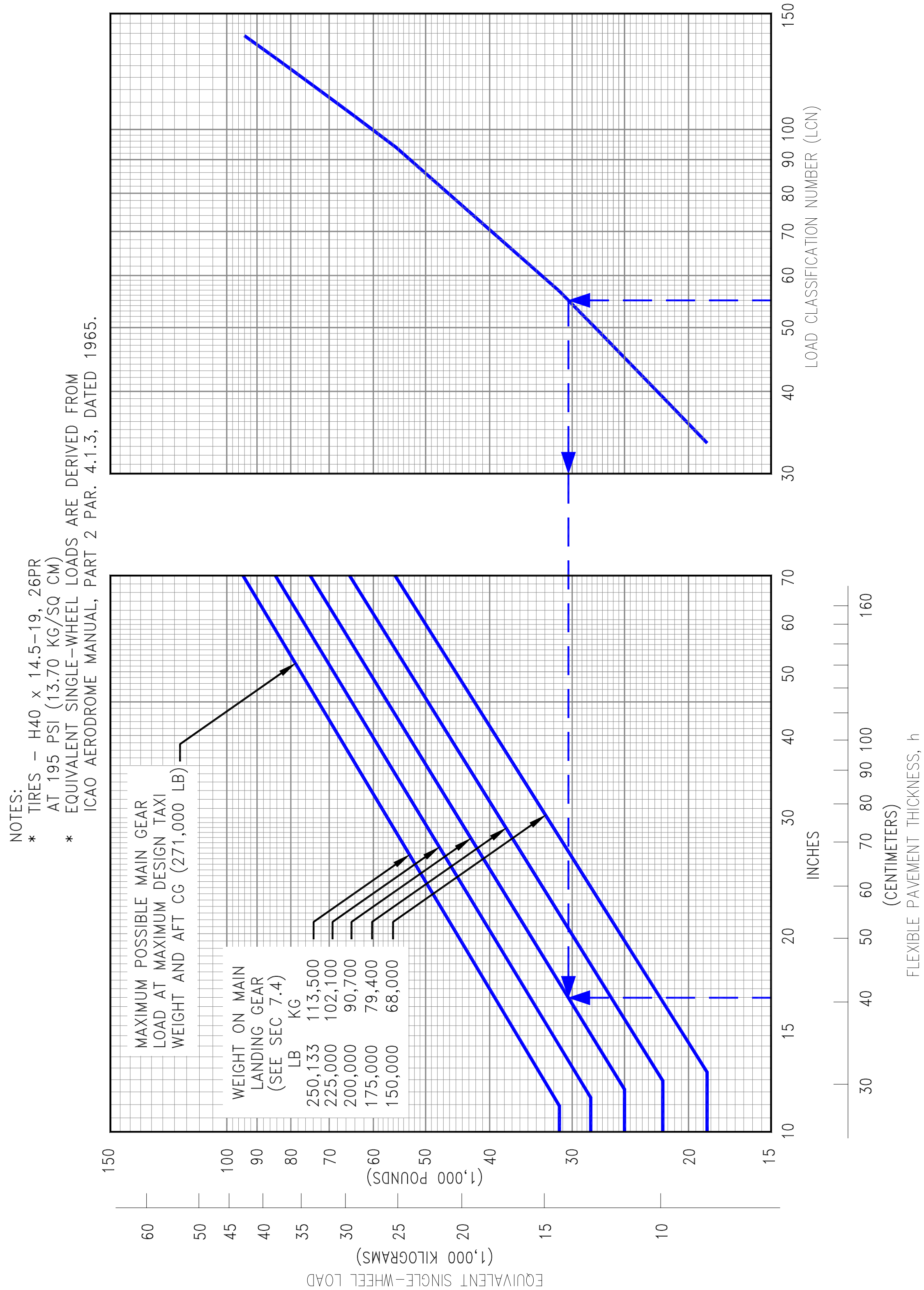
In Section 7.6.2, flexible pavement thickness is shown at 17 in. with an LCN of 55. For these conditions, the apparent maximum allowable weight permissible on the main landing gear of a 757-300 airplane with 195-psi main gear tires is 200,000 lb.

Note: If the resultant aircraft LCN is not more that 10% above the published pavement LCN, the bearing strength of the pavement can be considered sufficient for unlimited use by the airplane. The figure 10% has been chosen as representing the lowest degree of variation in LCN that is significant (reference: ICAO Aerodrome Manual, Part 2, "Aerodrome Physical Characteristics," Chapter 4, Paragraph 4.1.5.7v, 2nd Edition dated 1965).

7.6.1 Flexible Pavement Requirements - LCN Method: Model 757-200, -200PF



7.6.2 Flexible Pavement Requirements - LCN Method: Model 757-300



7.7 RIGID PAVEMENT REQUIREMENTS - PORTLAND CEMENT ASSOCIATION DESIGN METHOD

The Portland Cement Association method of calculating rigid pavement requirements is based on the computerized version of "Design of Concrete Airport Pavement" (Portland Cement Association, 1955) as described in XP6705-2, "Computer Program for Airport Pavement Design" by Robert G. Packard, Portland Cement Association, 1968.

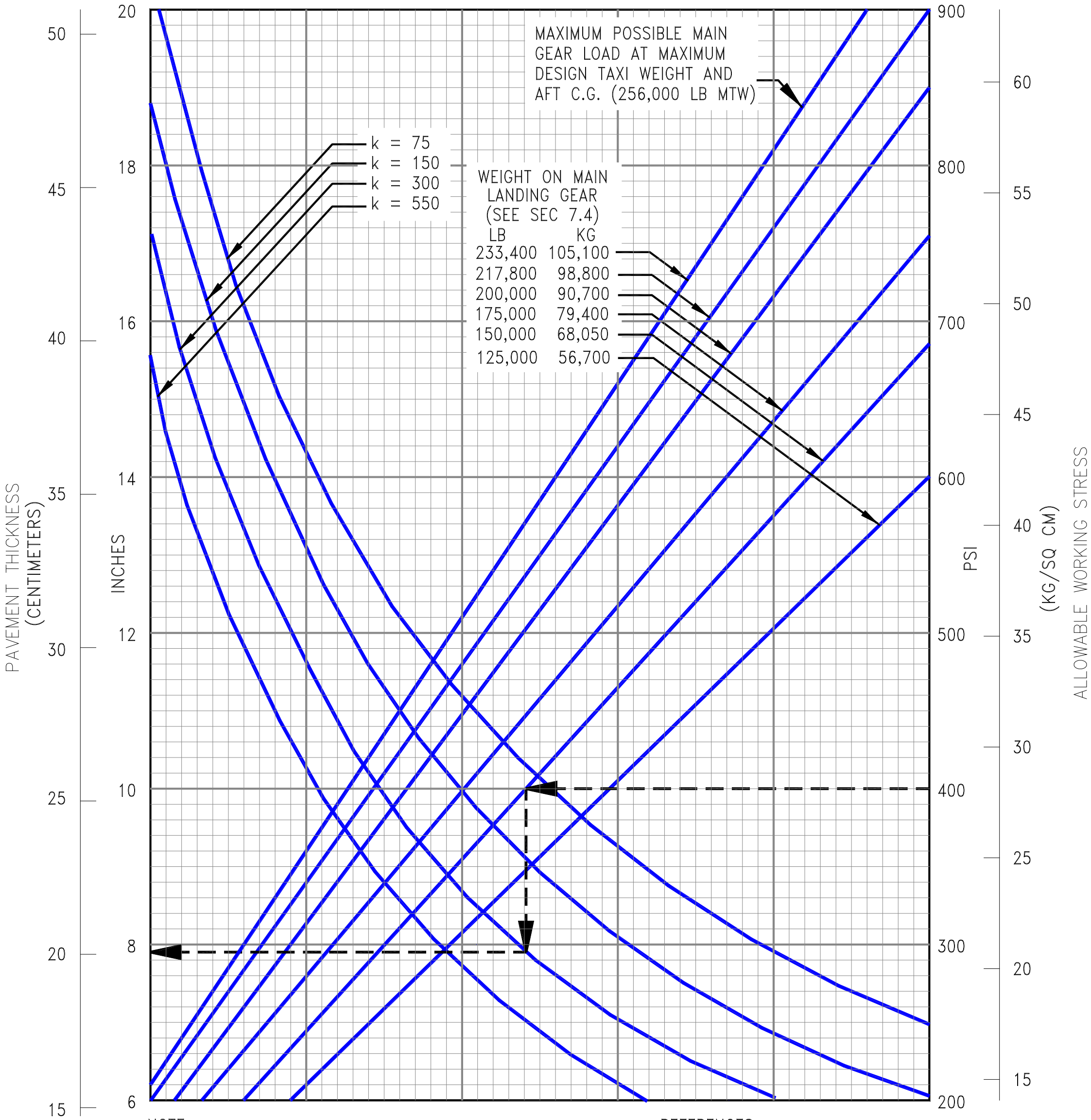
The following rigid pavement design chart presents the data for six incremental main gear loads at the minimum tire pressure required at the maximum design taxi weight.

In the example shown in Section 7.7.1, for an allowable working stress of 400 psi, and a subgrade strength (k) of 300, the required rigid pavement thickness for a 757-200 airplane with a main gear load of 200,000 lb, is 7.9 in.

In Section 7.7.2, for an allowable working stress of 450 psi, and a subgrade strength (k) of 300, the required rigid pavement thickness for a 757-300 airplane with a main gear load of 200,000 lb, is 8.9 in.

7.7.1 Rigid Pavement Requirements - Portland Cement Association Design Method: Model 757-200, -200PF

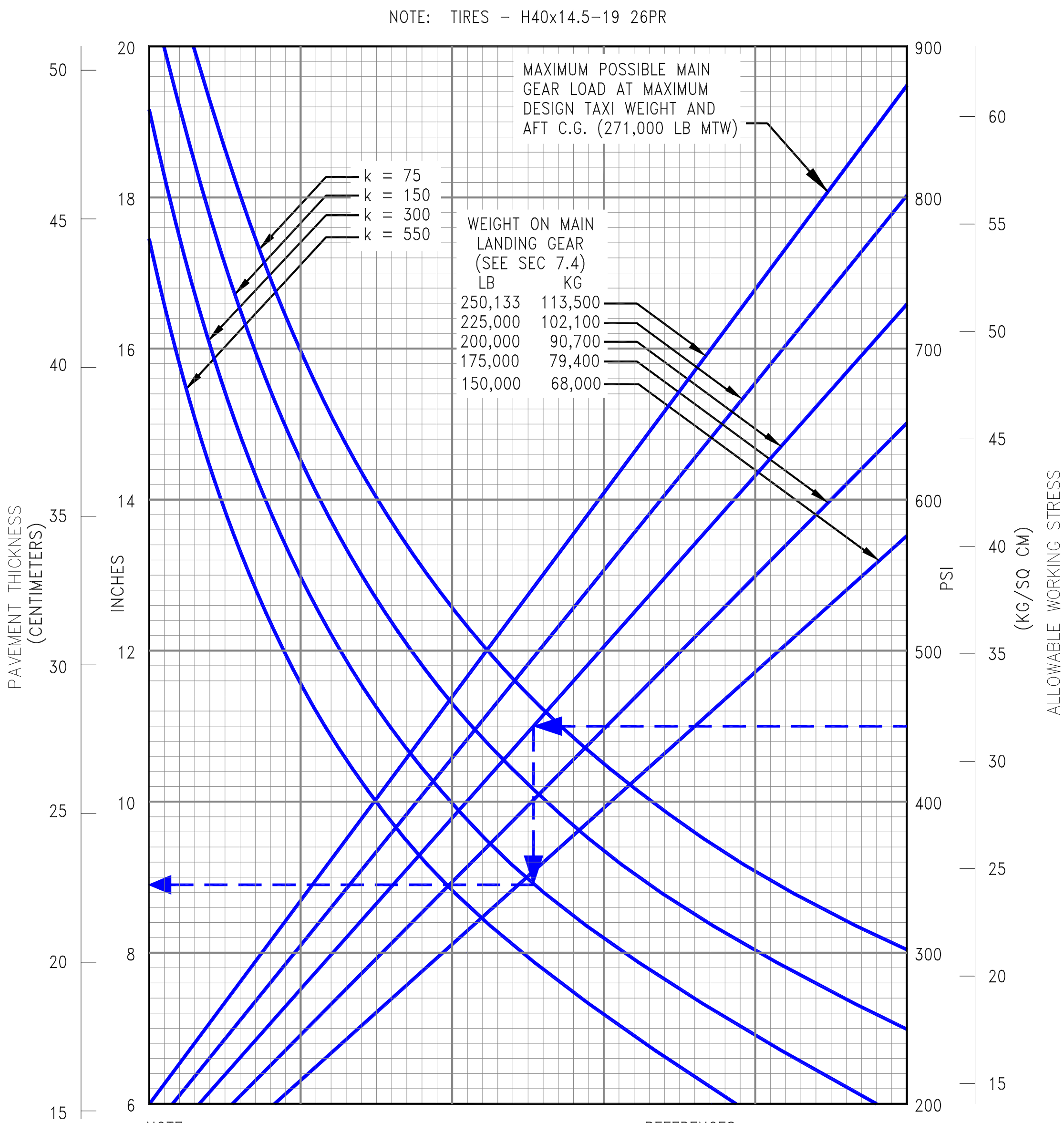
NOTE: TIRES – H40x14.5–19 22PR, 24PR
PRESSURE RANGE FROM 162 TO 170 PSI (11.39 TO 11.95 KG/SC CM)



NOTE:
THE VALUES OBTAINED BY USING THE MAXIMUM LOAD REFERENCE LINE AND ANY VALUE OF k ARE EXACT.
FOR LOADS LESS THAN MAXIMUM, THE CURVES ARE EXACT FOR k = 300 BUT DEVIATE SLIGHTLY FOR OTHER VALUES OF k.

REFERENCES:
"DESIGN OF CONCRETE AIRPORT PAVEMENT" AND "COMPUTER PROGRAM FOR AIRPORT PAVEMENT DESIGN – PROGRAM PDILB" PORTLAND CEMENT ASSOCIATION.

7.7.2 Rigid Pavement Requirements - Portland Cement Association Design Method: Model 757-300



NOTE:
THE VALUES OBTAINED BY USING THE MAXIMUM LOAD REFERENCE LINE AND ANY VALUE OF k ARE EXACT.
FOR LOADS LESS THAN MAXIMUM, THE CURVES ARE EXACT FOR k = 300 BUT DEVIATE SLIGHTLY FOR OTHER VALUES OF k.

REFERENCES:
"DESIGN OF CONCRETE AIRPORT PAVEMENT" AND "COMPUTER PROGRAM FOR AIRPORT PAVEMENT DESIGN – PROGRAM PDILB"
PORTLAND CEMENT ASSOCIATION.

7.8 RIGID PAVEMENT REQUIREMENTS - LCN CONVERSION

To determine the airplane weight that can be accommodated on a particular rigid pavement, both the LCN of the pavement and the radius of relative stiffness (ℓ) of the pavement must be known.

In the example shown in Section 7.8.2, for a rigid pavement with a radius of relative stiffness of 37 with an LCN of 45, the apparent maximum allowable weight permissible on the main landing gear is 150,000 lb for an airplane with195-psi main tires.

Note: If the resultant aircraft LCN is not more that 10% above the published pavement LCN, the bearing strength of the pavement can be considered sufficient for unlimited use by the airplane. The figure 10% has been chosen as representing the lowest degree of variation in LCN that is significant (reference: ICAO Aerodrome Design Manual, Part 2, "Aerodrome Physical Characteristics," Chapter 4, Paragraph 4.1.5.7v, 2nd Edition dated 1965).

7.8.1 Radius of Relative Stiffness (Reference: Portland Cement Association)

RADIUS OF RELATIVE STIFFNESS (ℓ)

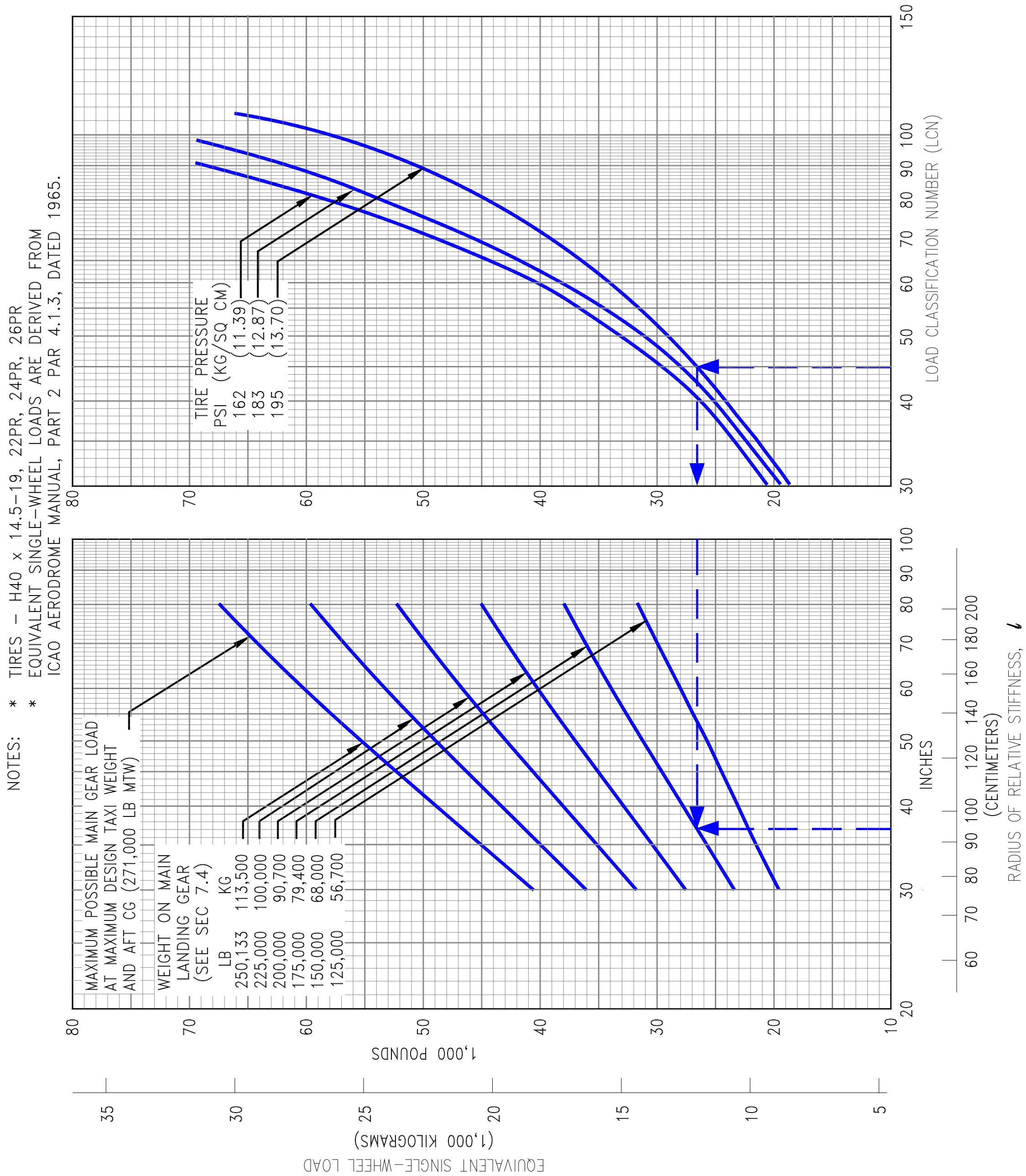
VALUES IN INCHES

$$\ell = \sqrt[4]{\frac{Ed^3}{12(1-\mu^2)k}} = 24.1652\sqrt[4]{\frac{d^3}{k}}$$

WHERE: E = YOUNG'S MODULUS OF ELASTICITY = 4 x 10^6 psi
k = SUBGRADE MODULUS, LB PER CU IN
d = RIGID PAVEMENT THICKNESS, IN
μ = POISSON'S RATIO = 0.15

d	k = 75	k = 100	k = 150	k = 200	k = 250	k = 300	k = 350	k = 400	k = 500	k = 550
6.0	31.48	29.29	26.47	24.63	23.30	22.26	21.42	20.71	19.59	19.13
6.5	33.42	31.10	28.11	26.16	24.74	23.63	22.74	21.99	20.80	20.31
7.0	35.33	32.88	29.71	27.65	26.15	24.99	24.04	23.25	21.99	21.47
7.5	37.21	34.63	31.29	29.12	27.54	26.31	25.32	24.49	23.16	22.61
8.0	39.06	36.35	32.84	30.56	28.91	27.62	26.57	25.70	24.31	23.73
8.5	40.87	38.04	34.37	31.99	30.25	28.90	27.81	26.90	25.44	24.84
9.0	42.66	39.70	35.88	33.39	31.57	30.17	29.03	28.07	26.55	25.93
9.5	44.43	41.35	37.36	34.77	32.88	31.42	30.23	29.24	27.65	27.00
10.0	46.17	42.97	38.83	36.13	34.17	32.65	31.41	30.38	28.73	28.06
10.5	47.89	44.57	40.27	37.48	35.44	33.87	32.58	31.52	29.81	29.10
11.0	49.59	46.15	41.70	38.81	36.70	35.07	33.74	32.63	30.86	30.14
11.5	51.27	47.72	43.12	40.12	37.95	36.26	34.89	33.74	31.91	31.16
12.0	52.94	49.26	44.51	41.43	39.18	37.43	36.02	34.83	32.94	32.17
12.5	54.58	50.80	45.90	42.71	40.40	38.60	37.14	35.92	33.97	33.17
13.0	56.21	52.31	47.27	43.99	41.60	39.75	38.25	36.99	34.98	34.16
13.5	57.83	53.81	48.63	45.25	42.80	40.89	39.34	38.05	35.99	35.14
14.0	59.43	55.30	49.97	46.50	43.98	42.02	40.43	39.10	36.98	36.11
14.5	61.01	56.78	51.30	47.74	45.15	43.14	41.51	40.15	37.97	37.07
15.0	62.58	58.24	52.62	48.97	46.32	44.25	42.58	41.18	38.95	38.03
15.5	64.14	59.69	53.93	50.19	47.47	45.35	43.64	42.21	39.92	38.98
16.0	65.69	61.13	55.23	51.40	48.61	46.45	44.69	43.22	40.88	39.92
16.5	67.22	62.55	56.52	52.60	49.75	47.53	45.73	44.23	41.83	40.85
17.0	68.74	63.97	57.80	53.79	50.87	48.61	46.77	45.23	42.78	41.77
17.5	70.25	65.38	59.07	54.97	51.99	49.68	47.80	46.23	43.72	42.69
18.0	71.75	66.77	60.34	56.15	53.10	50.74	48.82	47.22	44.65	43.60
19.0	74.72	69.54	62.83	58.47	55.30	52.84	50.84	49.17	46.50	45.41
20.0	77.65	72.26	65.30	60.77	57.47	54.91	52.83	51.10	48.33	47.19
21.0	80.55	74.96	67.73	63.03	59.61	56.95	54.80	53.00	50.13	48.95
22.0	83.41	77.62	70.14	65.27	61.73	58.98	56.75	54.88	51.91	50.68
23.0	86.23	80.25	72.51	67.48	63.82	60.98	58.67	56.74	53.67	52.40
24.0	89.03	82.85	74.86	69.67	65.89	62.95	60.57	58.58	55.41	54.10
25.0	91.80	85.43	77.19	71.84	67.94	64.91	62.46	60.41	57.13	55.78

7.8.2 Rigid Pavement Requirements - LCN Conversion: Model 757-200, -200PF, 300

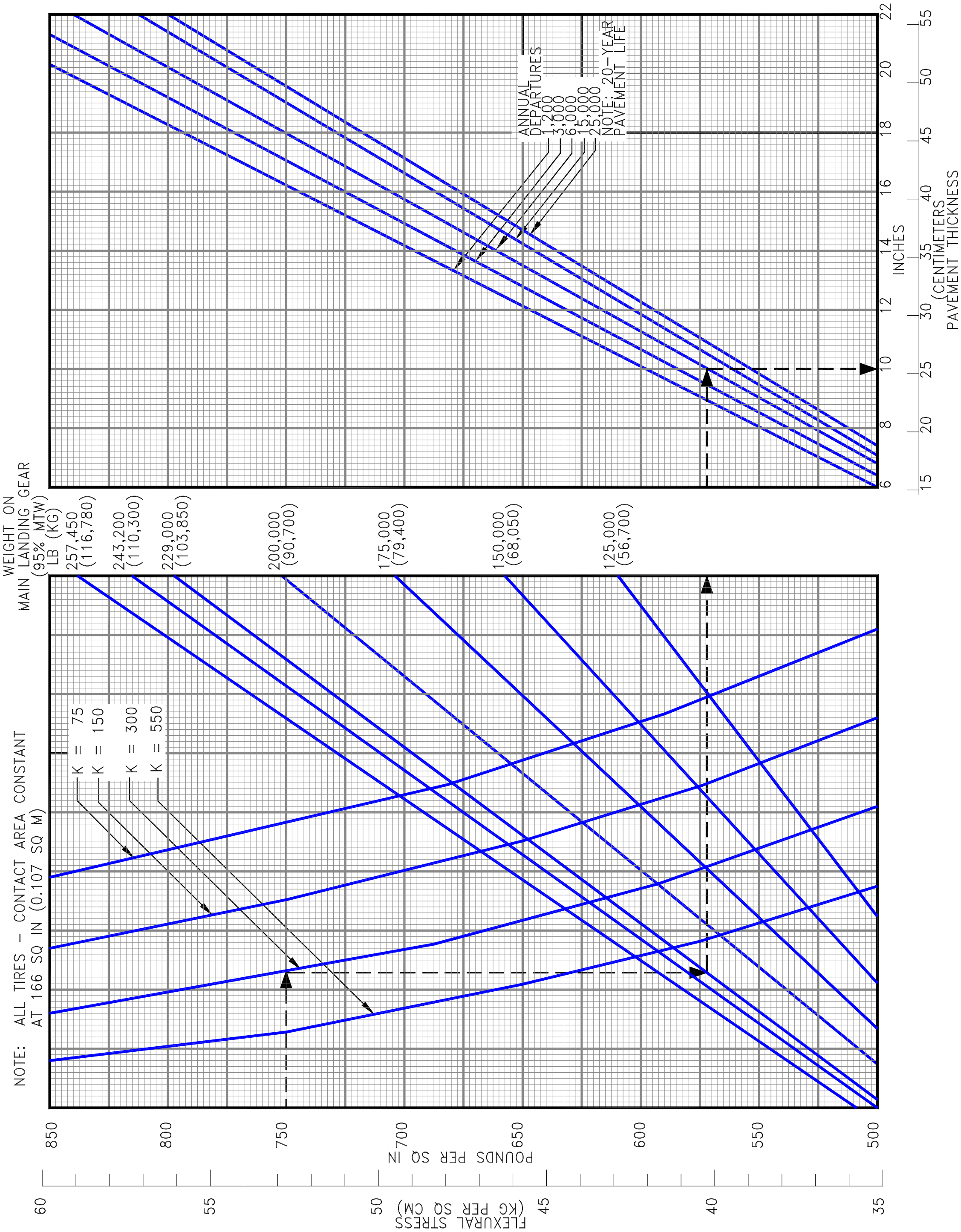


7.9 RIGID PAVEMENT REQUIREMENTS - FAA DESIGN METHOD

The following rigid-pavement design chart presents data on seven incremental main gear weights at the minimum tire pressure required at the maximum design taxi weight.

In the example shown, the pavement flexural strength is shown at 750 psi, the subgrade strength is shown at k = 300, and the annual departure level is 6,000. For these conditions, the required rigid pavement thickness for an airplane with a main gear loading of 229,000 pounds is 10 inches.

7.9.1 Rigid Pavement Requirements – FAA Method: Model 757-200, -200PF, 300



7.10 ACN/PCN REPORTING SYSTEM - FLEXIBLE AND RIGID PAVEMENTS

To determine the ACN of an aircraft on flexible or rigid pavement, both the aircraft gross weight and the subgrade strength category must be known. The chart in Section 7.10.1 shows that for a 757-200 aircraft with gross weight of 175,000 lb on a medium strength subgrade (Code B), the flexible pavement ACN is 19.7, which rounded to the nearest whole number is reported as 20. In Section 7.10.2, for the same aircraft weight and medium subgrade strength (Code B), the rigid pavement ACN is 21.6, which rounded to the nearest whole number is reported as 22.

The following table provides ACN data in tabular format similar to the one used by ICAO in Doc 9157-AN/901, Aerodrome Design Manual, Part 3, "Pavements," Second Edition, 1983. If the ACN for an intermediate weight between the maximum taxi weight and the minimum weight specified in the table is required, Sections 7.10.1 through 7.10.4 should be consulted.

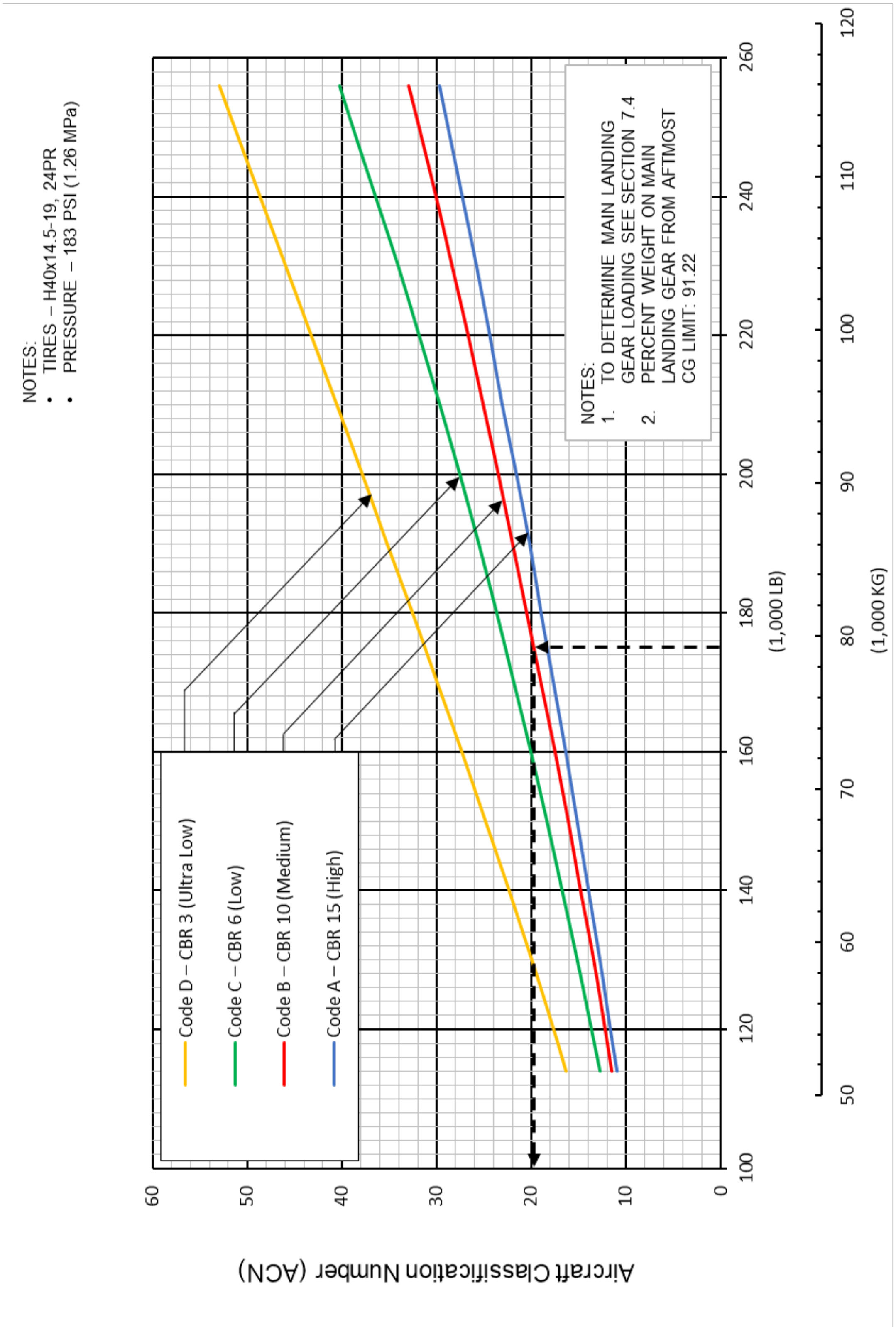
The ACN curve graphs were developed based on standard recommended practices from ICAO Annex 14, Aerodromes, Volume I, "Aerodrome Design and Operations," Ninth Edition, July 2022, and guidance material from ICAO Doc 9157-AN/901, Aerodrome Design Manual, Part 3, "Pavements," Second Edition, 1983. The Federal Aviation Administration has developed the "ICAO-ACN 1.0" program to calculate the ACN values for aircraft on flexible and rigid airport pavements, and it is available for download at:

https://www.airporttech.tc.faa.gov/Products/Airport-Safety-Papers-Publications/Airport-Safety-Detail/icao-acn-10.

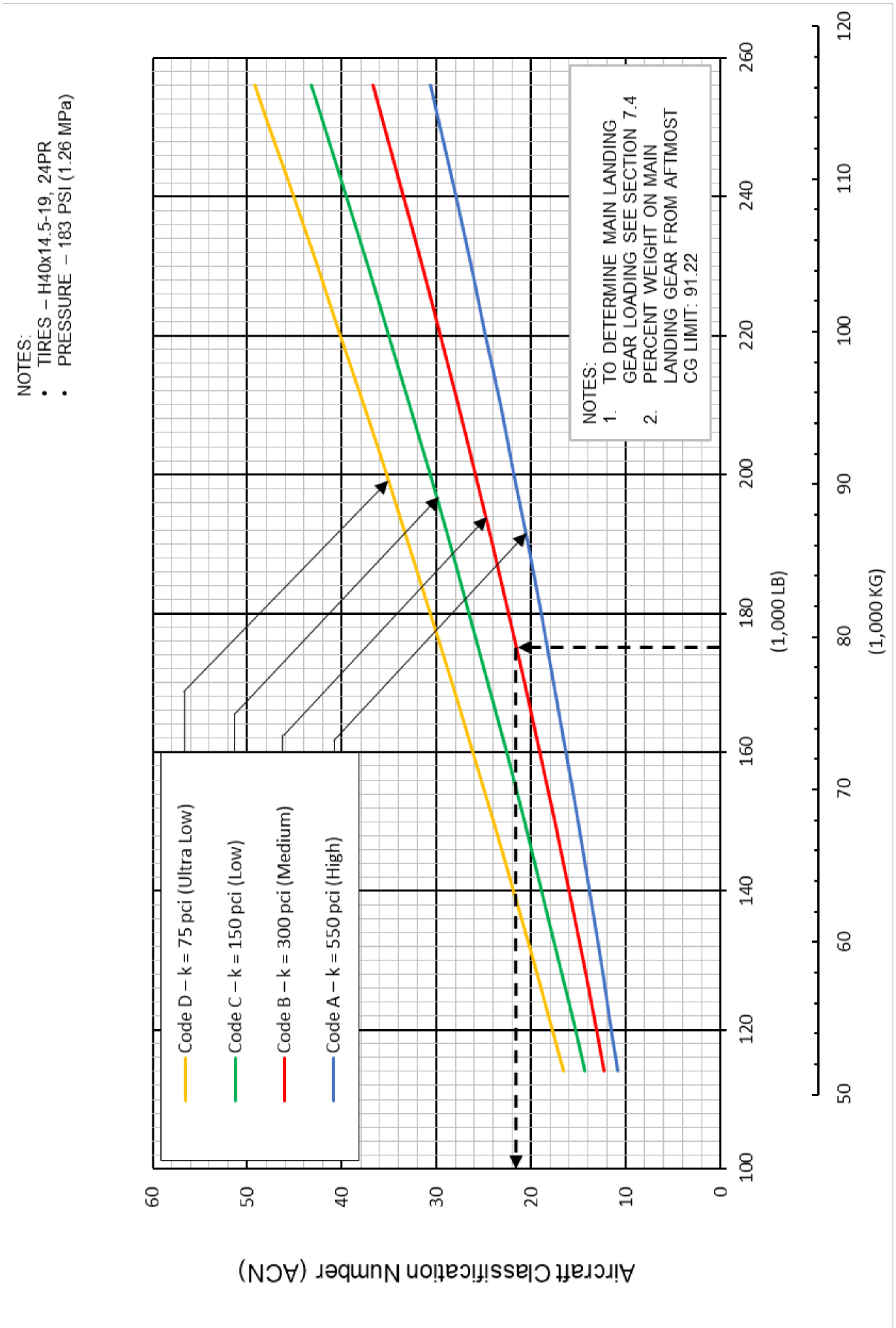
				ACN FOR FLEXIBLE PAVEMENT SUBGRADE CATEGORIES CBR				ACN FOR RIGID PAVEMENT SUBGRADE CATEGORIES k, pci (MN/m^3)			
AIRCRAFT TYPE	MAXIMUM TAXI WEIGHT MINIMUM WEIGHT *[1] lb (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE psi (MPa)	HIGH (A) 15	MEDIUM (B) 10	LOW (C) 6	ULTRA LOW (D) 3	HIGH (A) 550 (150)	MEDIUM (B) 300 (80)	LOW (C) 150 (40)	ULTRA LOW (D) 75 (20)
757-200, -200PF	256,000 (116,119)	45.61	183 (1.26)	30	33	40	53	31	37	43	49
	114,000 (51,709)			11	12	13	16	11	12	14	17
757-300	271,000 (122,923)	46.24	200 (1.38)	33	37	45	58	35	42	49	55
	141,800 (64,319)			15	16	17	23	15	17	20	23

*[1] Minimum weight used solely as a baseline for ACN curve generation.

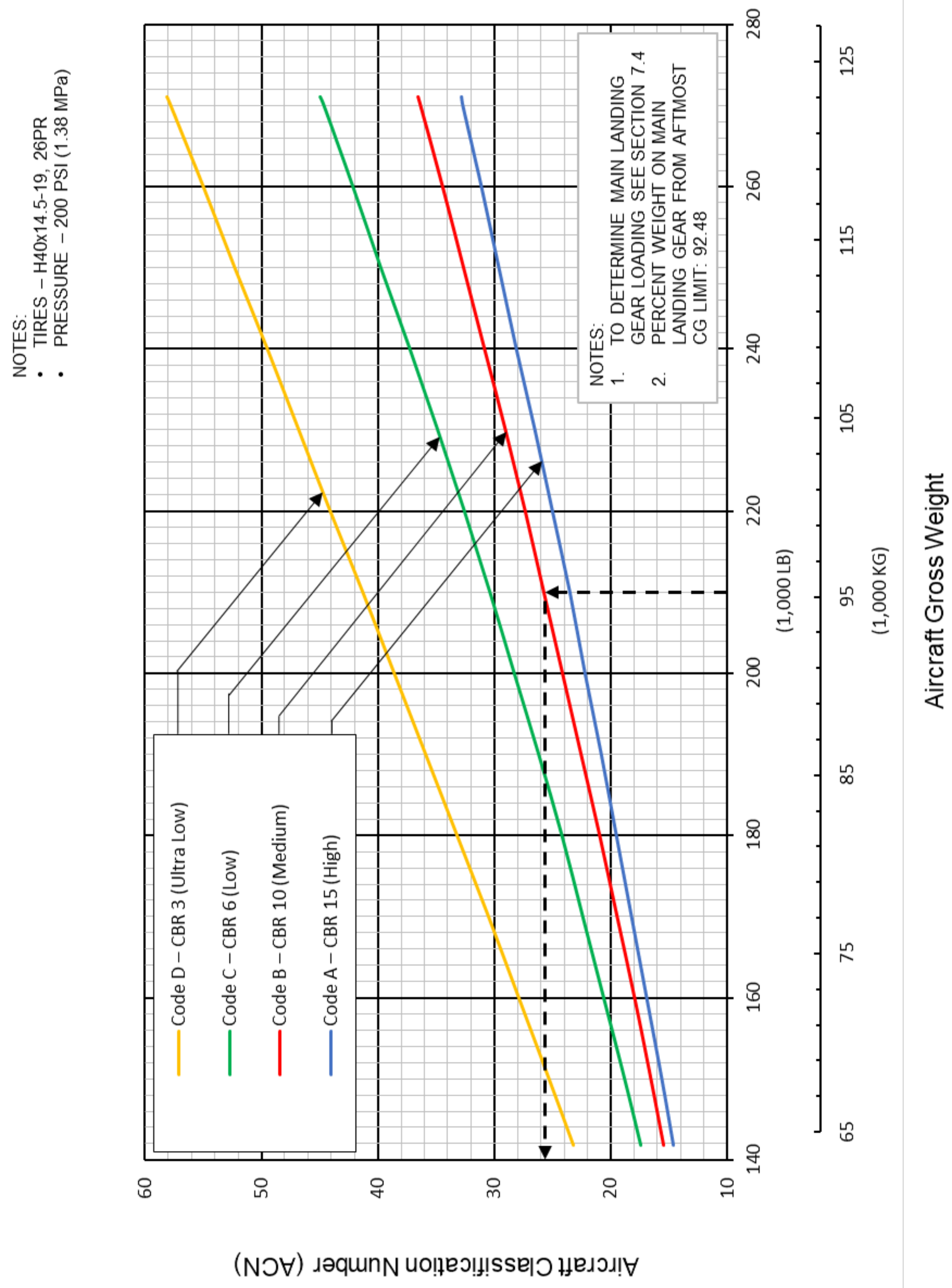
7.10.1 Aircraft Classification Number - Flexible Pavement: Model 757-200, -200PF



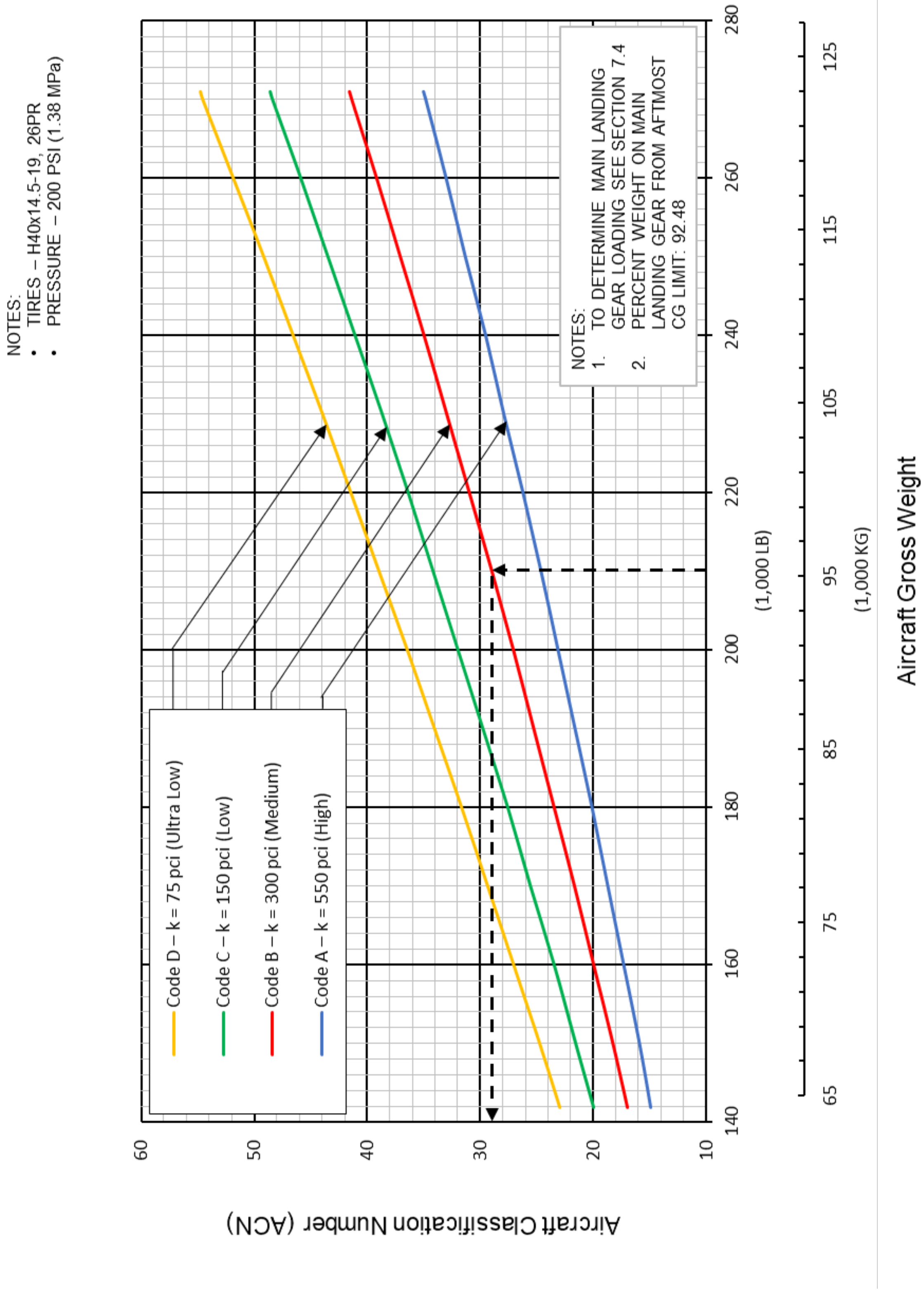
7.10.2 Aircraft Classification Number - Rigid Pavement: Model 757-200, -200PF



7.10.3 Aircraft Classification Number - Flexible Pavement: Model 757-300



7.10.4 Aircraft Classification Number – Rigid Pavement: Model 757-300



7.11 ACR/PCR REPORTING SYSTEM – FLEXIBLE AND RIGID PAVEMENTS

To determine the ACR of an aircraft on flexible or rigid pavement, both the aircraft gross weight and the subgrade strength category must be known. The chart in Section 7.11.1 shows that for a 757-200 aircraft with gross weight of 175,000 lb on a medium strength subgrade (Code B), the flexible pavement ACR is 186, which rounded to the nearest multiple of ten is reported as 190. In Section 7.11.2, for the same aircraft weight and medium subgrade strength (Code B), the rigid pavement ACR is 213, which rounded to the nearest multiple of ten is reported as 210.

The following table provides ACR data in tabular format. If the ACR for an intermediate weight between the maximum taxi weight and the minimum weight specified in the table is required, Sections 7.11.1 through 7.11.4 can be consulted.

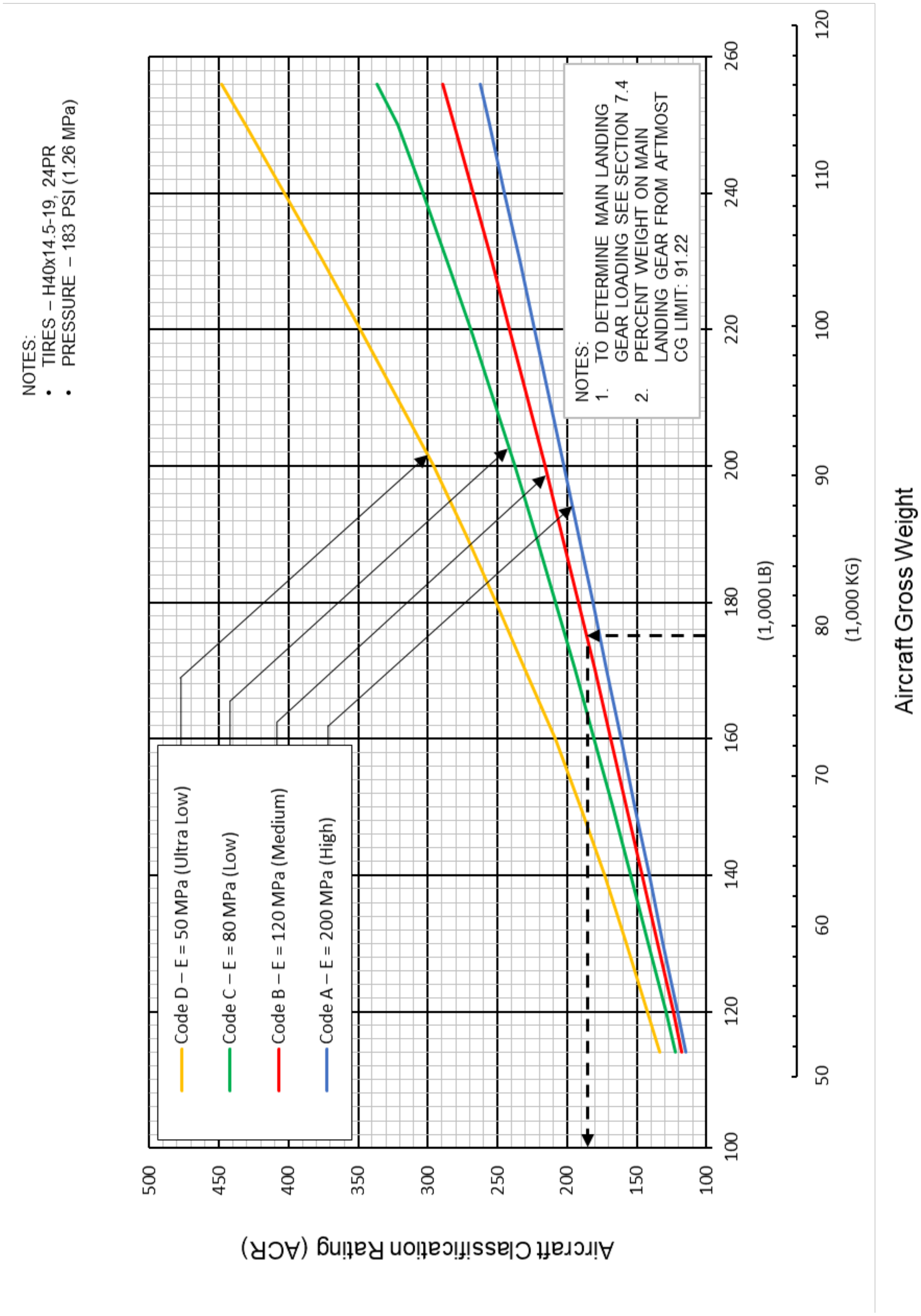
The ACR curve graphs were developed based on standard recommended practices from ICAO Annex 14, Aerodromes, Volume I, "Aerodrome Design and Operations," Ninth Edition, July 2022, and guidance material from ICAO Doc 9157-AN/901, Aerodrome Design Manual, Part 3, "Pavements," Third Edition, 2022. The Federal Aviation Administration has developed the "ICAO-ACR 1.4" program to calculate the ACR values for aircraft on flexible and rigid airport pavements", and it is available for download at:

https://www.airporttech.tc.faa.gov/Products/Airport-Safety-Papers-Publications/Airport-Safety-Detail/ICAO-ACR-14.

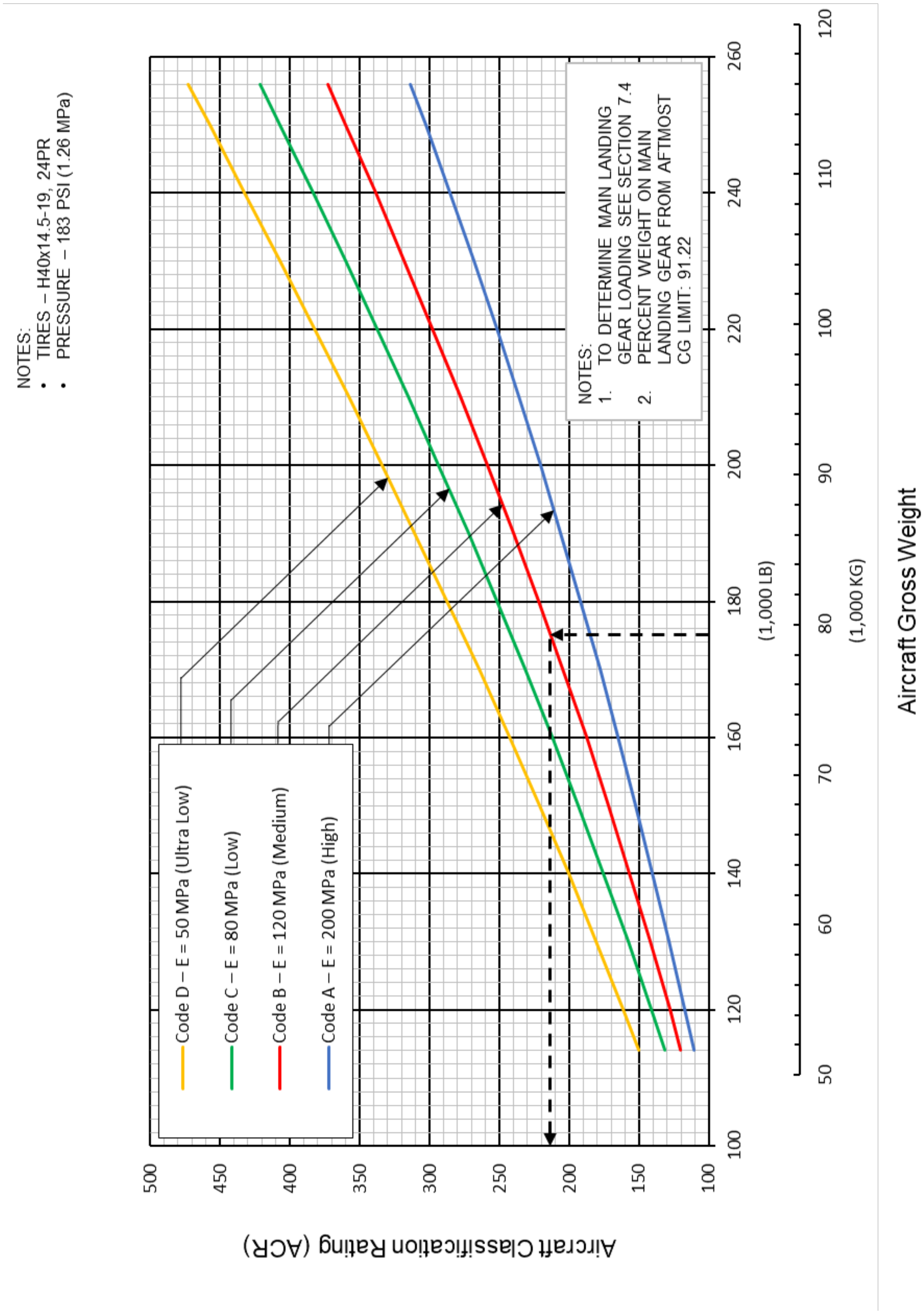
				ACR FOR FLEXIBLE PAVEMENT SUBGRADES				ACR FOR RIGID PAVEMENT SUBGRADES			
AIRCRAFT TYPE	MAXIMUM TAXI WEIGHT MINIMUM WEIGHT *[1] lb (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE psi (MPa)	HIGH (A) E = 200 MPa	MEDIUM (B) E = 120 MPa	LOW (C) E = 80 MPa	ULTRA LOW (D) E = 50 MPa	HIGH (A) E = 200 MPa	MEDIUM (B) E = 120 MPa	LOW (C) E = 80 MPa	ULTRA LOW (D) E = 50 MPa
757-200, -200PF	256,000 (116,119)	45.61	183 (1.26)	260	290	340	450	310	370	420	470
	114,000 (51,709)			120	120	120	130	110	120	130	150
757-300	271,000 (122,923)	46.24	200 (1.38)	290	320	380	510	360	420	470	530
	141,800 (64,319)			150	150	160	180	150	170	190	210

*[1] Minimum weight used solely as a baseline for ACR curve generation.

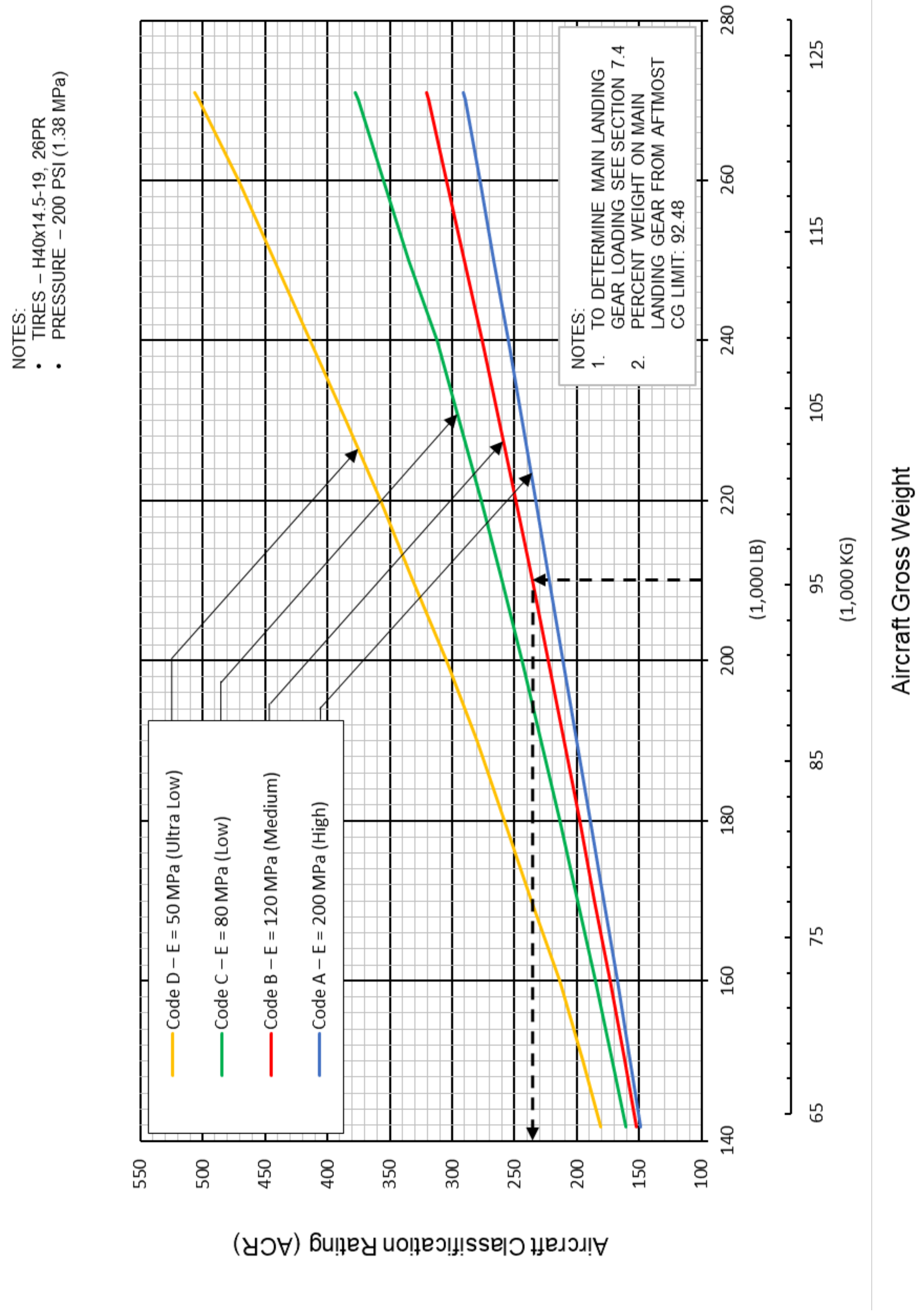
7.11.1 Aircraft Classification Rating - Flexible Pavement: Model 757-200, -200PF



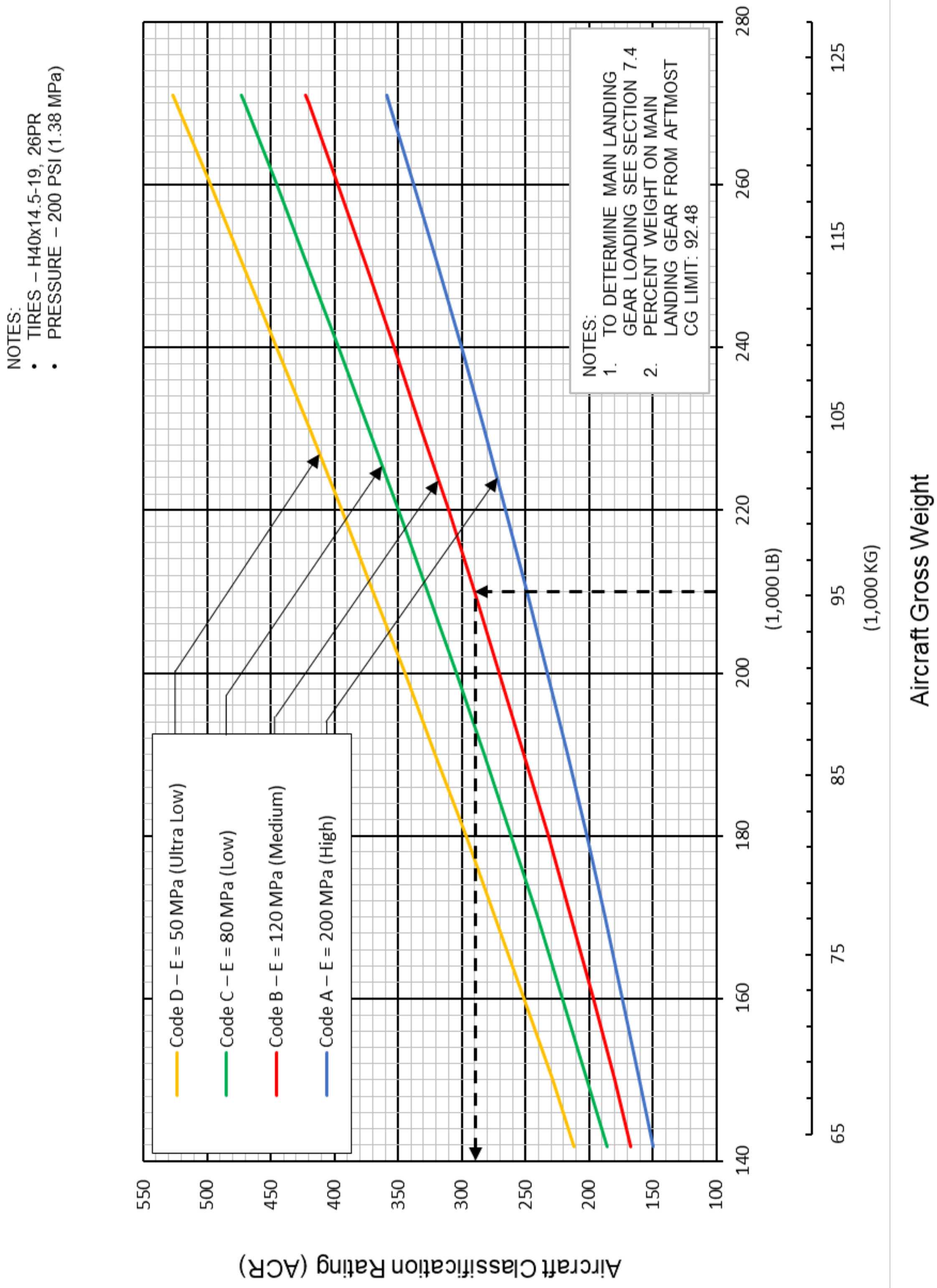
7.11.2 Aircraft Classification Rating - Rigid Pavement: Model 757-200, -200PF



7.11.3 Aircraft Classification Rating - Flexible Pavement: Model 757-300



7.11.4 Aircraft Classification Rating - Rigid Pavement: Model 757-300



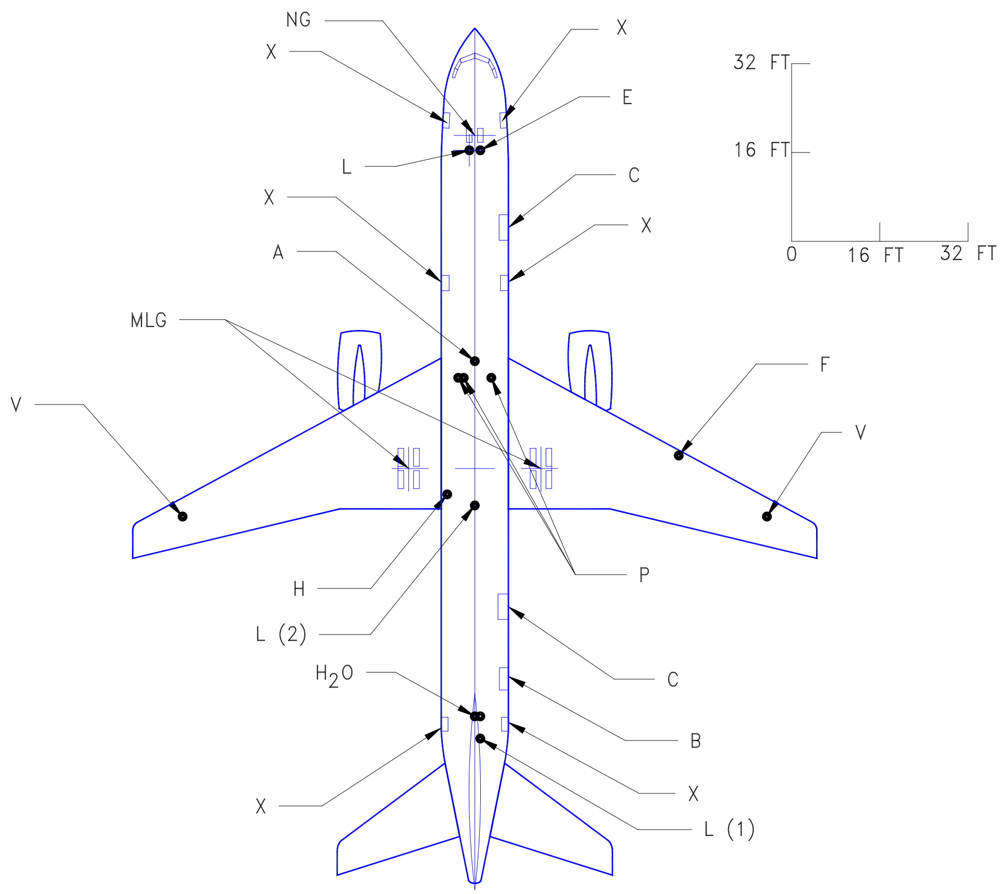
8.0 FUTURE MODEL 757 DERIVATIVE AIRPLANES

Several derivatives are being studied to provide additional capabilities of the 757 family of airplanes. Future growth versions could require additional passenger or cargo capacity or increased range or both. Whether these growth versions could be built would depend entirely on airline requirements. In any event, impact on airport facilities will be a consideration in the configuration and design.

9.0 SCALED MODEL 757 DRAWINGS

9.1 MODEL 757-200

9.1.1 Scaled Drawings – 1 IN. = 32 FT: Model 757-200

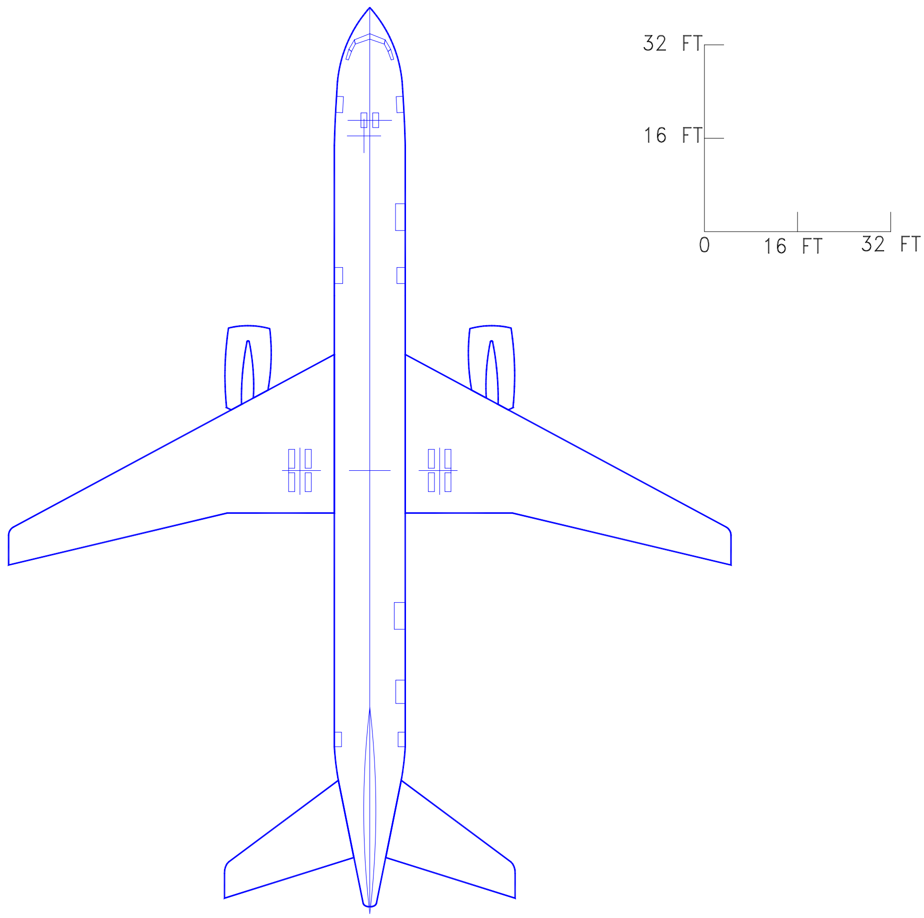


LEGEND
A AIR CONDITIONING
B BULK CARGO DOOR (OPTIONAL)
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
H20 POTABLE WATER
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

NOTES:
(1) OVERWING–EXIT AIRPLANE
(2) FOUR–DOOR AIRPLANE

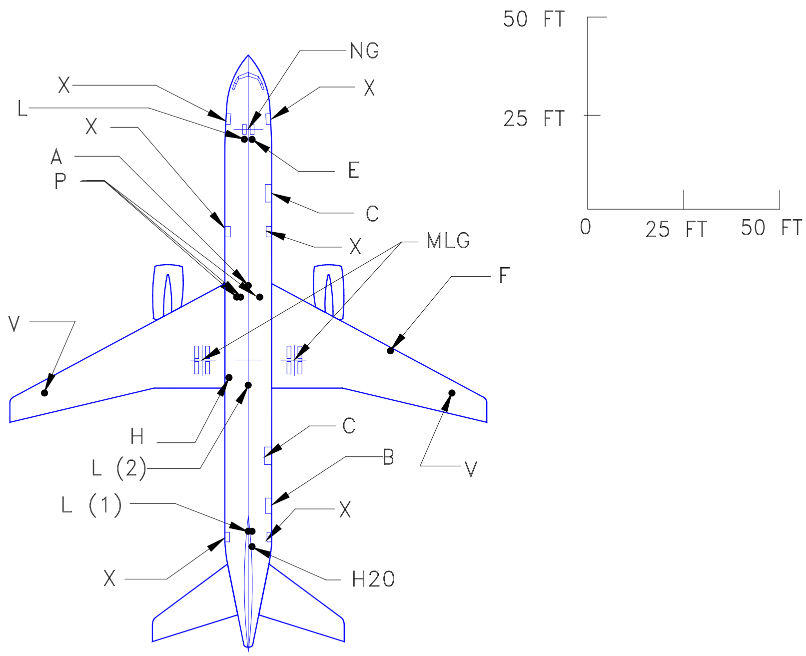
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.2 Scaled Drawings – 1 IN. = 32 FT: Model 757-200



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.3 Scaled Drawings – 1 IN. = 50 FT: Model 757-200



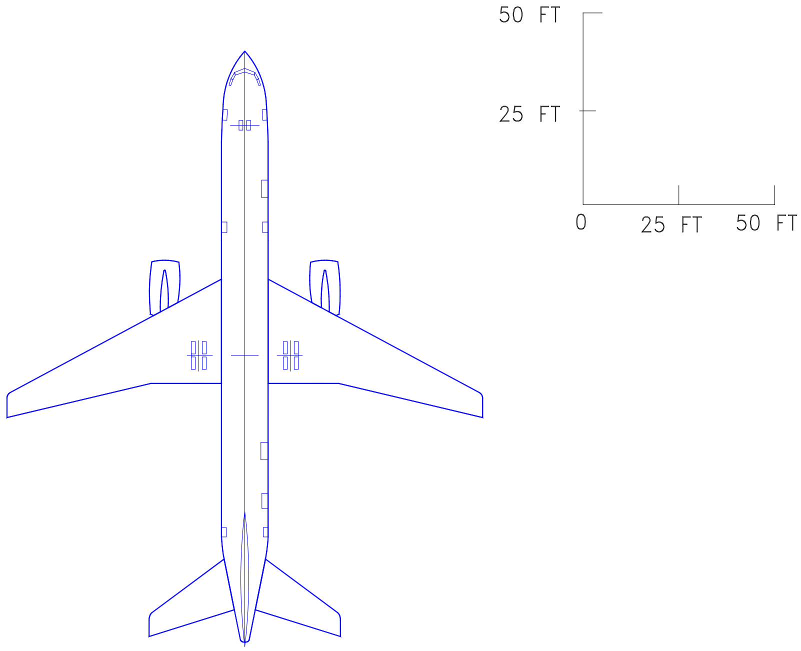
LEGEND

A AIR CONDITIONING
B BULK CARGO DOOR (OPTIONAL)
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
H20 POTABLE WATER
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

NOTES:
(1) OVERWING–EXIT AIRPLANE
(2) FOUR–DOOR AIRPLANE

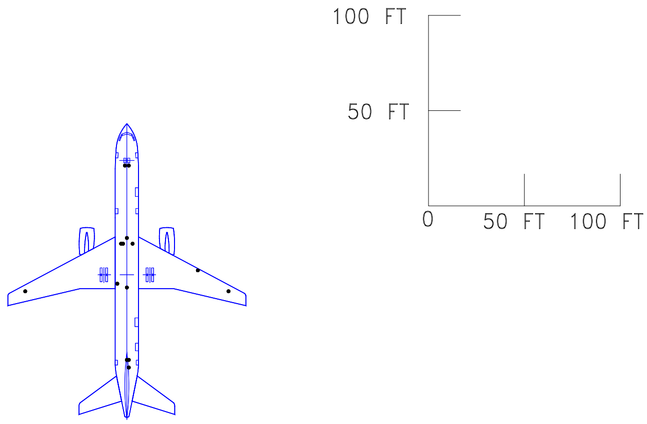
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.4 Scaled Drawings – 1 IN. = 50 FT: Model 757-200



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.5 Scaled Drawings – 1 IN. = 100 FT: Model 757-200



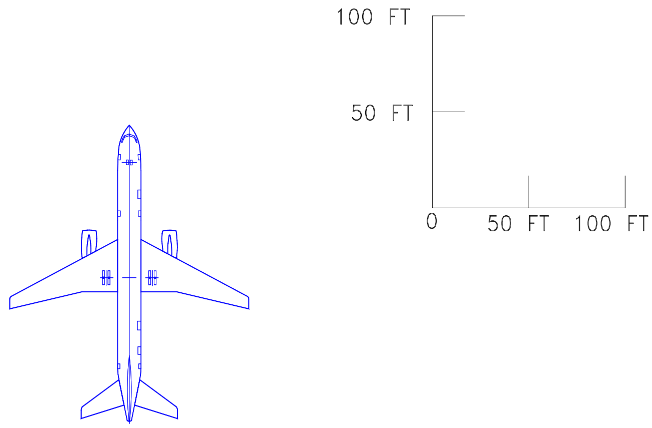
LEGEND

A AIR CONDITIONING
B BULK CARGO DOOR (OPTIONAL)
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
H20 POTABLE WATER
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

NOTE:
SEE SECTION 9.1.1 FOR IDENTIFICATION OF SERVICE POINT LOCATIONS.

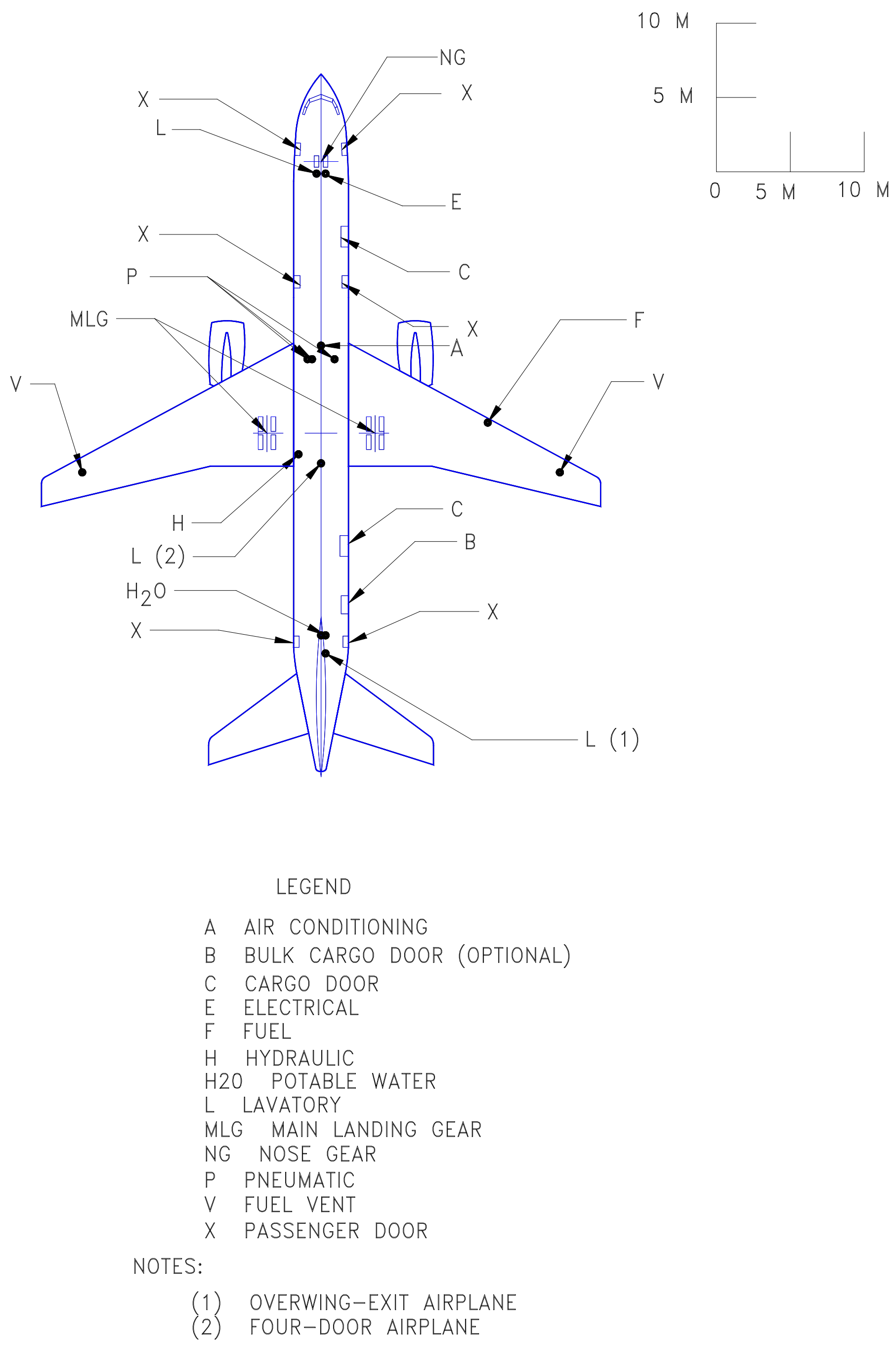
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.6 Scaled Drawings – 1 IN. = 100 FT: Model 757-200



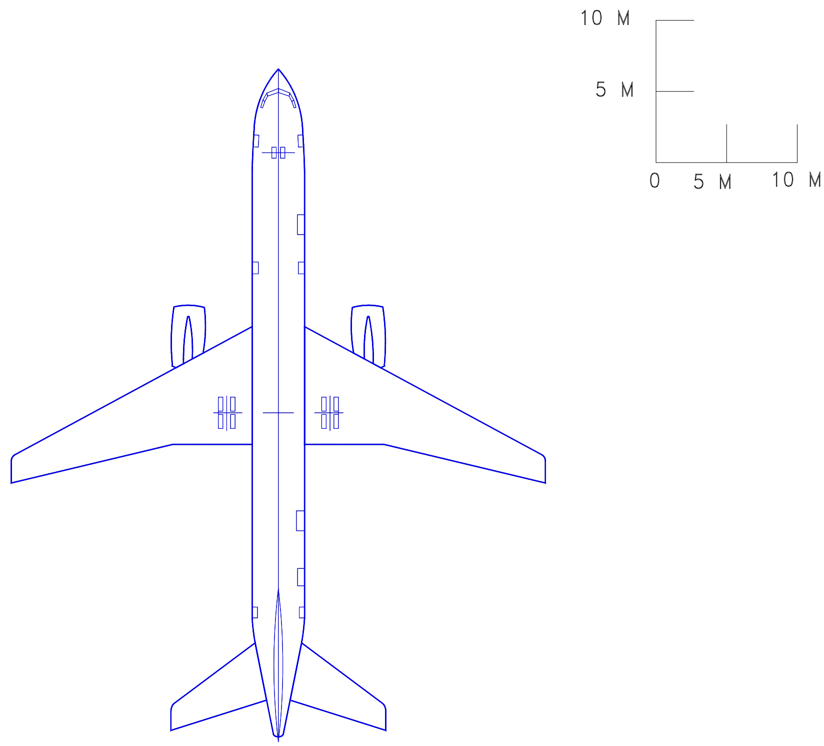
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.7 Scaled Drawings – 1:500: Model 757-200



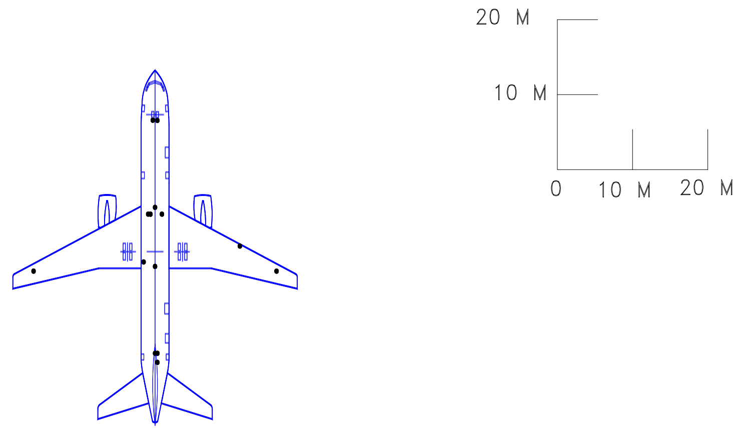
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.8 Scaled Drawings – 1:500: Model 757-200



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.9 Scaled Drawings – 1:1000: Model 757-200



LEGEND

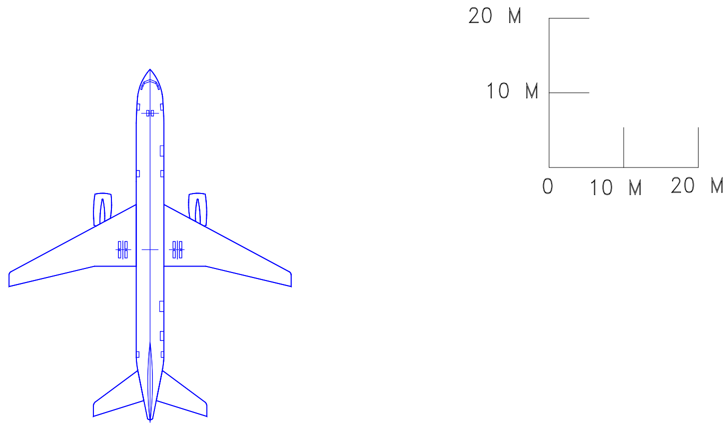
A AIR CONDITIONING
B BULK CARGO DOOR (OPTIONAL)
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
H20 POTABLE WATER
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

NOTE:

SEE SECTION 9.1.1 FOR IDENTIFICATION OF SERVICE POINT LOCATIONS

NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

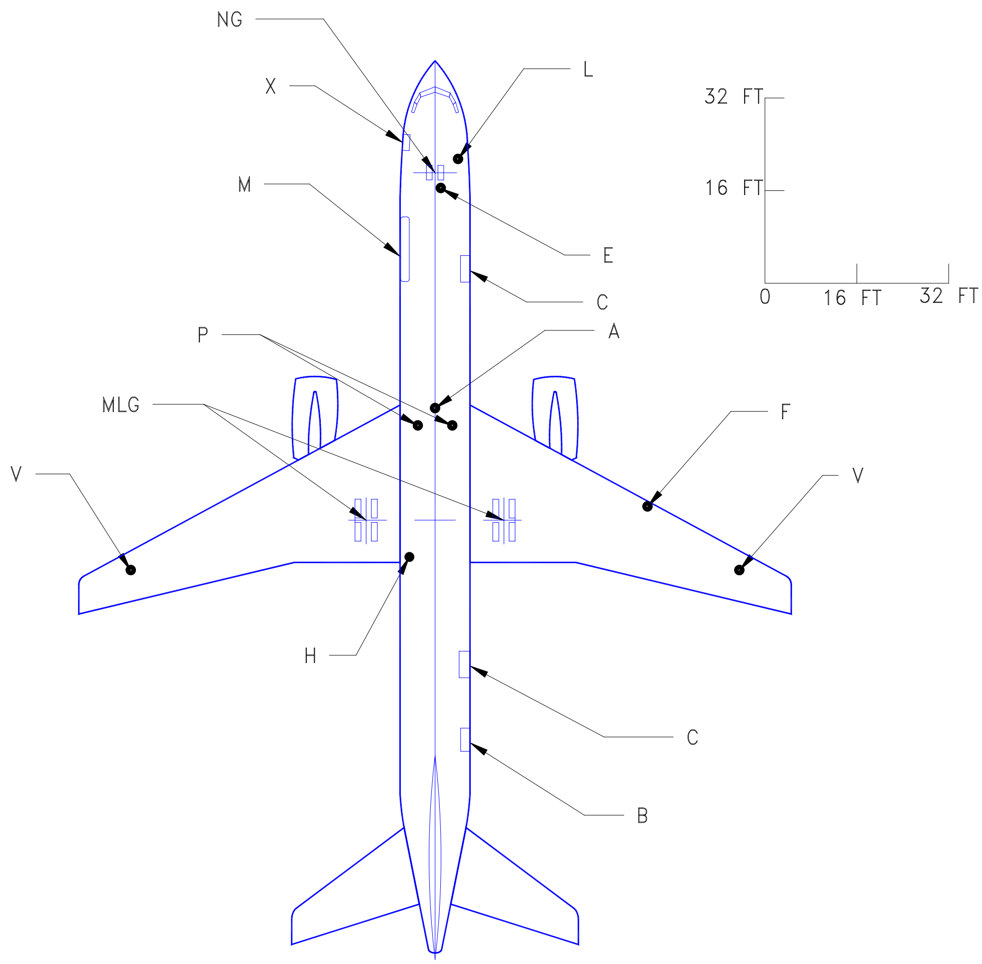
9.1.10 Scaled Drawings – 1:1000: Model 757-200



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.2 MODEL 757-200

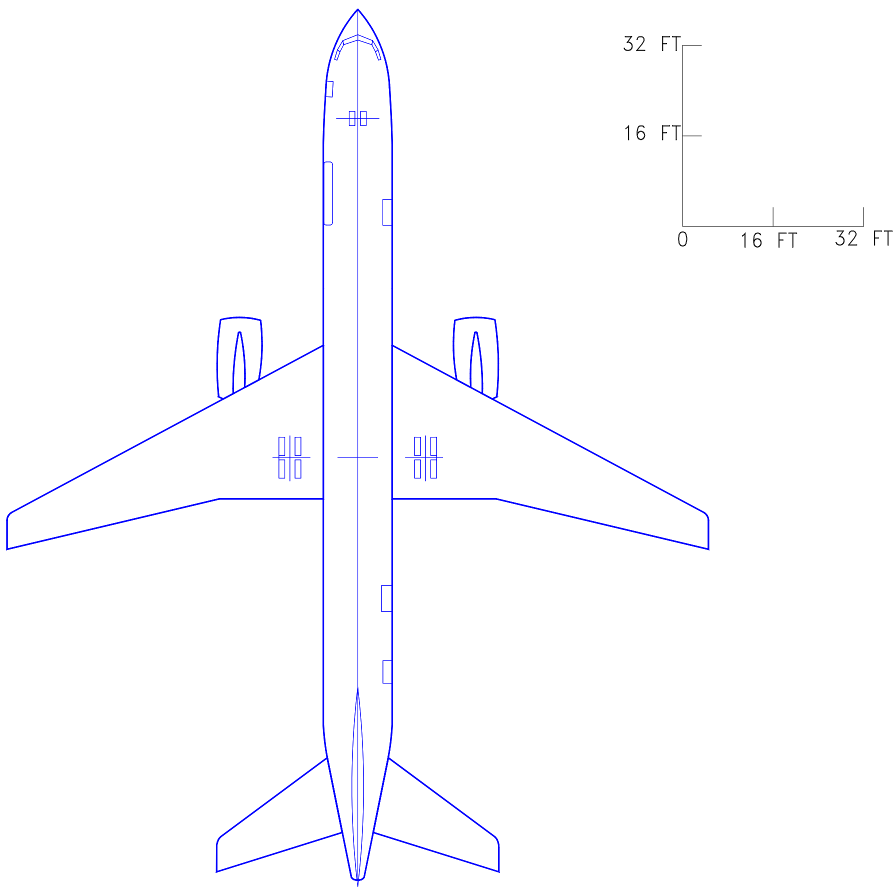
9.2.1 Scaled Drawings – 1 IN. = 32 FT: Model 757-200PF



LEGEND
A AIR CONDITIONING
B BULK CARGO DOOR (OPTIONAL)
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

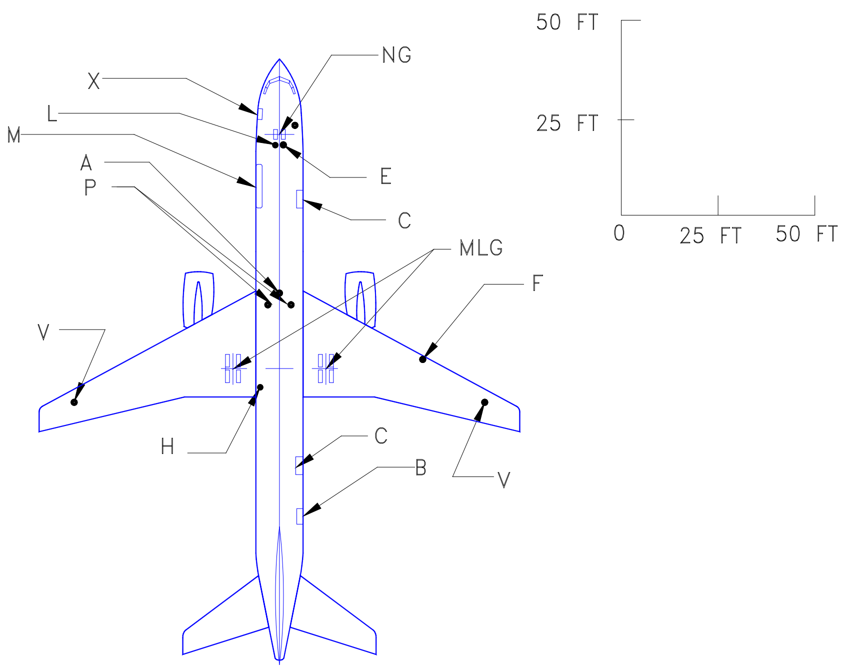
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.2.2 Scaled Drawings – 1 IN. = 32 FT: Model 757-200PF



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

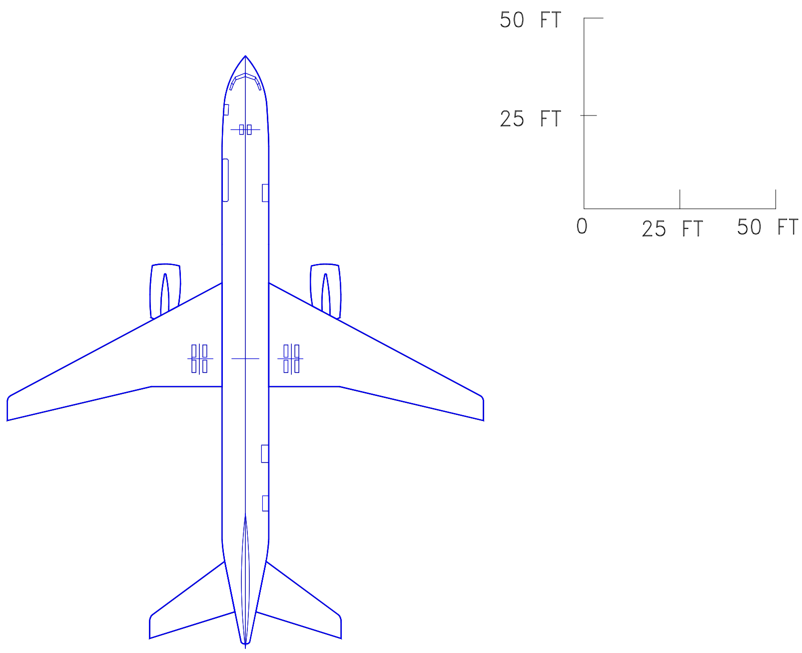
9.2.3 Scaled Drawings – 1 IN. = 50 FT: Model 757-200PF



LEGEND
A AIR CONDITIONING
B BULK CARGO DOOR (OPTIONAL)
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

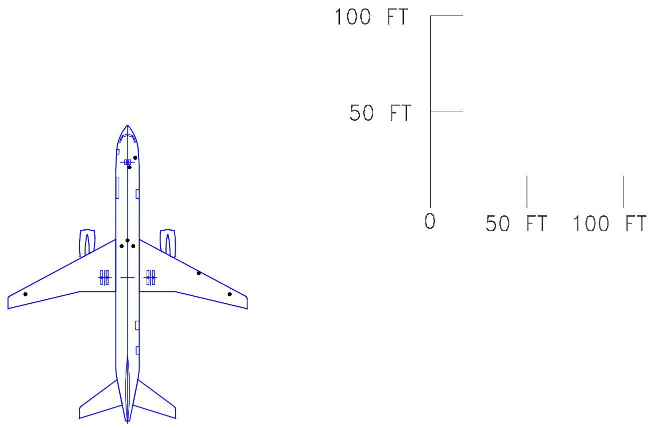
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.2.4 Scaled Drawings – 1 IN. = 50 FT: Model 757-200PF



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.2.5 Scaled Drawings – 1 IN. = 100 FT: Model 757-200PF



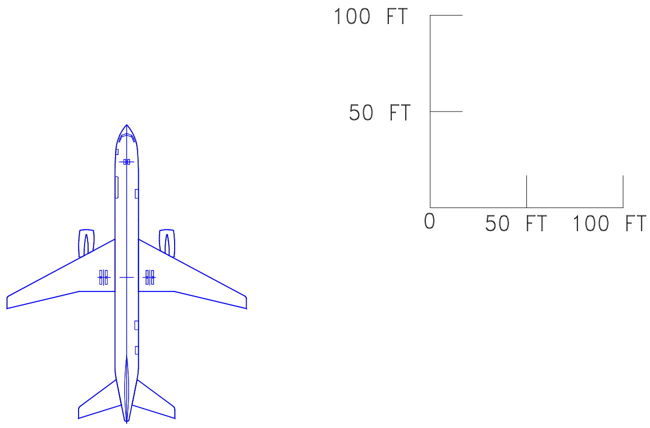
LEGEND

A AIR CONDITIONING
B BULK CARGO DOOR (OPTIONAL)
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

NOTE:
SEE SECTION 9.6.1 FOR IDENTIFICATION OF SERVICE POINT LOCATIONS.

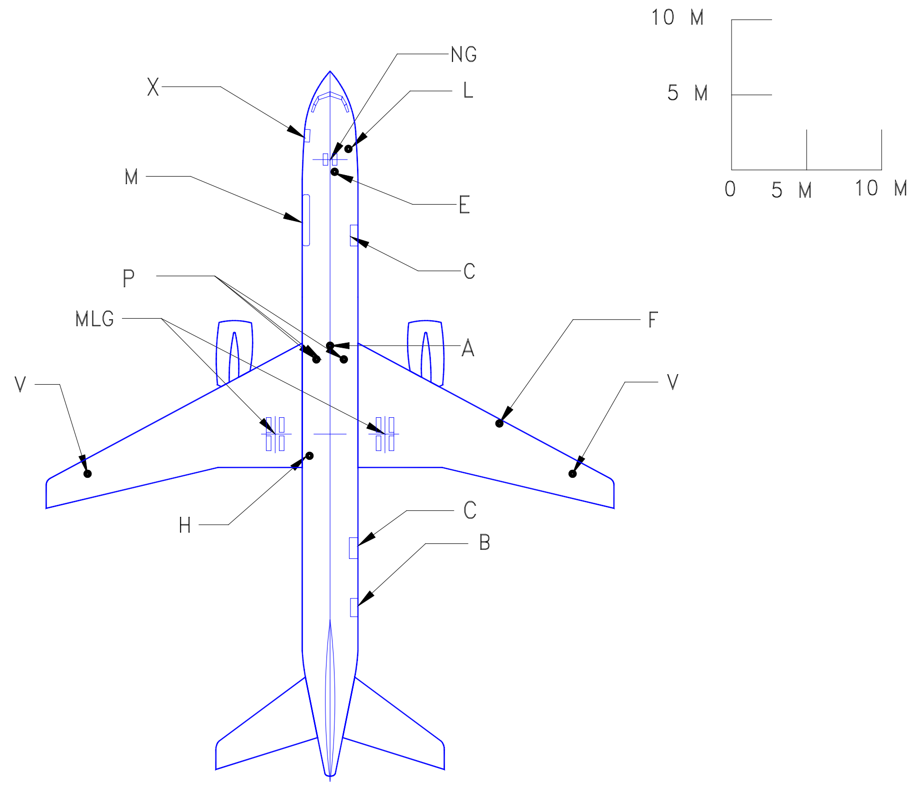
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.2.6 Scaled Drawings – 1 IN. = 100 FT: Model 757-200PF



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.2.7 Scaled Drawings – 1:500: Model 757-200PF

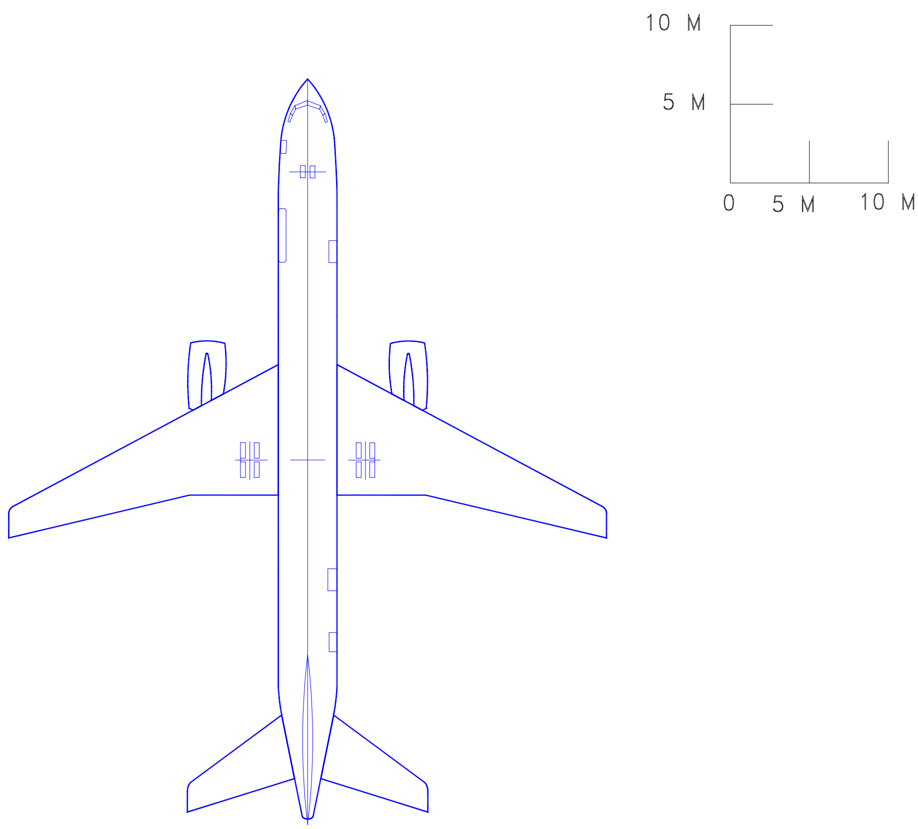


LEGEND

A AIR CONDITIONING
B BULK CARGO DOOR (OPTIONAL)
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

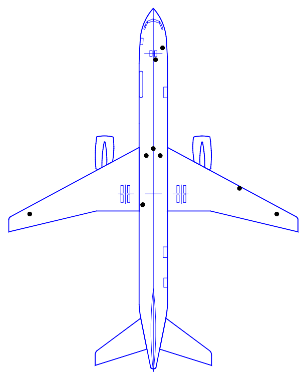
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

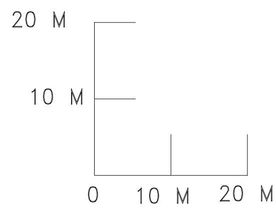
9.2.8 Scaled Drawings – 1:500: Model 757-200PF



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.2.9 Scaled Drawings – 1:1000: Model 757-200PF





LEGEND

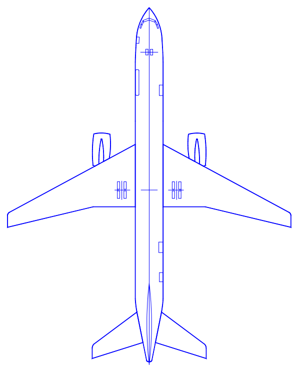
A AIR CONDITIONING
B BULK CARGO DOOR (OPTIONAL)
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

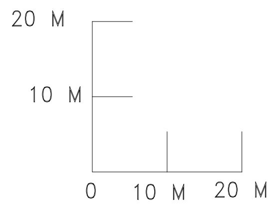
NOTE:

SEE SECTION 9.6.1 FOR IDENTIFICATION OF SERVICE POINT LOCATIONS

NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.2.10 Scaled Drawings – 1:1000: Model 757-200PF

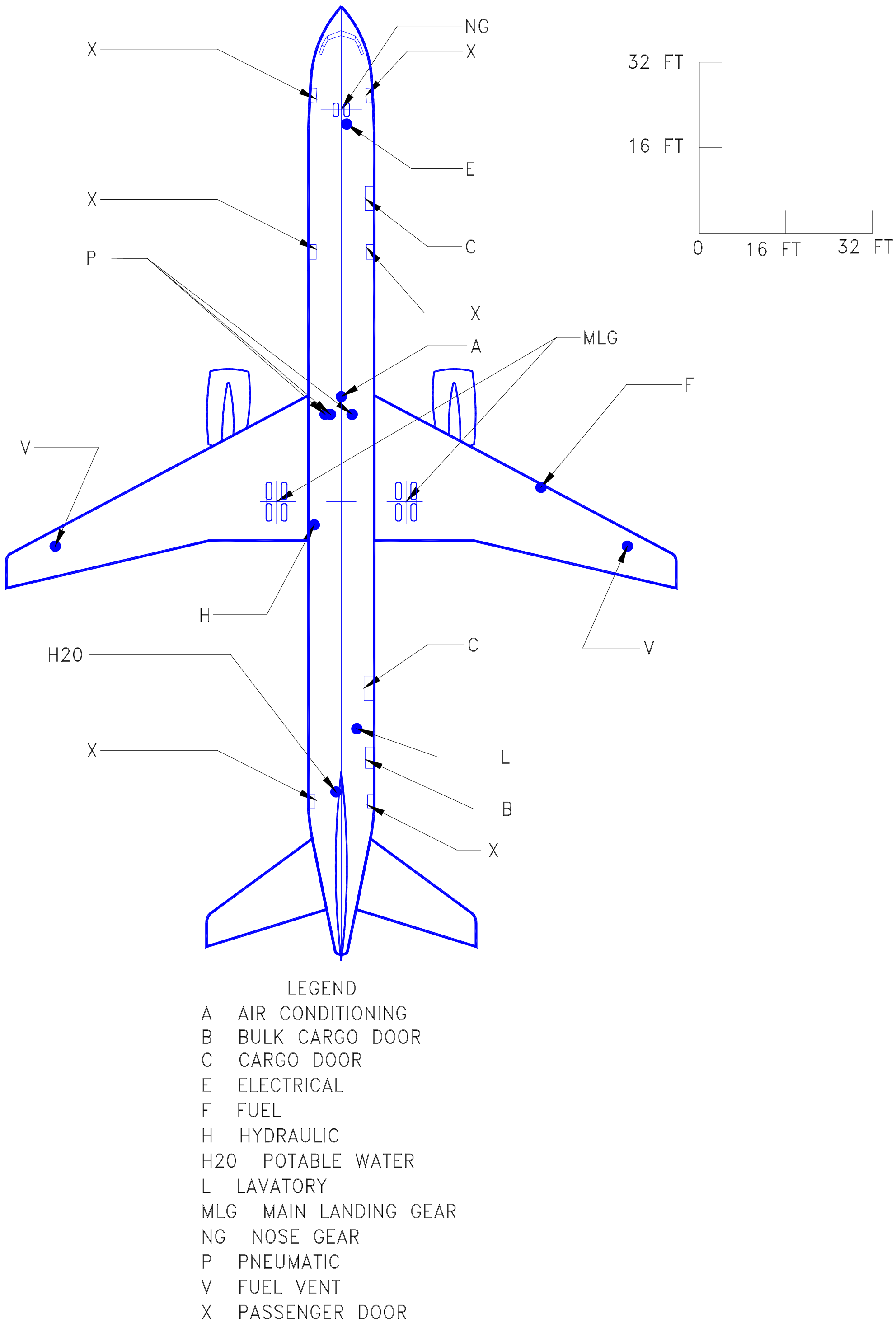




NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

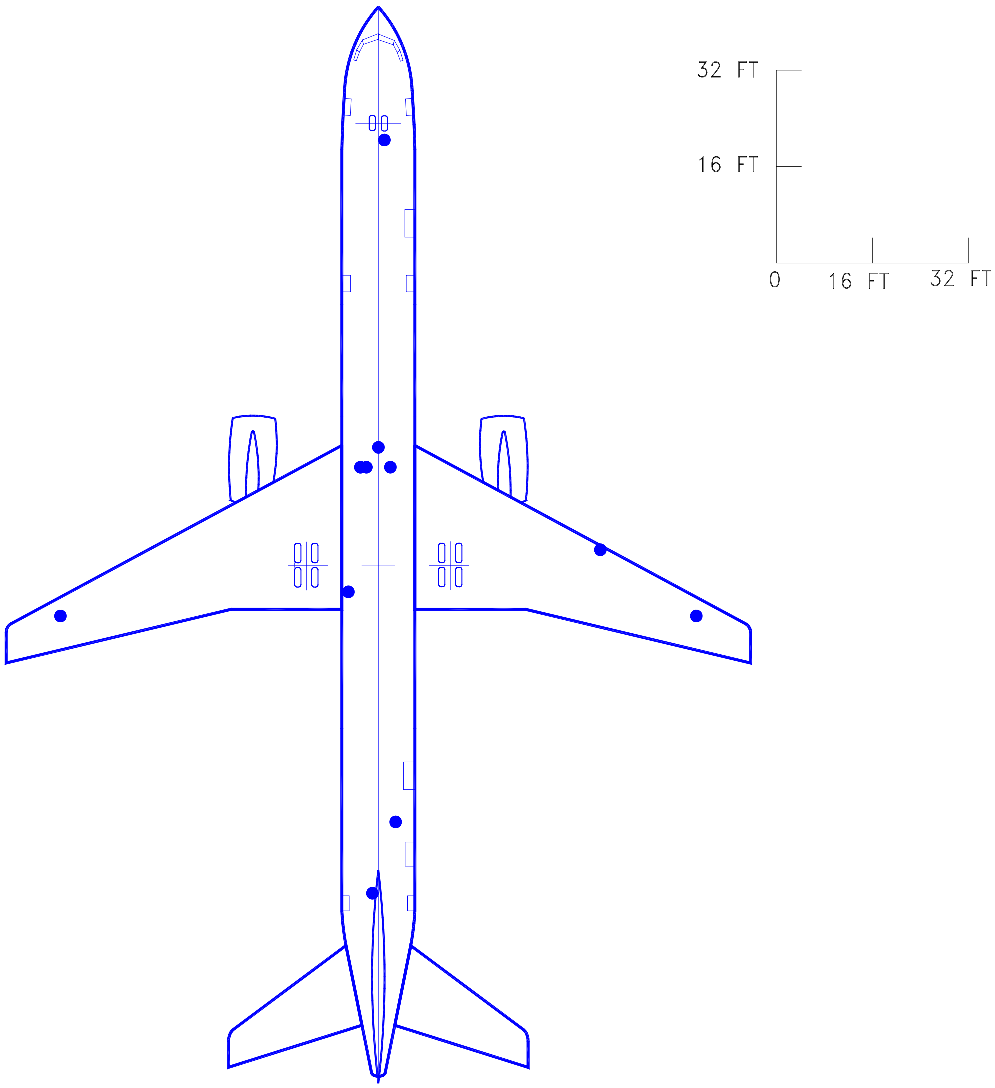
9.3 MODEL 757-300

9.3.1 Scaled Drawings – 1 IN. = 32 FT: Model 757-300



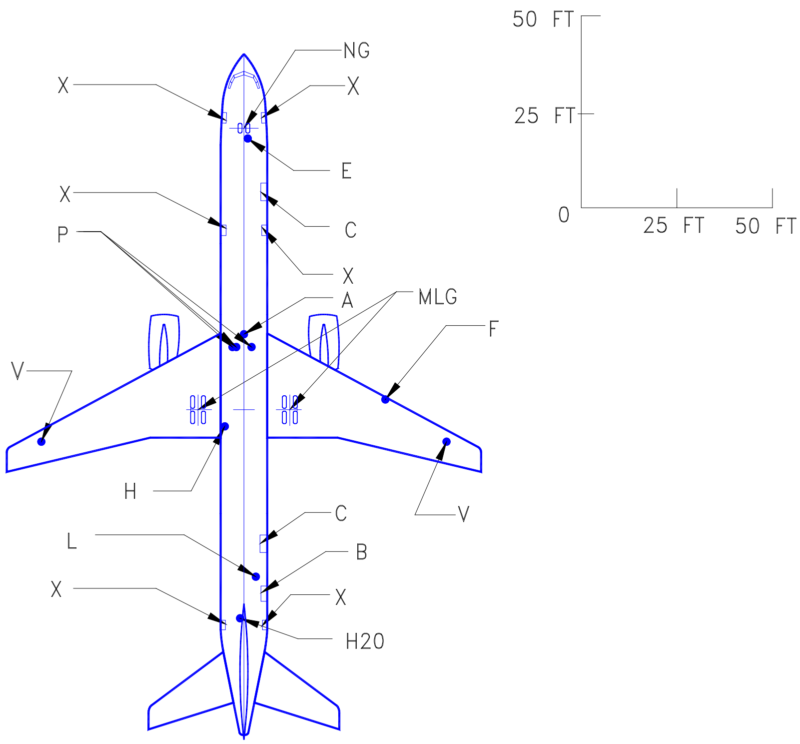
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.3.2 Scaled Drawings – 1 IN. = 32 FT: Model 757-300



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.3.3 Scaled Drawings – 1 IN. = 50 FT: Model 757-300

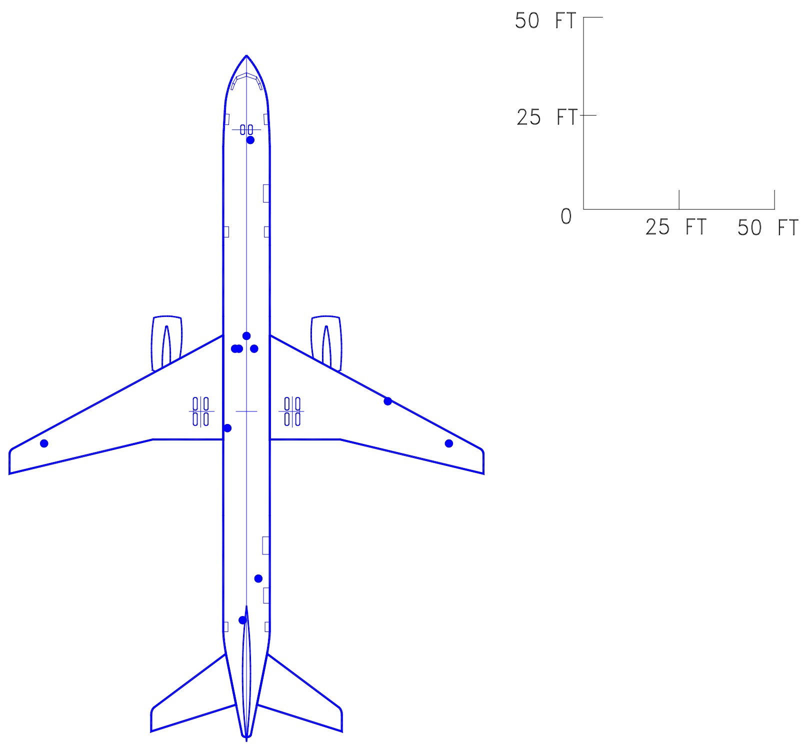


LEGEND

A AIR CONDITIONING
B BULK CARGO DOOR
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
H20 POTABLE WATER
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

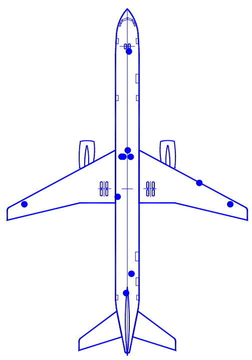
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

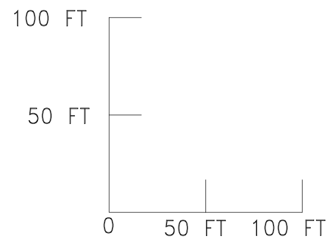
9.3.4 Scaled Drawings – 1 IN. = 50 FT: Model 757-300



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.3.5 Scaled Drawings – 1 IN. = 100 FT: Model 757-300





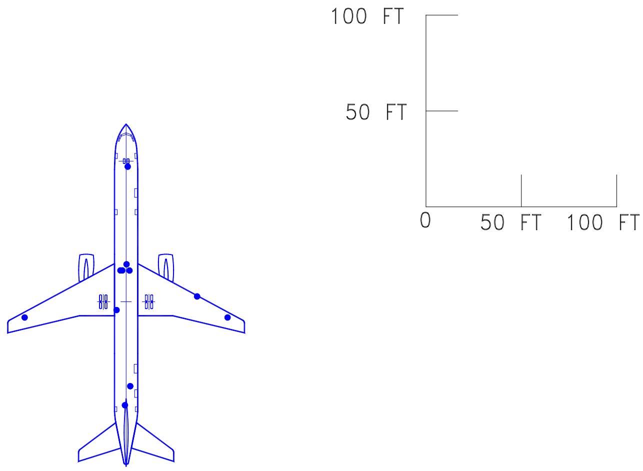
LEGEND

A AIR CONDITIONING
B BULK CARGO DOOR
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
H20 POTABLE WATER
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

NOTE:
SEE SECTION 9.11.1 FOR IDENTIFICATION OF SERVICE POINT LOCATIONS

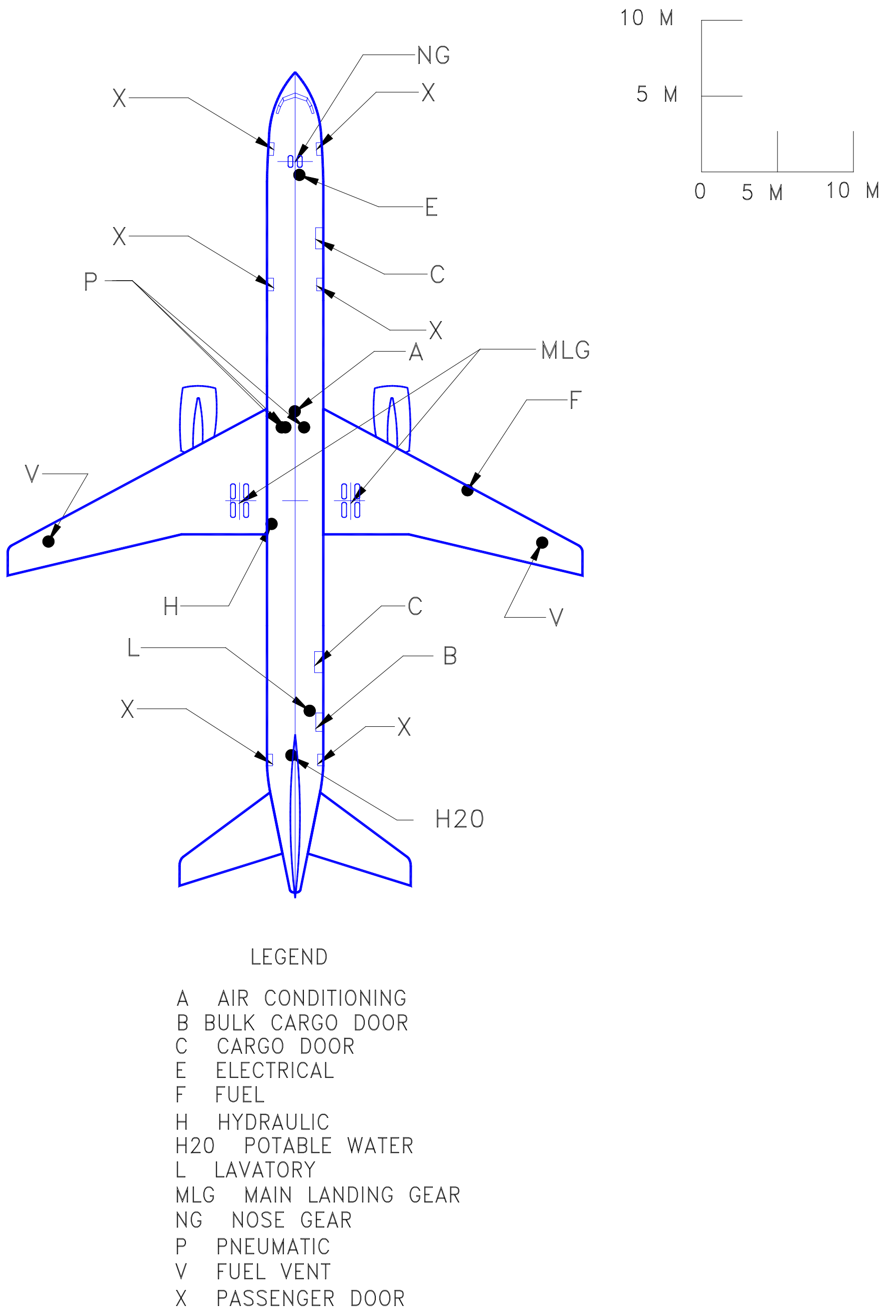
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.3.6 Scaled Drawings – 1 IN. = 100 FT: Model 757-300



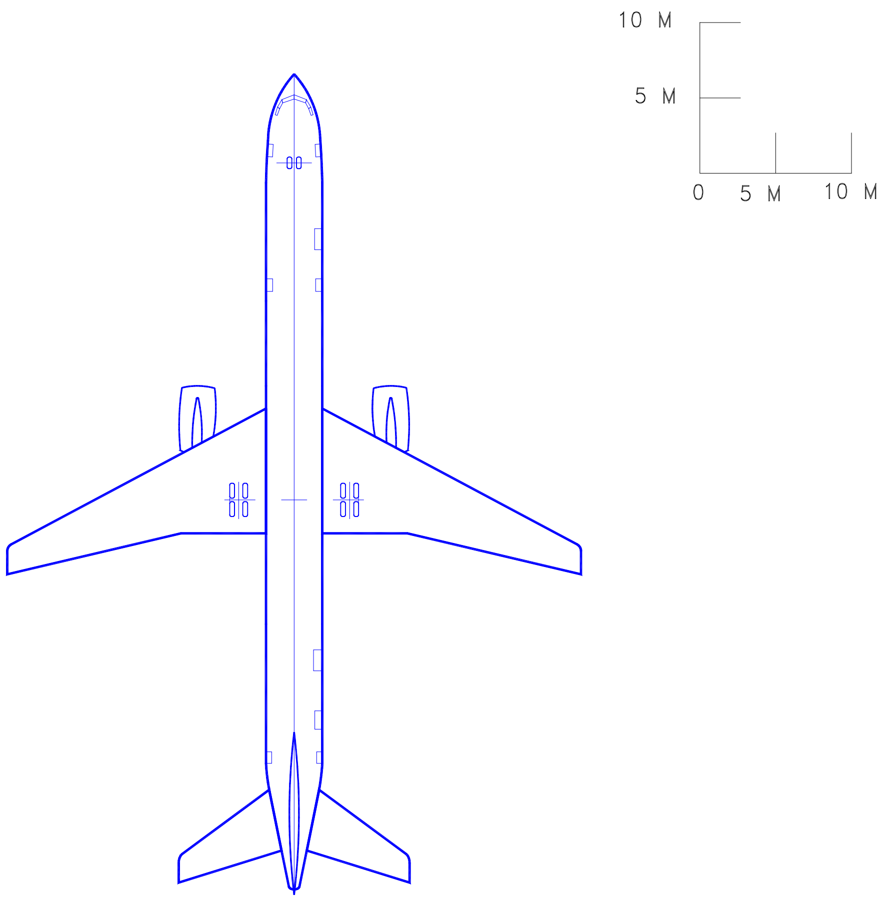
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.3.7 Scaled Drawings – 1:500: Model 757-300



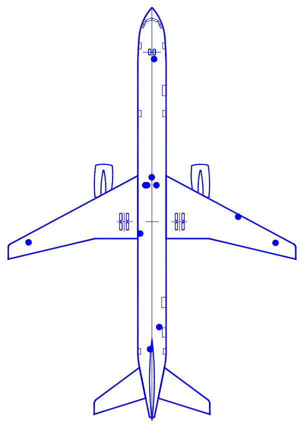
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

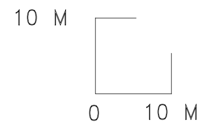
9.3.8 Scaled Drawings – 1:500: Model 757-300



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.3.9 Scaled Drawings – 1:1000: Model 757-300





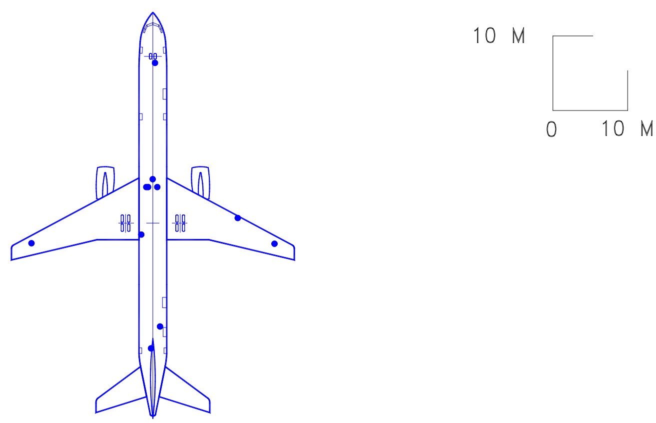
LEGEND

A AIR CONDITIONING
B BULK CARGO DOOR
C CARGO DOOR
E ELECTRICAL
F FUEL
H HYDRAULIC
H20 POTABLE WATER
L LAVATORY
MLG MAIN LANDING GEAR
NG NOSE GEAR
P PNEUMATIC
V FUEL VENT
X PASSENGER DOOR

NOTE:
SEE SECTION 9.11.1 FOR IDENTIFICATION OF SERVIDE POINT LOCATIONS

NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.3.10 Scaled Drawings – 1:1000: Model 757-300



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING