727

AIRPLANE CHARACTERISTICS

AIRPORT PLANNING

BOEING

COMMERCIAL AIRPLANE COMPANY

(A DIVISION OF THE BOEING COMPANY)

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REVISIONS

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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 the coordinated efforts by representatives from the following organizations:

- Aerospace Industries Association
- Airports Council International – North America
- Air Transport Association of 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 727 family of airplanes for airport operators, airlines, and engineering consultant organizations. 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
P.O. Box 3707
Seattle, WA 98124-2207
U.S.A.

Attention: Manager, Airport Technology
Mail Code: 20-93

1.3 A Brief Description and Comparison of the 727 Family of Airplanes

727-100

The 727-100 is a three-engine jet transport airplane designed for short to medium ranges and short runway operations. The Pratt & Whitney JT8D turbofan engines provide ample thrust for rapid climbout. The airplane also has rapid descent and short-field landing capability. The airplane is highly self-sufficient on the ground, and the cabin cross section is the same as that of the 707 and 737 models. Significant features of interest to the airport planner include the following:

- Engines are located near the tail of the airplane on the fuselage.
- The horizontal stabilizer is mounted atop the vertical fin.
- The airplane has self-contained stairways; the ventral stairway is standard and a forward stairway is optional.
- An auxiliary power unit is standard, and it allows the airplane to function without ground-supplied electrical or pneumatic power.
- Servicing connections are provided for single station pressure refueling and overwing gravity refueling.
- All servicing of the 727 is accomplished with standard ground equipment.

727-100C

A large cargo door on the upper deck is the prominent feature of the convertible cargo configuration of the 727-100 series. It has removable or foldaway internal fixtures that allow it to carry various ratios of passengers and cargo on the upper deck. This model has a higher empty weight and payload capability than the basic passenger model, but is dimensionally the same.

The 727-100QC is an optional quick-change configuration of the -100C in which the passenger seats are mounted on pallets so that conversion can be made from passenger to cargo configuration in a matter of minutes. When equipped with a palletized passenger interior, the -100QC empty weight is approximately 3,600 lb. (1,634 kg.) higher than that of the -100C.

727-200

The original 727-200 was an extended-body version of the 727-100 with no increase in taxi gross weight. Two 10-foot sections were inserted into the fuselage, one forward of the front wing spar and the other aft of the main wheel well. This allowed additional passenger and cargo capacity for airlines with medium-haul, high-density traffic routes. The -200 empty weight and maximum gross weight are higher than the short-body versions.

Advanced 727-200

Advanced development features have produced significant improvements over the original 727-200 which result in improved performance and capability.

Advanced 727-200 Principal Features:

- Basic
  - 185,800 LB (84,350 kg) maximum taxi weight
  - JT8D-9A Engines
  - Quiet Nacelle
  - New Interior
  - Integral wing center section fuel
  - Automatic spoilers and Mark III brake anti-skid system
  - Cascade vane thrust reverser
  - Automatic braking
  - Ground proximity warning
- Options (examples)
  - 191,000 lb (86,700 kg) maximum taxi weight
  - 195,500 lb (88,800 kg) maximum taxi weight
  - 197,700 lb (89,800 kg) maximum taxi weight
  - 210,000 lb (95,300 kg) maximum taxi weight
  - 161,000 lb (73,100 kg) landing weight
  - 141,000 lb (64,010 kg) zero fuel weight
  - 40° flap load limiter
  - 50 x 21 IN (1.27 x 0.53M) tires
  - JT8D-15, JT8D-17 or JT8D-17R engines with full acoustical treatment
  - Automatic Performance Reserve (APR) with JT8D-17R engine
  - Supplementary fuel, up to 2480 U.S. gal. (9,390 l)
  - Carry-All overhead compartment
  - Containerized baggage system
  - Lowered landing minimums - Category IIIa with 50-ft/15 m decision height
  - Area navigation (RNAV)
  - Dual inertial navigation system
  - Omega navigation system
  - Digital TAT/EPRL system
  - Forward airstairs

Advanced 727-200 Characteristics and options of Interest to Airports:

- Lower community noise
- Higher gross weights
- Higher landing weight
- Improved runway loading
- Improved takeoff distance
- Reduced stopping distance
- Increased fuel capacity
- Forward Airstairs

727 Engines

Early 727s were equipped with JT8D-1 engines; later models used JT8D-7 engines. The JT8D-9, -11, -15, -17 and -17R engines reflect successive improvements in the areas of Noise Reduction, Thrust, and Maintenance Costs.

Currently, the JT8D-1, 7 and 9 are used on the 727-100, the JT8D-7, -9 and -11 on the original 727-200, and JT8D-9, -15, -17 and -17R on the Advanced 727-200.

ENGINE THRUST DATA:

MODEL	MAX THRUST POUNDS
JT8D-1	14,000
JT8D-7	14,000
JT8D-9	14,500
JT8D-11	15,000
JT8D-15	15,500
JT8D-17	16,000
JT8D-17R	17,400

The standard option installation of the JT8D-17R on the 727-200 includes a Boeing conceived control system called Automatic Performance Reserve (APR). With this system installed the alternate JT8D-17R rating of 16,400 pounds is used for takeoff. In the event of an engine failure during takeoff the APR system senses the engine failure and automatically advances the fuel control to the maximum rated takeoff thrust on the remaining engines.

The JT8D-17R engine with APR is of particular benefit on hot days at high altitude airports. The allowable takeoff gross weight increase at a typical high altitude airport would be from 3000 to 9000 pounds (1400 to 4100 kg).

727 Gravel Runway Capability

727 Gravel Runway Capability is available for retrofit on 727-100 and -100C airplanes. With this capability, the 727 brings a new era of jet transportation to remote areas where only propeller-driven airplanes have operated previously.

The special environment of the gravel runway dictates some changes in operating procedures and techniques for maximum operational safety and economy. The Boeing Company and the FAA have specified procedural changes for operating the 727 from gravel runways.

Airports interested in operational details associated with 727 Gravel Runway Capability are referred to the using airline or the Boeing Commercial Airplane Company.

> NOTE: Pages in this document titled "Model 727-200" are applicable to both the 727-200 and Advanced 727-200. Pages uniquely applicable to a specific model are so marked.

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2.0 AIRPLANE DESCRIPTION

2.0 AIRPLANE DESCRIPTION

2.1 General Characteristics—Models 727-100, -100C, -200, and Advanced 727-200 (Definition of terms used on following pages)

Maximum Ramp Weight. Maximum weight authorized for ground maneuver by the applicable government regulations, including taxi and runup fuel. Also designated in some manuals as maximum design taxi weight.

Maximum Landing Weight. Maximum weight authorized, at designated flap setting, in flight or landing, by the applicable government regulations.

Maximum Takeoff Weight. Maximum weight authorized at takeoff brake release by the applicable government regulations; excludes taxi and runup fuel.

Maximum Flight Weight. Maximum weight for flight as limited by aircraft strength and airworthiness requirements. (Flaps-up condition is implied unless otherwise stated.)

Operating Empty Weight. Weight of structure, powerplant, furnishings, systems, unusable fuel and other unusable propulsion agents, and other items of equipment that are considered an integral part of a particular aircraft configuration. Also included are certain standard items, personnel, equipment, and supplies necessary for full operating, excluding fuel and payload.

Zero Fuel Weight. Maximum airplane weight less usable fuel, engine injection fluid, and other consumable propulsion agents. It may include usable fuel in specified tanks when carried in lieu of payload. The addition of usable and consumable items to the zero fuel weight must be in accordance with the applicable government regulations so that airplane structure and airworthiness requirements are not exceeded.

Maximum Structural Payload. Maximum design payload weight of passengers, passenger baggage, and/or cargo may be computed for a specific model by deducting the operating empty weight from zero fuel weight.

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

Maximum Cargo Volume. Maximum space available for cargo.

Usable Fuel Capacity. Volume of fuel carried for a particular operation less drainable unusable fuel and trapped fuel remaining after a fuel runout test.

		727-100*		
CHARACTERISTIC		BASIC	OPTIONAL	OPTIONAL
MAXIMUM RAMP WEIGHT	LB	161,000	161,000	170,000
	KG	73,100	73,100	77,200
MAXIMUM FLIGHT WEIGHT	LB	160,000	160,000	169,000
	KG	72,600	72,600	76,700
MAXIMUM LANDING WEIGHT	LB	137,500	142,500	142,500
	KG	62,400	64,700	64,700
ZERO FUEL WEIGHT	LB	118,000	118,000	123,500
	KG	53,600	53,600	56,100
OPERATING EMPTY WEIGHT (SPEC.)	LB	87,600	87,600	87,696
	KG	39,800	39,800	39,800
MAXIMUM STRUCTURAL PAYLOAD (SPEC.)	LB	30,400	30,400	35,800
	KG	13,800	13,800	16,300
SEATING CAPACITY SEE PAGE 15	TYPICAL MIXED 106 (16 FIRST CLASS, 90 TOURIST)			
	TYPICAL TOURIST 125 (ALL TOURIST)			
	CERTIFICATED FOR 131 (EXIT LIMIT 131)			
CARGO VOLUME– UPPER DECK	CU FT	NONE		
	CU M	NONE		
CARGO VOLUME– LOWER DECK SEE PAGE 22	CU FT	900		
	CU M	25		
USABLE FUEL CAPACITY– BASIC	U.S. GAL	7,680**		
	L	29,069		
	LB	51,460		
	KG	23,360		
USABLE FUEL CAPACITY– OPTIONAL	U.S. GAL	-		
	L	-		
	LB	-		
	KG	-		

* REFERENCE DATA; NO LONGER IN PRODUCTION.

** SOME 727-100 AIRPLANES HAVE 7,174 GAL., 27,154 L, 48,070 LB, 21,820 KG FUEL CAPACITY.

NOTE: CONSULT USING AIRLINE FOR SPECIFIC DATA.

GENERAL CHARACTERISTICS
MODEL 727-100 (PASSENGER)

		727-100C*		
CHARACTERISTIC		PRIMARY **	ALT. I **	ALT. II **
MAXIMUM RAMP WEIGHT	LB	161,000	161,000	**170,000**
	KG	73,100	73,100	**77,200**
MAXIMUM FLIGHT WEIGHT	LB	160,000	160,000	**169,000**
	KG	72,600	72,600	**76,700**
MAXIMUM LANDING WEIGHT	LB	137,500	140,000	**142,500**
	KG	62,400	63,600	**64,700**
ZERO FUEL WEIGHT	LB	123,500	123,500	**132,000**
	KG	56,100	56,100	**59,900**
OPERATING EMPTY WEIGHT (SPEC.)	LB	91,100	91,100	**91,100**
	KG	41,400	41,400	**41,400**
MAXIMUM STRUCTURAL PAYLOAD ***	LB	32,400	32,400	**40,900**
	KG	14,700	14,700	**18,600**
SEATING CAPACITY SEE PAGE 15	TYPICAL MIXED 106 (16 FIRST CLASS, 90 TOURIST)			
	TYPICAL TOURIST 125 (ALL-TOURIST)			
	CERTIFICATED FOR 131 (EXIT LIMIT 131)			
CARGO VOLUME— UPPER DECK SEE PAGES 16 & 17	CU FT (CU M)	725 (20.53) 70 PASSENGERS, 2 PALLETS 1091 (30.90) 56 PASSENGERS, 3 PALLETS 1457 (41.26) 52 PASSENGERS, 4 PALLETS 2921 (82.7) EIGHT 108-IN. PALLETS 3,278 (92.8) EIGHT 125-IN. PALLETS		
CARGO VOLUME— LOWER DECK **SEE PAGE 22**	CU FT	890		
	CU M	25		
MAXIMUM TOTAL CARGO VOLUME	CU FT	4,168		
	CU M	118		
USABLE FUEL CAPACITY— BASIC	U.S. GAL	7,680		
	L	29,069		
	LB	51,460		
	KG	23,360		
USABLE FUEL CAPACITY— OPTIONAL	U.S. GAL	-		
	L	-		
	LB	-		
	KG	-		

* REFERENCE DATA; NO LONGER IN PRODUCTION
** OPERATIONAL MODES WITH DIFFERENT CG RANGES
*** MAY BE LESS IF MAXIMUM LANDING WEIGHT LIMITATIONS OCCUR DUE TO FUEL RESERVES

NOTE: CONSULT USING AIRLINE FOR SPECIFIC DATA.

GENERAL CHARACTERISTICS
MODEL 727-100C (CONVERTIBLE)

CHARACTERISTIC		727-200 *				
		STANDARD*	ADVANCED			
			BASIC SPEC.	OPTIONS†		
MAXIMUM RAMP WEIGHT	LB	173,000	185,800	191,000	197,700	210,000
	KG	78,500	84,400	86,700	89,800	95,300
MAXIMUM TAKEOFF WEIGHT	LB	-	184,800	190,500	197,000	209,500
	KG	-	83,900	86,500	89,400	95,100
MAXIMUM FLIGHT WEIGHT	LB	172,000	-	-	-	-
	KG	78,100	-	-	-	-
MAXIMUM LANDING WEIGHT	LB	150,000	154,500**	154,500**	154,500**	161,000
	KG	68,100	70,100	70,100	70,100	73,100
ZERO FUEL WEIGHT	LB	136,000	138,000	140,000	140,000	144,000
	KG	61,700	62,700	63,600	63,600	65,400
OPERATING EMPTY WEIGHT (SPEC)	LB	97,650	97,600	97,770	98,040	100,700
	KG	44,330	44,310	44,390	44,510	45,720
MAXIMUM STRUCTURAL PAYLOAD ***	LB	38,350	40,400	42,230	41,960	43,300
	KG	17,410	18,340	19,170	19,050	19,660
SEATING CAPACITY SEE PAGE 18	TYPICAL MIXED 134 (20 FIRST CLASS, 114 TOURIST)					
	TYPICAL TOURIST 155					
	CERTIFIED FOR 189 (EXIT LIMIT 189)					
CARGO VOLUME– UPPER DECK	CU FT	NONE				
	CU M					
CARGO VOLUME– LOWER DECK SEE PAGE 22 & 24	CU FT	1,525 (ALL BULK); 1,118 (CONTAINERIZED, INCL 260 BULK)				
	CU M	43 (ALL BULK); 32 (CONTAINERIZED, INCL. 7 BULK)				
MAXIMUM TOTAL CARGO VOLUME	CU FT	1,525				
	CU M	43				
USABLE FUEL CAPACITY–BASIC	U.S. GAL	8,090			8,060	8,105
	L	30,620			30,510	30,680
	LB	54,200			54,000	54,300
	KG	24,600			24,500	24,650
USABLE FUEL CAPACITY–OPTIONAL	U.S. GAL	10,570			10,540	10,585
	L	40,000			39,900	40,060
	LB	70,800			70,600	70,920
	KG	32,140			32,050	32,200

* REFERENCE DATA; NO LONGER IN PRODUCTION

** 161,000 LB (73,100 KG) OPTION AVAILABLE

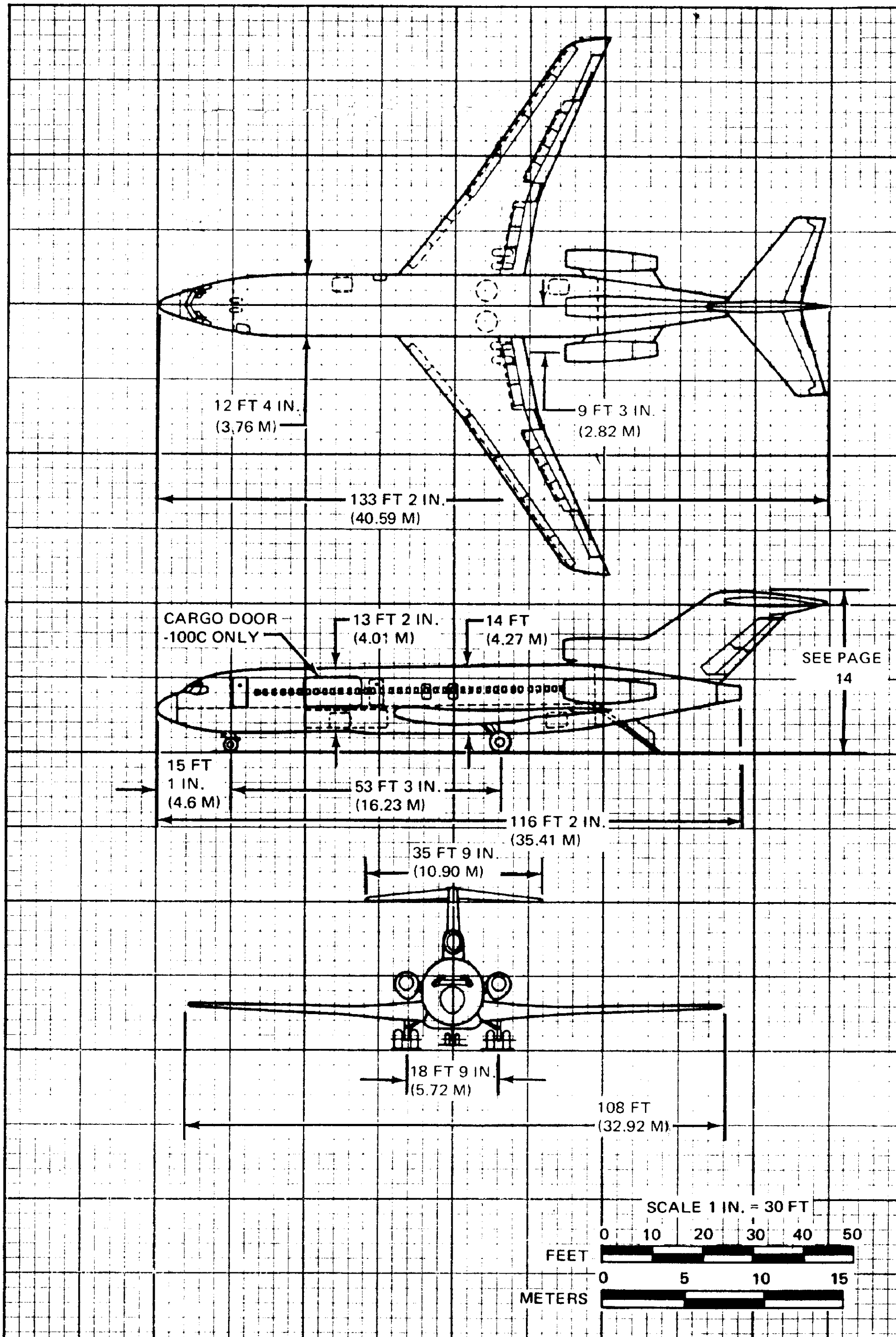
*** MAY BE LESS IF MAXIMUM LANDING WEIGHT LIMITATIONS OCCUR DUE TO FUEL RESERVES

† MAX. RAMP WT. OF 195,500 LB (88,760 KG) ALSO OPTIONAL

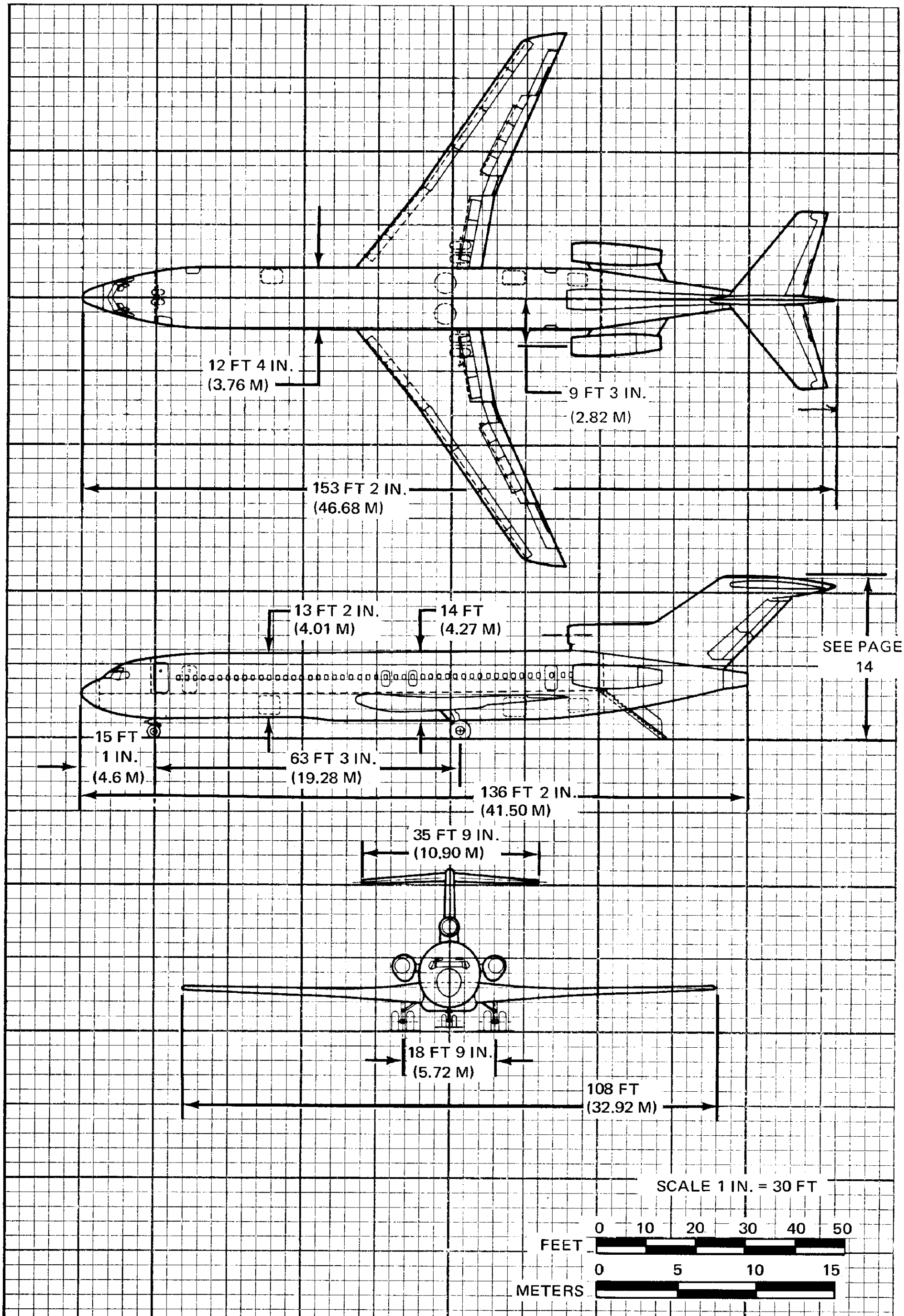
NOTE: CONSULT USING AIRLINE FOR SPECIFIC DATA.

GENERAL CHARACTERISTICS

MODEL 727-200



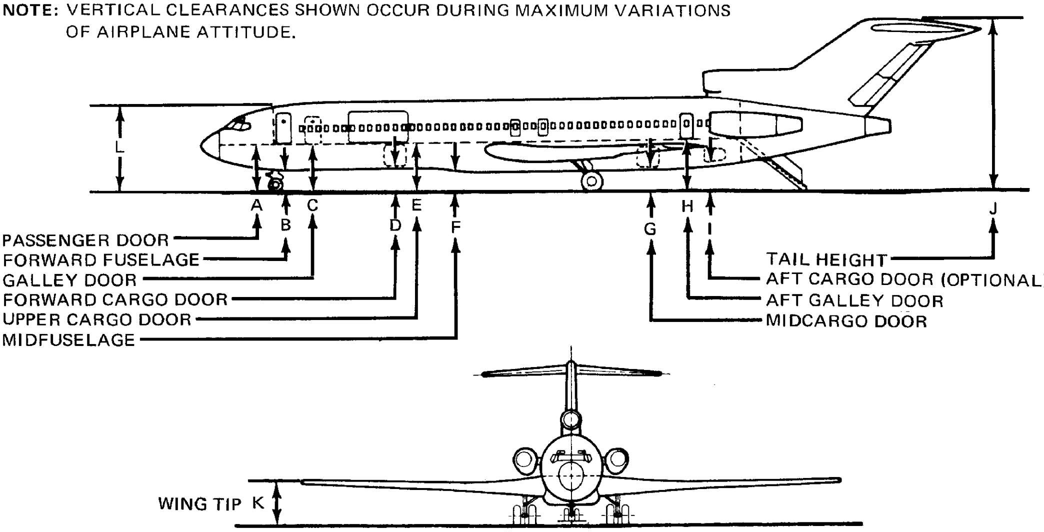
2.2 GENERAL DIMENSIONS
MODELS 727-100, -100C



GENERAL DIMENSIONS

MODEL 727-200

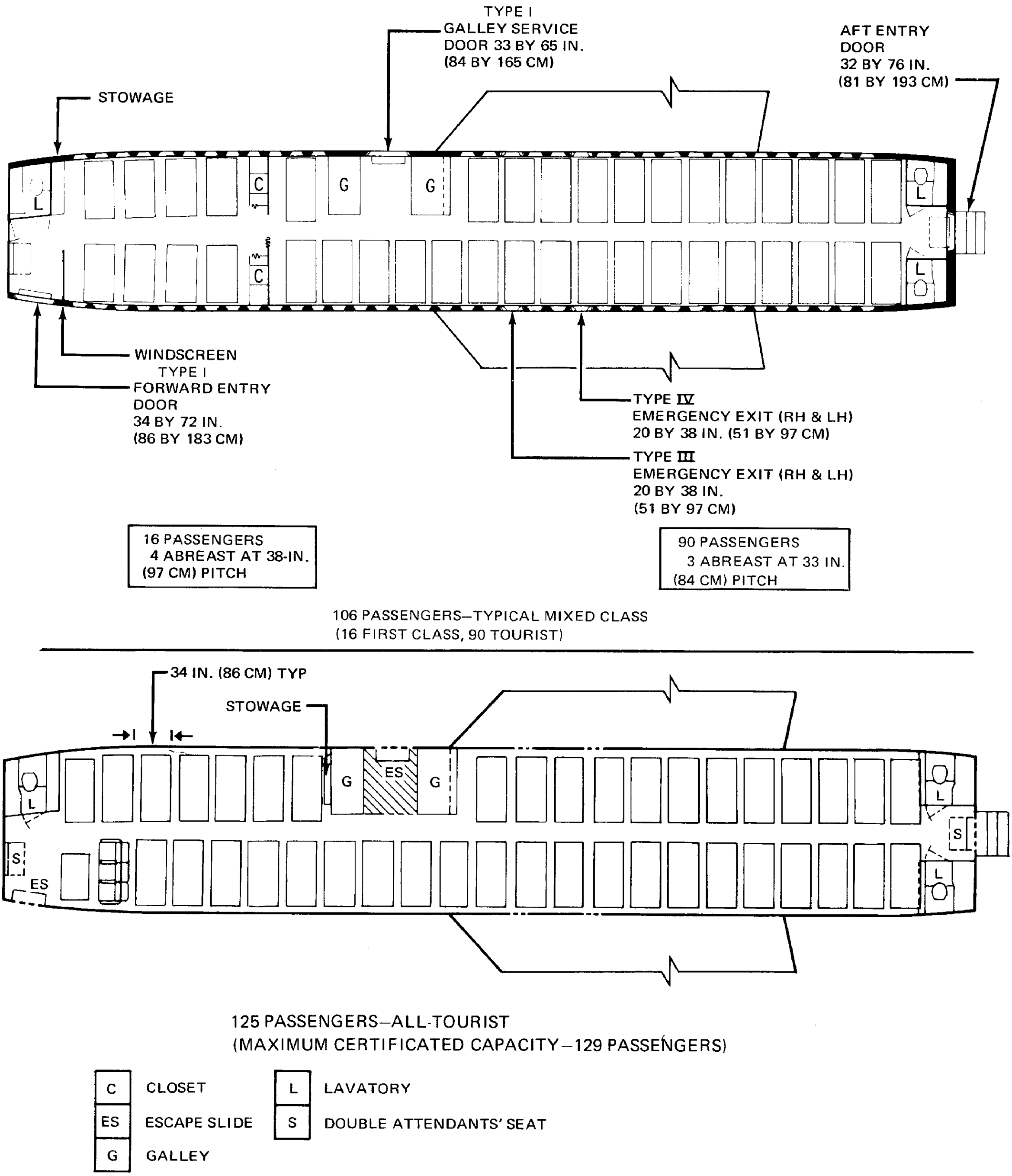
NOTE: VERTICAL CLEARANCES SHOWN OCCUR DURING MAXIMUM VARIATIONS OF AIRPLANE ATTITUDE.



VERTICAL CLEARANCES								
	-100 AND -100C				-200			
POINT	MINIMUM		MAXIMUM		MINIMUM		MAXIMUM	
	FT-IN.	M	FT-IN.	M	FT-IN.	M	FT-IN.	M
A	8-2	2.48	9-8	2.94	8-0	2.45	10-1	3.07
B	3-4	1.01	4-7	1.39	3-4	1.00	4-8	1.43
C	8-9	2.67	9-10	2.99	8-2	2.48	10-1	3.08
D	4-3	1.30	5-4	1.62	4-2	1.28	5-6	1.68
E	8-6	2.58	9-6	2.96	DOES NOT APPLY			
F	3-3	0.99	4-1	1.24	3-1	0.95	4-9	1.44
G	4-3	1.30	5-5	1.66	3-10	1.17	5-5	1.65
H	DOES NOT APPLY				9-0	2.74	10-10	3.31
I	DOES NOT APPLY				3-11	1.20	6-0	1.84
J	31-9	9.68	34-3	10.44	31-7	9.61	34-11	10.65
K	5-8	1.72	10-3	3.12	4-9	1.44	11-5	3.49
L	16-7	5.06	17-9	5.41	16-7	5.05	17-11	5.46

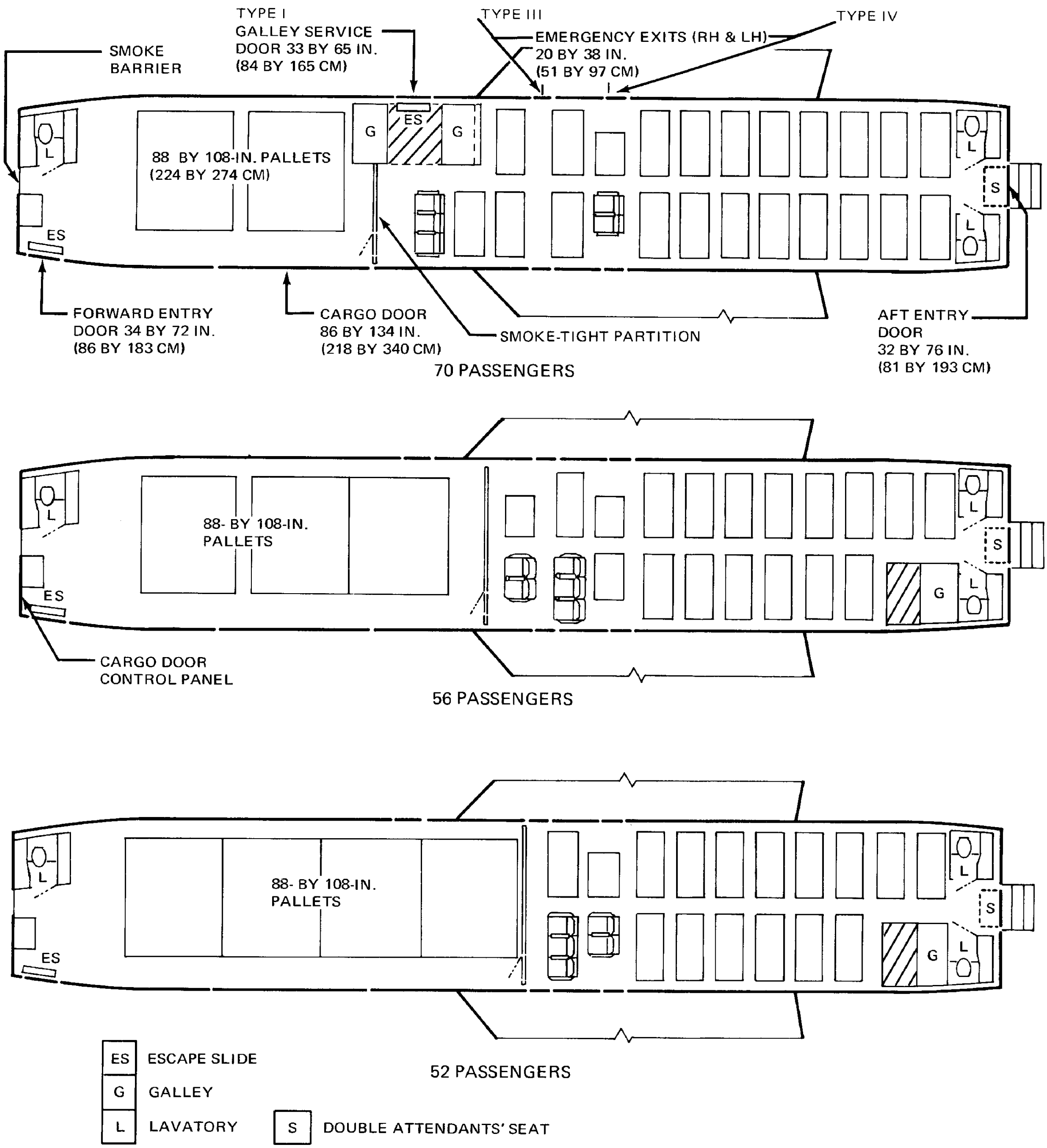
2.3 GROUND CLEARANCES

MODELS 727-100, -100C, -200



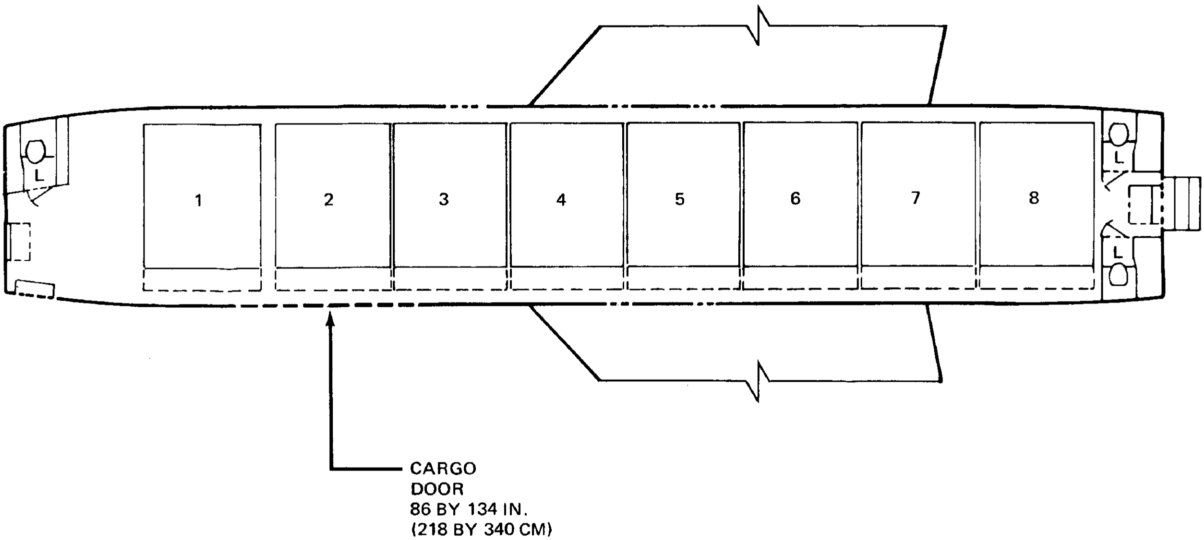
2.4 INTERIOR ARRANGEMENTS—PASSENGER CONFIGURATION

MODELS 727-100, -100C



INTERIOR ARRANGEMENTS—PASSENGER/CARGO CONFIGURATION

MODEL 727-100C



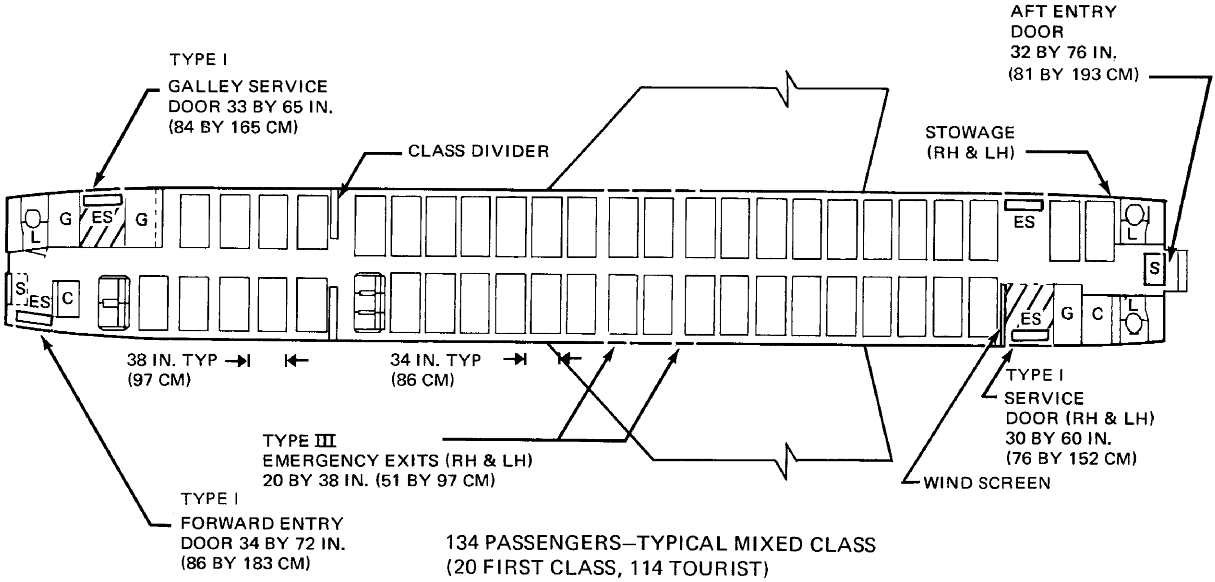
CONDITIONS

- HATRACKS UP
- 2-INCH CLEARANCE
- 9g COMMERCIAL PALLETS
- HIGH-PROFILE ROLLERS
- PALLET VOLUME NOT INCLUDED IN CARGO VOLUME

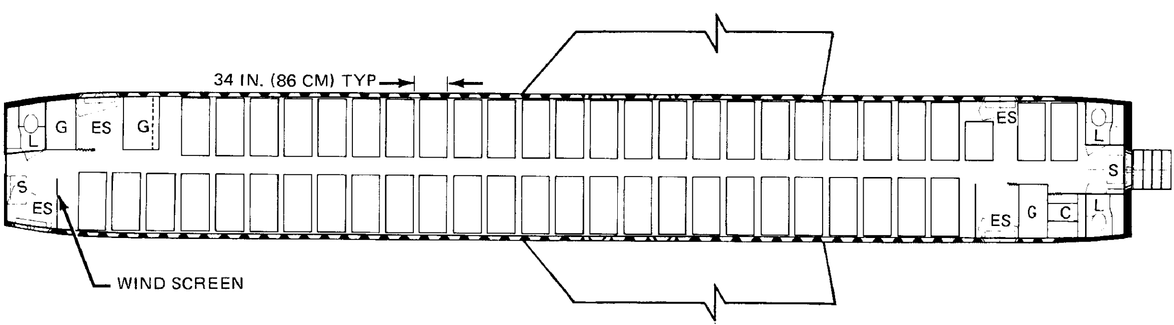
CARGO ENVELOPE VOLUMES IN CUBIC FEET (CUBIC METERS)

PALLET SIZE	88 BY 108 IN. (223 BY 274 CM)	88 BY 125 IN. (223 BY 318 CM)
MAIN DECK PALLET 1	359 (10.17)	401 (11.36)
PALLETS 2-8	366 (10.4) EACH 2,562 (72.56)	APPROX. 411 (11.6) EACH 2,877 (81.47)
LOWER DECK	890 (25.2)	890 (25.2)
TOTAL VOLUME	3,811 (107.9)	4,168 (118)

INTERIOR ARRANGEMENT—ALL-CARGO CONFIGURATION
MODEL 727-100C



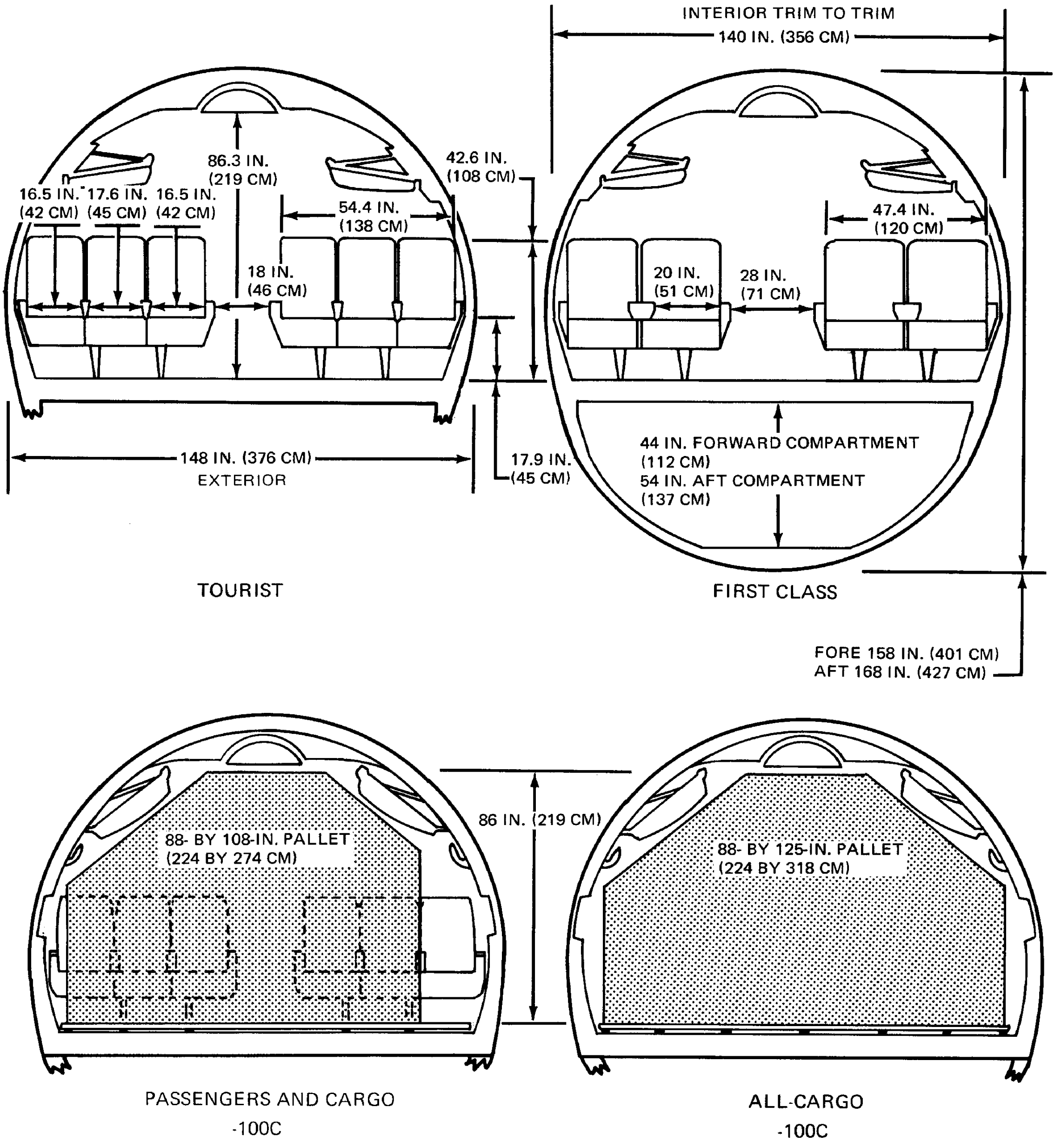
134 PASSENGERS—TYPICAL MIXED CLASS
(20 FIRST CLASS, 114 TOURIST)



C	CLOSET
ES	ESCAPE SLIDE
G	GALLEY
L	LAVATORY
S	DOUBLE ATTENDANTS' SEAT

155 PASSENGERS—TYPICAL ALL-TOURIST
(MAXIMUM CERTIFICATED CAPACITY—189 PASSENGERS)

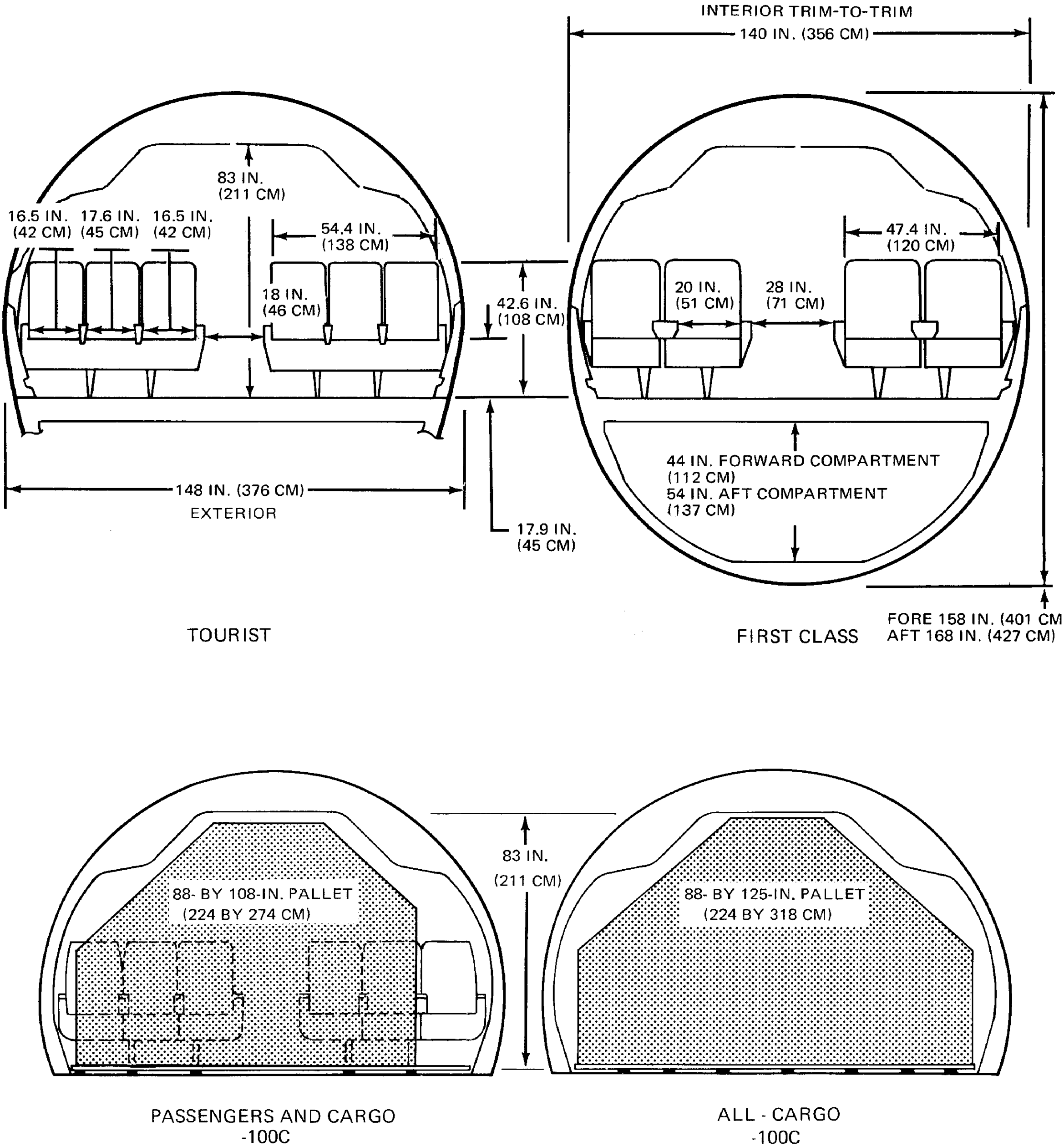
INTERIOR ARRANGEMENTS—PASSENGER CONFIGURATION
MODEL 727-200



SEE PAGE 17 FOR MAIN-DECK CARGO CAPACITIES.

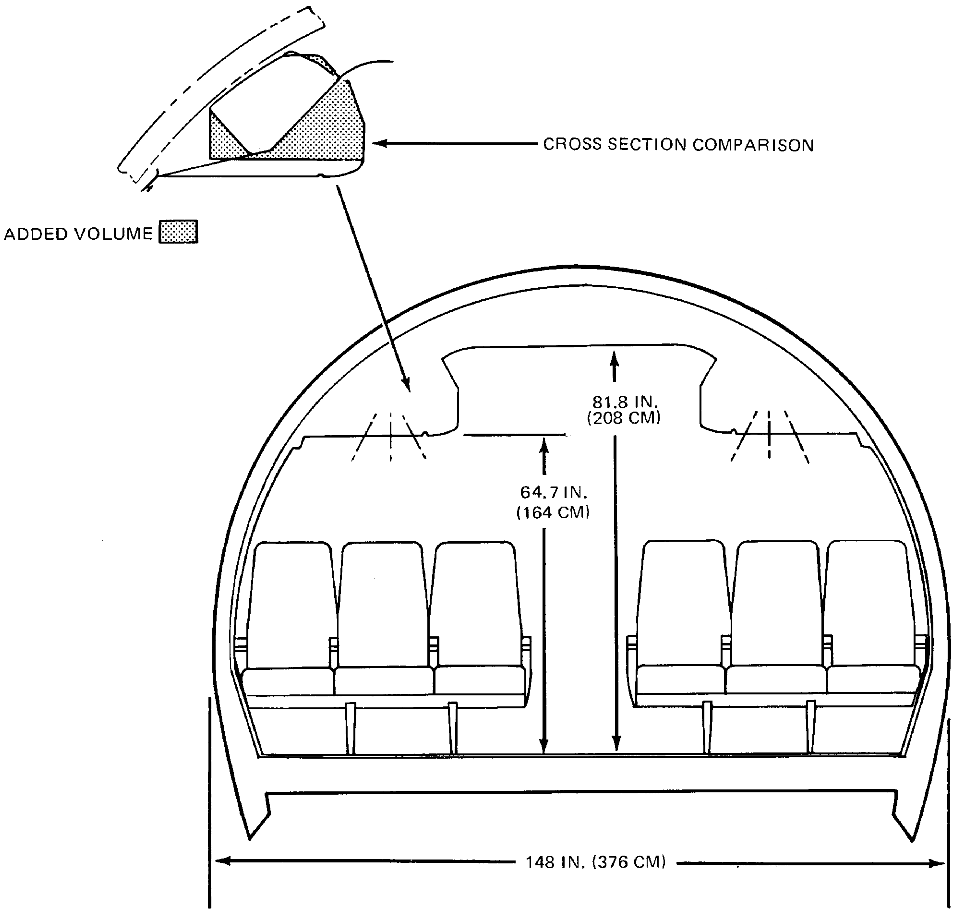
2.5 CABIN CROSS SECTIONS
MODELS 727-100, -100C, -200

NOTE: CURRENTLY THIS INTERIOR IS BASIC ON THE 727-200 AND ADVANCED 727-200; IT MAY BE RETROFITTED ON THE 727-100 AND 727-100C.



CABIN CROSS SECTIONS—SUPERJET-LOOK INTERIOR

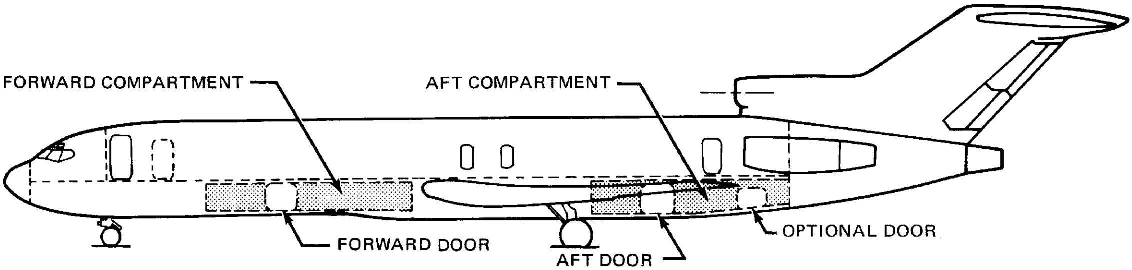
MODELS 727-100, -100C, -200



INTEREST IN A HIGHER CAPACITY STOWAGE COMPARTMENT HAS RESULTED IN THE DEVELOPMENT OF A NEW OVERHEAD COMPARTMENT CAPABLE OF ACCEPTING LARGER CARRY-ON LUGGAGE AS WELL AS UNFOLDED GARMENT BAGS. THIS NEW CARRY-ALL COMPARTMENT IS OPTIONAL TO THE CURRENT WIDE-BODY STOWAGE BIN AND MAY BE RETROFITTED ON ADVANCED 727-200 AIRPLANES.

THE COMPARTMENT IS 60 INCHES (152 CM) LONG WITH A USABLE LENGTH OF 57.9 INCHES (147 CM) AND A WEIGHT CAPACITY OF 3 POUNDS PER INCH (0.54 KG PER CM) AS COMPARED WITH 2 POUNDS PER INCH (0.36 KG PER CM) FOR THE WIDE BODY STOWAGE BIN.

CABIN CROSS SECTIONS—CARRY-ALL OVERHEAD STOWAGE COMPARTMENT
MODEL ADVANCED 727-200 PASSENGER CONFIGURATION



CARGO COMPARTMENT DIMENSIONS AND CAPACITIES

NOTE: SEE PAGE 23 FOR ADVANCED 727-200 BULK CAPACITIES ASSOCIATED WITH ADDITIONAL FUEL OPTIONS.

		MODEL			
FORWARD COMPARTMENT		-100	-100C	-200	-200 WITH OPTIONAL CARGO DOOR
LENGTH	IN. CM	199 505	199 505	320 813	320 813
BULK VOLUME	CU FT CU M	425 12.0	420 11.9	710 20.1	710 20.1
WEIGHT LIMIT	LB KG	5,850 2,656	5,850 2,656	9,000 4,086	9,000 4,086
AFT COMPARTMENT					
LENGTH	IN. CM	214 544	214 544	316 803	316 803
BULK VOLUME	CU FT CU M	475 13.5	470 13.3	815 23.1	745 21.1
WEIGHT LIMIT	LB KG	6,980 3,169	6,980 3,169	10,000 4,540	10,000 4,540

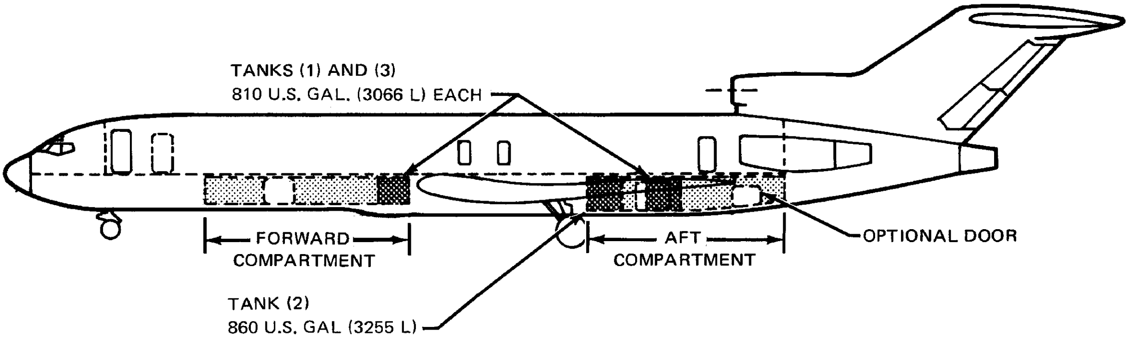
DOOR OPENING SIZES

		MODEL	
FORWARD DOOR		-100 & -100C	-200
WIDTH	IN. CM	48 122	54 137
HEIGHT	IN. CM	35 89	42 107
AFT DOOR			
WIDTH	IN. CM	48 122	54 137
HEIGHT	IN. CM	35 89	44 112
OPTIONAL DOOR			
WIDTH	IN. CM	NONE	48 122
HEIGHT	IN. CM	— —	32 81

NOTES:
- ALL DOORS ON RIGHT SIDE OF AIRPLANE
- OPTIONAL DOOR NOT ON -100 OR -100C AND OPTIONAL ON -200

2.6 LOWER CARGO COMPARTMENT CAPACITIES (BULK)

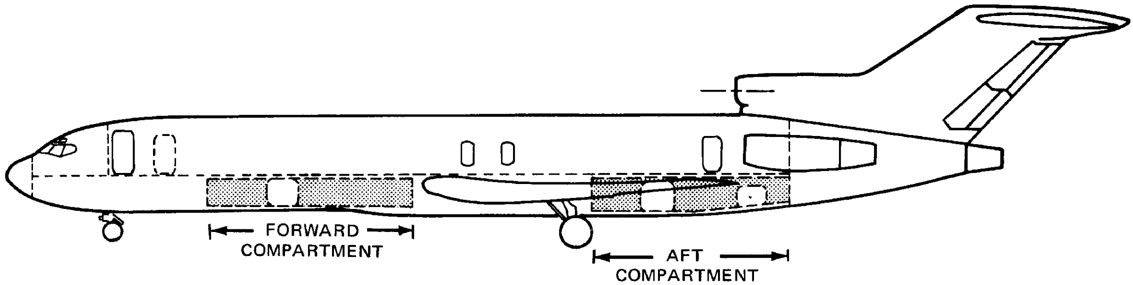
MODELS 727-100, -100C, -200



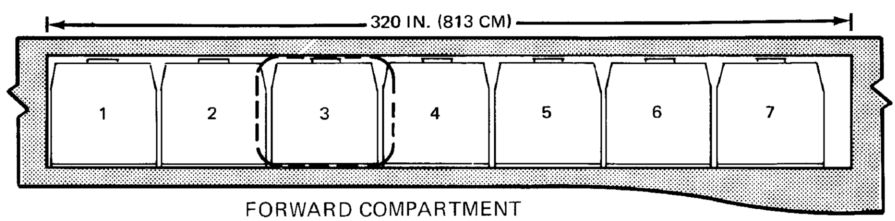
	STD AIRPLANE WITH TWO DOORS						WITH OPTIONAL THIRD DOOR							
OPTIONAL	U.S. GAL.	L	U.S. GAL.	L	U.S. GAL.	L	U.S. GAL.	L	U.S. GAL.	L	U.S. GAL.	L	U.S. GAL.	L
ADDITIONAL FUEL	0	0	860 (2)	3255	1670 (1&2)	6321	0	0	860 (2)	3255	1670 (1&2)	6321	2480	9387
BULK CARGO CAPACITIES	FT^3	M^3	FT^3	M^3	FT^3	M^3	FT^3	M^3	FT^3	M^3	FT^3	M^3	FT^3	M^3
FORWARD COMPT.	710	20.1	710	20.1	520	14.7	710	20.1	710	20.1	520	14.7	520	14.7
AFT COMPT.	815	23.1	610	17.3	610	17.3	745	21.1	540	15.3	540	15.3	290	8.2
TOTAL	1525	43.2	1320	37.4	1130	32.0	1455	41.2	1250	35.4	1060	30.0	810	22.9

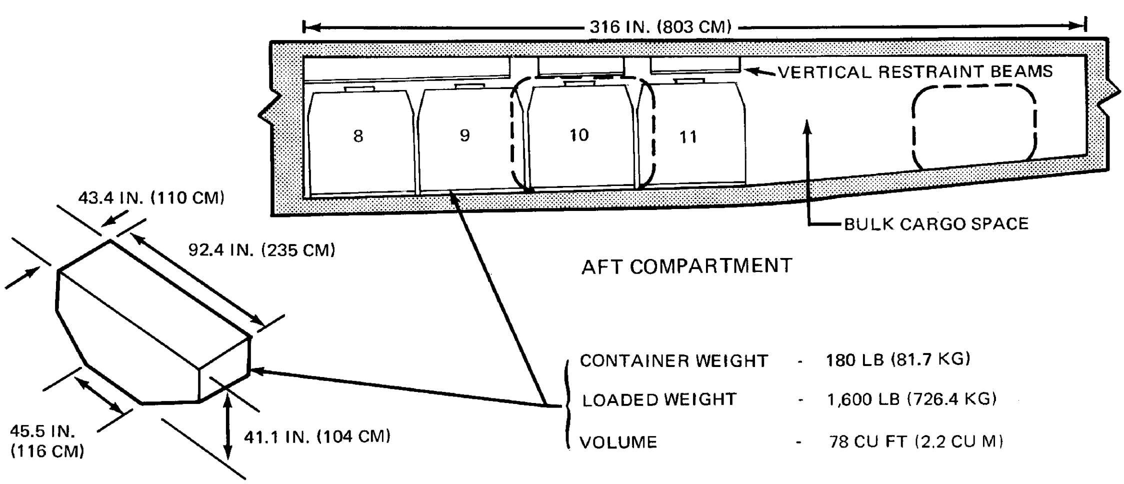
*FWD AND AFT TANKS (1), (2), (3)

LOWER CARGO COMPARTMENT CAPACITIES (BULK—WITH ADDITIONAL FUEL OPTIONS)
MODEL ADVANCED 727-200

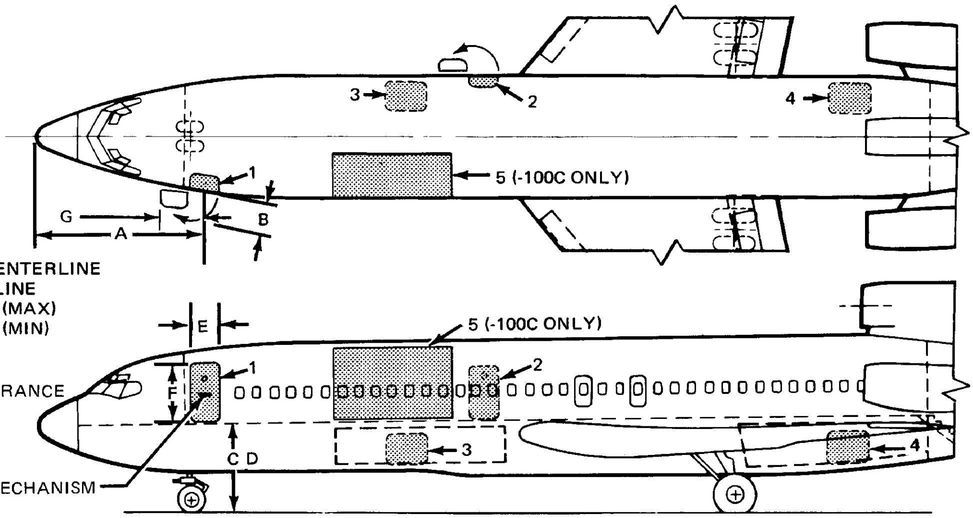


CARGO CAPACITIES					
		FORWARD COMPARTMENT	AFT COMPARTMENT		TOTAL
		CONTAINERIZED CARGO	CONTAINERIZED CARGO	BULK CARGO	
VOLUME	CU FT	546	312	260	1,118
	CU M	15.5	8.8	7.4	31.7
WEIGHT LIMIT	LB	9,000	10,000		19,000
	KG	4,086	4,540		8,626





LOWER CARGO COMPARTMENT CAPACITIES (CONTAINER SYSTEM OPTION)
MODEL 727-200



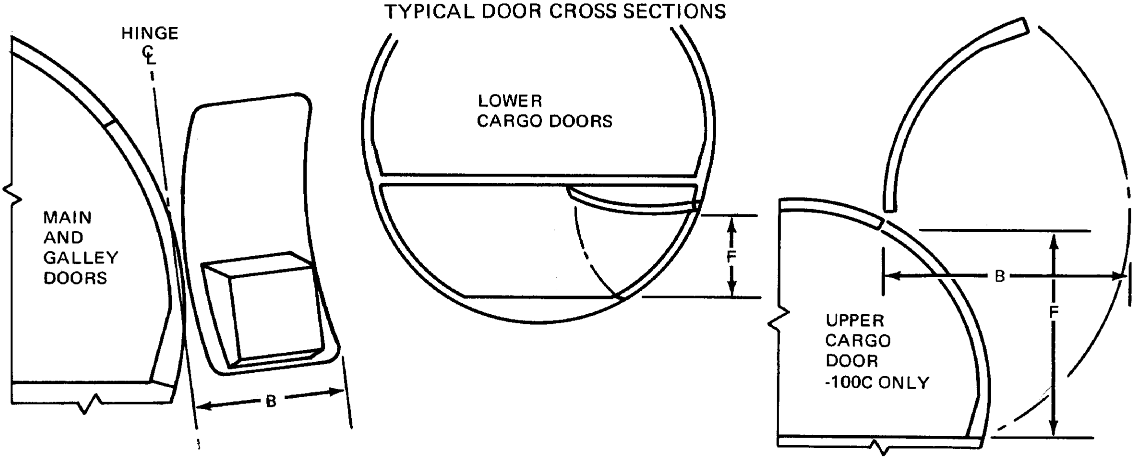
A NOSE TO DOOR CENTERLINE
B HINGE TO SWINGLINE
C GROUND TO SILL (MAX)
D GROUND TO SILL (MIN)
E WIDTH
F HEIGHT
G OPEN DOOR CLEARANCE

DOOR CLEARANCES

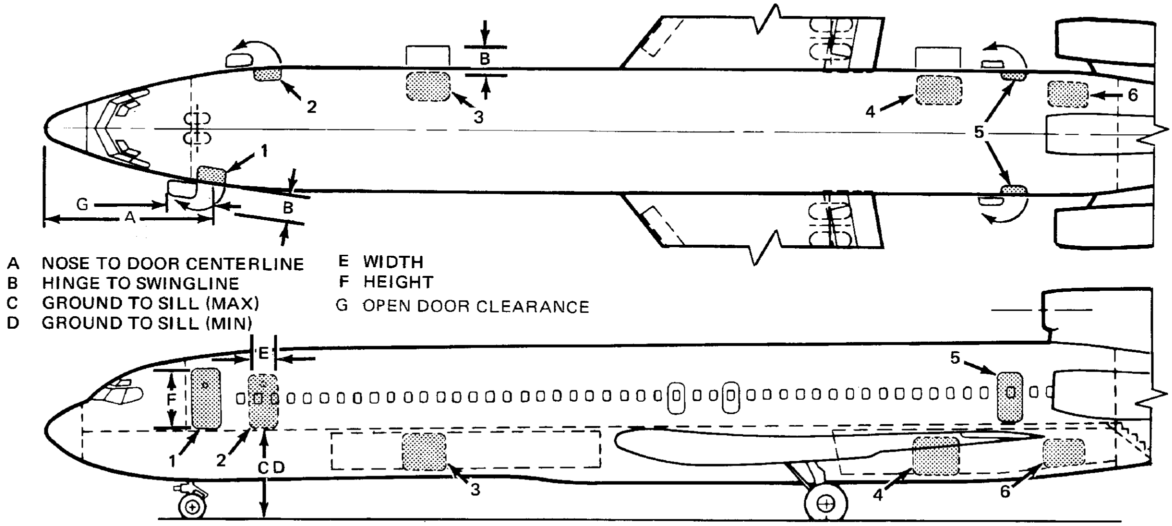
DOOR NO.	DOOR		DIMENSION						
			A	B	C	D	E	F	G
1	FORWARD ENTRY	FT-IN.	16-6	-42.3	9-8	8-2	-34	-72	-81
		M	5.03	1.07	2.94	2.48	0.86	1.83	2.05
2	GALLEY SERVICE	FT-IN.	43-11	-41.5	9-10	8-9	-33	- 65	-57
		M	13.4	1.05	2.99	2.67	0.84	1.65	1.45
3	FORWARD CARGO	FT-IN.	36-4	*	5-4	4-3	-48	-35	-
		M	11.07	-	1.62	1.30	1.22	0.89	-
4	AFT CARGO	FT-IN.	79-6	*	5-5	4-3	-48	-35	-
		M	24.23	-	1.66	1.30	1.22	0.89	-
5	UPPER CARGO (-100C ONLY)	FT-IN.	35-0	9-4	9-6	8-6	-134	-86	-
		M	10.67	2.85	2.96	2.58	3.40	2.18	-

*SWINGS IN

TYPICAL DOOR CROSS SECTIONS



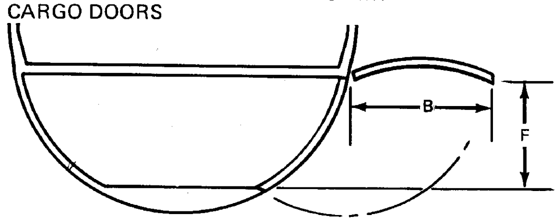
7 DOOR CLEARANCES
MODELS 727-100, -100C



DOOR NO.	DOOR	DOOR CLEARANCES	DIMENSION A	B	C	D	E	F	G
1	FORWARD ENTRY	FT-IN.	16-6	-42.3	10-1	8-0	-34	-72	-81
		M	5.03	1.07	3.07	2.45	0.86	1.83	2.05
2	FORWARD GALLEY SERVICE	FT-IN.	22-3	-41.5	10-1	8-2	-33	-65	-57
		M	6.78	1.05	3.08	2.48	0.84	1.65	1.45
3	FORWARD CARGO	FT-IN.	38-4	-65.6	5-6	4-2	-54	-42	-
		M	11.68	1.67	1.68	1.28	1.37	1.07	-
4	AFT CARGO	FT-IN.	89-3	-65.6	5-5	3-10	-54	-44	-
		M	27.2	1.67	1.65	1.17	1.37	1.12	-
5	AFT GALLEY SERVICE	FT-IN.	97-2	-41.5	10-10	9-0	-30	-60	-57
		M	29.6	1.05	3.31	2.74	0.76	1.52	1.45
6	OPTIONAL CARGO	FT-IN.	102-2	*	6-0	3-11	-48	-32	-
		M	31.2	---	1.84	1.20	1.22	0.81	-

*SWINGS IN

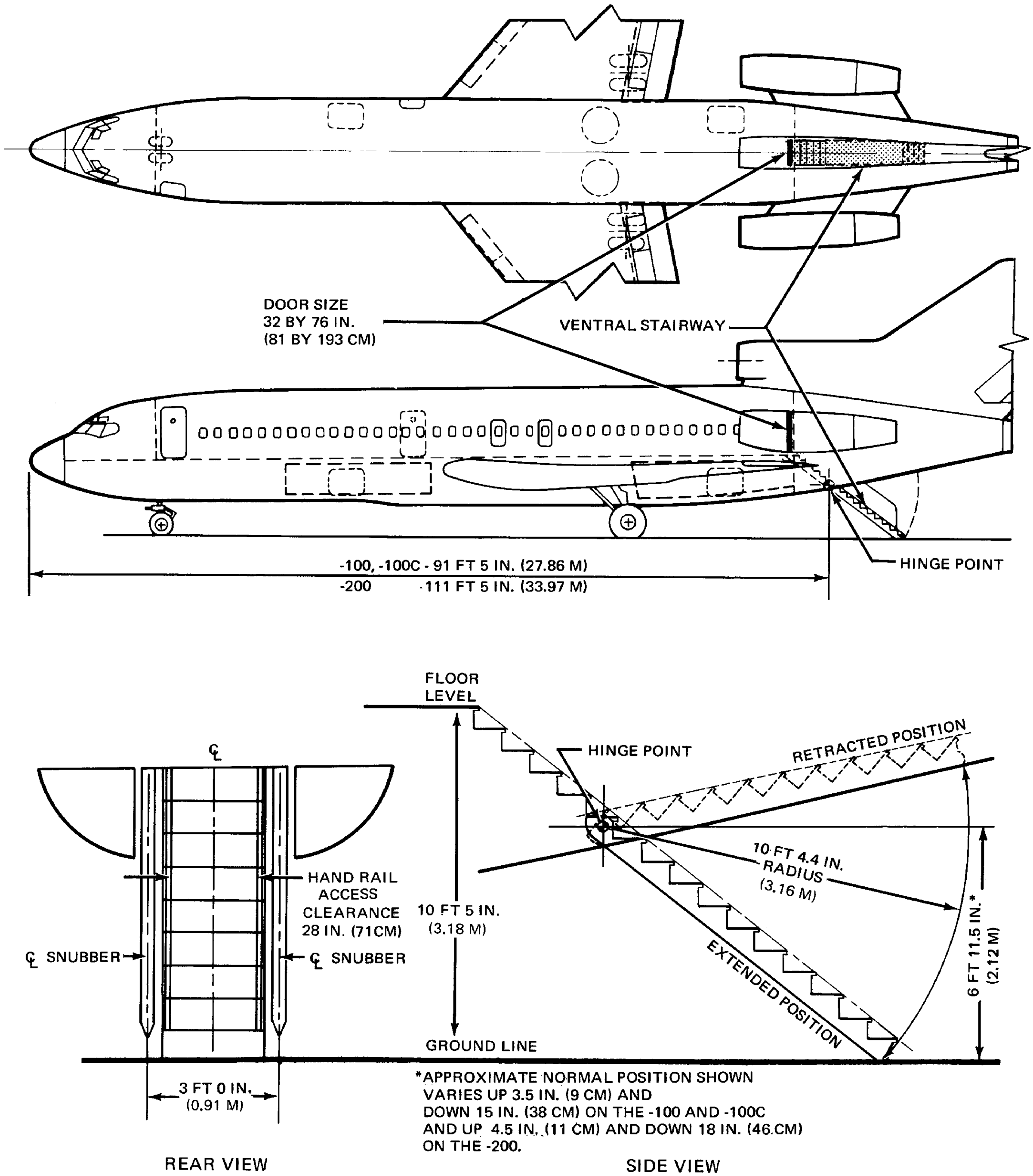
TYPICAL CROSS SECTION OF LOWER CARGO DOORS



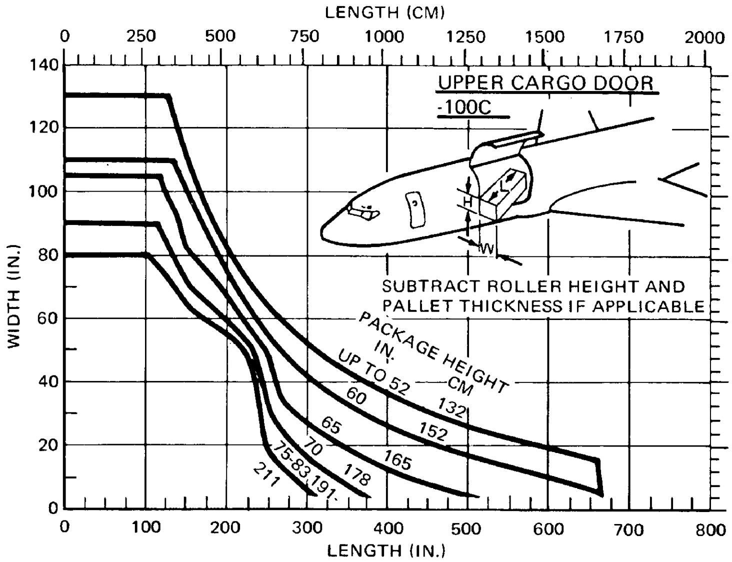
NOTES:

- SEE PREVIOUS PAGE FOR OTHER TYPICAL CROSS SECTIONS.
- SEE PAGE 27 FOR VENTRAL ENTRY DOOR DATA.

DOOR CLEARANCES
MODEL 727-200

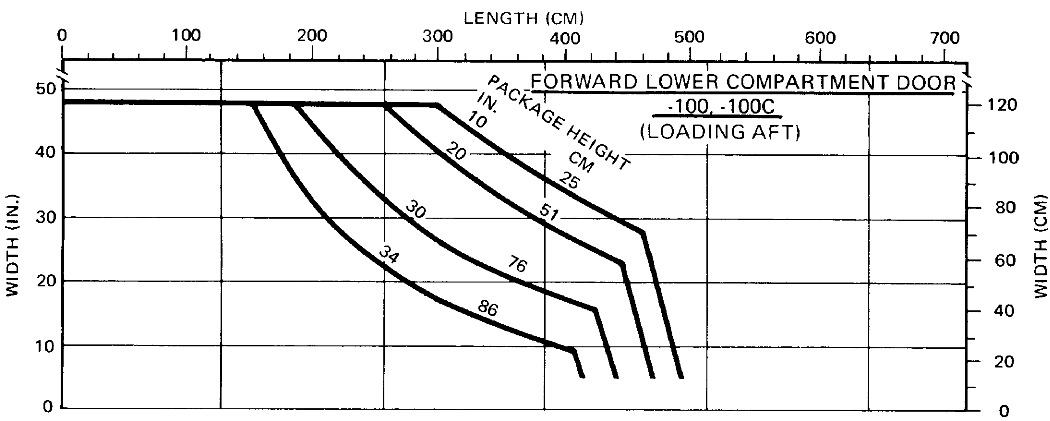


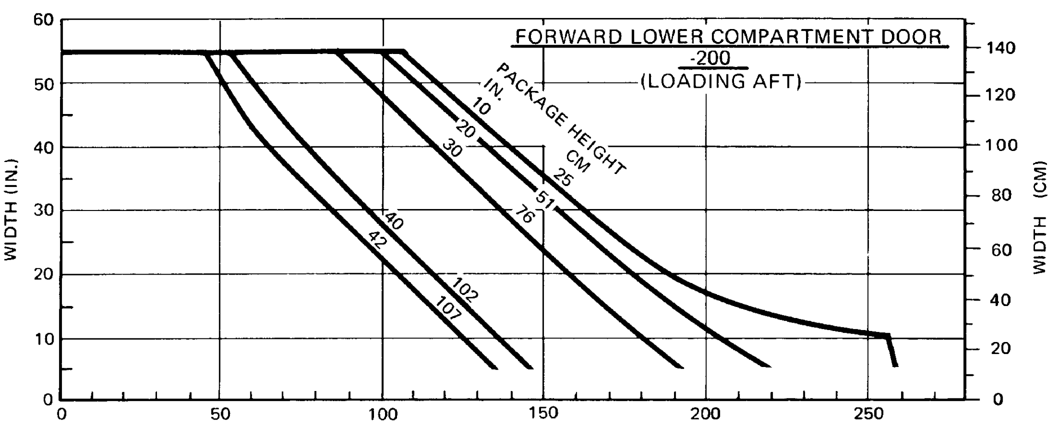
DOOR CLEARANCES—VENTRAL STAIRWAY
MODELS 727-100, -100C, -200



NOTES:

- THESE CHARTS ARE FOR RECTANGULAR PACKAGES. LARGER ITEMS MAY BE LOADED DEPENDING UPON SHAPE.
- APPROXIMATELY 2-INCH (5.08 CM) CLEARANCE HAS BEEN ALLOWED.





DOOR CLEARANCES—CARGO SIZES (MAXIMUM WITHOUT TILTING)
MODELS 727-100, -100C, -200

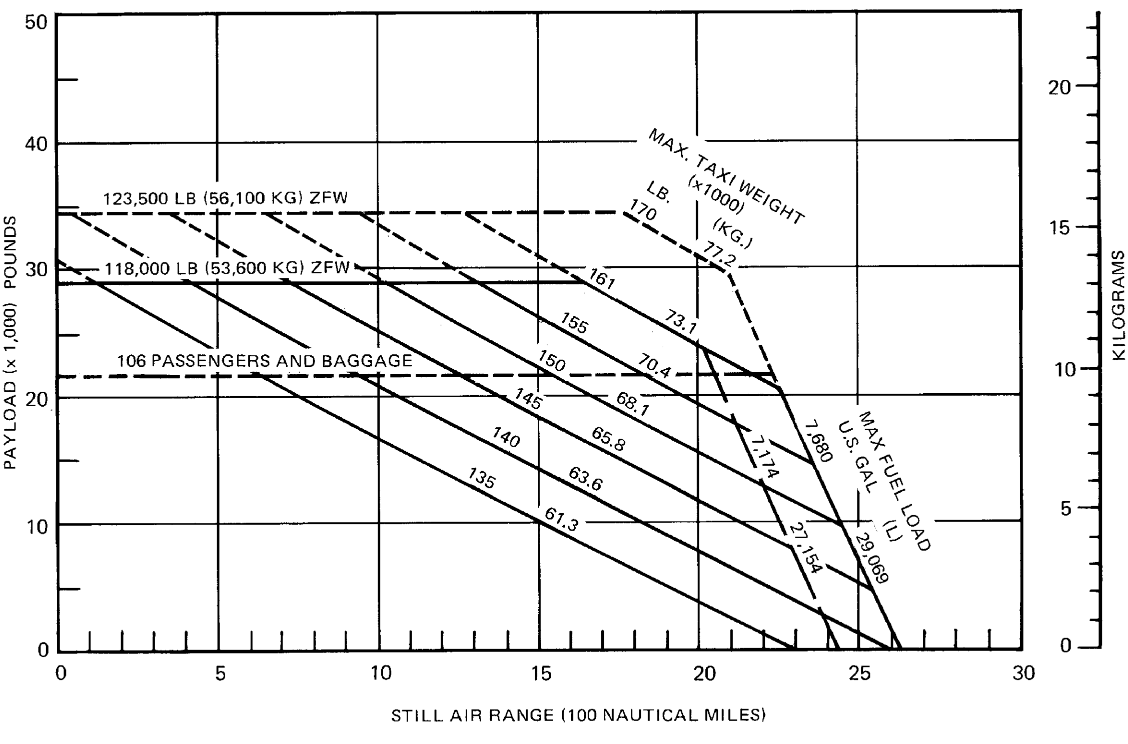
3.0 AIRPLANE PERFORMANCE

Standard day temperatures for the pressure altitudes shown on the C.A.R. Takeoff Runway charts are given below:

PRESSURE ALTITUDE		STANDARD DAY TEMP.	
FEET	METERS	°F	°C
0	0	59.0	15.0
2,000	610	51.9	11.0
4,000	1,219	44.7	7.1
6,000	1,829	37.6	3.1
8,000	2,438	30.5	0.83

NOTES:

- TYPICAL AIRLINE OEW 89,000 LB (40,410 KG)
- LRC AT 30,000 AND 35,000 FT (9,140 AND 10,670 M)
- ATA DOMESTIC RESERVES
- JT8D-7 OR -9 ENGINES
- STANDARD DAY
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

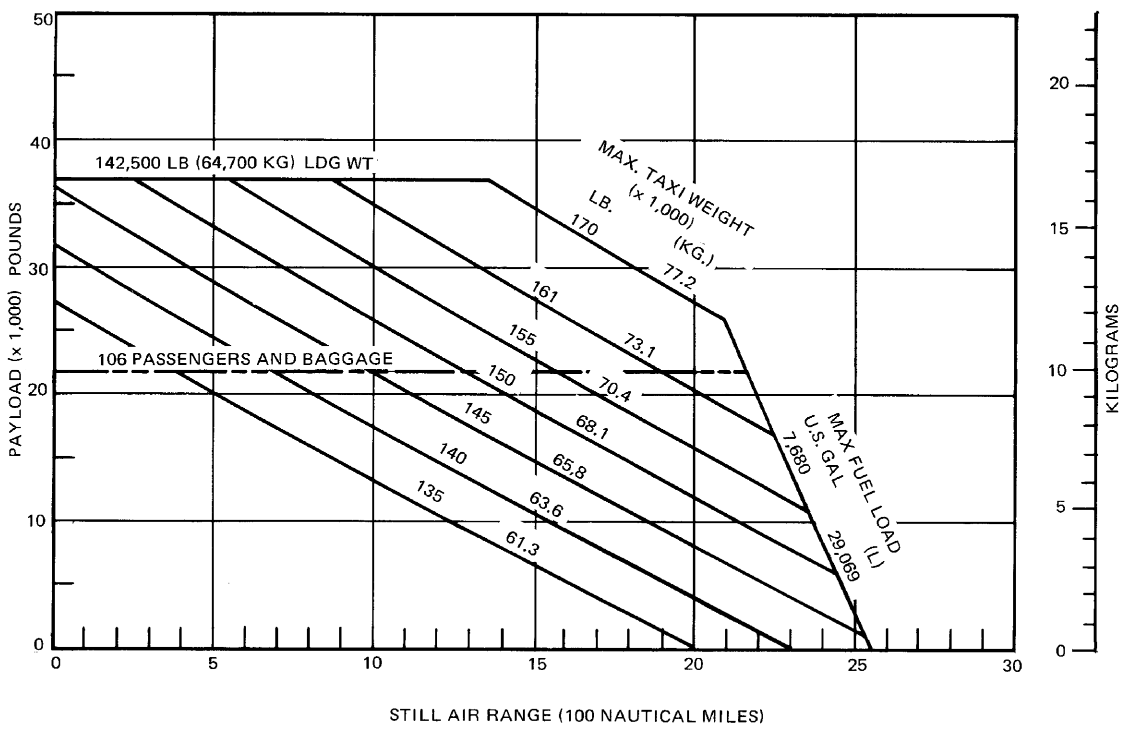


3.1 PAYLOAD/RANGE FOR LONG-RANGE CRUISE—(JT8D-7 OR -9 ENGINES)

MODEL 727-100

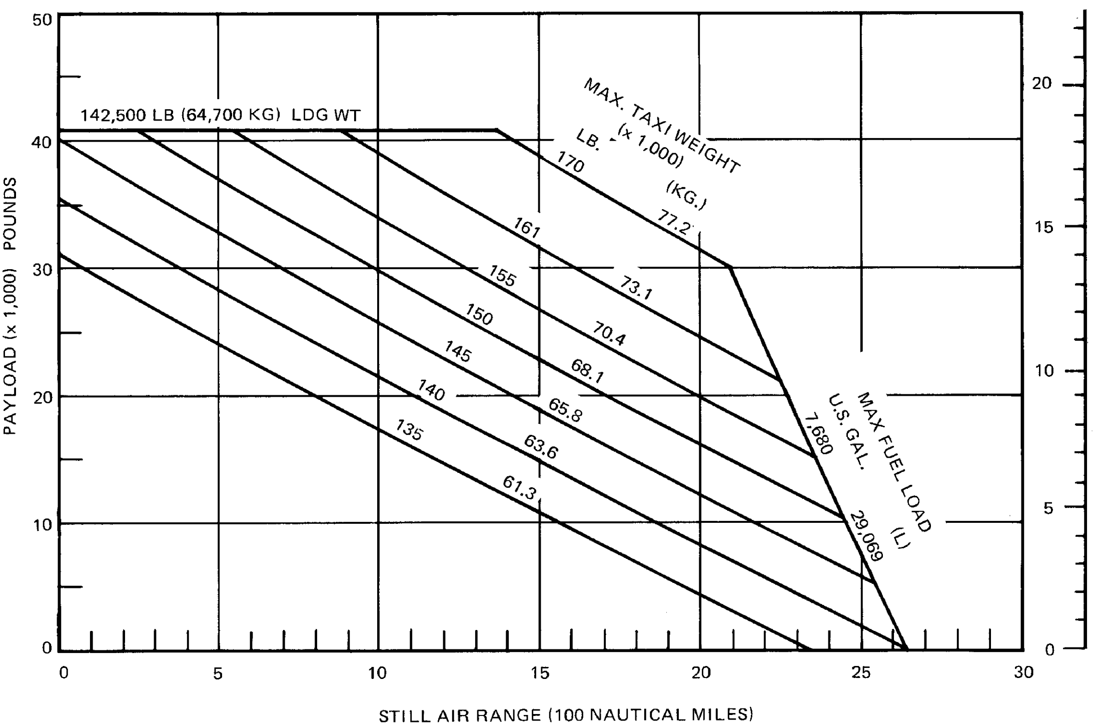
NOTES:

- PASSENGER CONFIGURATION
- TYPICAL AIRLINE OEW 92,500 LB (42,000 KG)
- LRC AT 30,000 AND 35,000 FT (9,140 AND 10,670 M)
- ATA DOMESTIC RESERVES
- JT8D-7 OR -9 ENGINES
- STANDARD DAY
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



PAYLOAD/RANGE FOR LONG-RANGE CRUISE—(JT8D-7 OR -9 ENGINES)
MODEL 727-100C PASSENGER CONFIGURATION

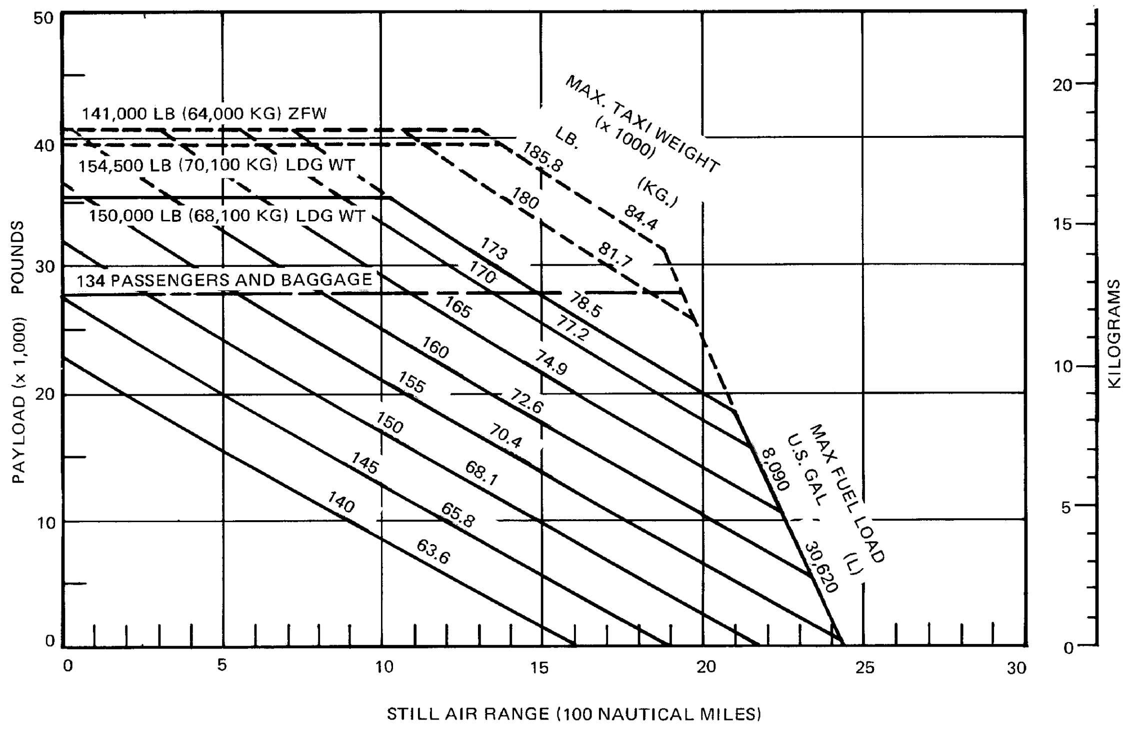
NOTES
- CARGO CONFIGURATION
- TYPICAL AIRLINE OEW 88,500 LB (40,180 KG)
- LRC AT 30,000 AND 35,000 FT (9,140 AND 10,670 M)
- ATA DOMESTIC RESERVES
- JT8D-7 OR -9 ENGINES
- STANDARD DAY
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



PAYLOAD/RANGE FOR LONG-RANGE CRUISE—(JT8D-7 OR -9 ENGINES)
MODEL 727-100C CARGO CONFIGURATION

NOTES:

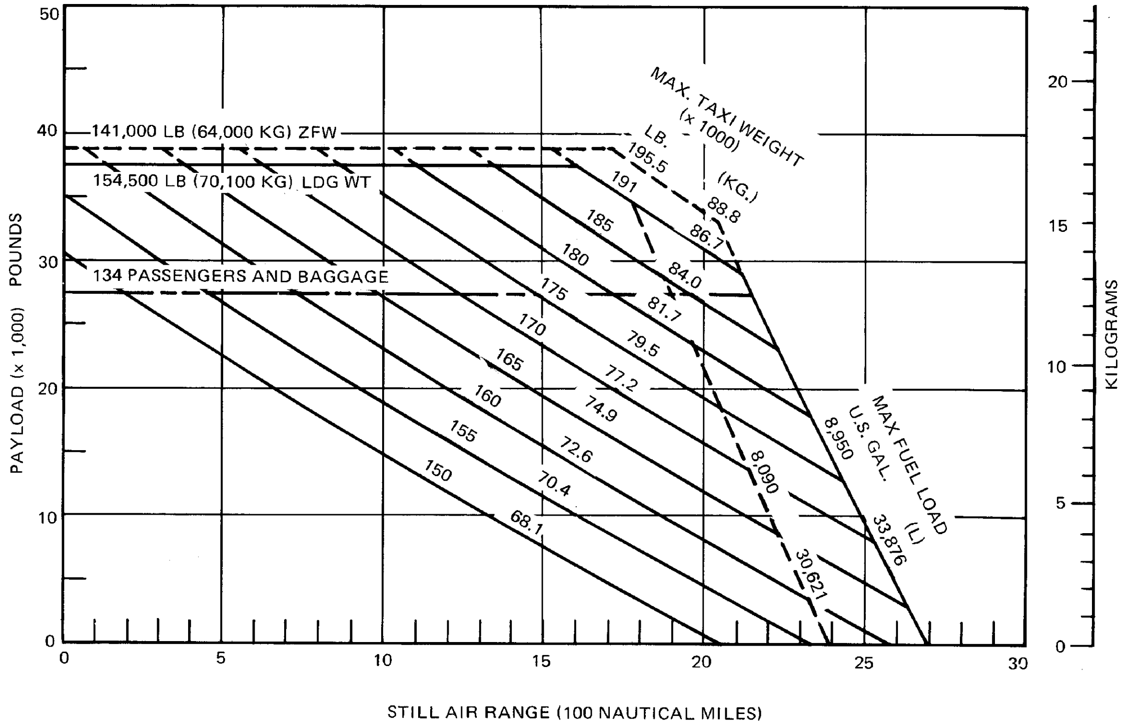
- TYPICAL AIRLINE OEW 100,350 LB (45,560 KG)
- LRC AT 30,000 AND 35,000 FT (9,140 AND 10,670 M)
- ATA DOMESTIC RESERVES
- JT8D-7 OR -9 ENGINES
- STANDARD DAY
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



PAYLOAD/RANGE FOR LONG-RANGE CRUISE–(JT8D-7 ENGINES, STANDARD MODEL).
MODEL 727-200 **–(JT8D-9 ENGINES, STANDARD OR ADVANCED MODELS).**

NOTES:

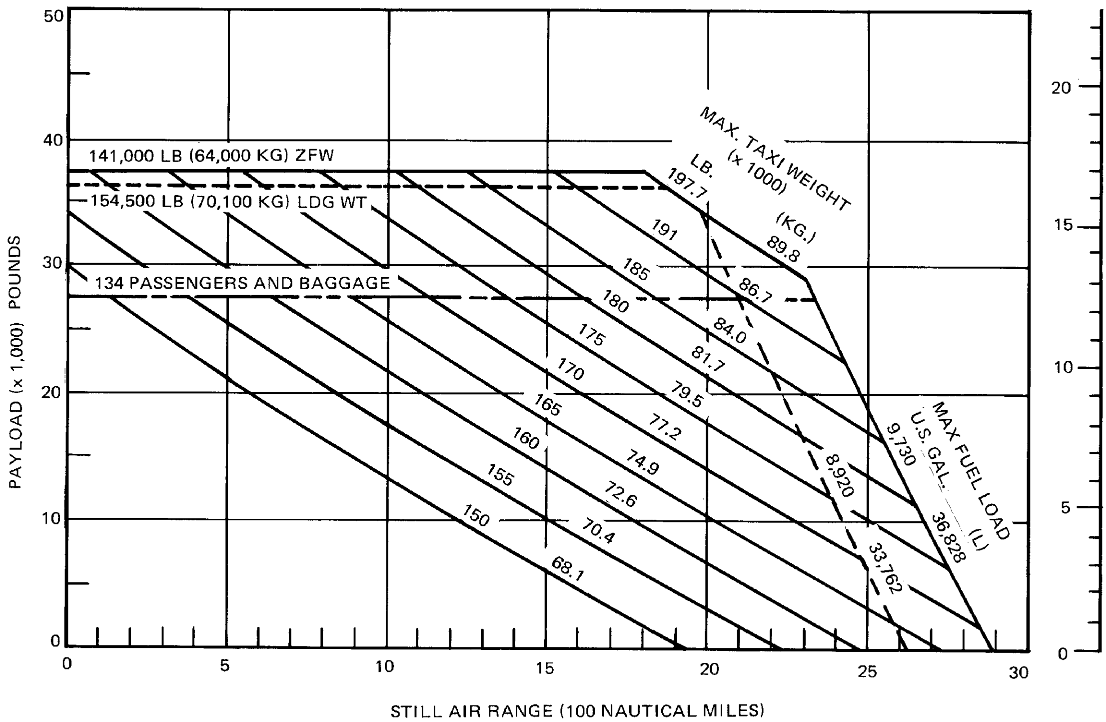
- TYPICAL AIRLINE OEW 102,215 LB (46,410 KG)
- LRC AT 31,000 and 35,000 FT (9,450 AND 10,670 M)
- ATA DOMESTIC RESERVES
- JT8D-15 ENGINES
- STANDARD DAY
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



PAYLOAD/RANGE FOR LONG-RANGE CRUISE—(JT8D-15 ENGINES)
MODEL ADVANCED 727-200

NOTES:

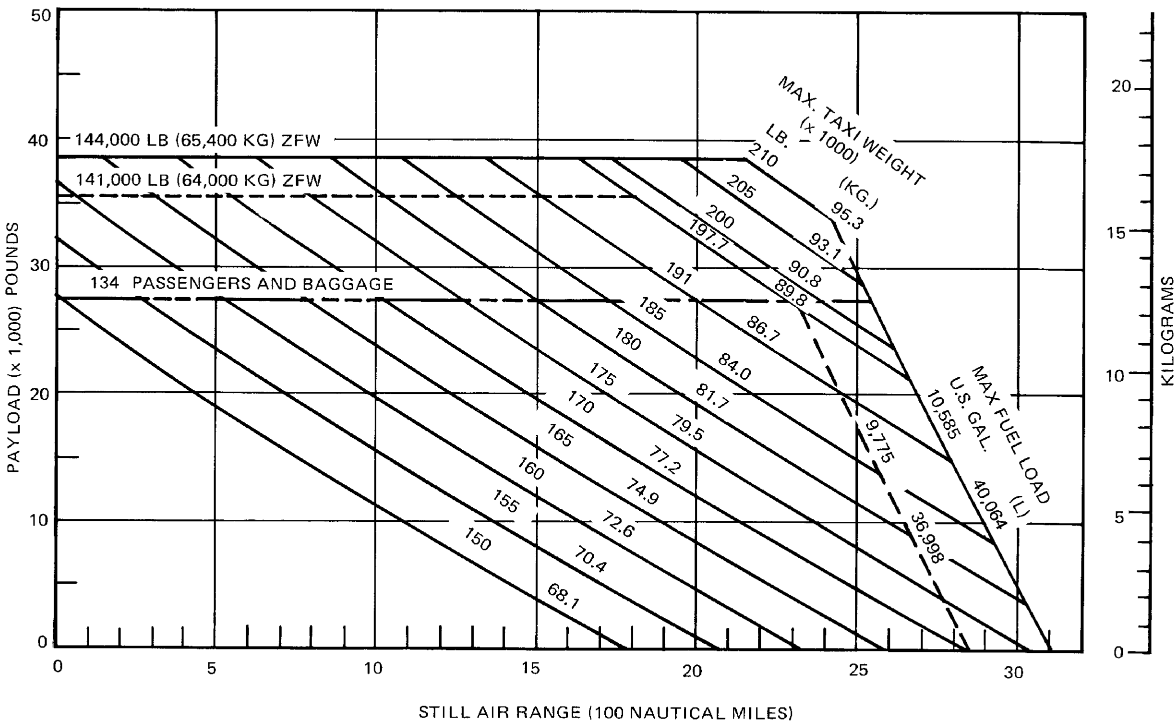
- TYPICAL AIRLINE OEW 103,480 LB (46,980 KG)
- LRC AT 31,000 AND 35,000 FT (9,450 AND 10,670 M)
- ATA DOMESTIC RESERVES
- JT8D-17 ENGINES
- STANDARD DAY
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



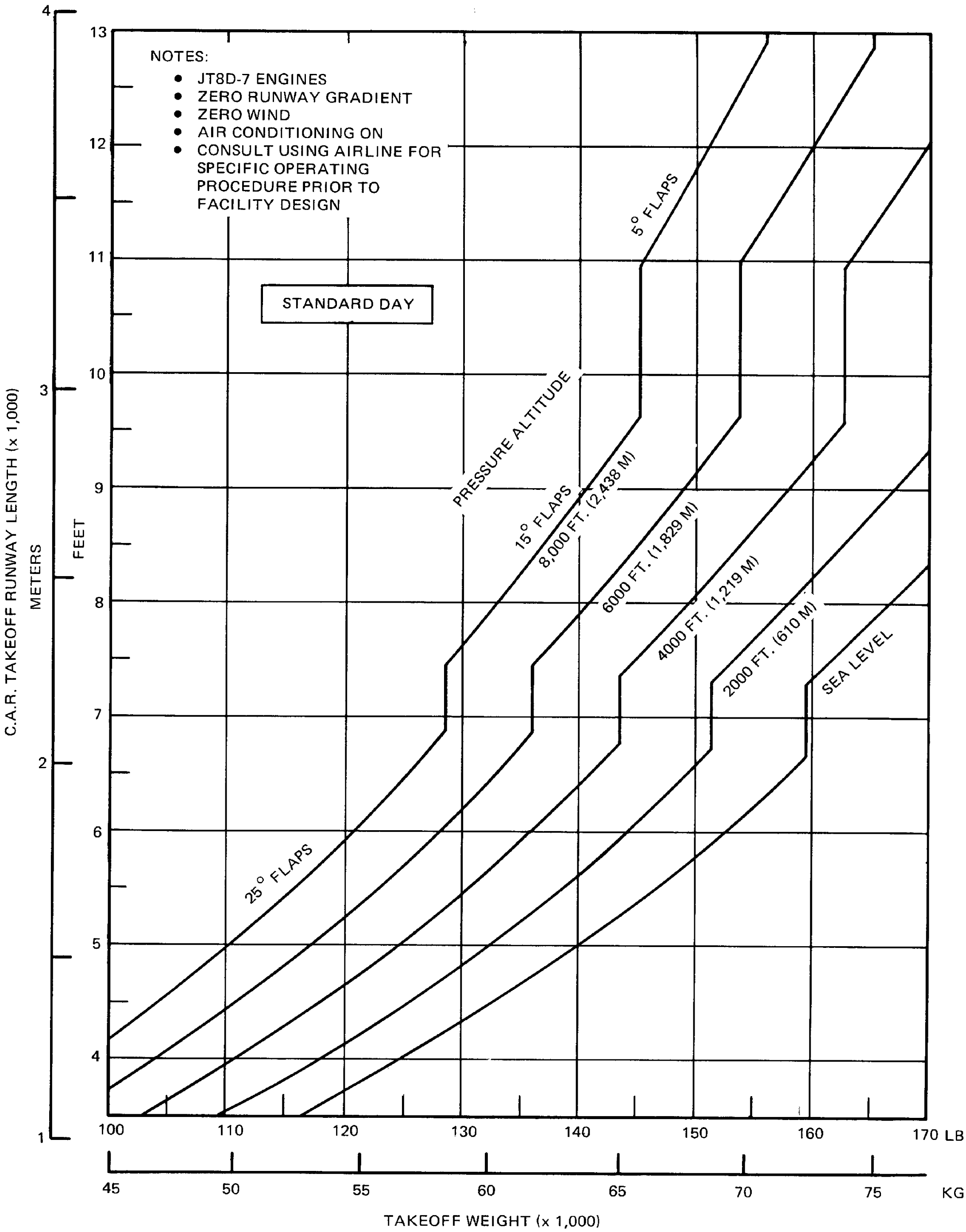
PAYLOAD/RANGE FOR LONG-RANGE CRUISE—(JT8D-17 ENGINES)

MODEL ADVANCED 727-200

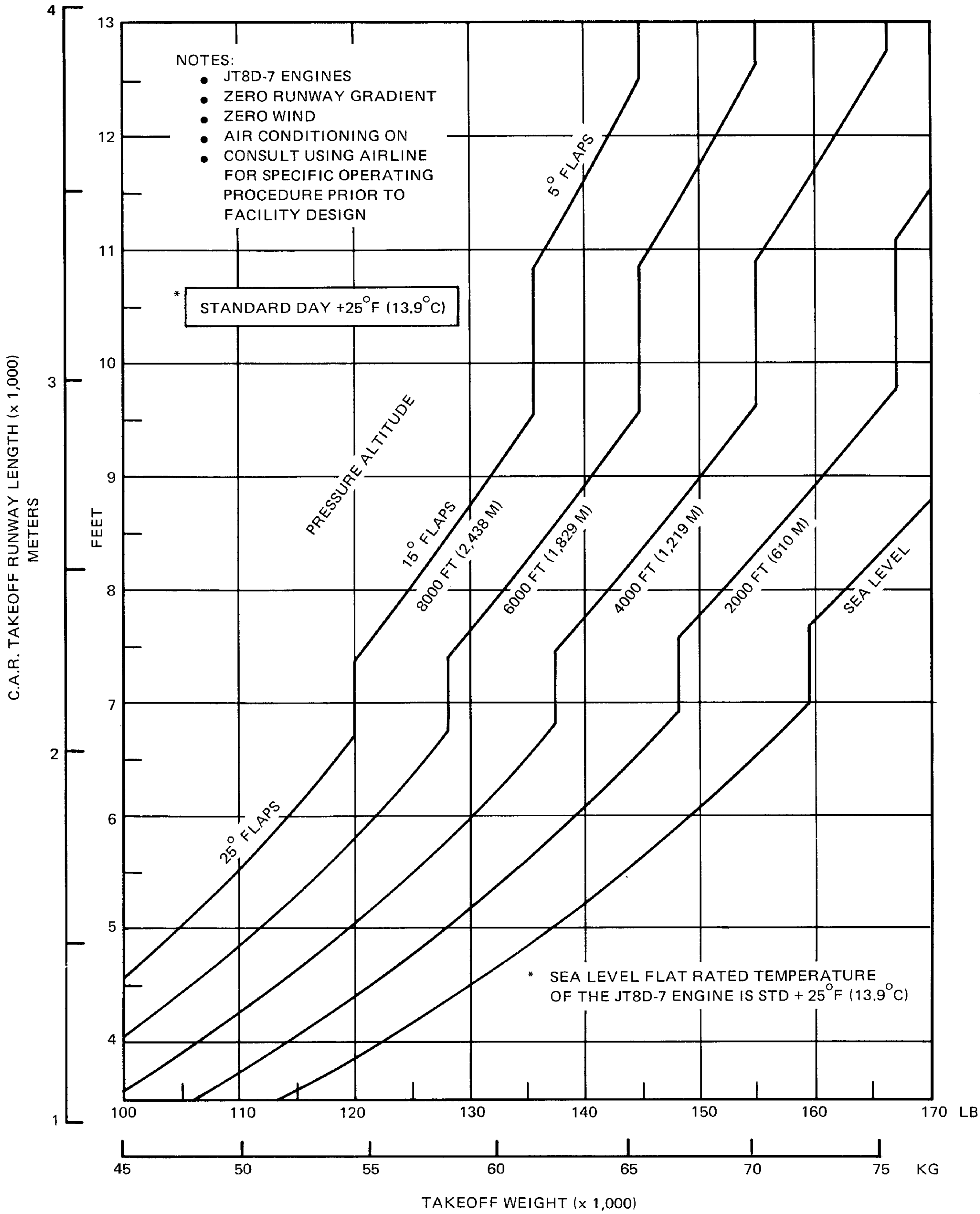
NOTES:
- TYPICAL AIRLINE OEW 105,470 LB (47,880 KG)
- LRC AT 31,000 AND 35,000 FT (9,450 AND 10,670 M)
- ATA DOMESTIC RESERVES
- JT8D-17R ENGINES
- STANDARD DAY
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



PAYLOAD/RANGE FOR LONG-RANGE CRUISE—(JT8D-17R ENGINES)
MODEL ADVANCED 727-200

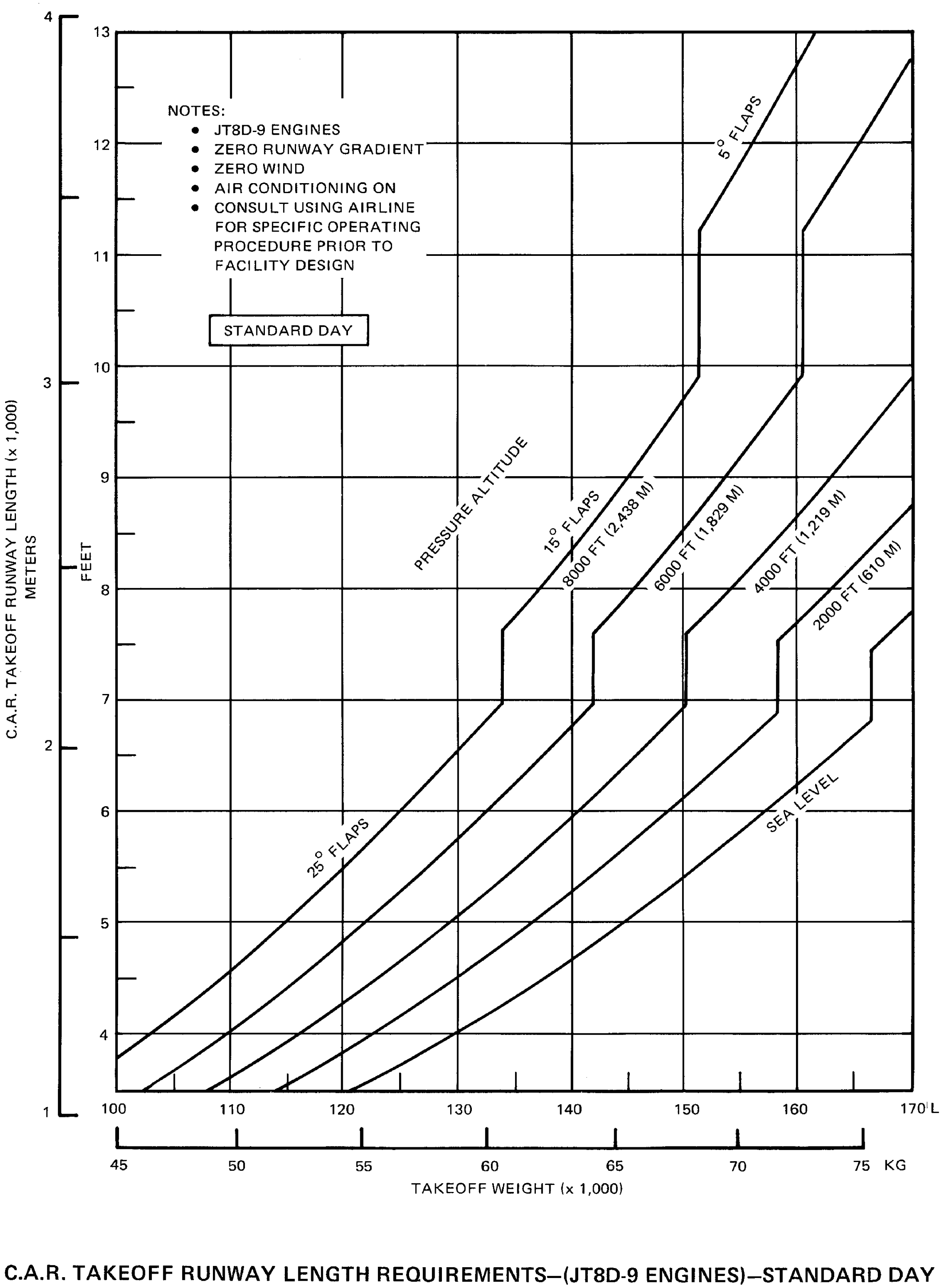


3.2 C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-7 ENGINES)—STANDARD DAY
MODELS 727-100, -100C

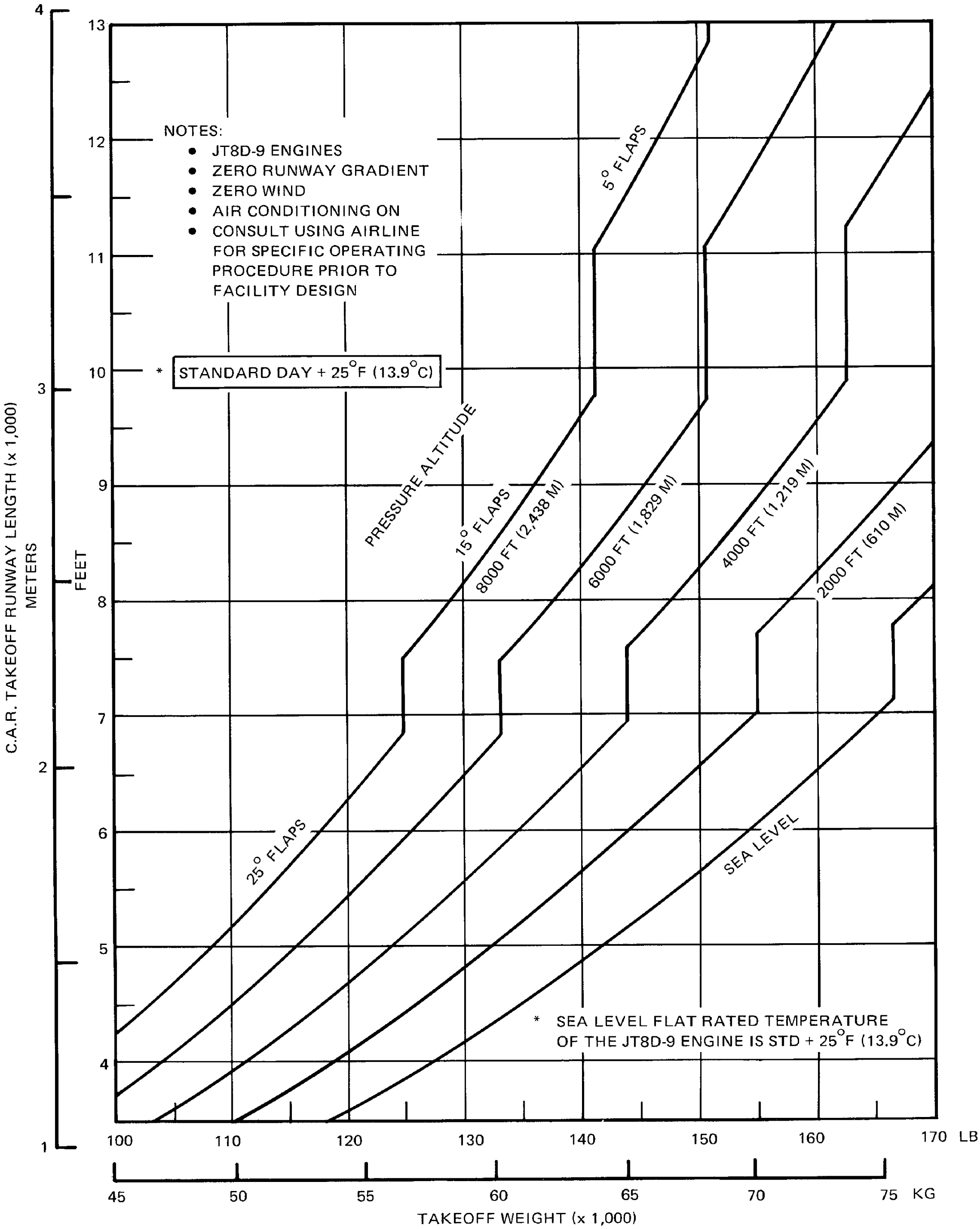


C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-7 ENGINES)—STANDARD DAY + 25°F (13.9°C)

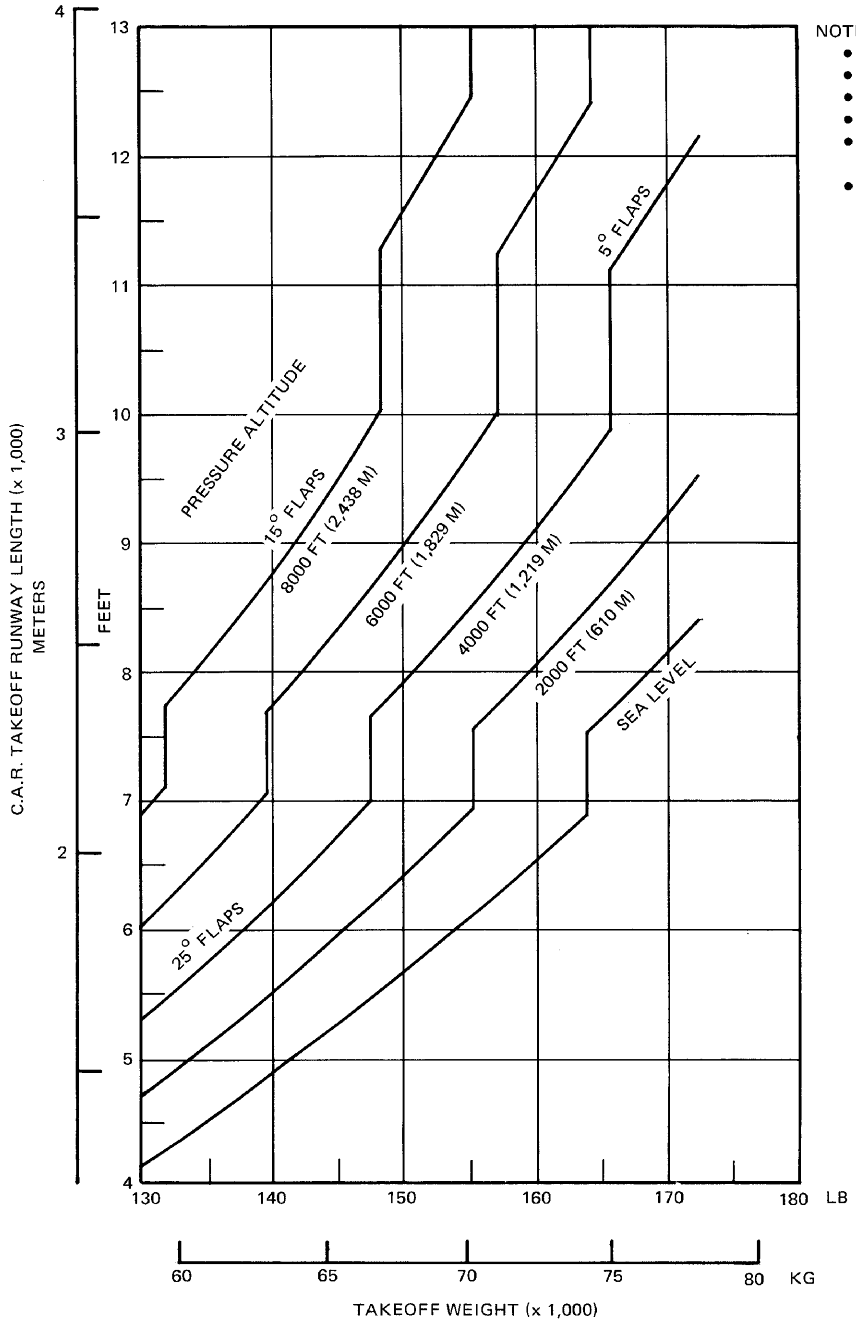
MODELS 727-100, -100C



C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-9 ENGINES)—STANDARD DAY
MODELS 727-100, -100C



C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-9 ENGINES)—
STANDARD DAY + 25°F (13.9°C)
MODELS 727-100, -100C



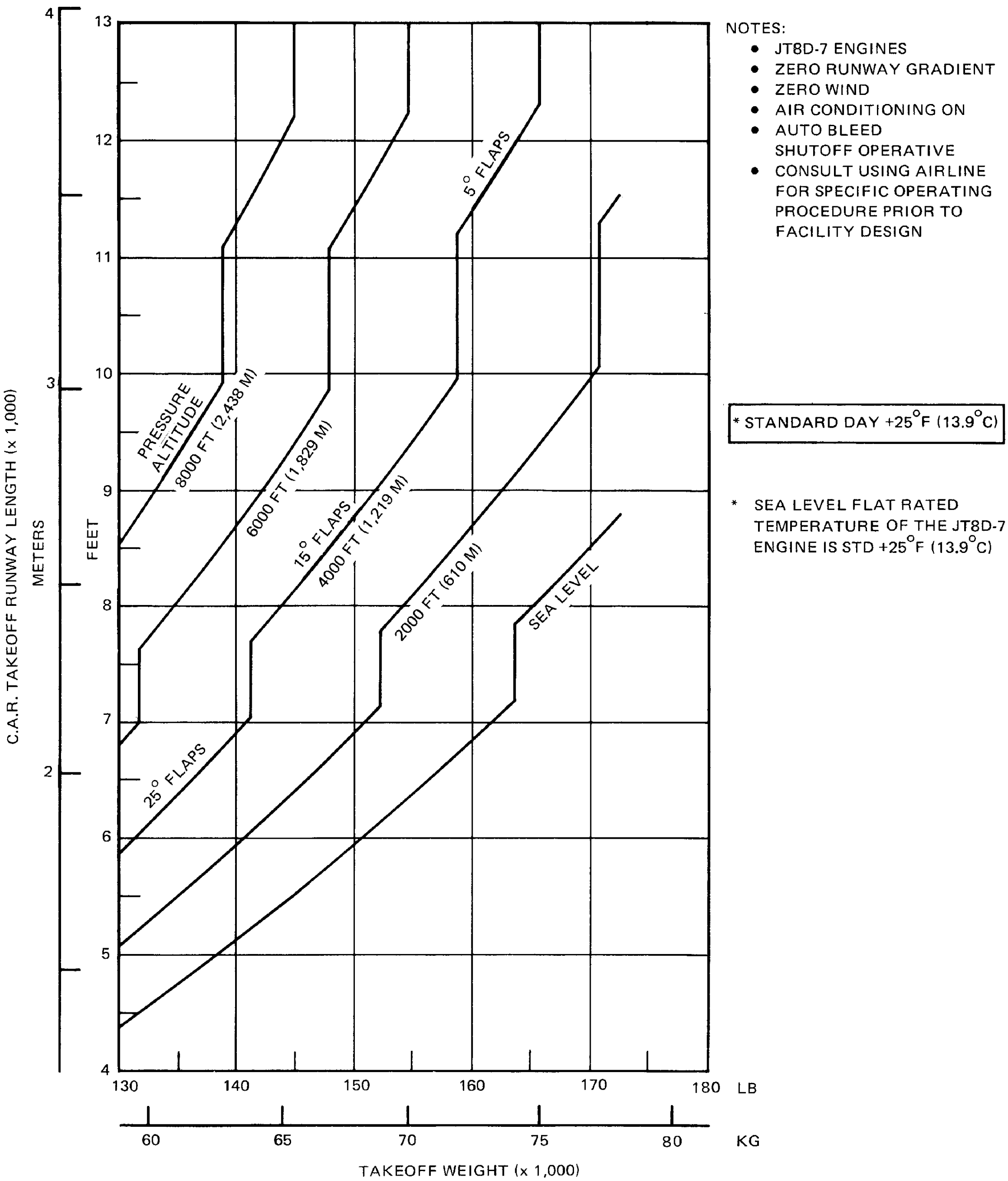
NOTES:

- JT8D-7 ENGINES
- ZERO RUNWAY GRADIENT
- ZERO WIND
- AIR CONDITIONING ON
- AUTO BLEED SHUTOFF OPERATIVE
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

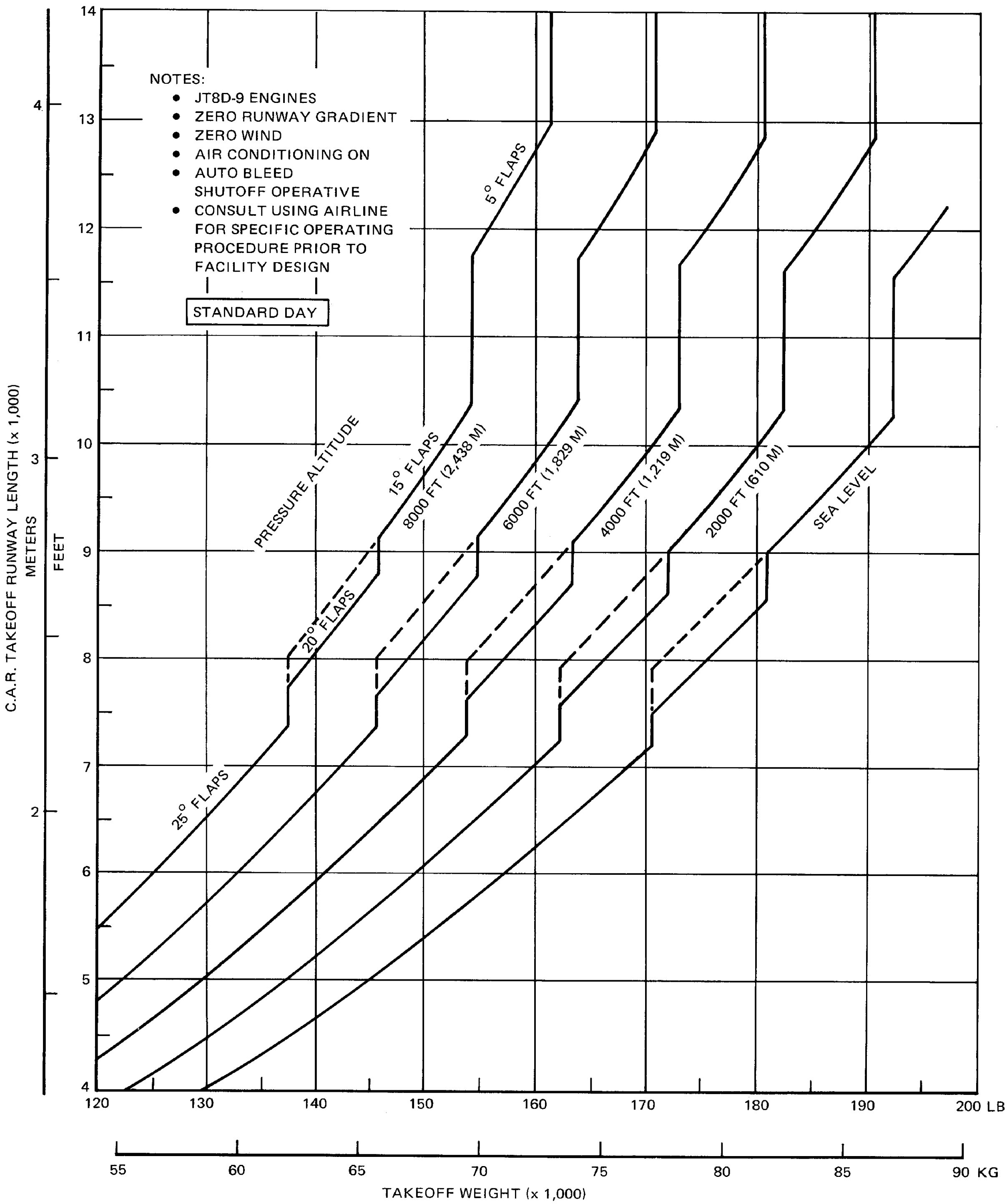
STANDARD DAY

C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-7 ENGINES)—STANDARD DAY

MODELS 727-200 STANDARD

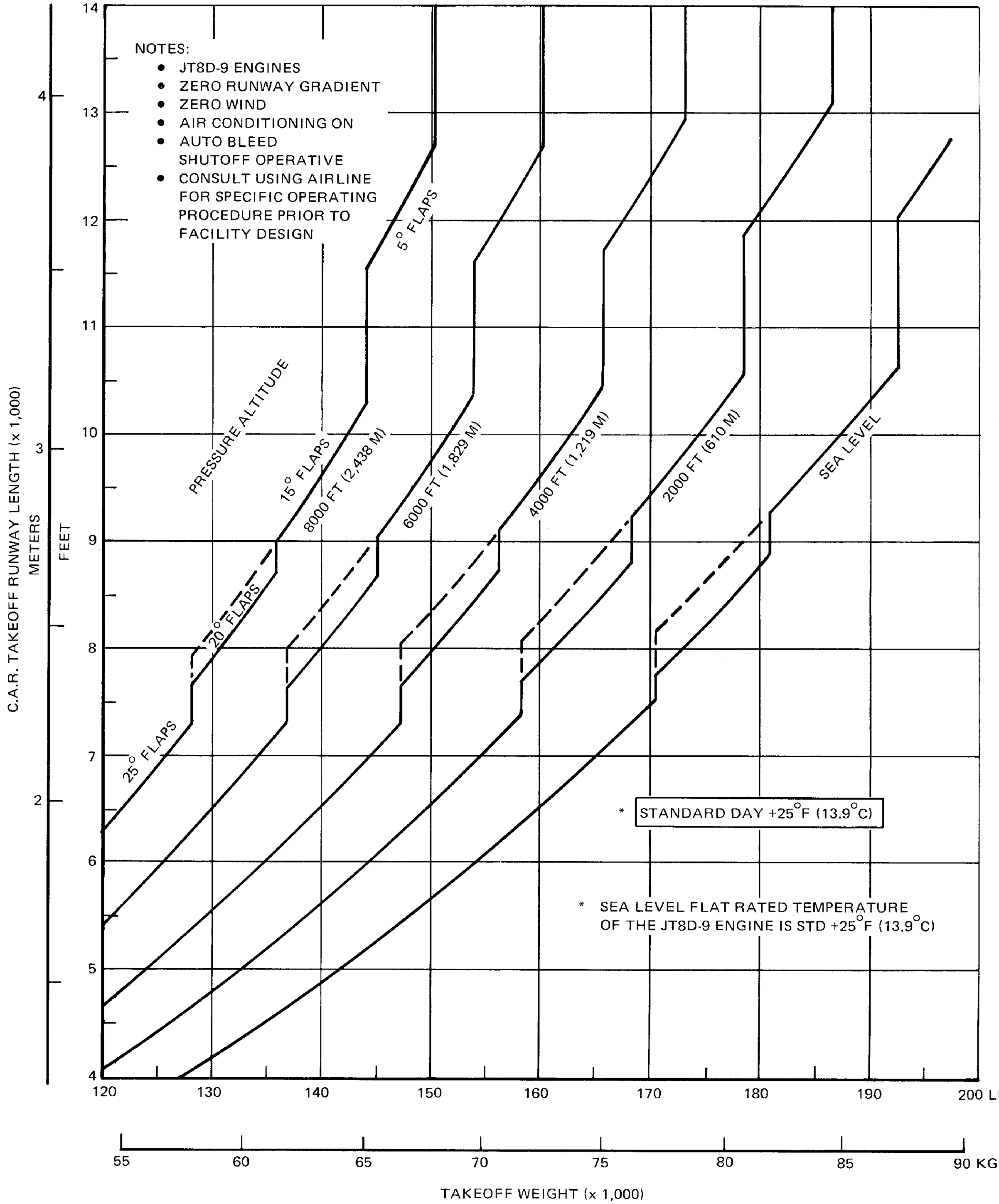


C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-7 ENGINES)—STANDARD DAY + 25°F (13.9°C)
MODELS 727-200 STANDARD



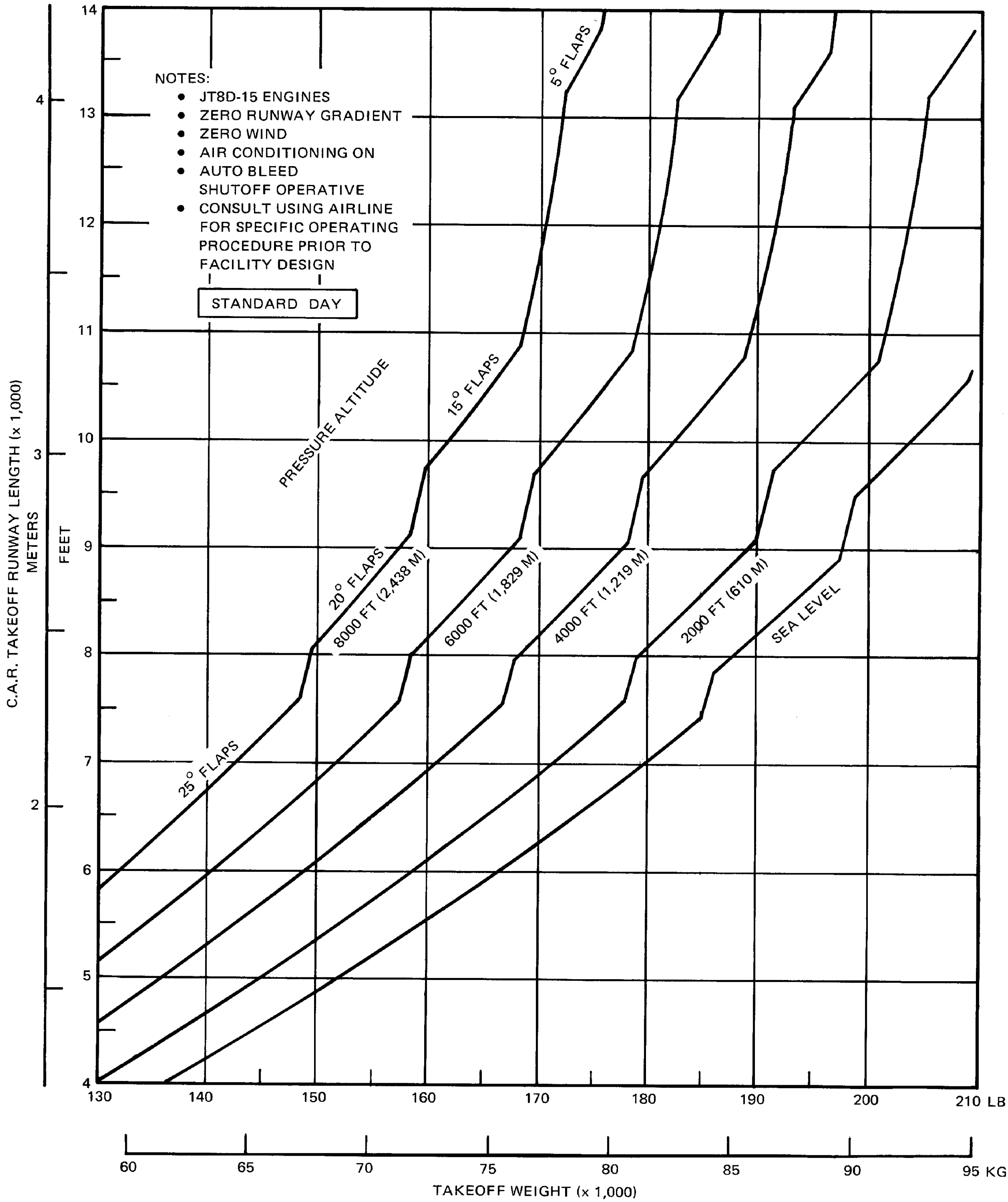
C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-9 ENGINES)—STANDARD DAY

MODELS 727-200 STANDARD OR ADVANCED

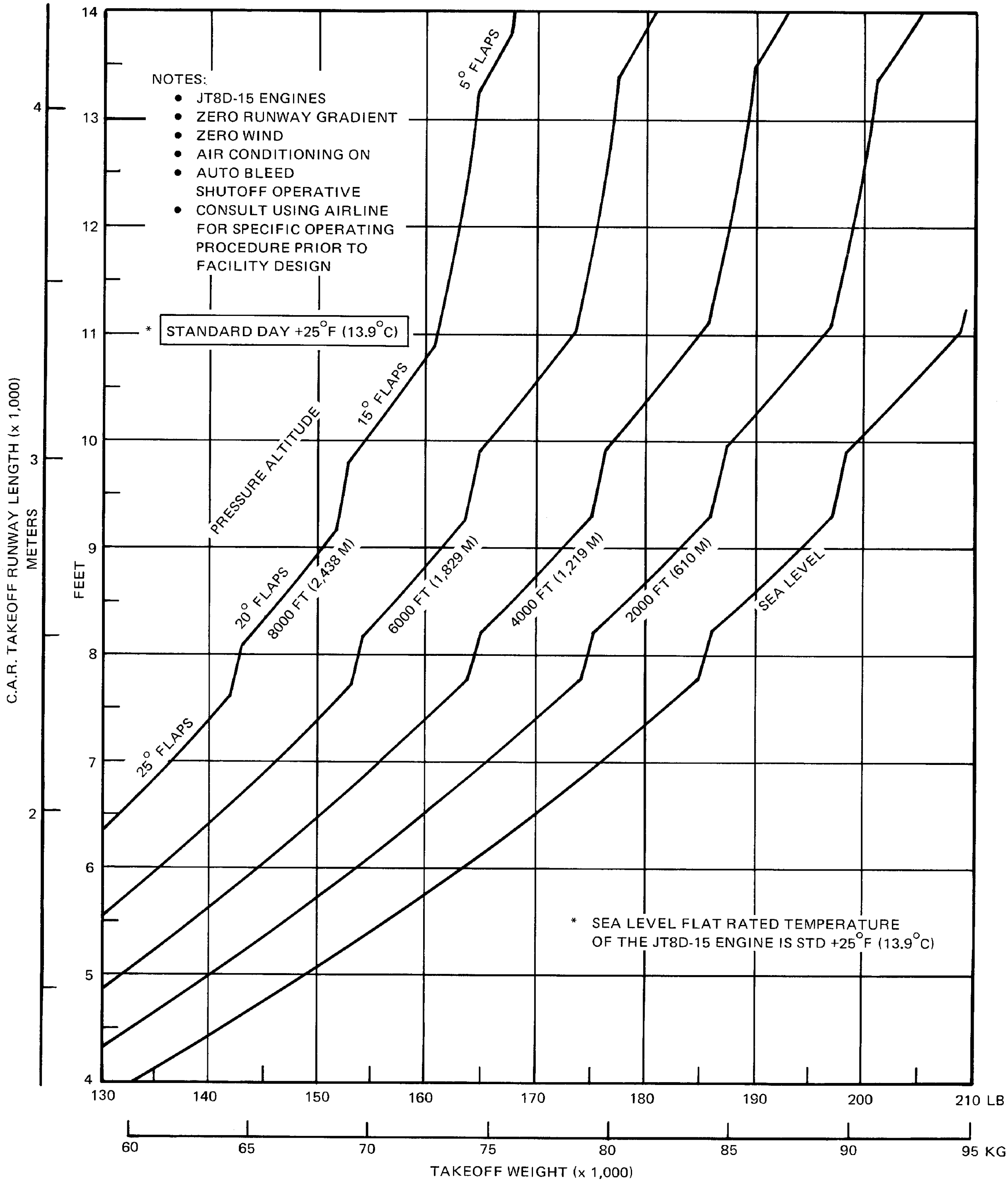


C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-9 ENGINES)— STANDARD DAY + 25°F (13.9°C)

MODELS 727-200 STANDARD OR ADVANCED

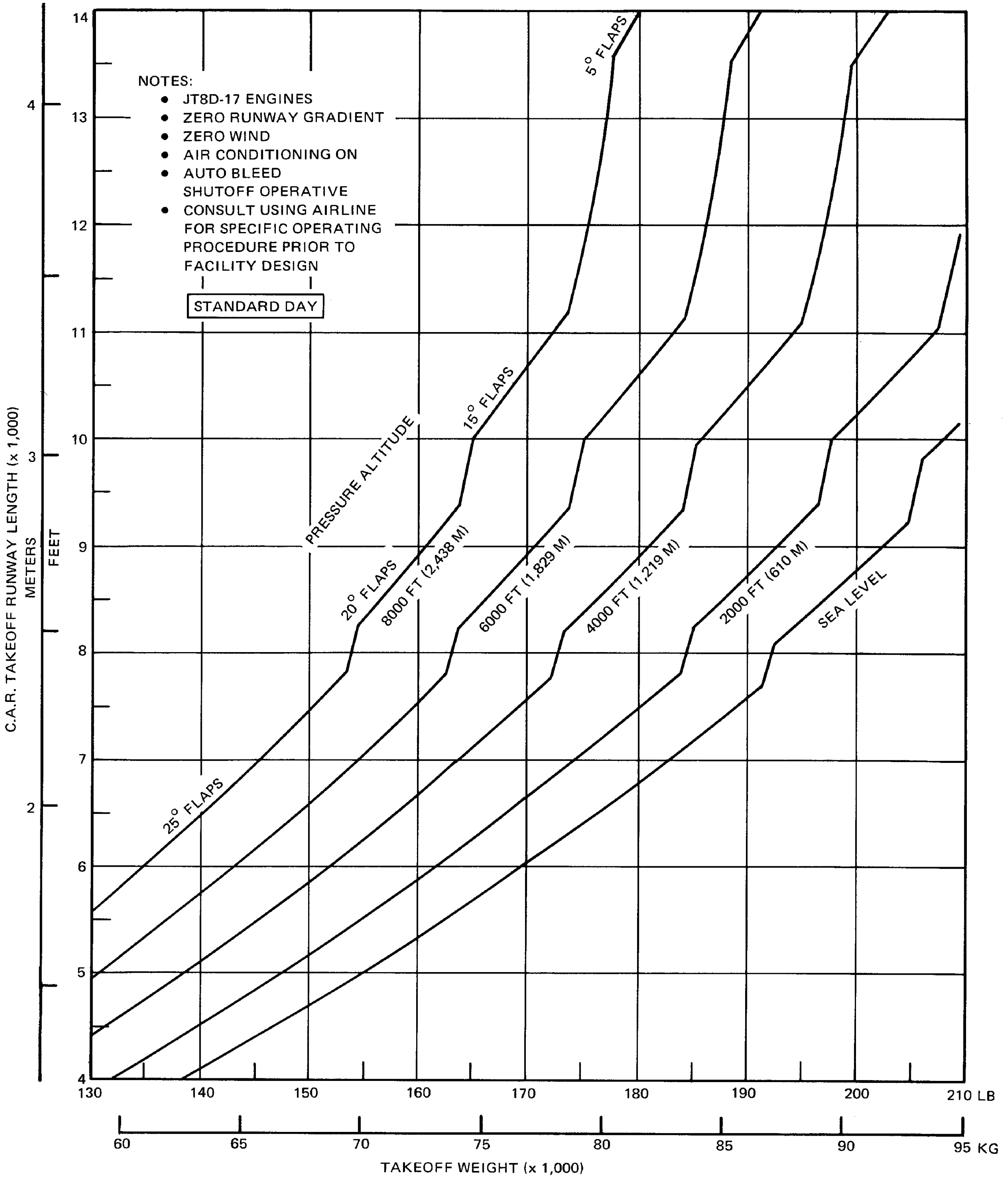


C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-15 ENGINES)—STANDARD DAY
MODEL ADVANCED 727-200

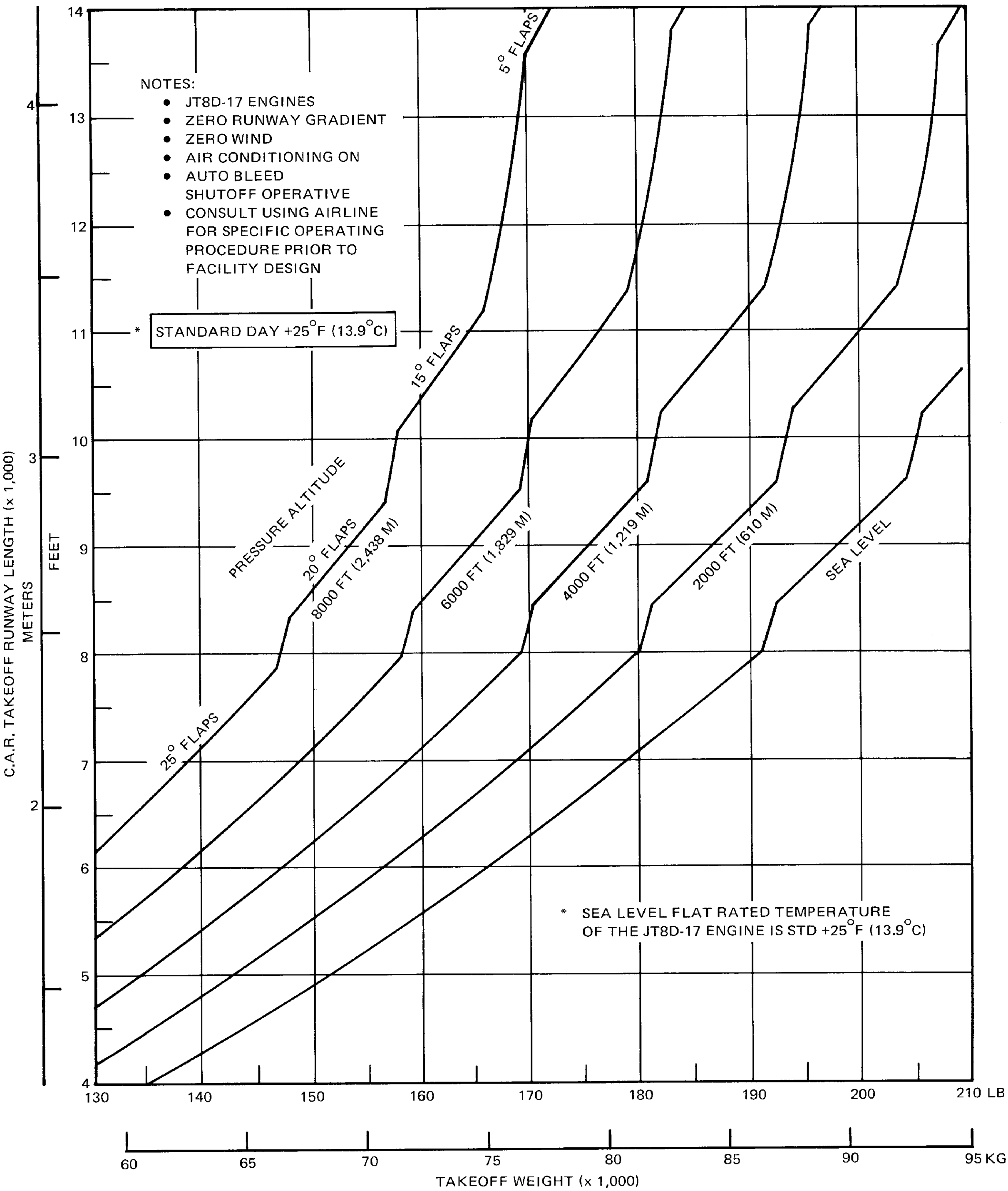


C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-15 ENGINES)—STANDARD DAY + 25°F (13.9°C)

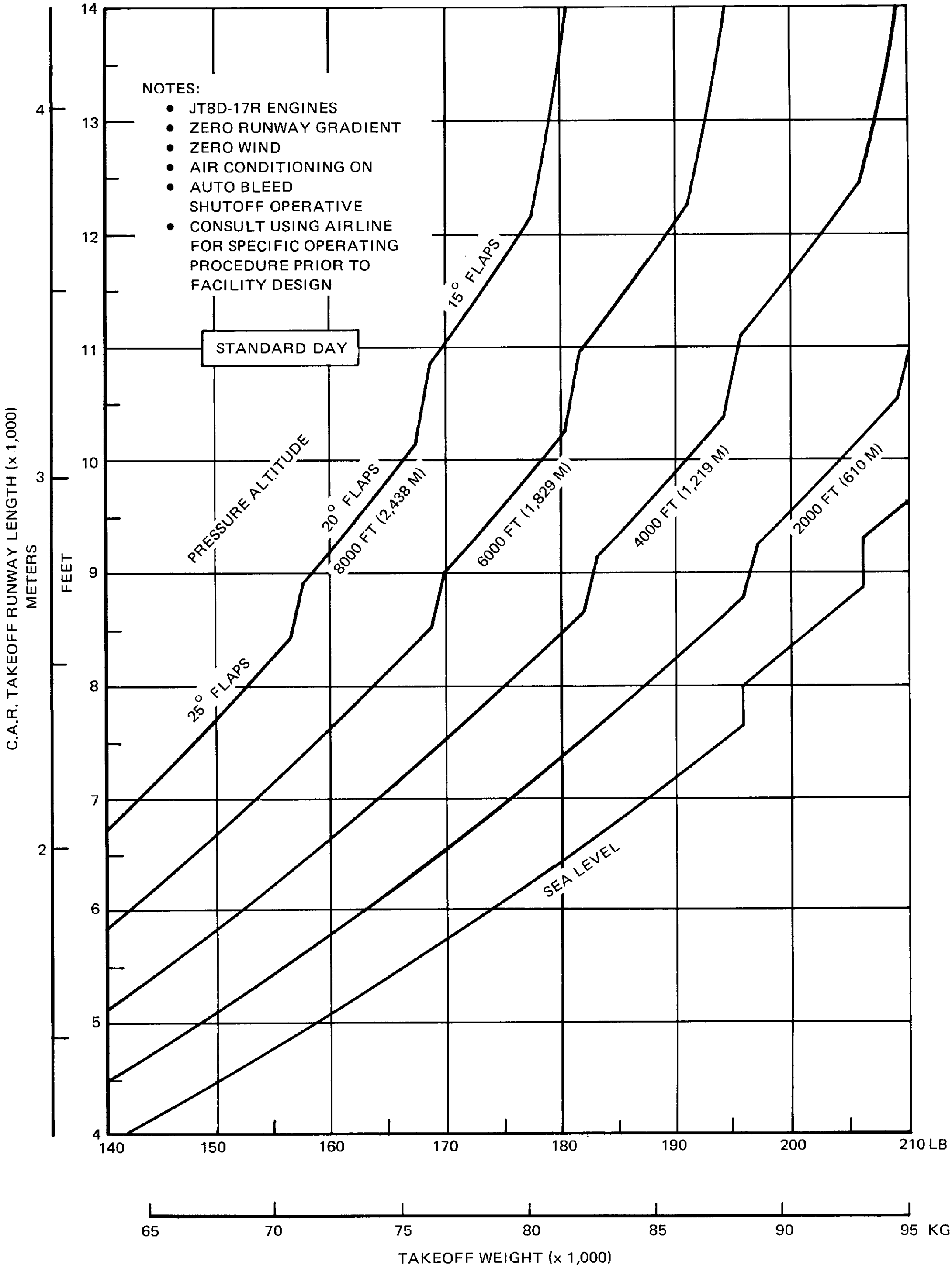
MODEL ADVANCED 727-200



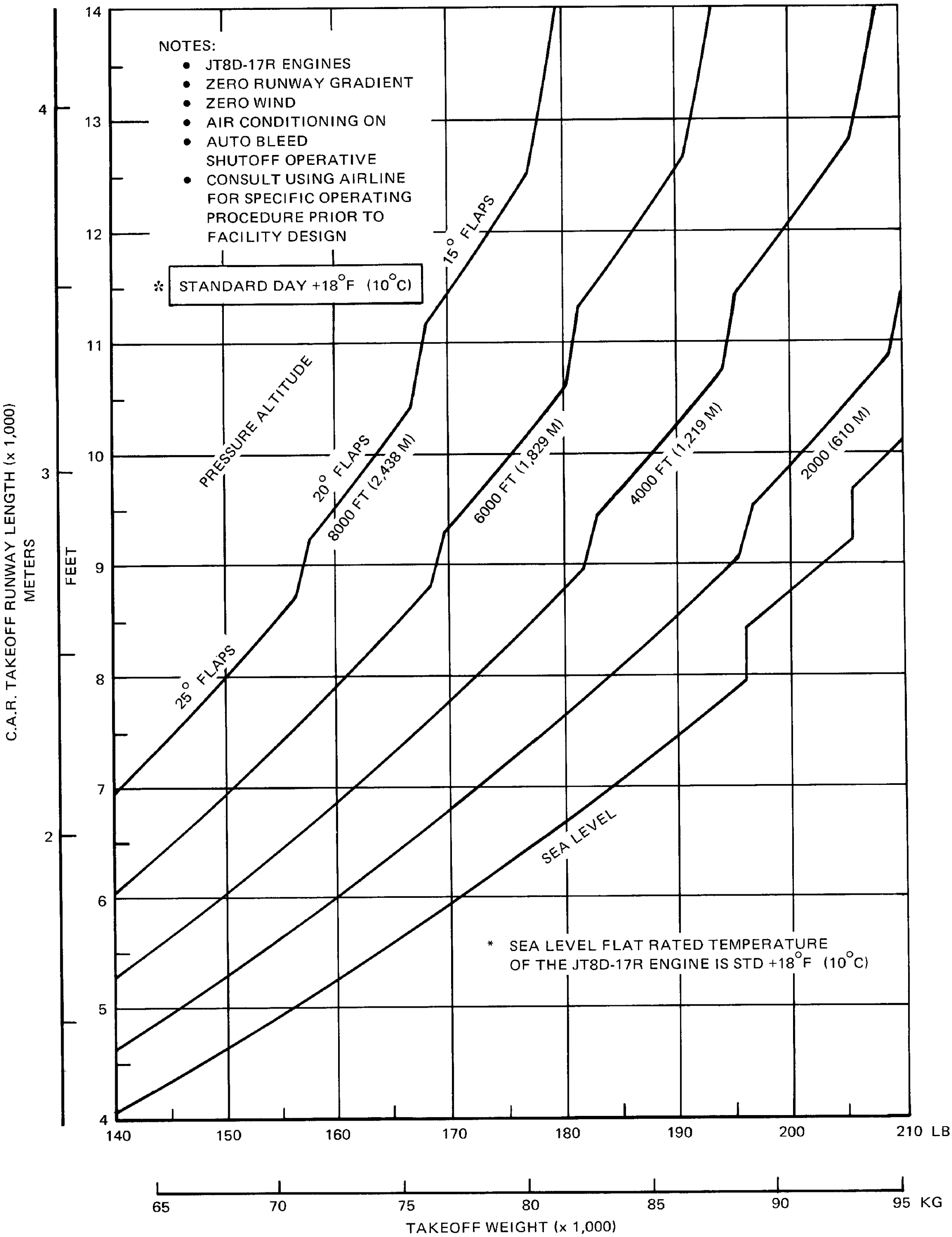
C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-17 ENGINES)—STANDARD DAY
MODEL ADVANCED 727-200



C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-17 ENGINES)—
STANDARD DAY + 25°F (13.9°C)
MODEL ADVANCED 727-200



C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-17R ENGINES)—STANDARD DAY
MODEL ADVANCED 727-200



C.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS—(JT8D-17R ENGINES)— STANDARD DAY + 18°F (10°C)

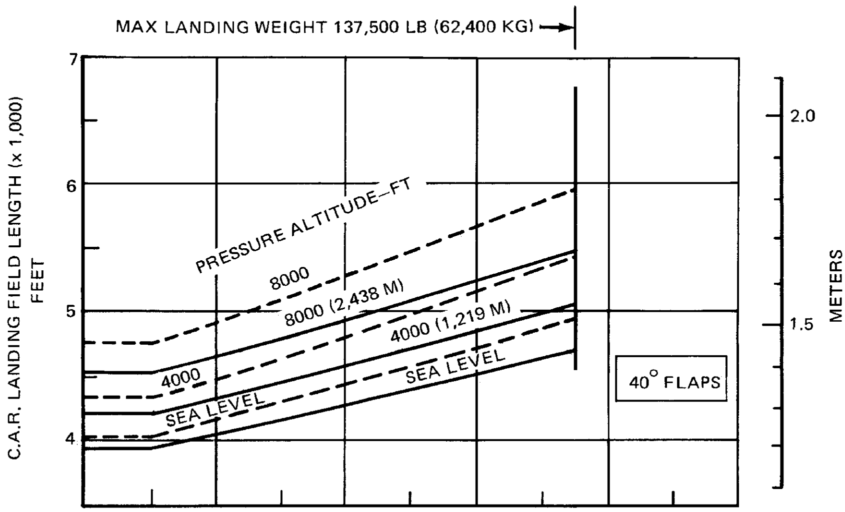
MODEL ADVANCED 727-200

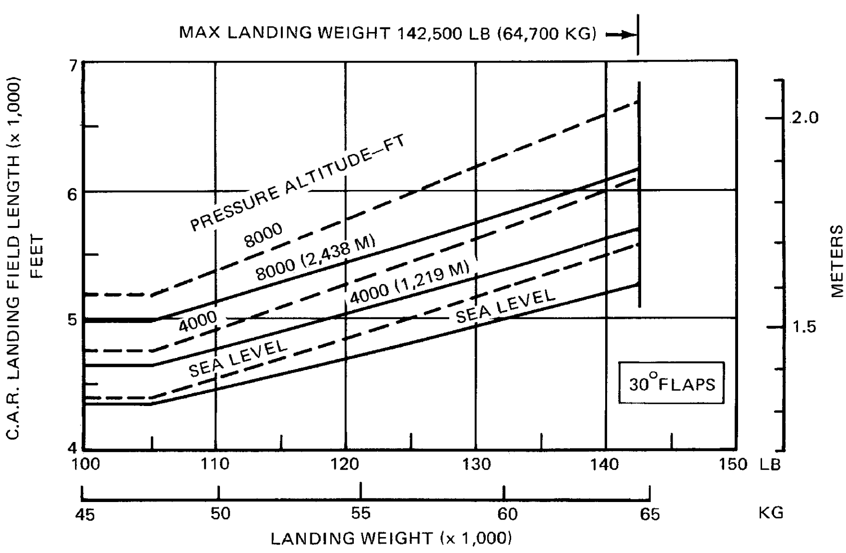
NOTES:

- NOSE BRAKES ON
- MK II ANTI-SKID
- ZERO WIND
- MANUAL SPOILERS
- ZERO SLOPE
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

——— DRY RUNWAY

– – – WET RUNWAY



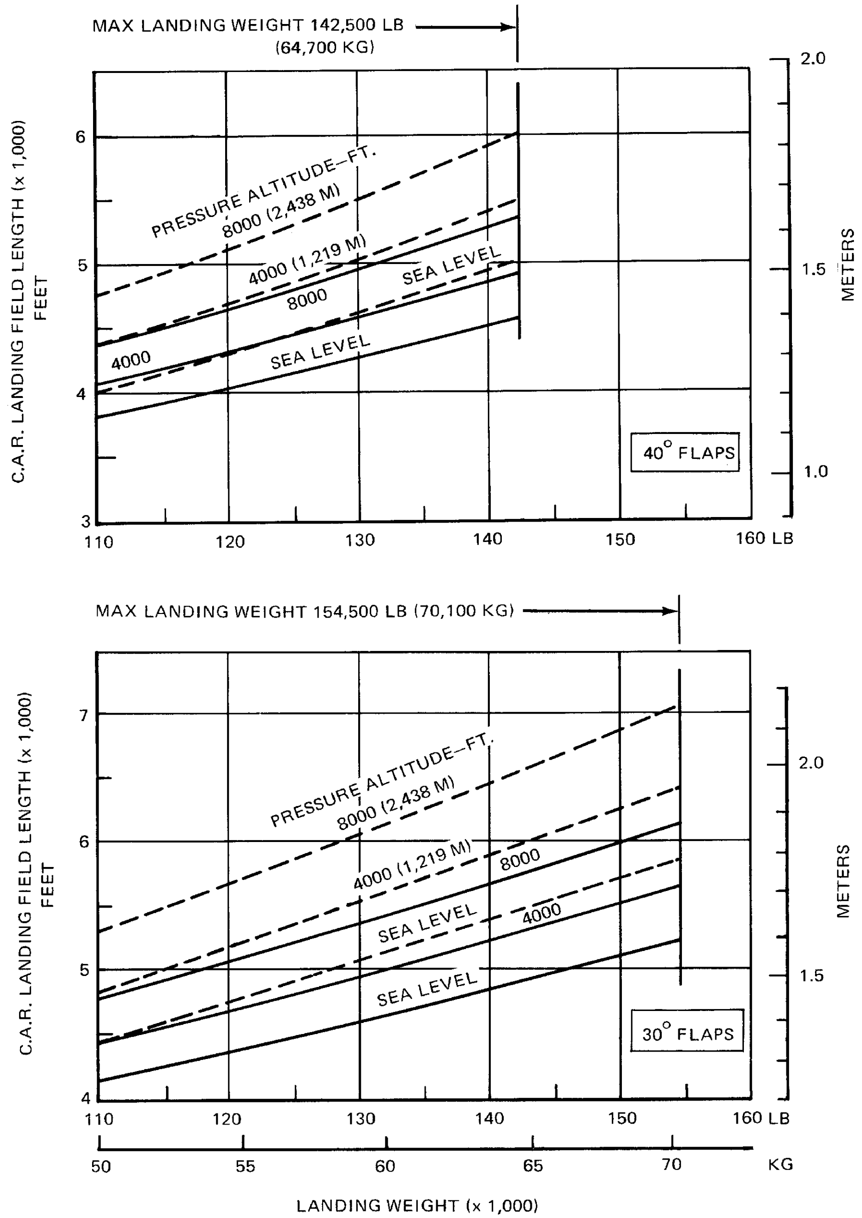


3.3 C.A.R. LANDING RUNWAY REQUIREMENTS–30° AND 40° FLAPS

MODEL 727-100, -100C

NOTES:
- MK II ANTI-SKID
- MANUAL SPOILERS
- NOSE BRAKES ON
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- ZERO WIND
- ZERO SLOPE

——— DRY RUNWAY
– – – – WET RUNWAY



C.A.R. LANDING RUNWAY REQUIREMENTS–30° AND 40° FLAPS

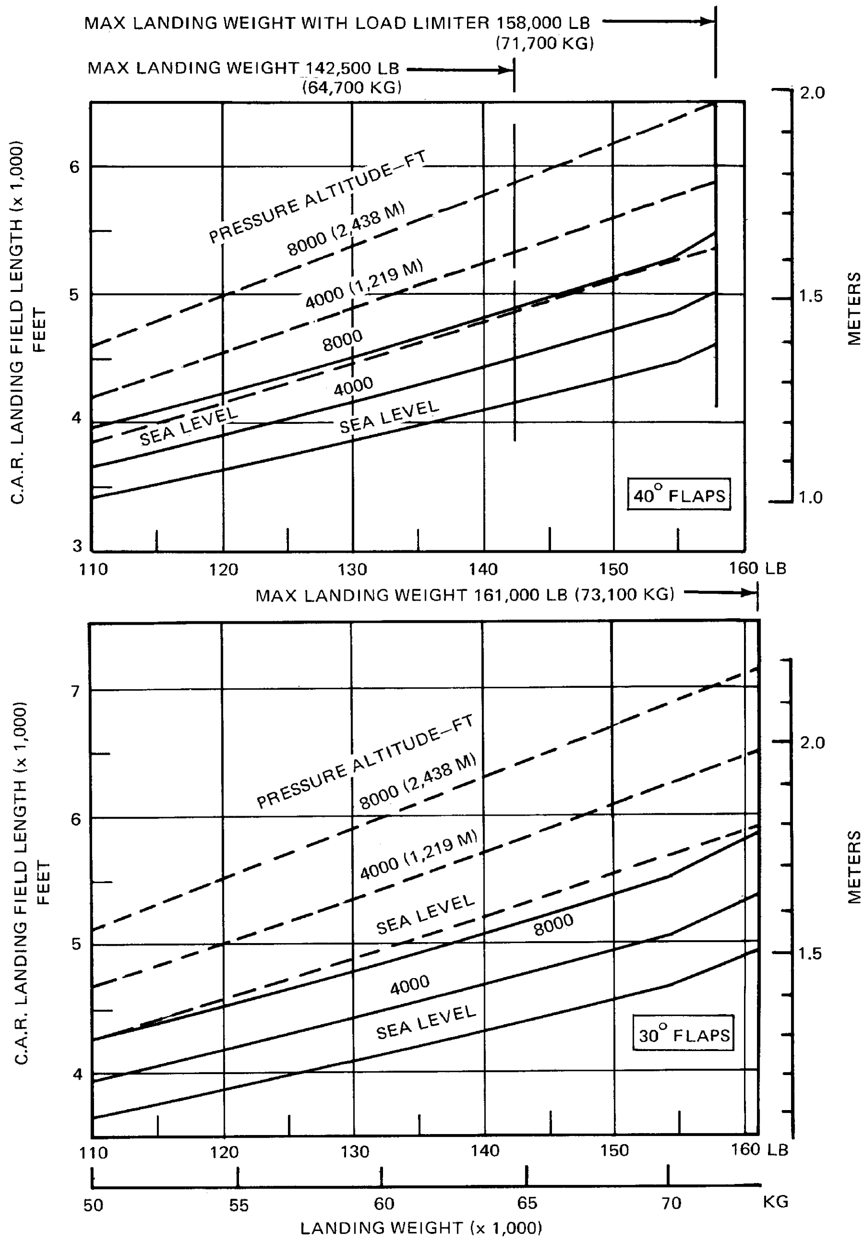
MODEL 727-200 STANDARD

NOTES:

- NOSE BRAKES ON
- MK III ANTI-SKID
- MANUAL SPOILERS
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- ZERO WIND
- ZERO SLOPE

——— DRY RUNWAY

— — — WET RUNWAY



C.A.R. LANDING RUNWAY REQUIREMENTS—30° AND 40° FLAPS

MODEL ADVANCED 727-200

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4.0 GROUND MANEUVERING

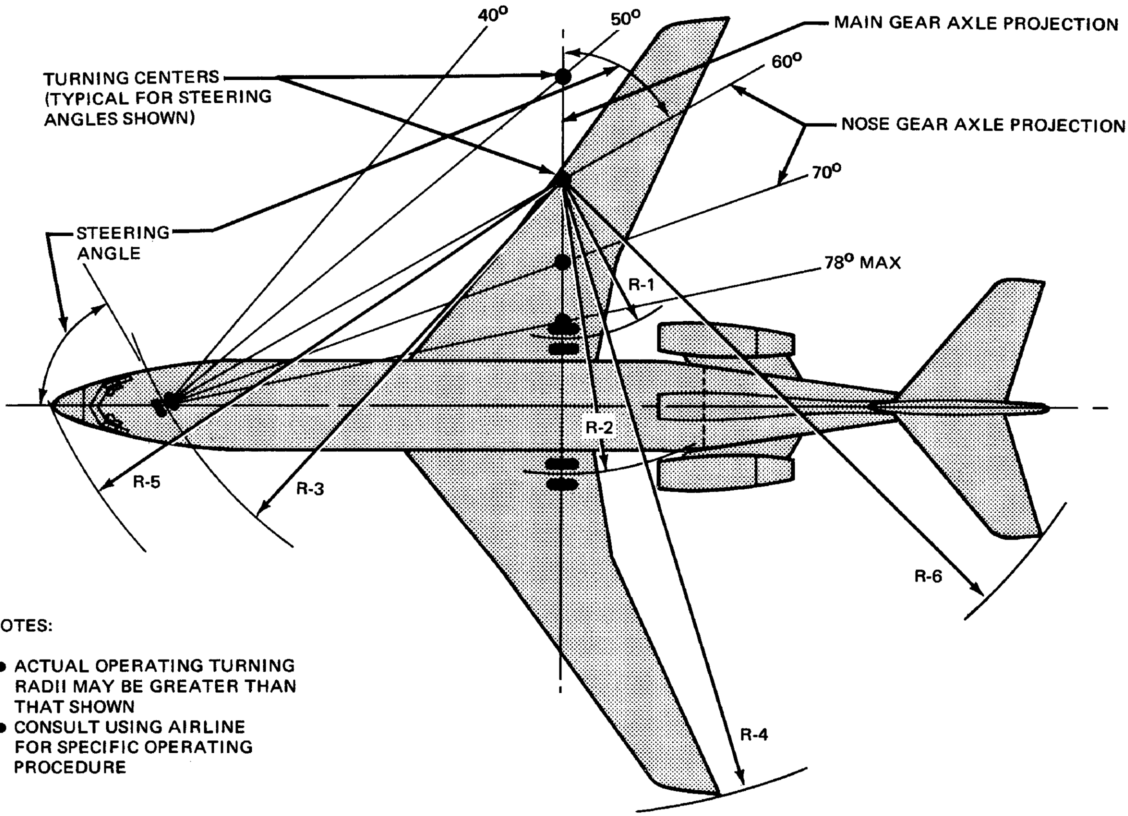
4.0 GROUND MANEUVERING

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, provides for a normal allowance for tire slippage. As such, it reflects the turning capability of the aircraft in favorable operating circumstances. These data should only be used as guidelines for the method of determination of such parameters and for the maneuvering characteristics of this aircraft type.

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 techniques 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.



NOTES:

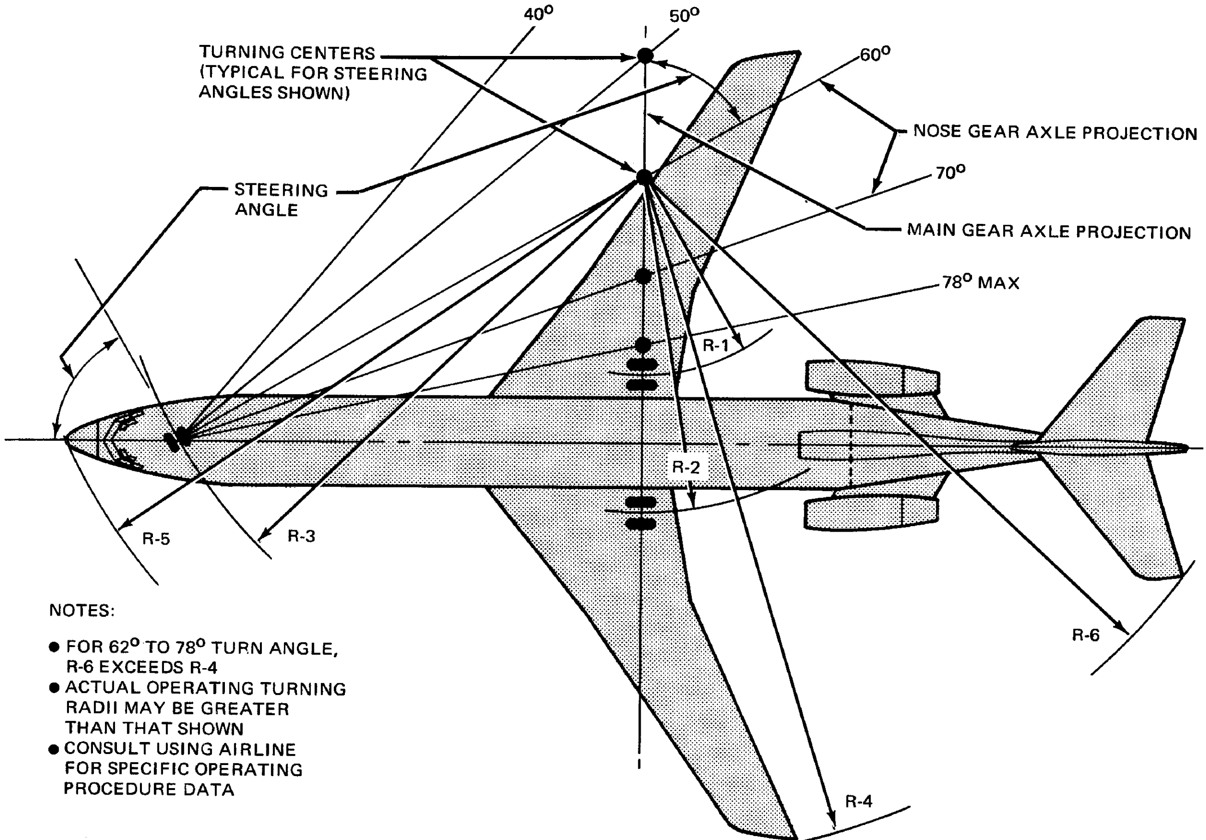
- ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN THAT SHOWN
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE

DIMENSIONS ROUNDED TO NEAREST FOOT AND 0.1 METER

STEERING ANGLE (DEG)	R-1 INNER GEAR		R-2 OUTER GEAR		R-3 NOSE GEAR		R-4 WING TIP		R-5 NOSE		R-6 TAIL	
	FT	M	FT	M	FT	M	FT	M	FT	M	FT	M
30	83	25.3	102	31.1	106	32.3	148	45.1	115	35.1	127	38.7
35	67	20.4	86	26.2	93	28.3	132	40.2	102	31.1	114	34.7
40	54	16.5	73	22.3	83	25.3	120	36.6	93	28.3	103	31.4
45	44	13.4	63	19.2	75	22.9	109	33.2	87	26.5	96	29.3
50	35	10.7	54	16.5	70	21.3	101	30.8	82	25.0	89	27.1
55	28	8.5	47	14.3	65	19.8	94	28.7	78	23.8	85	25.9
60	21	6.4	40	12.2	62	18.9	87	26.5	75	22.9	80	24.4
65	15	4.6	34	10.4	59	18.0	82	25.0	73	22.3	77	23.5
70	10	3.0	29	8.8	57	17.4	77	23.5	71	21.6	74	22.6
75	5	1.5	24	7.3	55	16.8	72	21.9	70	21.3	72	21.9
78 MAX	2	0.6	21	6.4	54	16.5	69	21.0	69	21.0	71	21.6

4.2 TURNING RADII—NO SLIP ANGLE

MODELS 727-100, -100C



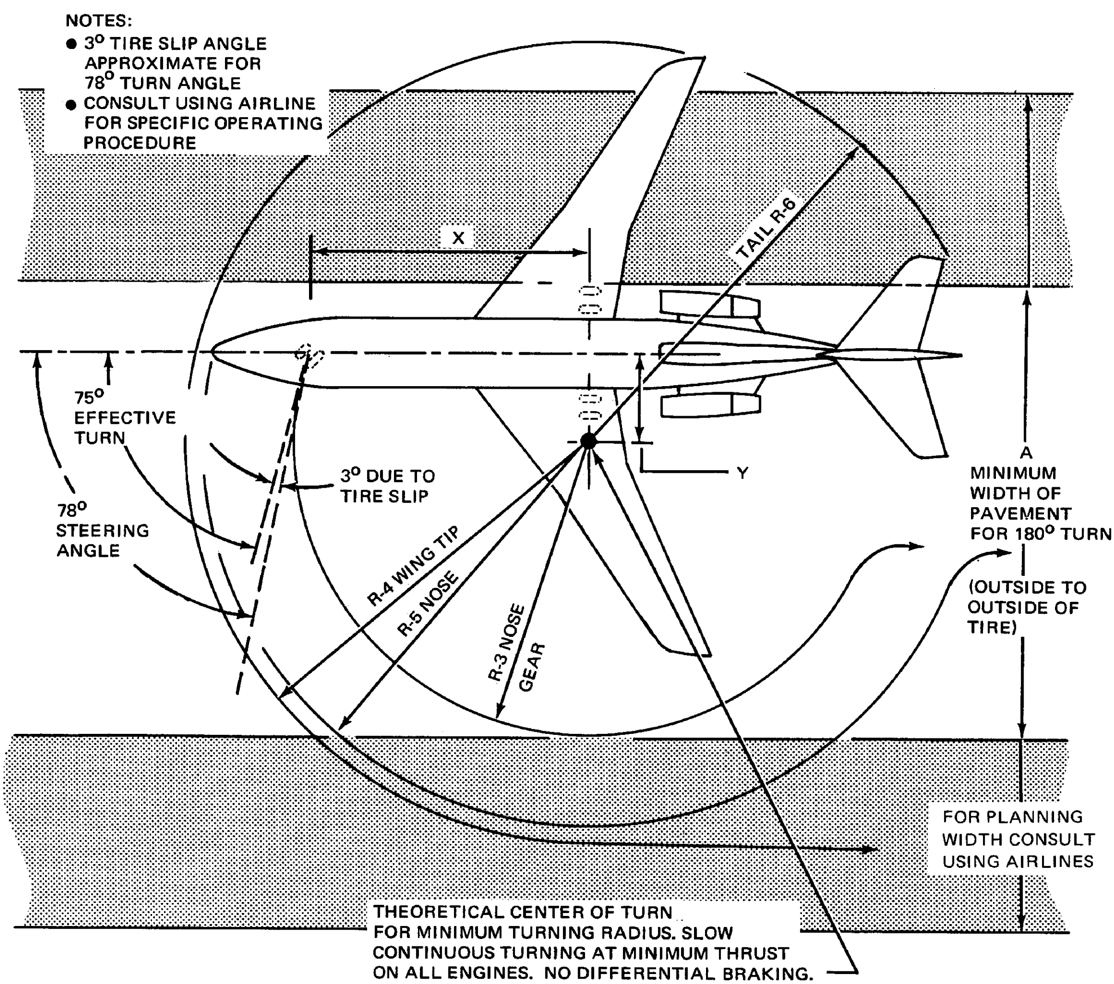
NOTES:

- FOR 62° TO 78° TURN ANGLE, R-6 EXCEEDS R-4
- ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN THAT SHOWN
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE DATA

DIMENSIONS ROUNDED TO NEAREST FOOT AND 0.1 METER

STEERING ANGLE (DEG)	R-1 INNER GEAR		R-2 OUTER GEAR		R-3 NOSE GEAR		R-4 WING TIP		R-5 NOSE		R-6 TAIL	
	FT	M	FT	M	FT	M	FT	M	FT	M	FT	M
30	100	30.5	119	36.3	126	38.4	165	50.3	135	41.1	147	44.8
35	81	24.7	100	30.5	110	33.5	146	44.5	120	36.6	131	39.9
40	66	20.1	85	25.9	99	30.2	131	39.9	109	33.2	119	36.3
45	54	16.5	73	22.3	90	27.4	119	36.3	101	30.8	110	33.5
50	44	13.4	63	19.2	83	25.3	109	33.2	95	29.0	103	31.4
55	35	10.7	54	16.5	77	23.5	100	30.5	90	27.4	97	29.6
60	27	8.2	46	14.0	73	22.3	93	28.3	86	26.2	92	28.0
65	20	6.1	39	11.9	70	21.3	86	26.2	84	25.6	88	26.8
70	14	4.3	33	10.1	67	20.4	80	24.4	81	24.7	85	25.9
75	8	2.4	27	8.2	66	20.1	74	22.6	80	24.4	82	25.0
78 MAX	4	1.2	23	7.0	65	19.8	71	21.6	79.5	24.2	80	24.4

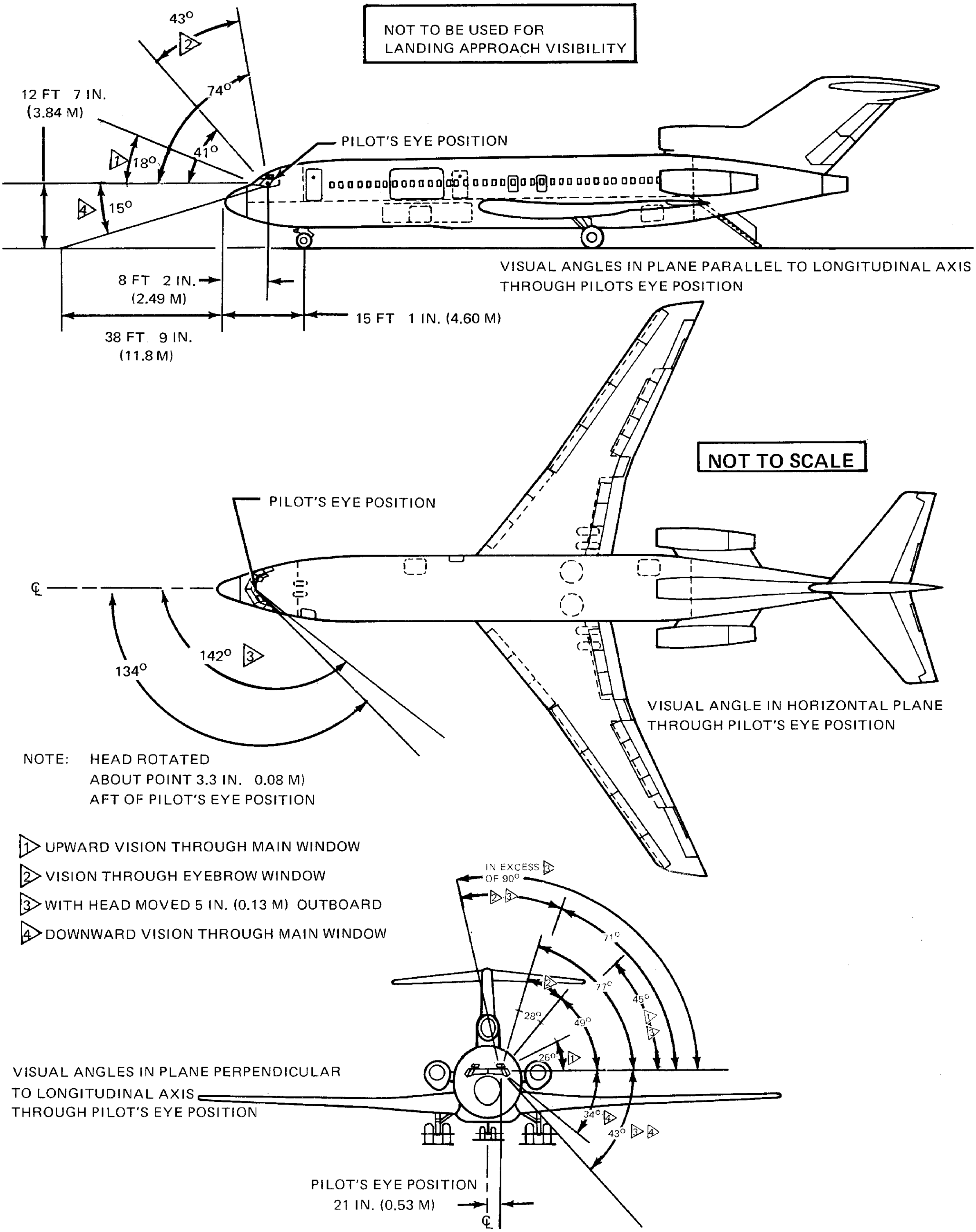
TURNING RADII—NO SLIP ANGLE
MODEL 727-200



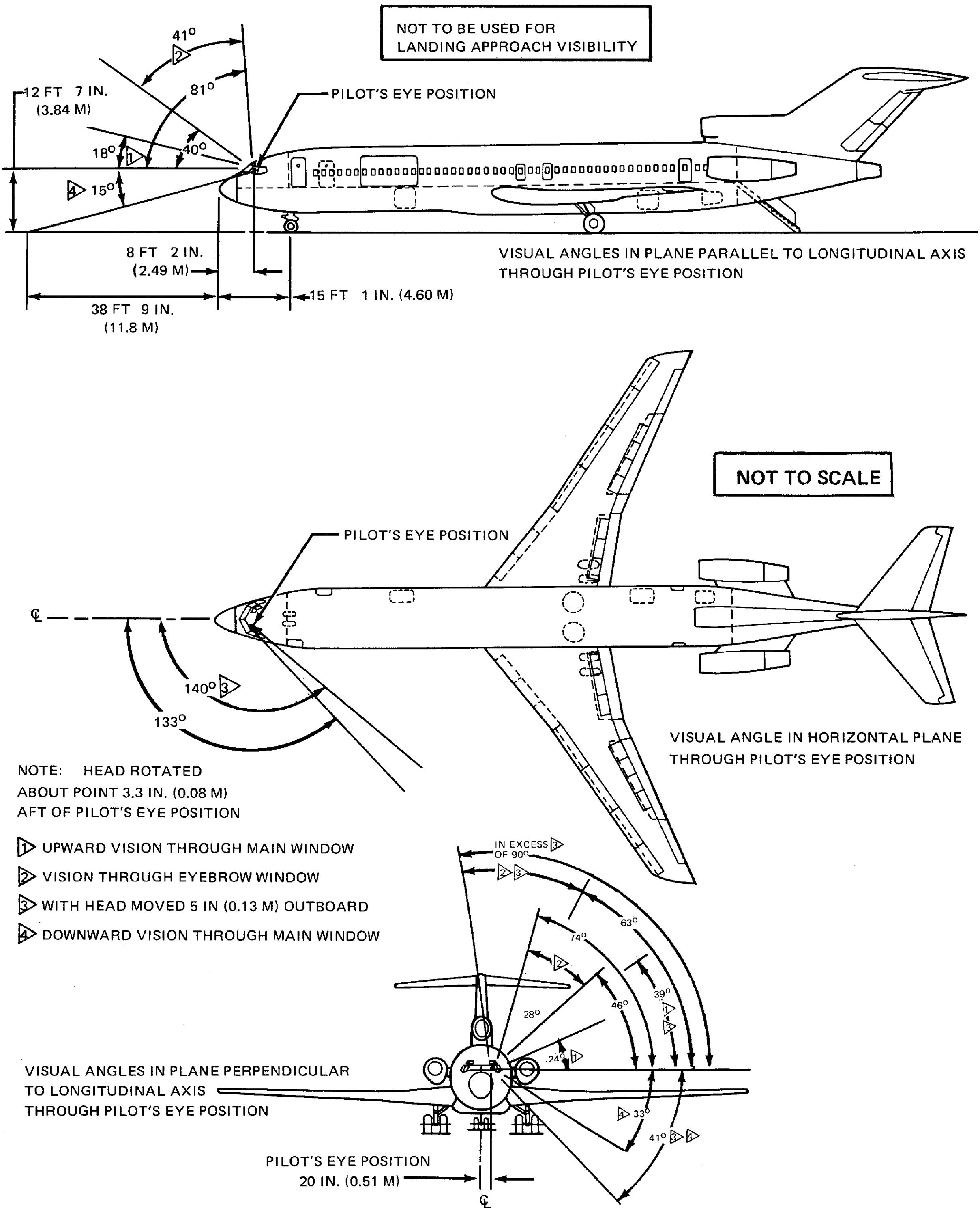
FOR AN EFFECTIVE TURN ANGLE OF 75°								
MODEL		X	Y	A	R-3	R-4	R-5	R-6
727-100 -100C	FT-IN. M	53-3 16.2	14-4 4.4	82-6 25.2	55-0 16.8	72-0 21.9	70-0 21.3	72-0 21.9
727-200	FT-IN. M	63-3 19.3	16-11 5.16	95-8 29.2	66-0 20.1	74-0 22.6	80-0 24.4	82-0 25.0

4.3 MINIMUM TURNING RADII—3° SLIP ANGLE

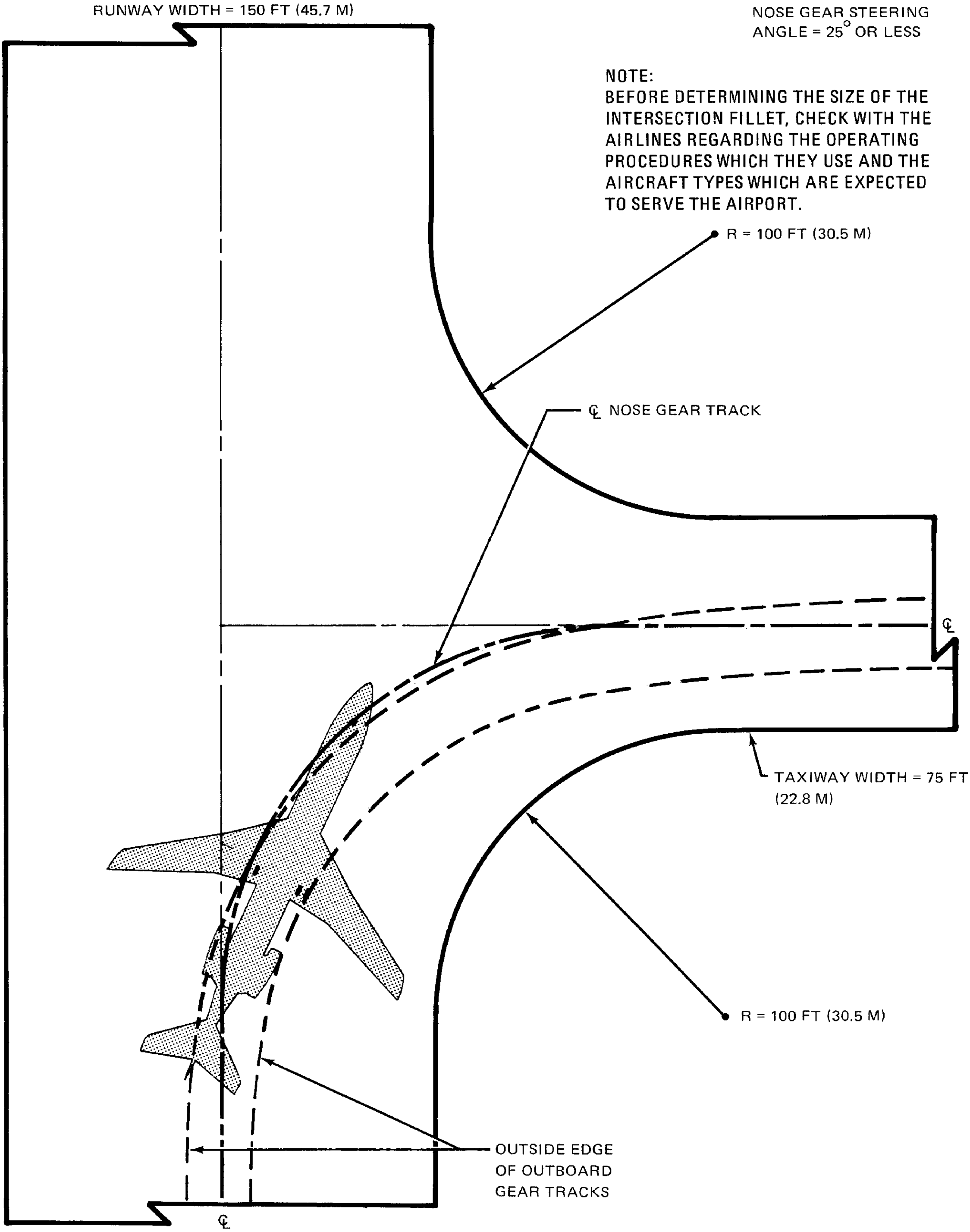
MODELS 727-100, -100C, -200



4.4 VISIBILITY FROM COCKPIT IN STATIC POSITION (AMBINOCULAR VISION)
MODEL 727-100

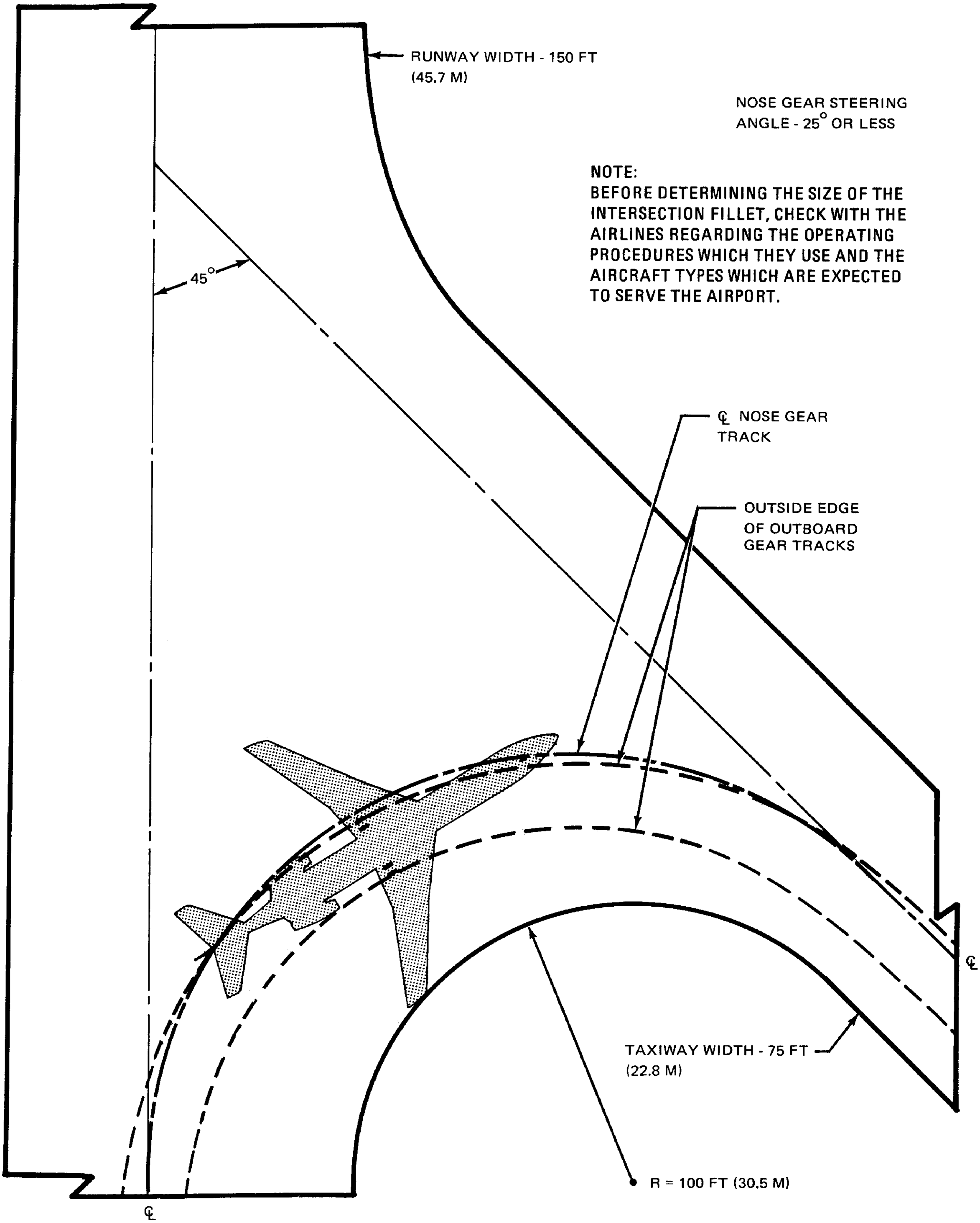


VISIBILITY FROM COCKPIT IN STATIC POSITION (AMBINOCULAR VISION)
MODEL 727-200



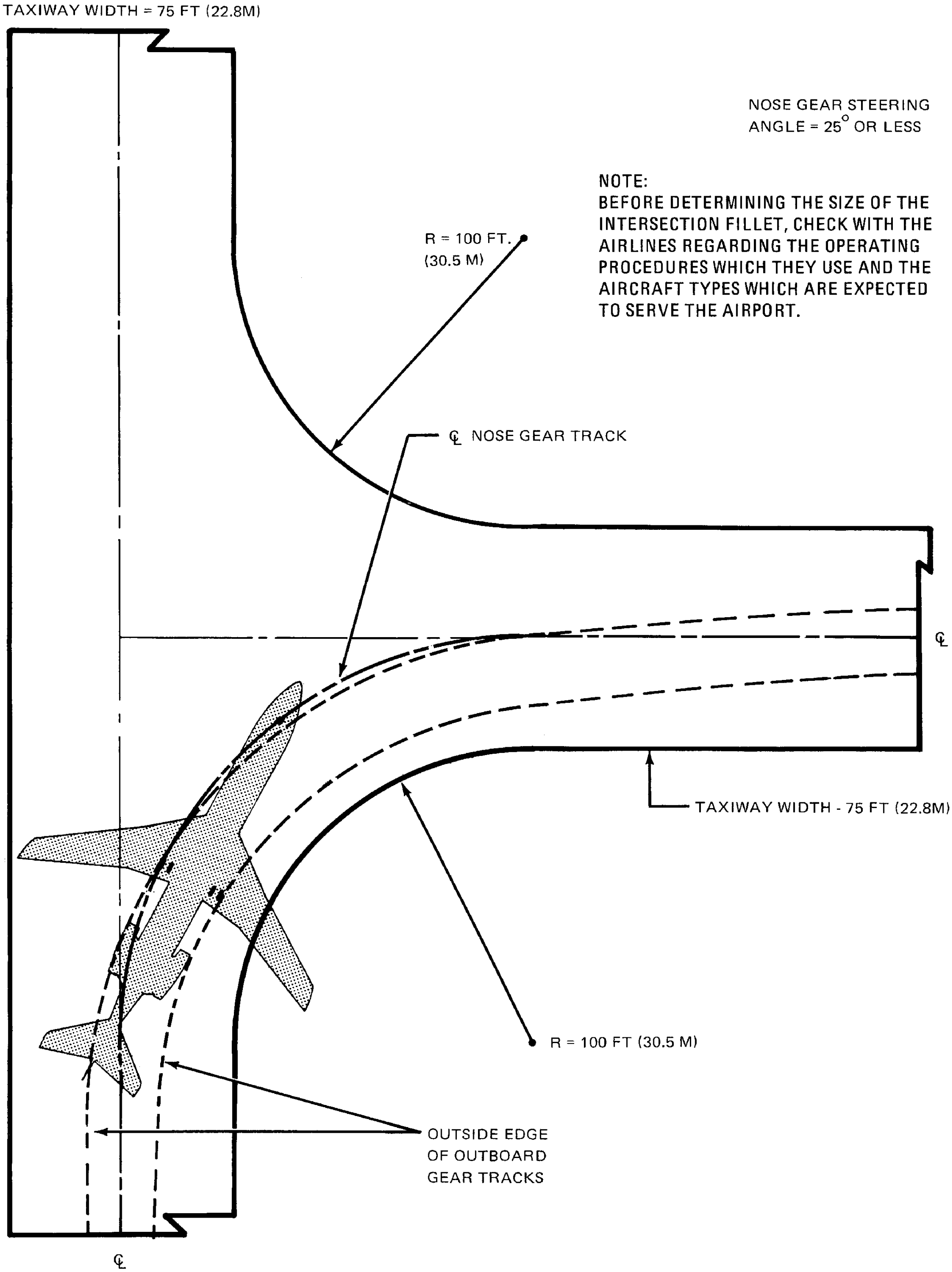
4.5 RUNWAY AND TAXIWAY TURN PATHS—90° TURN, RUNWAY TO TAXIWAY (STANDARD TURN)

MODELS 727-100, -100C, -200

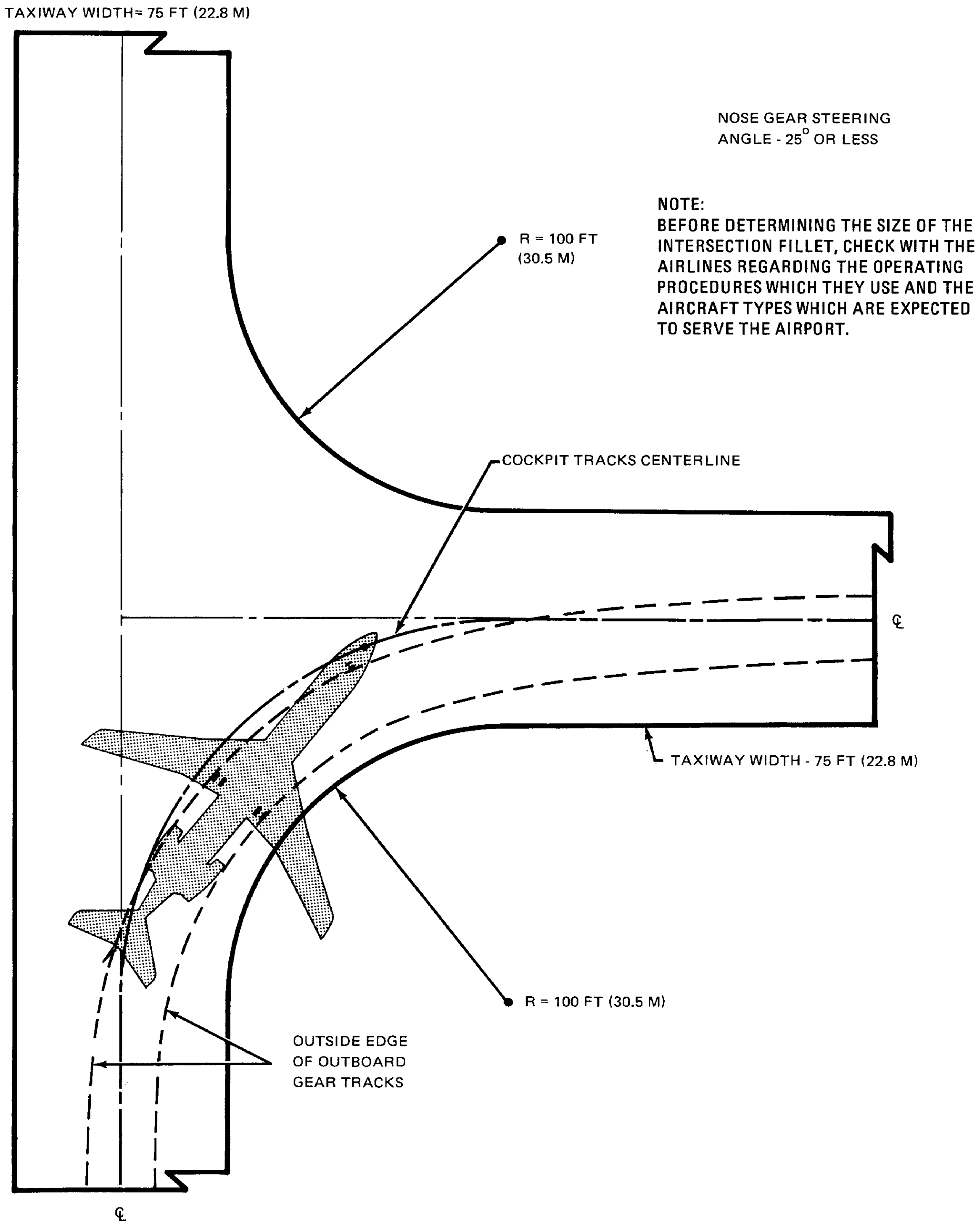


RUNWAY AND TAXIWAY TURN PATHS—MORE THAN 90° TURN, RUNWAY TO TAXIWAY (STANDARD TURN)

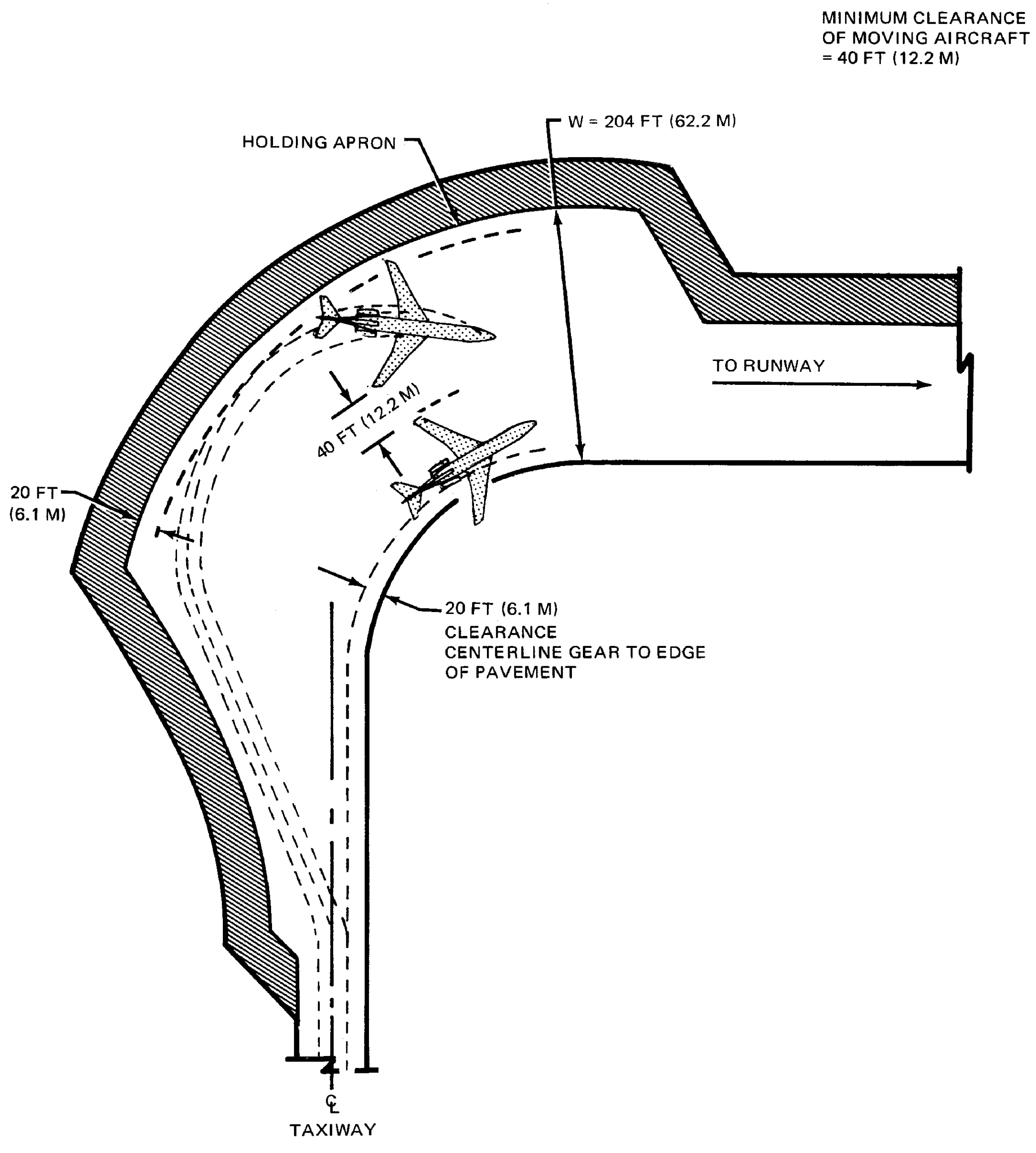
MODELS 727-100, -100C, -200



RUNWAY AND TAXIWAY TURN PATHS—90° TURN, TAXIWAY TO TAXIWAY (STANDARD TURN) NOSE GEAR TRACKS CENTERLINE TO CENTERLINE
MODELS 727-100, -100C, -200



RUNWAY AND TAXIWAY TURN PATHS—90° TURN, TAXIWAY TO TAXIWAY
COCKPIT TRACKS CENTERLINE TO CENTERLINE
MODELS 727-100, -100C, -200

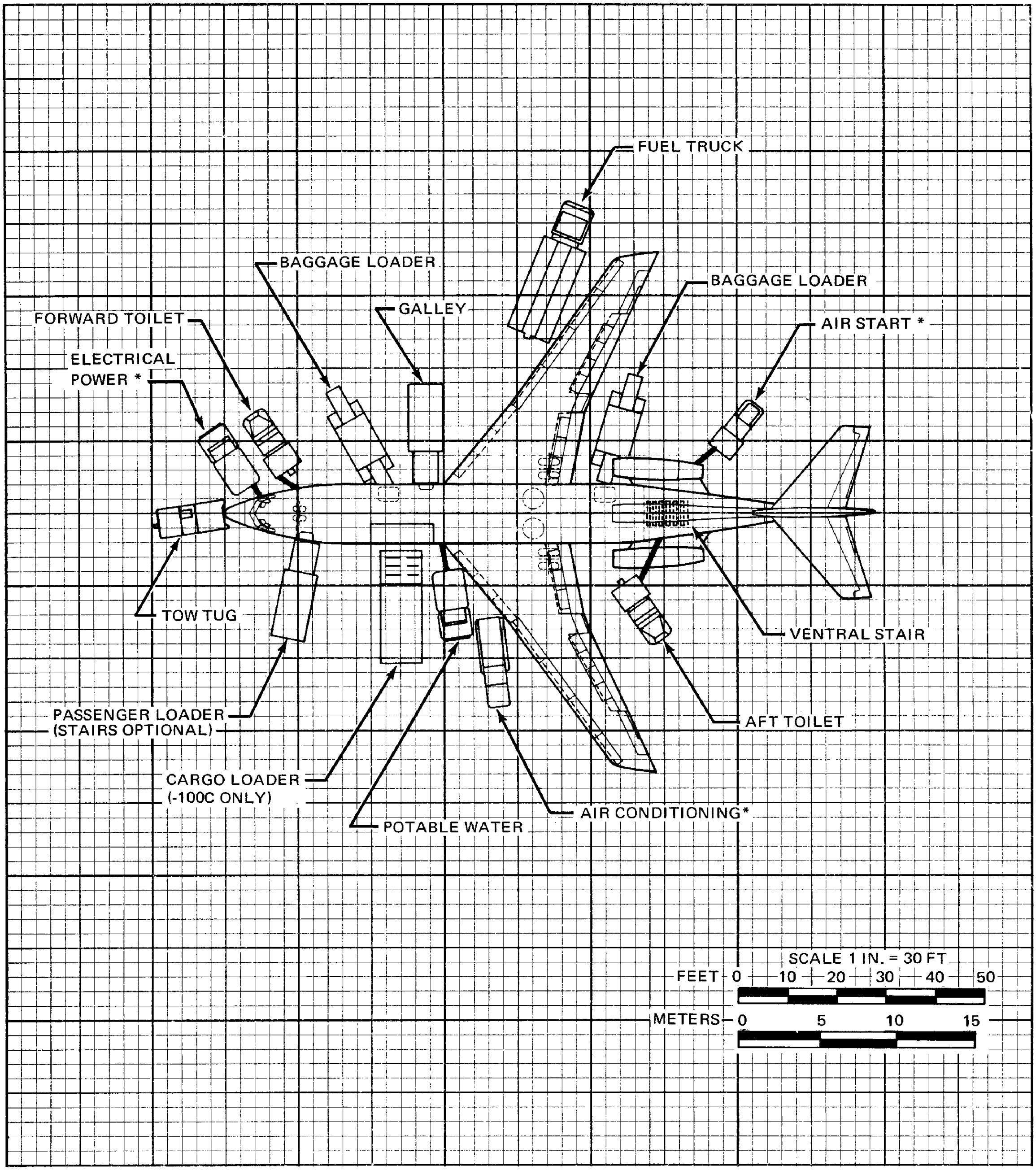


NOTE: CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE

4.3 RUNWAY HOLDING BAY (APRON)

MODELS 727-100, -100C, -200

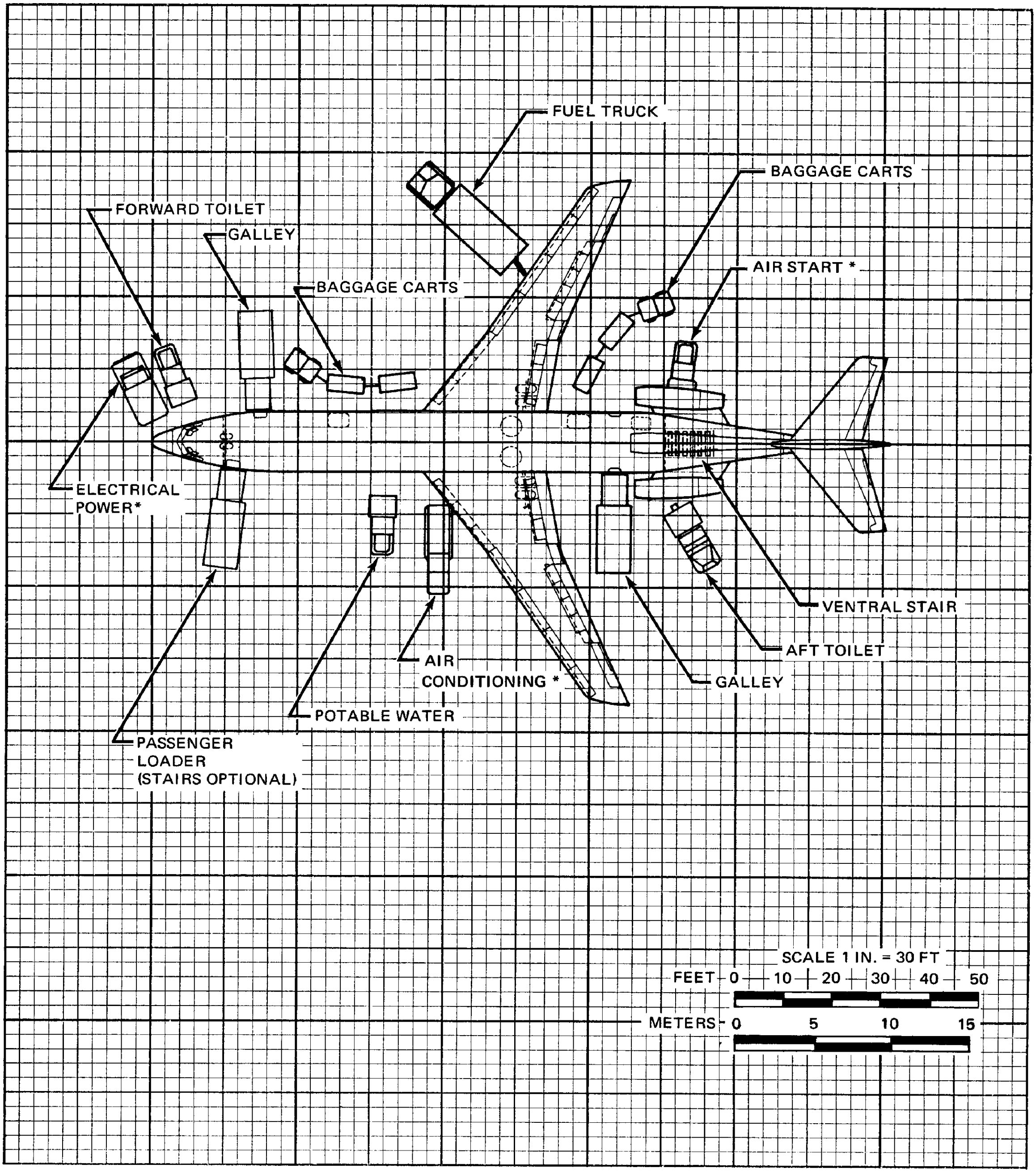
5.0 TERMINAL SERVICING



* NOT REQUIRED IF AUXILIARY POWER UNIT IS IN USE

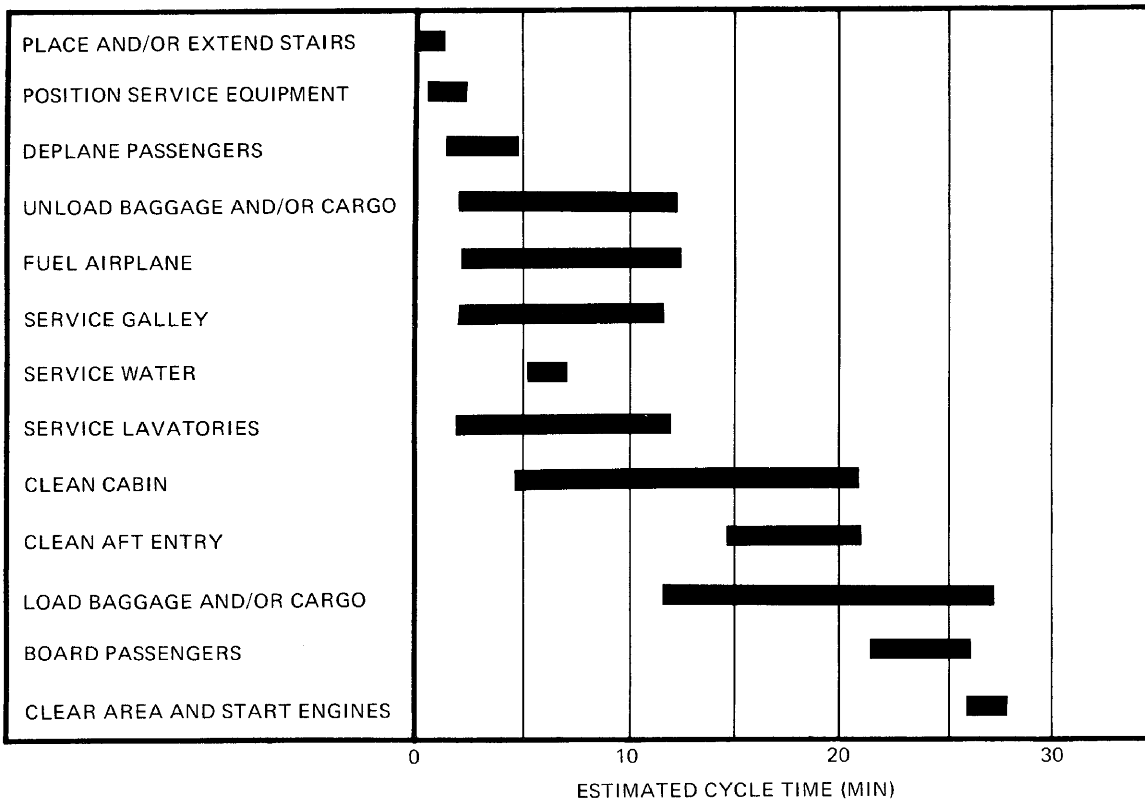
5.1 AIRPLANE SERVICING ARRANGEMENT—TYPICAL TURNAROUND

MODELS 727-100, -100C



* NOT REQUIRED IF AUXILIARY POWER UNIT IS IN USE

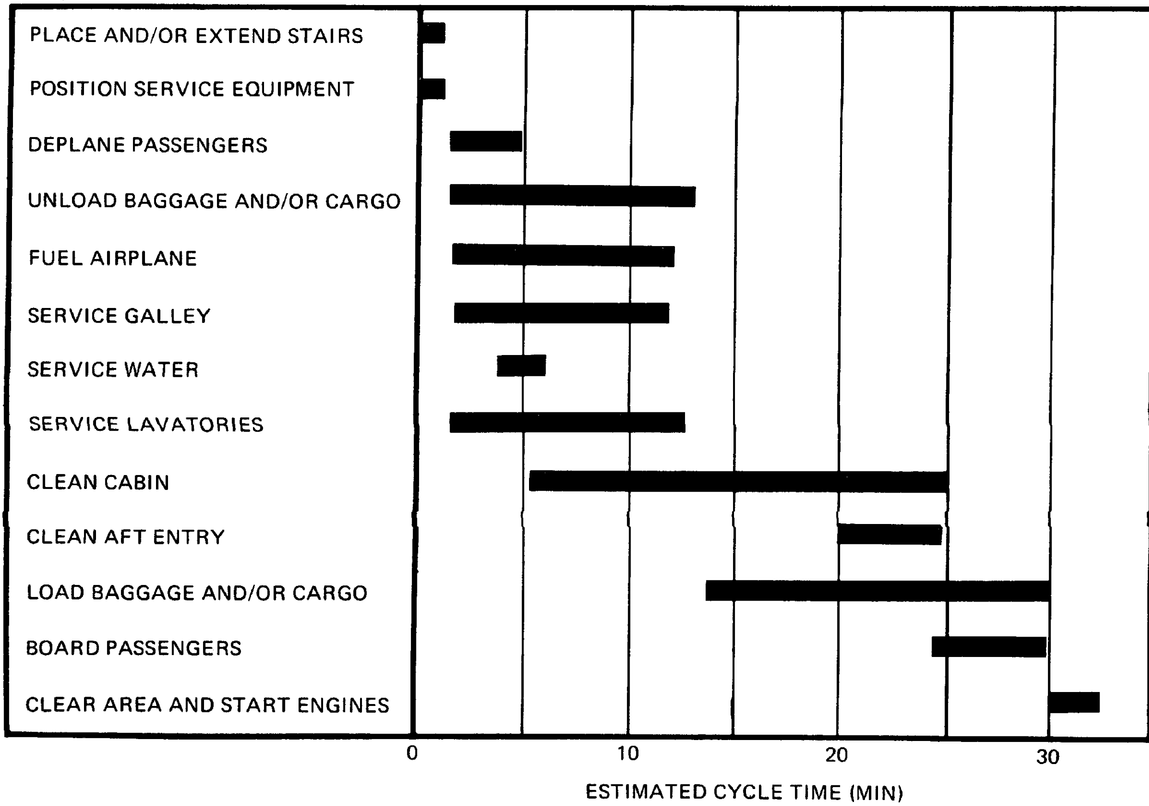
AIRPLANE SERVICING ARRANGEMENT—TYPICAL TURNAROUND
MODEL 727-200



NOTES:
- ESTIMATES BASED ON 28 FIRST-CLASS AND 66 TOURIST PASSENGER MIX WITH 65% LOAD FACTOR
- BOTH ENTRY DOORS IN USE
- FUEL RATE OF 600 GPM (2,271 LPM)
- THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TYPES OF TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN DIFFERENT SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. BECAUSE OF THIS, GROUND OPERATIONS REQUIREMENTS SHOULD BE COORDINATED WITH THE USING AIRLINES PRIOR TO RAMP PLANNING.

5.2 TERMINAL OPERATIONS—TURNAROUND STATION

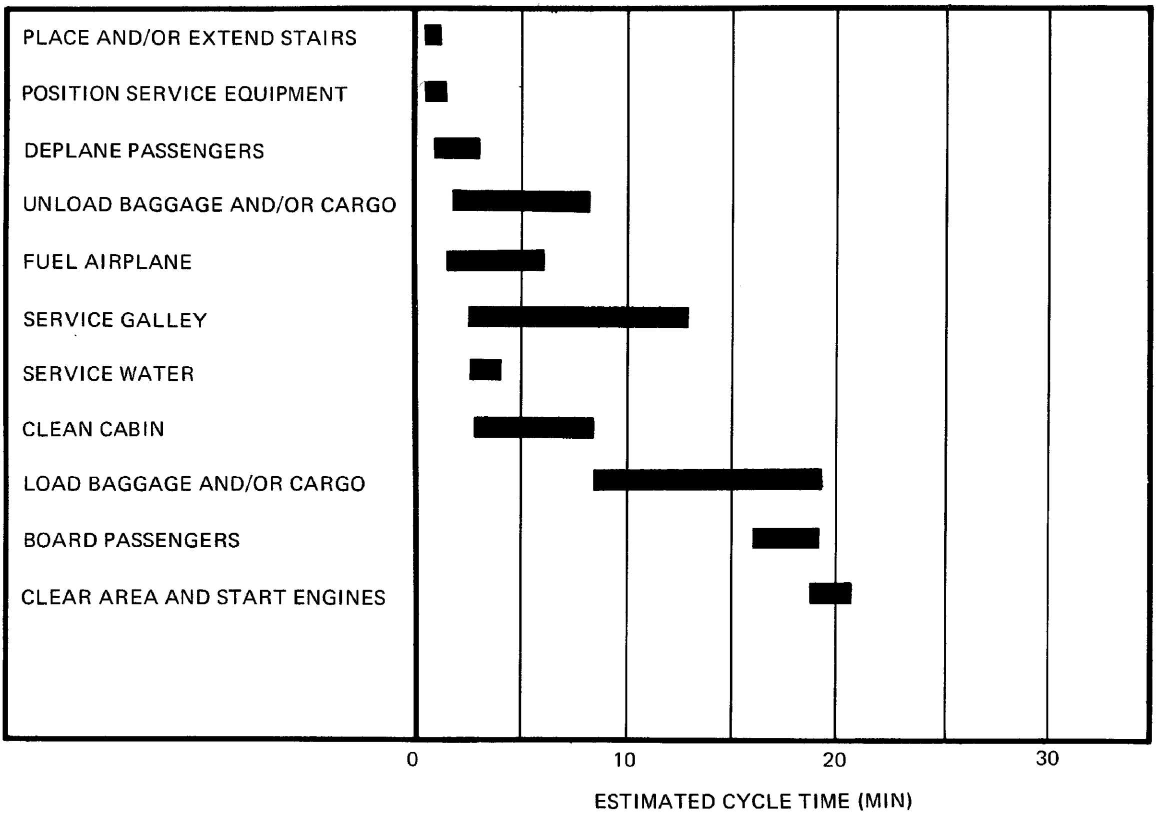
MODELS 727-100, -100C



NOTES:

- ESTIMATES BASED ON 20 FIRST-CLASS AND 114 TOURIST PASSENGER MIX WITH 65% LOAD FACTOR
- BOTH ENTRY DOORS IN USE
- FUEL RATE OF 600 GPM (2,271 LPM)
- THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TYPES OF TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN DIFFERENT SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. BECAUSE OF THIS, GROUND OPERATIONS REQUIREMENTS SHOULD BE COORDINATED WITH THE USING AIRLINES PRIOR TO RAMP PLANNING.

TERMINAL OPERATIONS—TURNAROUND STATION
MODEL 727-200

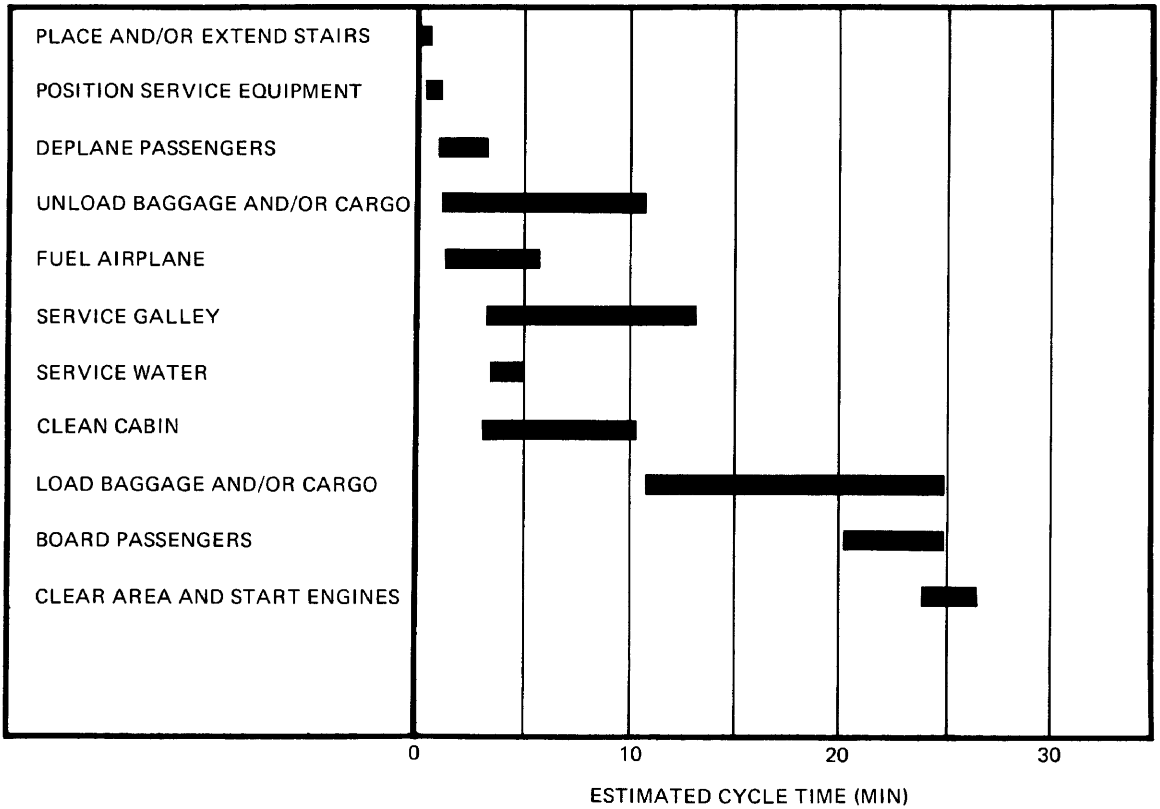


NOTES:

- ESTIMATES BASED ON 28 FIRST-CLASS AND 66 TOURIST PASSENGER MIX WITH 65% LOAD FACTOR
- BOTH ENTRY DOORS IN USE
- FUEL RATE OF 600 GPM (2,271 LPM)
- 75% PASSENGER EXCHANGE
- THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TYPES OF TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN DIFFERENT SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. BECAUSE OF THIS, GROUND OPERATIONS REQUIREMENTS SHOULD BE COORDINATED WITH THE USING AIRLINES PRIOR TO RAMP PLANNING.

5.3 TERMINAL OPERATIONS—EN ROUTE STATION

MODELS 727-100, -100C

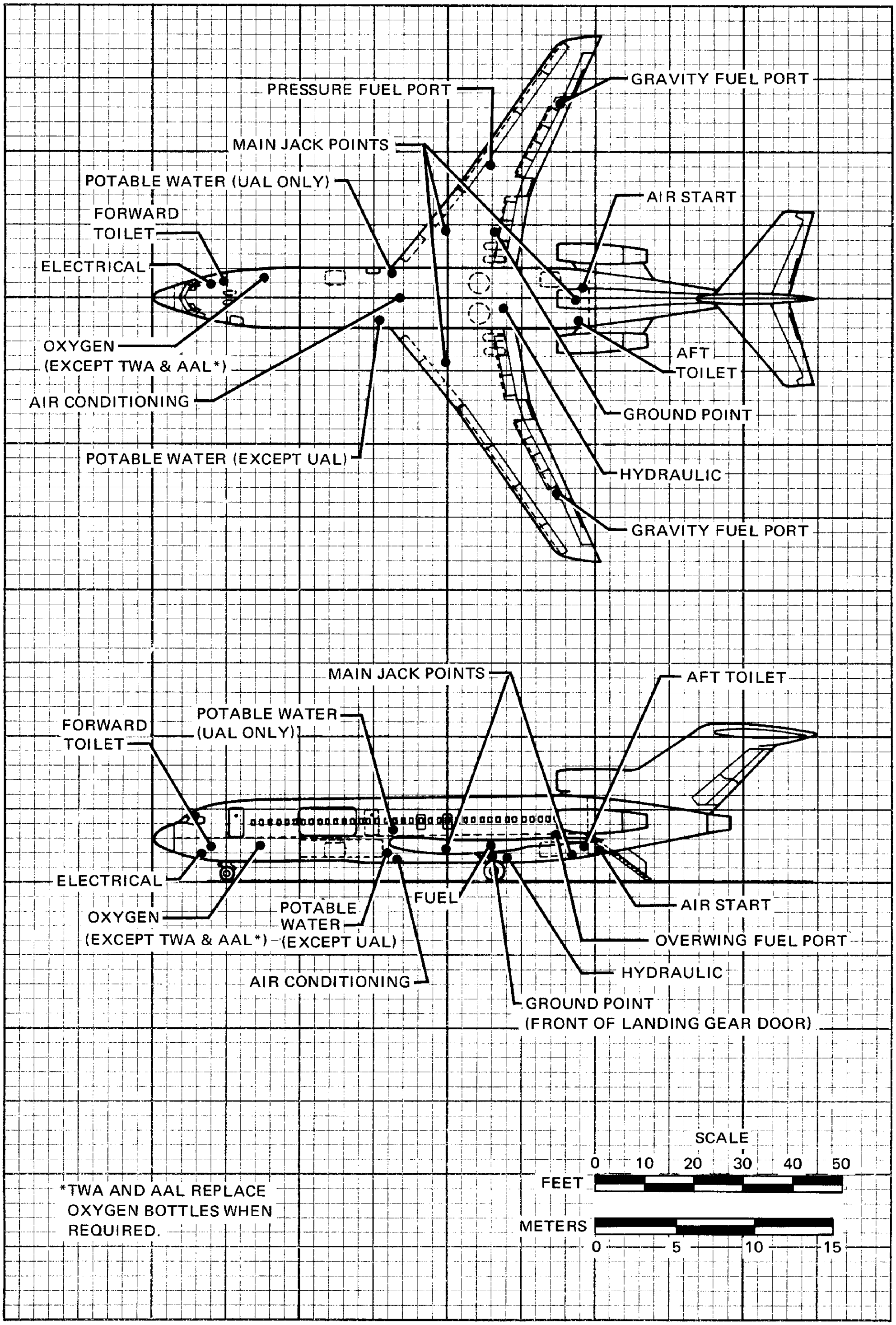


NOTES:

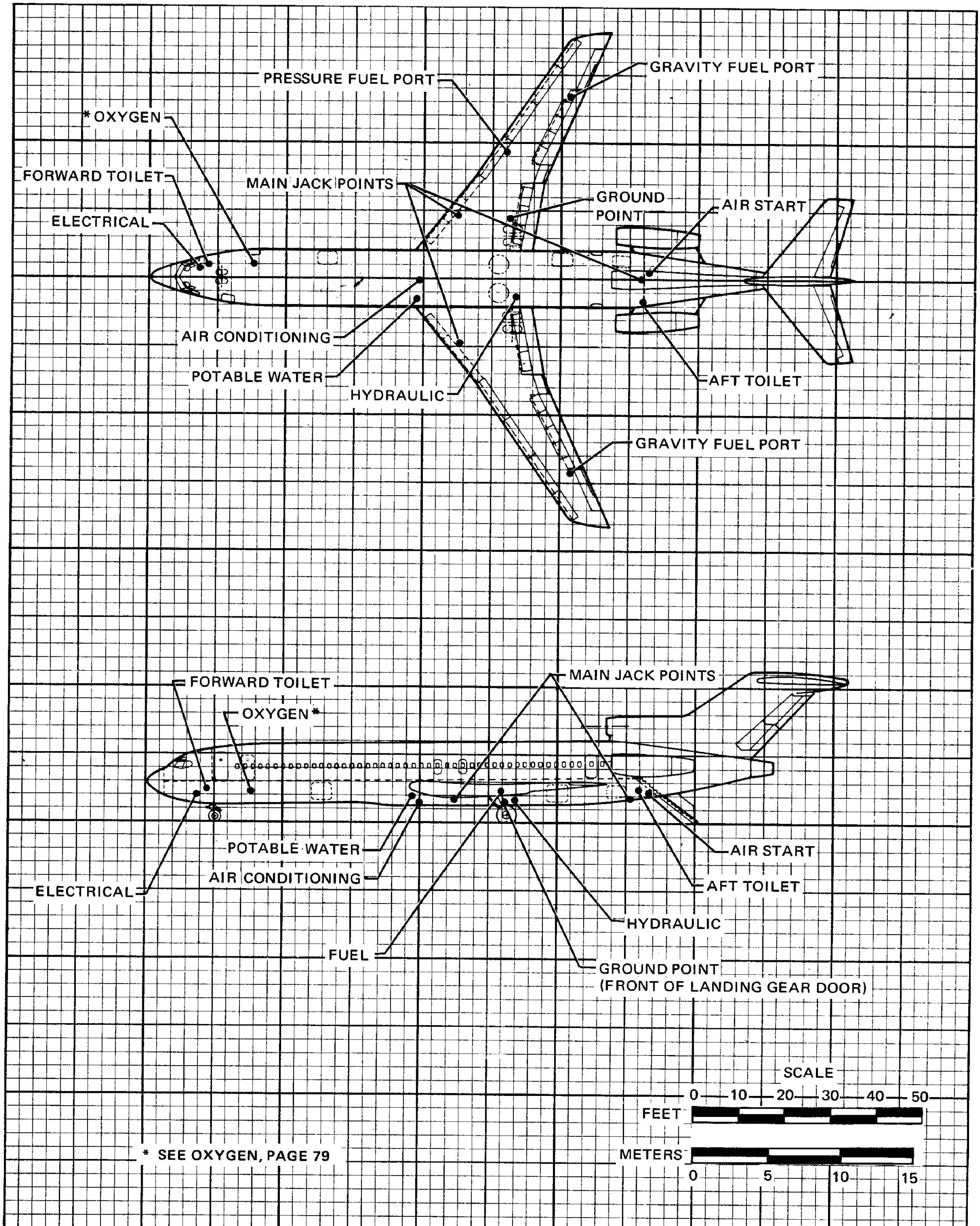
- ESTIMATES BASED ON 20 FIRST-CLASS AND 114 TOURIST PASSENGER MIX WITH 65% LOAD FACTOR
- BOTH ENTRY DOORS IN USE
- FUEL RATE OF 600 GPM (2,271 LPM)
- 75% PASSENGER EXCHANGE
- THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TYPES OF TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN DIFFERENT SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. BECAUSE OF THIS, GROUND OPERATIONS REQUIREMENTS SHOULD BE COORDINATED WITH THE USING AIRLINES PRIOR TO RAMP PLANNING.

TERMINAL OPERATIONS—EN ROUTE STATION

MODEL 727-200



5.4 GROUND SERVICE CONNECTIONS
MODELS 727-100, -100C



GROUND SERVICE CONNECTIONS
MODEL 727-200

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
				LEFT SIDE		RIGHT SIDE			
		F	M	F	M	F	M	F	M
AIR CONDITIONING, CABIN TWO SERVICE CONNECTIONS:									
8 IN. (20.3 CM) SEE PAGES 82 THRU 85	-100 & -100C	50	15.2	0	0	0	0	4	1.2
	-200	60	18.3	0	0	0	0	4	1.2
3 IN. (7.6 CM) SEE PAGES 82 THRU 85	-100 & -100C	90	27.4	-	-	1	0.3	6	1.8
	-200	110	33.5	-	-	1	0.3	6	1.8
AIR, PNEUMATIC STARTING ONE CONNECTION:									
3 IN. (7.6 CM) SEE PAGE 81	-100 & -100C	90	27.4	-	-	1	0.3	6	1.8
	-200	110	33.5	-	-	1	0.3	6	1.8

GROUND SERVICE CONNECTIONS

MODELS 727-100, -100C, -200

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
				LEFT SIDE		RIGHT SIDE			
		F	M	F	M	F	M	F	M
<u>ELECTRICAL</u>									
POWER									
ONE SERVICE CONNECTION	-100 & -100C								
60 KW, 200/115 V, 400 HZ, 3-PHASE AC	ALL EXCEPT EAL	12	3.7	-	-	3	0.9	6	1.8
	EAL	90	27.4	-	-	2	0.6	6	1.8
GROUND JACK									
RH MAIN LANDING GEAR DOOR	-100 & -100C	65	19.8	-	-	12	3.7	5	1.5
<u>FUEL (AND DEFUEL)</u>									
TWO UNDERWING PRESSURE CONNECTIONS	-100 & -100C	67	20.4	-	-	28	8.5	7	2.1
MAXIMUM FUEL RATE–600 GPM (2,271 LPM) AT 50 PSI (3.52 KG/CM^2)									
MAXIMUM DEFUEL RATE–200 GPM (757 LPM)									
TANK CAPACITY–7,174/7,680 U.S. GAL. (27,150/29,070 L)									
TWO OVERWING GRAVITY CONNECTIONS	-100 & -100C	70	21.3	40	12.2	40	12.2	8 TOP OF WING	2.4 TOP OF WING

GROUND SERVICE CONNECTIONS
MODELS 727-100, -100C

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
				LEFT SIDE		RIGHT SIDE			
		F	M	F	M	F	M	F	M
ELECTRICAL POWER ONE SERVICE CONNECTION	-200								
100 KW, 200/115 V, 400 HZ, 3-PHASE AC	ALL EXCEPT EAL	12	3.7	-	-	3	0.9	6	1.8
	EAL	90	27.4	-	-	2	0.6	6	1.8
GROUND JACK RH MAIN LANDING GEAR DOOR	-200	75	22.9	-	-	12	3.7	5	1.5
FUEL (AND DEFUEL) TWO UNDERWING PRESSURE CONNECTIONS	-200	77	23.5	-	-	28	8.5	7	2.1
MAXIMUM FUEL RATE–600 GPM (2,271 LPM) AT 50 PSI (3.5 KG/CM^2)									
DEFUEL RATE–200 GPM (757 LPM)									
TANK CAPACITY - 8105 U.S. GAL. (30,680 L)*									
TWO OVERWING GRAVITY CONNECTIONS	-200	80	24.4	40	12.2	40	12.2	8 TOP OF WING	2.4

* AN ADDITIONAL 2,480 U.S. GAL (9,387 L) CAPACITY IS AVAILABLE AS AN OPTION ON THE ADVANCED 727-200. SEE PAGES 11 AND 23.

GROUND SERVICE CONNECTIONS

MODEL 727-200

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
				LEFT SIDE		RIGHT SIDE			
		F	M	F	M	F	M	F	M
HYDRAULIC ONE SERVICE CONNECTION	-100 & -100C	72	21.9	4	1.2	-	-	5	1.5
FILL PRESSURE–50 PSIG (3.5 KG/CM^2)	-200	92	28	4	1.2	-	-	5	1.5
FILL RATE–1 GPM (3.8L)									
RESERVOIR CAPACITIES:									
SYSTEM A–5.4 U.S. GAL. (20.4 L) SYSTEM B–3.1 U.S. GAL. (11.7 L) STANDBY–0.65 U.S. GAL. (2.5 L)									
OXYGEN ONE SERVICE CONNECTION*	-100& -100C -200	22	6.7	-	-	5	1.5	7	2.1
MAXIMUM FILL PRESSURE– 1,850 PSI (129 KG/CM^2) CAPACITY– 286 CU FT^3 (8.1 CUM)									
POTABLE WATER TWO SERVICE CONNECTIONS:	-100 & -100C	48	14.6	5	1.5	-	-	6	1.8
UAL ONLY	-100	46	14.0	-	-	6	1.8	12	3.7
FILL PORT–¾ IN. (1.9 CM)	-200	46	14.0	5	1.5	-	-	6	1.8
OVERFLOW–1 IN. (2.54 CM)									
TANK CAPACITY–40 U.S. GAL. (151.4 L)									
FILL PRESSURE: MINIMUM–10 PSI (0.7 KG/CM^2) MAXIMUM– 125 PSI (8.75 KG/CM^2)									

* SOME AIRLINES REPLACE OXYGEN BOTTLES

GROUND SERVICE CONNECTIONS
MODELS 727-100, -100C, -200

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
				LEFT SIDE		RIGHT SIDE			
		F	M	F	M	F	M	F	M
TOILETS									
FORWARD TOILETS									
TWO SERVICE CONNECTIONS: DRAIN–4 IN. (10.16 CM) FLUSH–1 IN. (2.54 CM)	-100, -100C & -200	14	4.3	-	-	5	1.5	8	2.4
AFT TOILETS									
THREE SERVICE CONNECTIONS: DRAIN–4 IN. (10.16 CM) FLUSH–TWO 1 IN. (2.54 CM)	-100 & -100C	87	26.5	4	1.2	-	-	8	2.4
	-200	107	33	4	1.2	-	-	9	2.7
TOILET FLUSH REQUIREMENTS:									
FLOW–20 GPM (75.7 LPM) PRESSURE–20 PSI (1.4 KG/CM^2)									
TOTAL SERVICE TANK REQUIREMENTS:									
WASTE–70 U.S. GAL. (2.65 L) FLUSH–18 U.S. GAL. (68.1 L) CHEMICAL–12 U.S. GAL (45.4 L)									

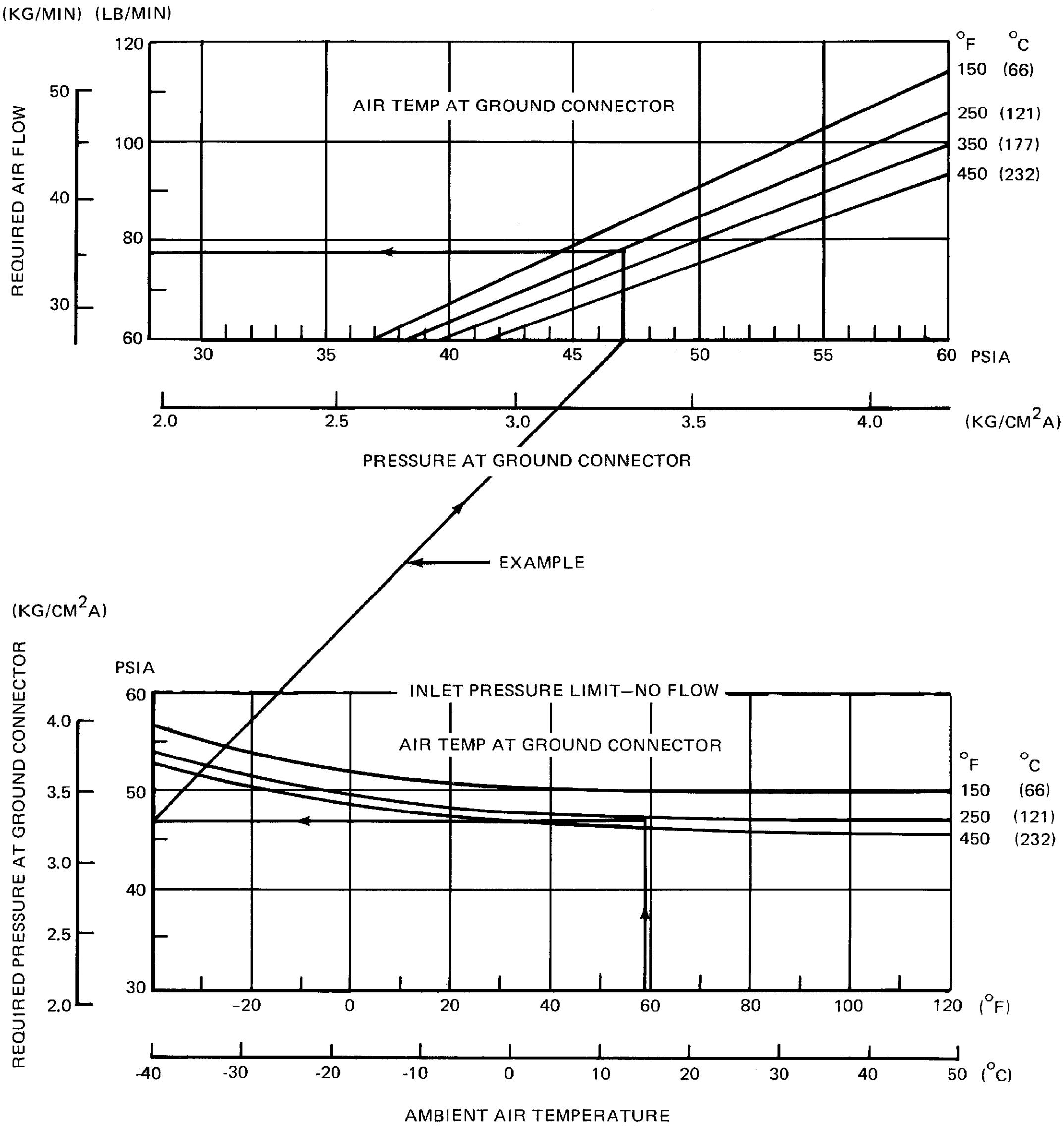
GROUND SERVICE CONNECTIONS
MODELS 727-100, -100C, -200

NOTES:

- JT8D ENGINES
- MINIMUM STARTING REQUIREMENTS
- SEA LEVEL

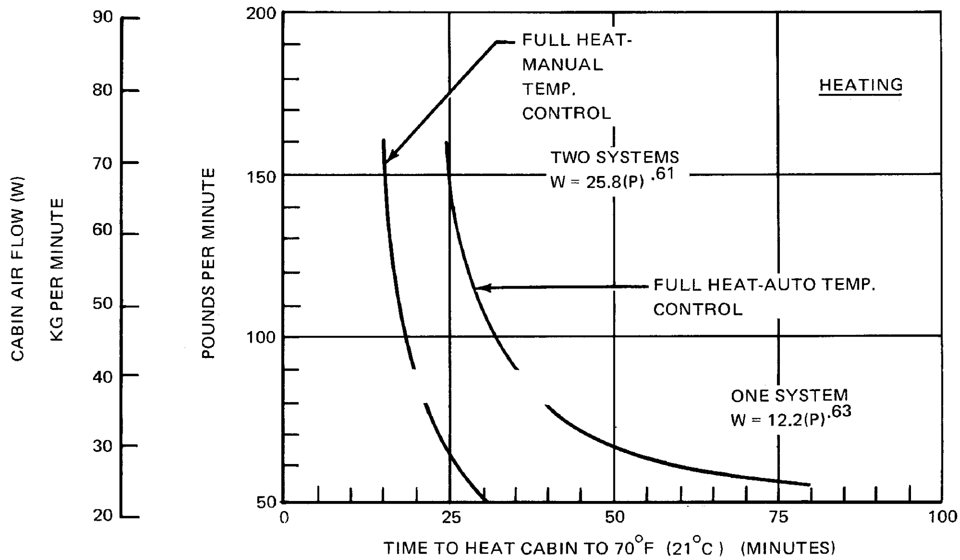
EXAMPLE:

AMBIENT TEMPERATURE = 59°F (15°C)
GROUND CONNECTION TEMPERATURE = 250°F (121°C)
REQUIRED PRESSURE AT GROUND CONNECTION = 47 PSIA (3.30 KG/CM^2 A)
REQUIRED AIR FLOW AT GROUND CONNECTION = 77 LB/MIN (34.9 KG/MIN)



5.5 ENGINE STARTING PNEUMATIC REQUIREMENTS—SEA LEVEL

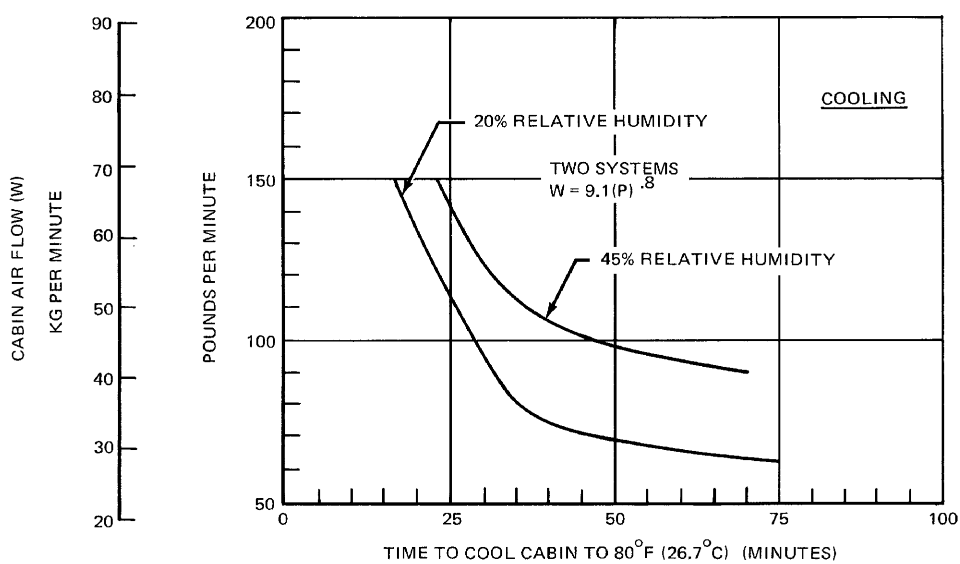
MODELS 727-100, -100C, -200



CONDITIONS:

- CABIN INITIALLY AT 0°F (-17.8°C)
- NO OCCUPANTS OR OTHER HEAT LOADS; ALL DOORS AND HATCHES CLOSED
- AIR TEMPERATURE AT GROUND CONNECTION 300°F (149°C)
- W cart = 1.14 x W

P = PSIG AT GROUND CONNECTION



CONDITIONS:

- CABIN INITIALLY AT 103°F (39°C) • NO GALLEY AND ELECTRICAL HEAT LOAD
- NO OCCUPANTS • ALL DOORS AND HATCHES CLOSED
- AMBIENT TEMPERATURE 103°F (39°C)
- SOLAR LOAD 6,500 BTU/HR (1640 KG CAL/HR)
- AIR TEMPERATURE AT GROUND CONNECTION 450°F (232°C)
- W cart = 1.14 x W

5.6 AIR CONDITIONING REQUIREMENTS—HEATING AND COOLING

MODELS 727-100, -100C

CONDITIONS

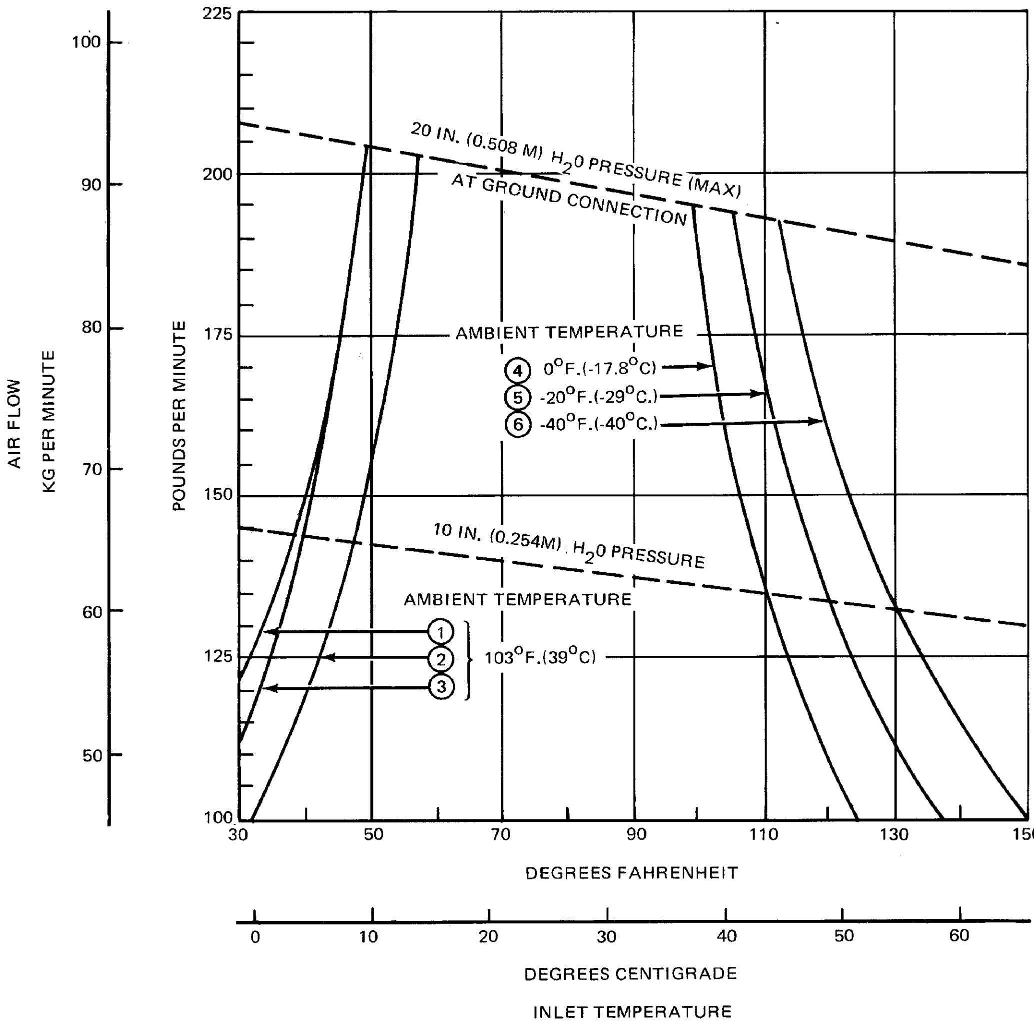
- ALL DOORS AND HATCHES CLOSED

1
- CABIN AT 75°F (23.9°C)
- 95 OCCUPANTS
- NO GALLEY LOAD
- SOLAR LOAD 6,500 BTU/HR (1,640 KG CAL/HR)
- ELECTRICAL LOAD 7,400 BTU/HR (1,865 KG CAL/HR)

2
- CABIN AT 80°F (26.7°C)
- OTHER CONDITIONS SAME AS IN 1

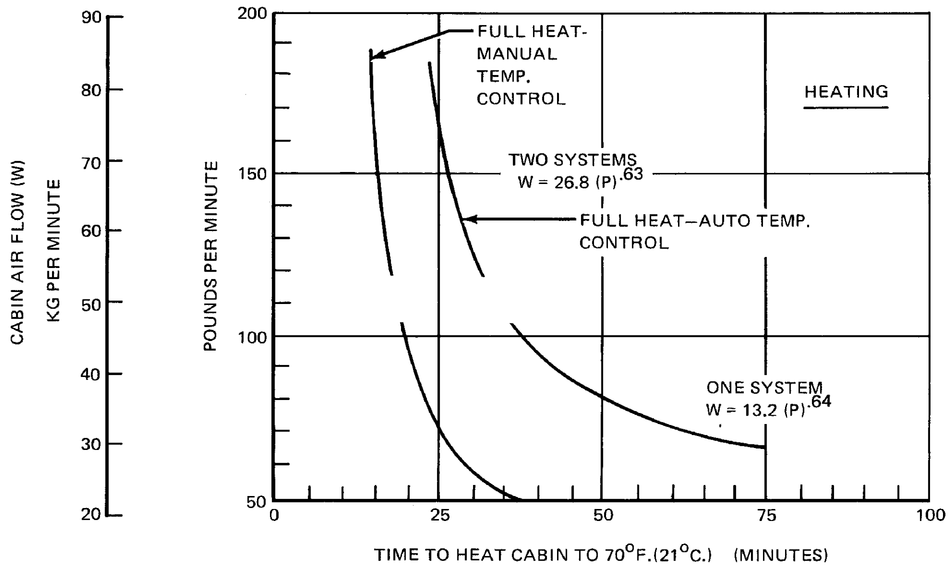
3
- CABIN AT 70°F (21°C)
- 3 OCCUPANTS
- GALLEY LOAD 8,200 BTU/HR (2,070 KG CAL/HR)
- SOLAR LOAD—SAME AS IN 1
- ELECTRICAL LOAD—SAME AS IN 1

4 5 6
- CABIN AT 75°F (23.9°C)
- NO OCCUPANTS
- NO OTHER HEAT LOADS



AIR CONDITIONING REQUIREMENTS—PRECONDITIONED AIRPLANE

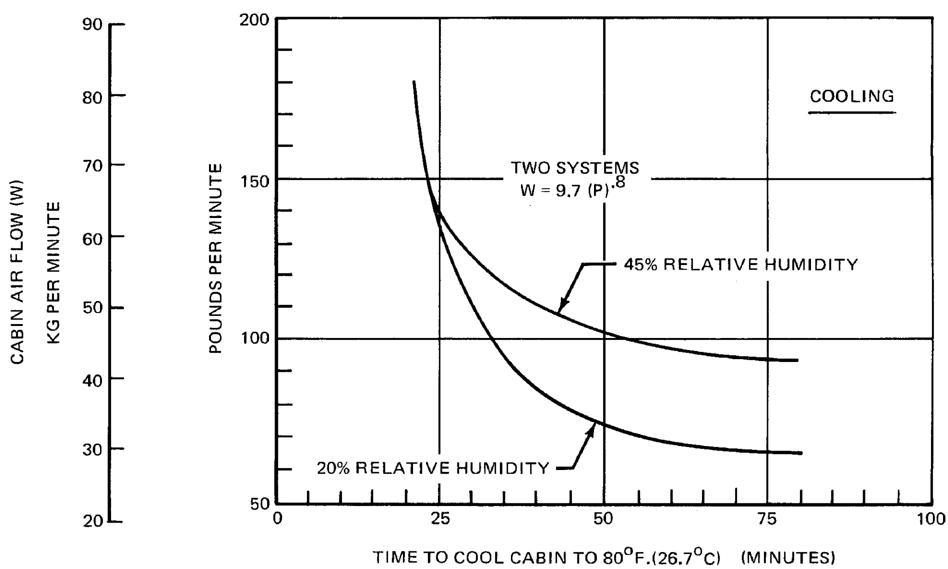
MODELS 727-100, -100C



CONDITIONS:

- CABIN INITIALLY AT 0°F (-17.8°C)
- NO OCCUPANTS OR OTHER HEAT LOADS, ALL DOORS AND HATCHES CLOSED
- AIR TEMPERATURE AT GROUND CONNECTION 300°F (149°C)
- W cart = 1.1 W

P = PSIG AT GROUND CONNECTION



CONDITIONS:

- CABIN INITIALLY AT 103°F (39°C) • NO GALLEY AND ELECTRICAL HEAT LOAD
- NO OCCUPANTS • ALL DOORS AND HATCHES CLOSED
- AMBIENT TEMPERATURE 103°F (39°C)
- SOLAR LOAD 7,730 BTU/HR (1,950 KG CAL/HR)
- AIR TEMPERATURE AT GROUND CONNECTION 450°F (232°C)
- W cart = 1.1 W

AIR CONDITIONING REQUIREMENTS—HEATING AND COOLING

MODEL 727-200

CONDITIONS:

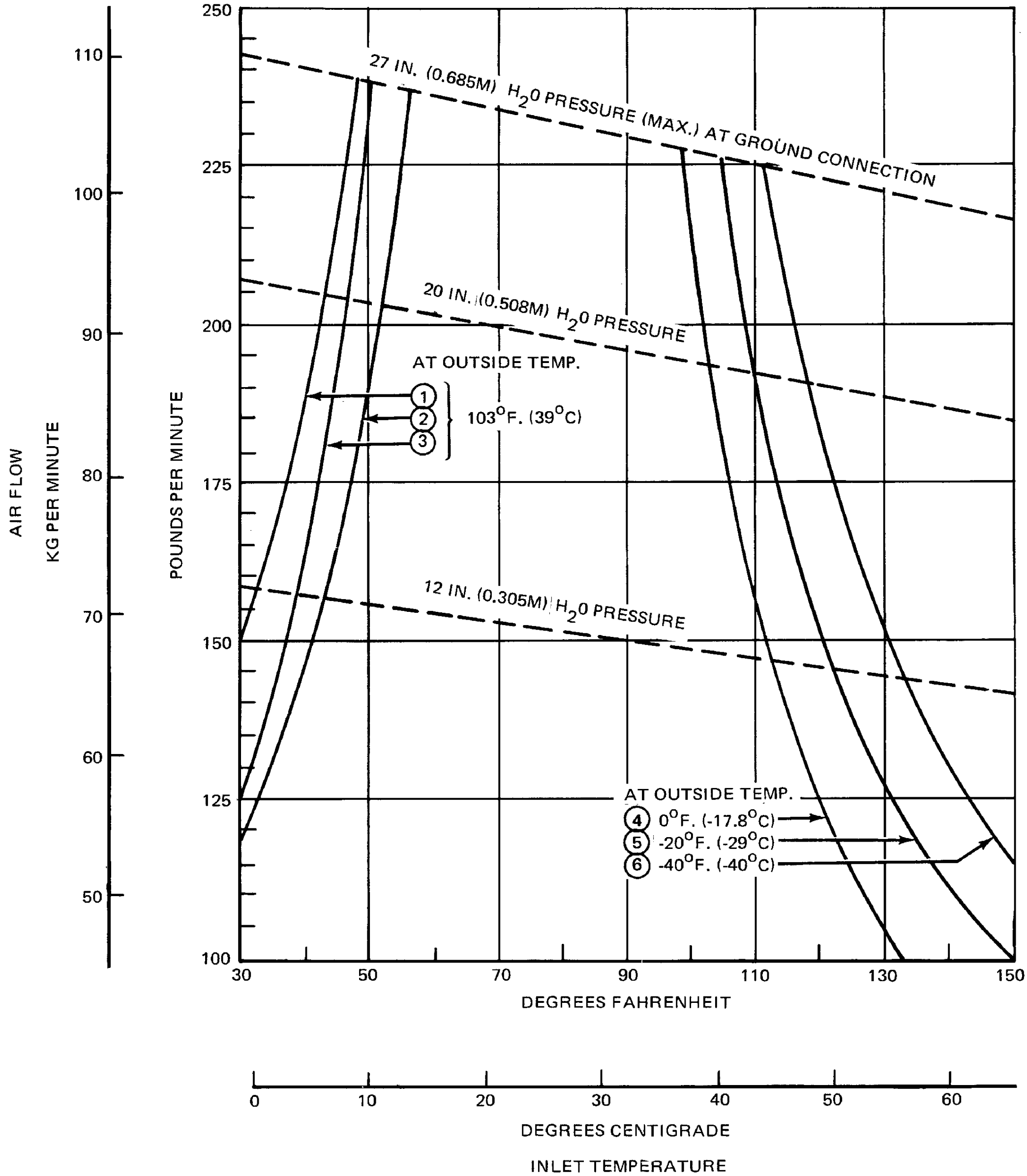
- ALL DOORS AND HATCHES CLOSED

1
- CABIN AT 75°F (23.9°C)
- 134 OCCUPANTS
- NO GALLEY LOAD
- SOLAR LOAD 7,730 BTU/HR (1,950 KG CAL/HR)
- ELECTRICAL LOAD 8,800 BTU/HR (2,200 KG CAL/HR)

2
- CABIN AT 80°F (26.7°C)
- OTHER CONDITIONS SAME AS IN 1

3
- CABIN AT 70°F (21.1°C)
- 3 OCCUPANTS
- GALLEY LOAD 8,200 BTU/HR (2,070 KG CAL/HR)
- SOLAR LOAD—SAME AS IN 1
- ELECTRICAL LOAD—SAME AS IN 1

4 5 6
- CABIN AT 75°F (23.9°C)
- NO OCCUPANTS
- NO OTHER HEAT LOADS



AIR CONDITIONING REQUIREMENTS—PRECONDITIONED AIRPLANE

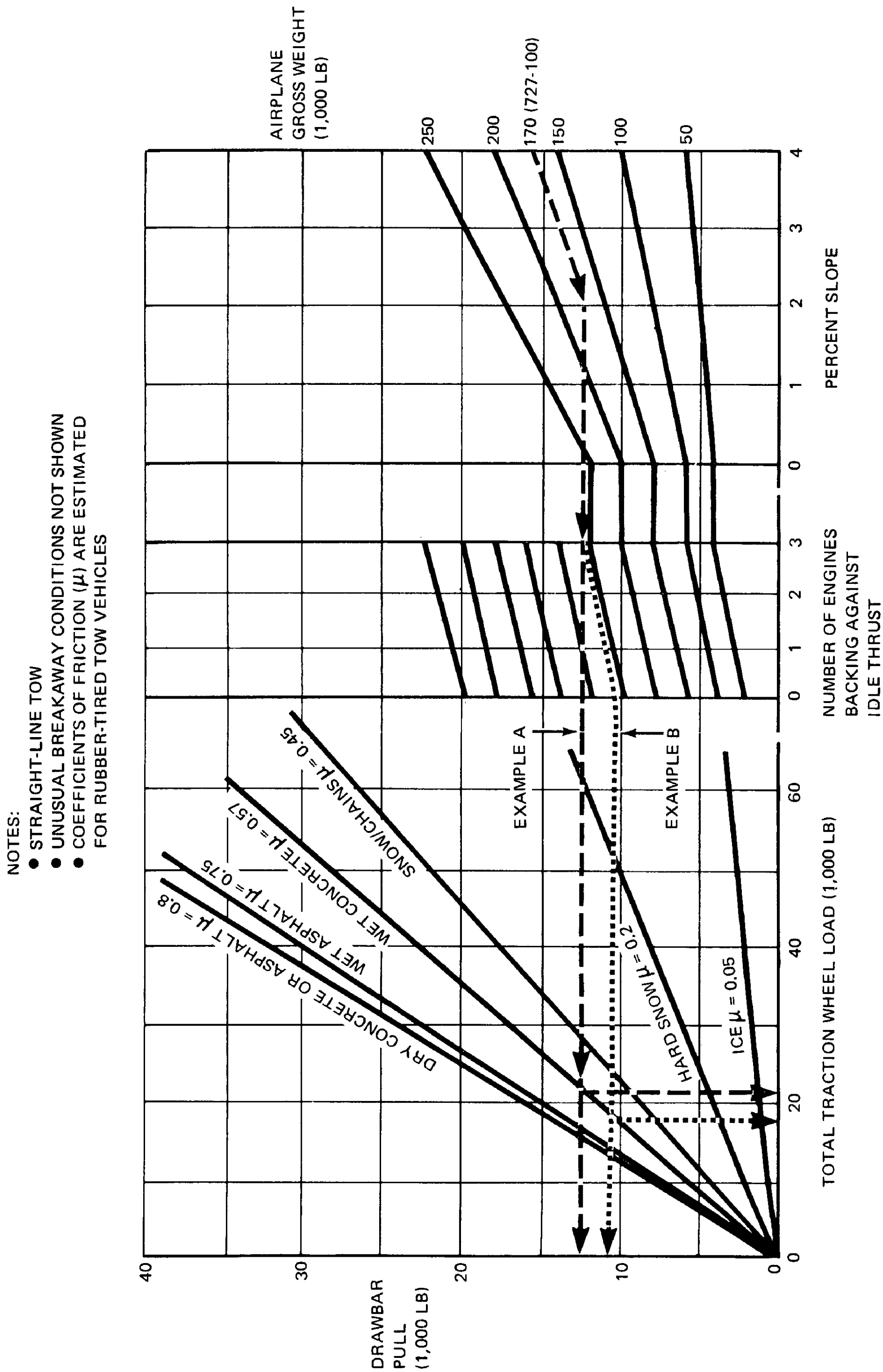
MODEL 727-200

5.7 GROUND TOWING REQUIREMENTS

Ground towing requirements for various towing conditions are presented on the following pages.

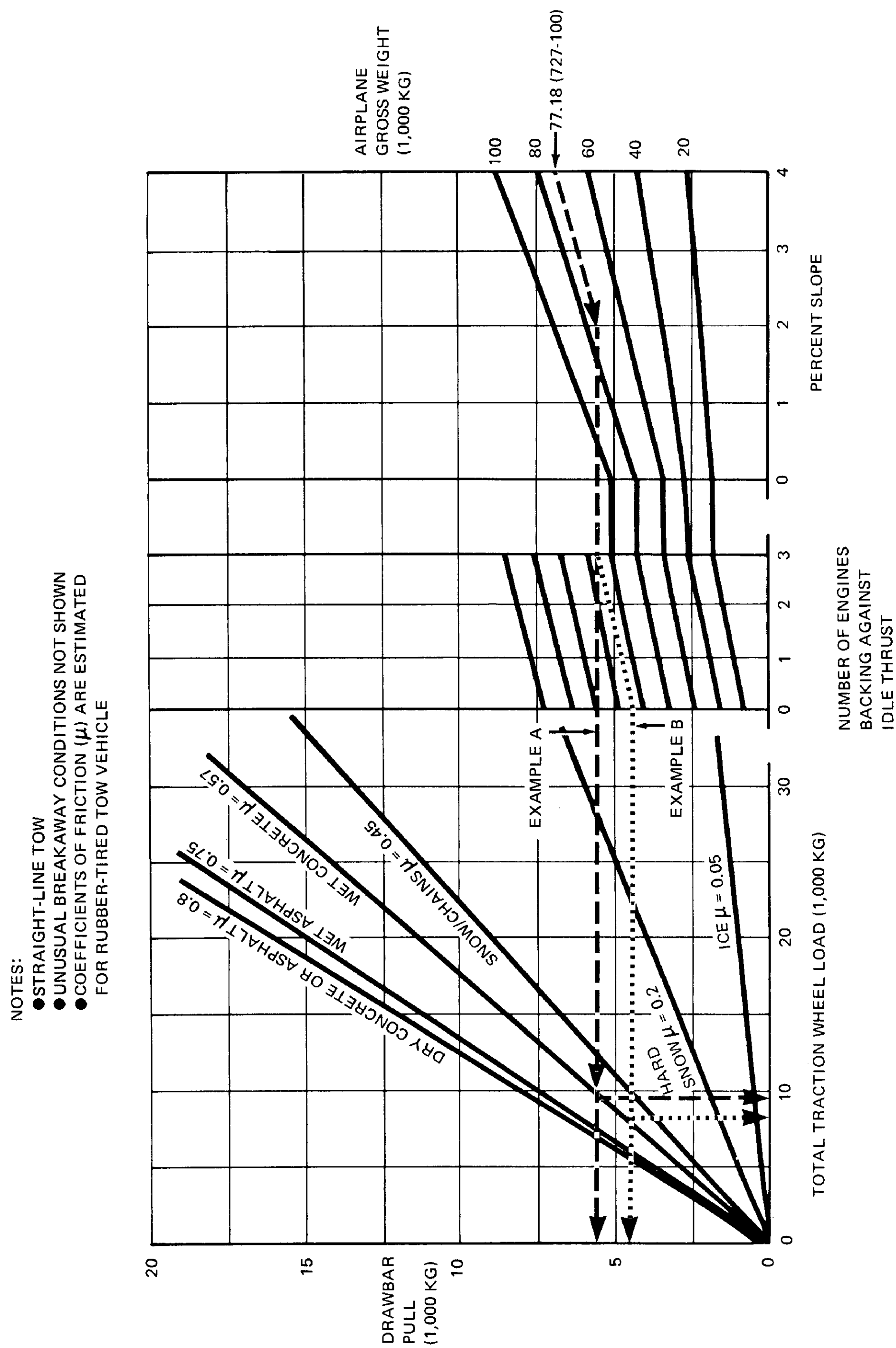
Drawbar pull and total traction wheel load may be determined by considering airplane weight, pavement slope, coefficient of friction, and engine idle thrust.

Example:
An example is included on each chart for the model 727-100 with a maximum taxi weight of 170,000 pounds (77,180 kilograms) and engines idling. When the pavement is assumed to be wet concrete with a 2-degree slope, the required total traction wheel load would be 21,400 pounds (9,716 kg) and the drawbar pull would be 12,200 pounds (5,539 kg) (Example A). When the airplane is backed without idle thrust, these numbers would change to 17,900 pounds (8,127 kg) and 10,200 pounds (4,631 kg), respectively (Example B).



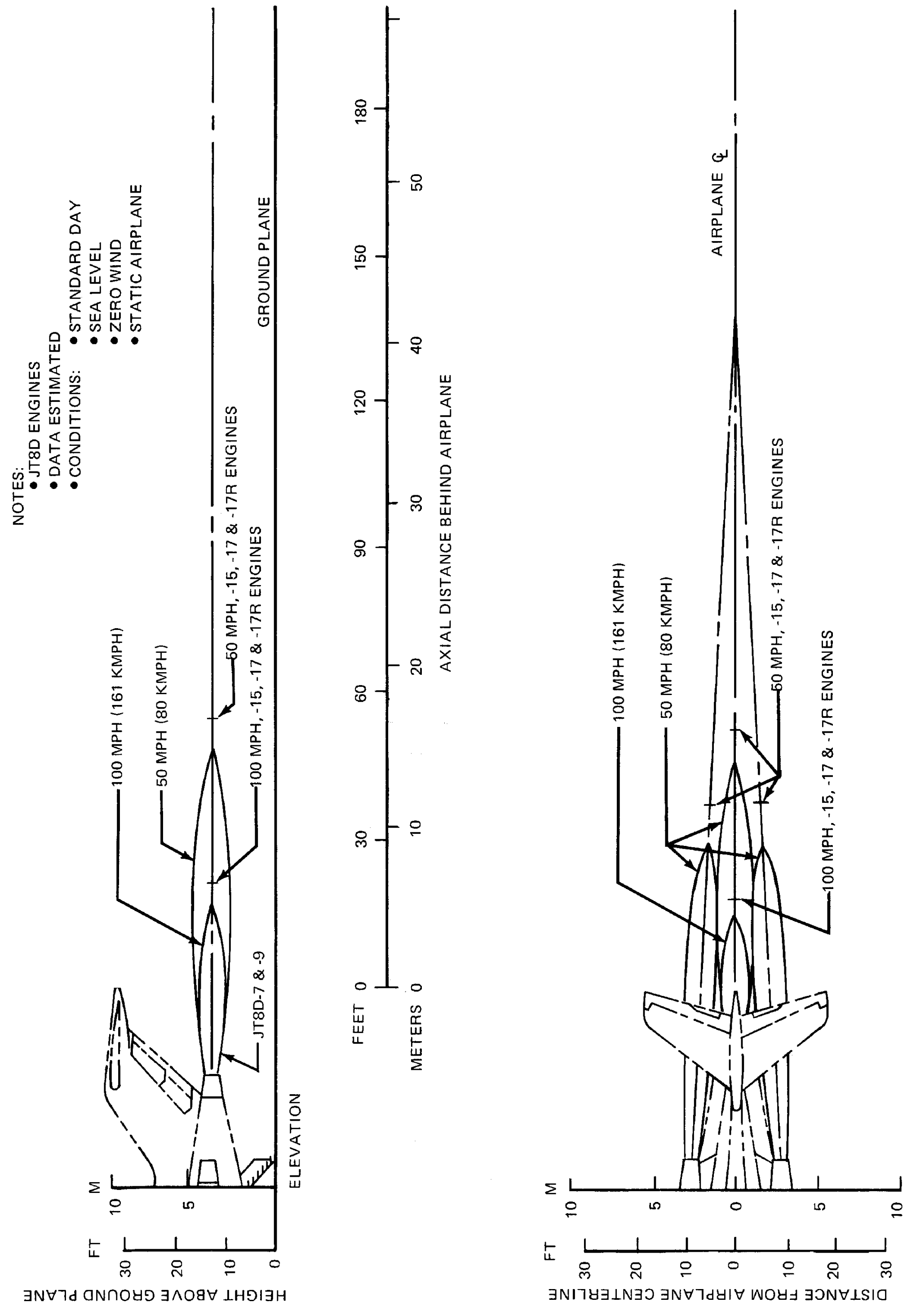
GROUND TOWING REQUIREMENTS

MODELS 727-100, -100C, -200

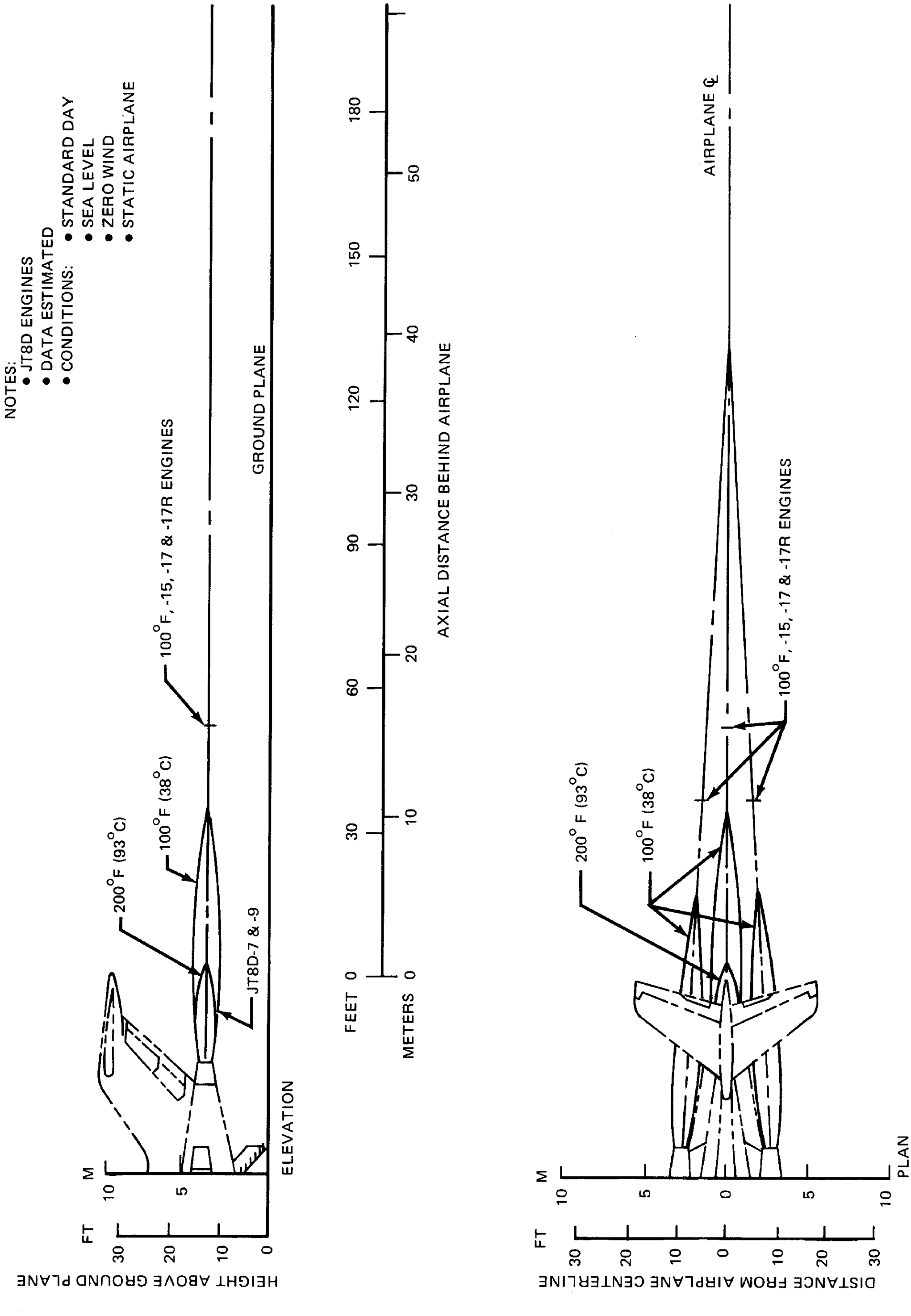


GROUND TOWING REQUIREMENTS–METRIC
MODELS 727-100, -100C, -200

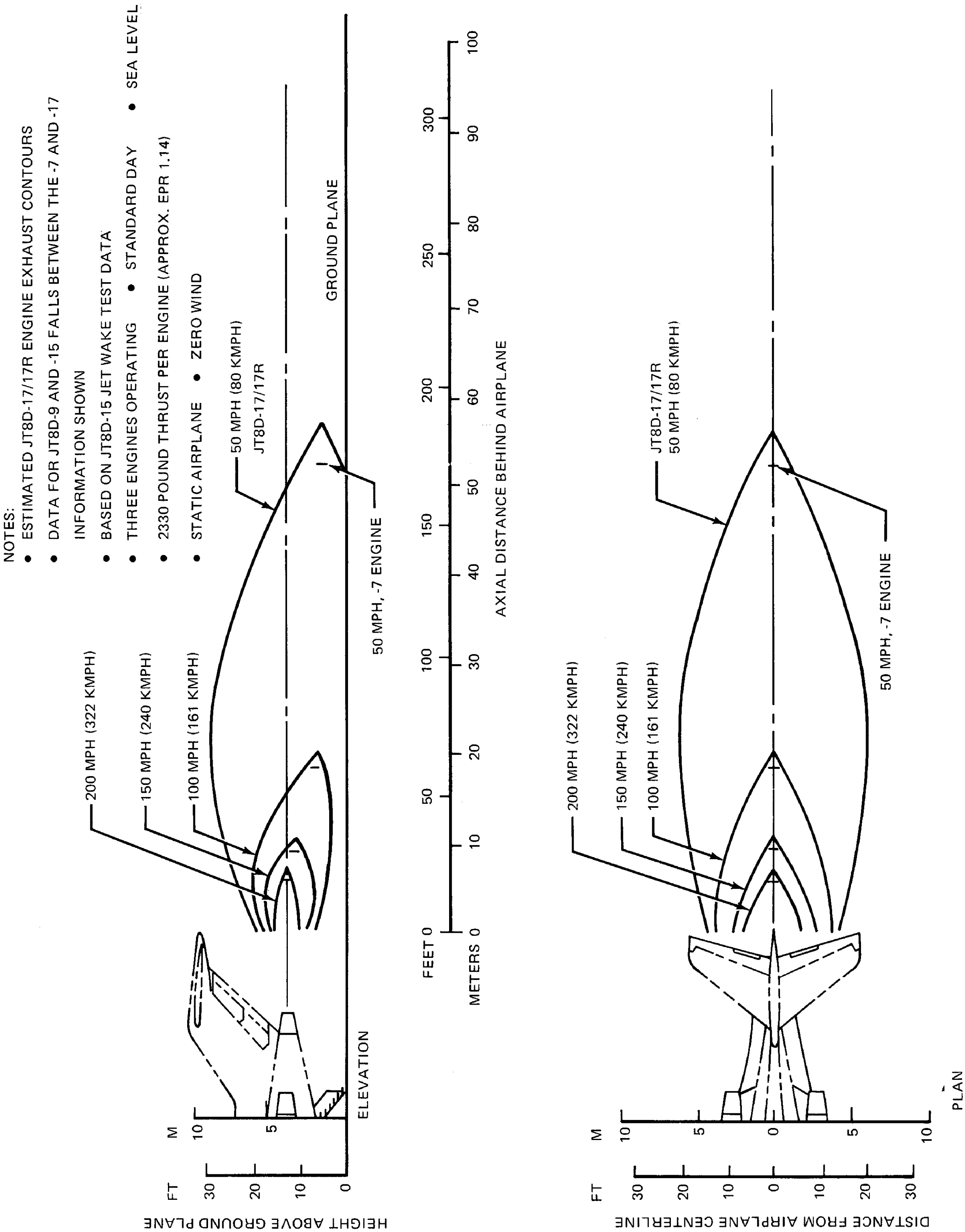
6.0 JET ENGINE WAKE AND NOISE DATA



6.1 JET ENGINE EXHAUST VELOCITY CONTOURS—IDLE POWER
MODELS 727-100, -100C, -200

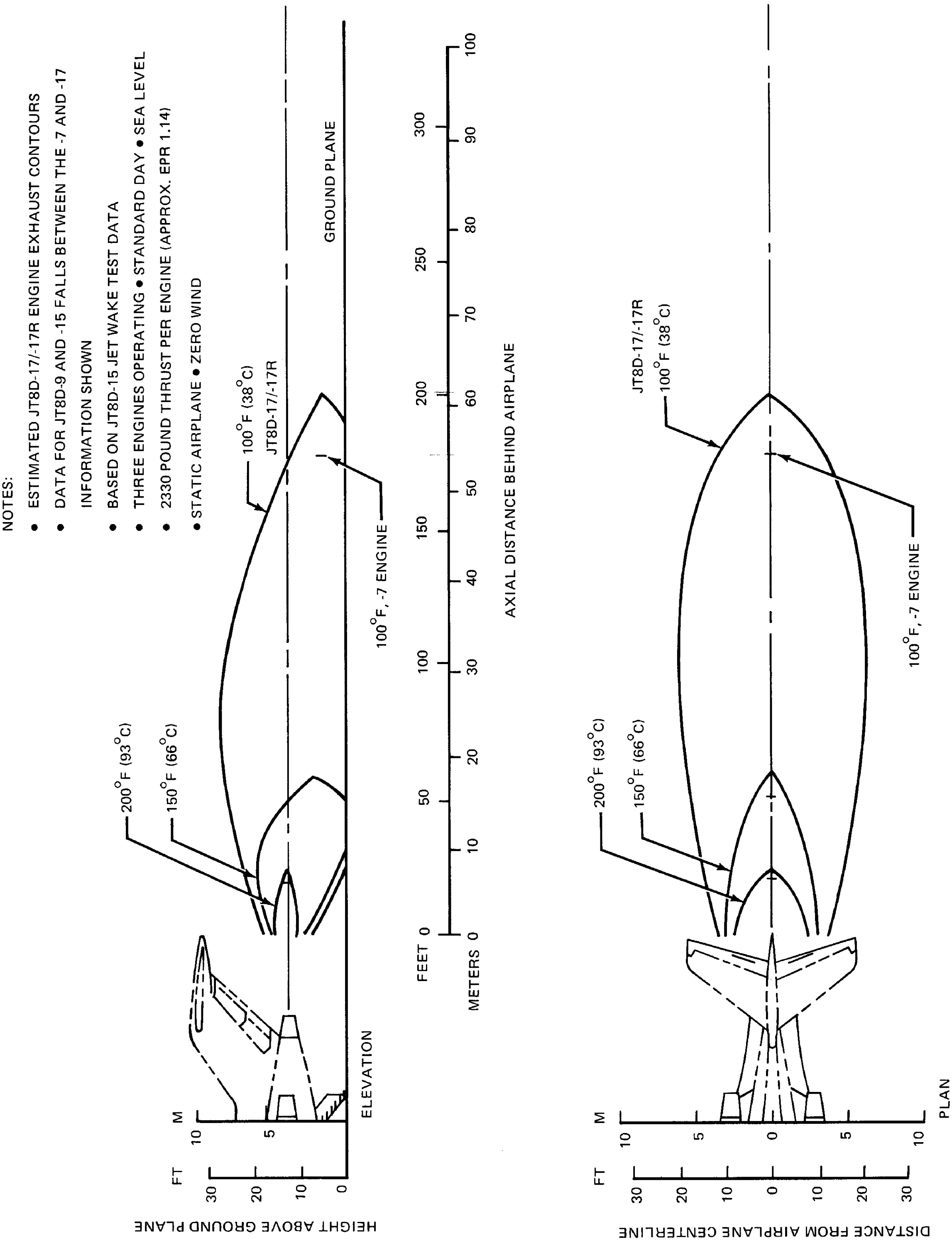


JET ENGINE EXHAUST TEMPERATURE CONTOURS–IDLE POWER
MODELS 727-100, -100C, -200



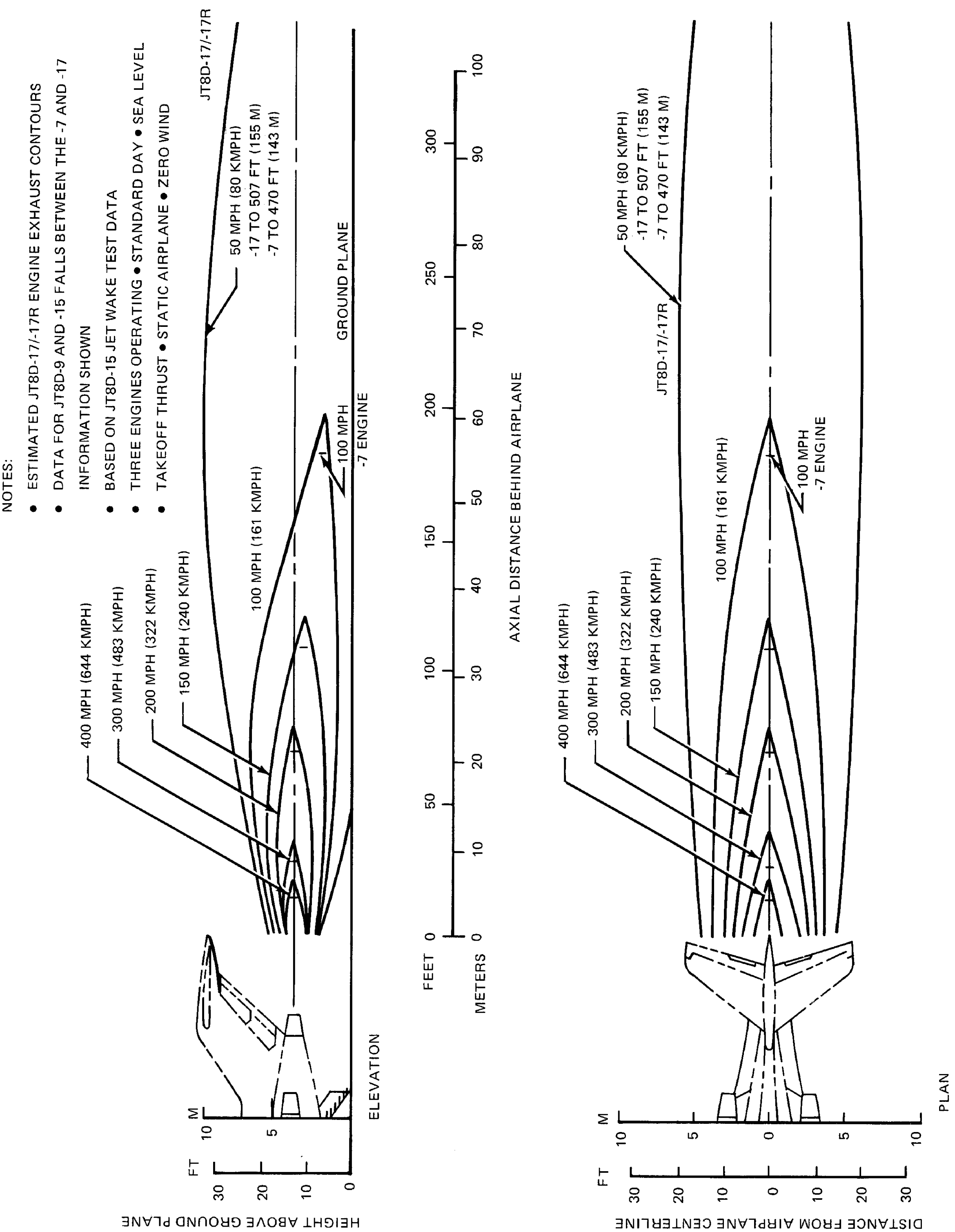
JET ENGINE EXHAUST VELOCITY CONTOURS—BREAKAWAY THRUST

MODELS 727-100, -100C, -200



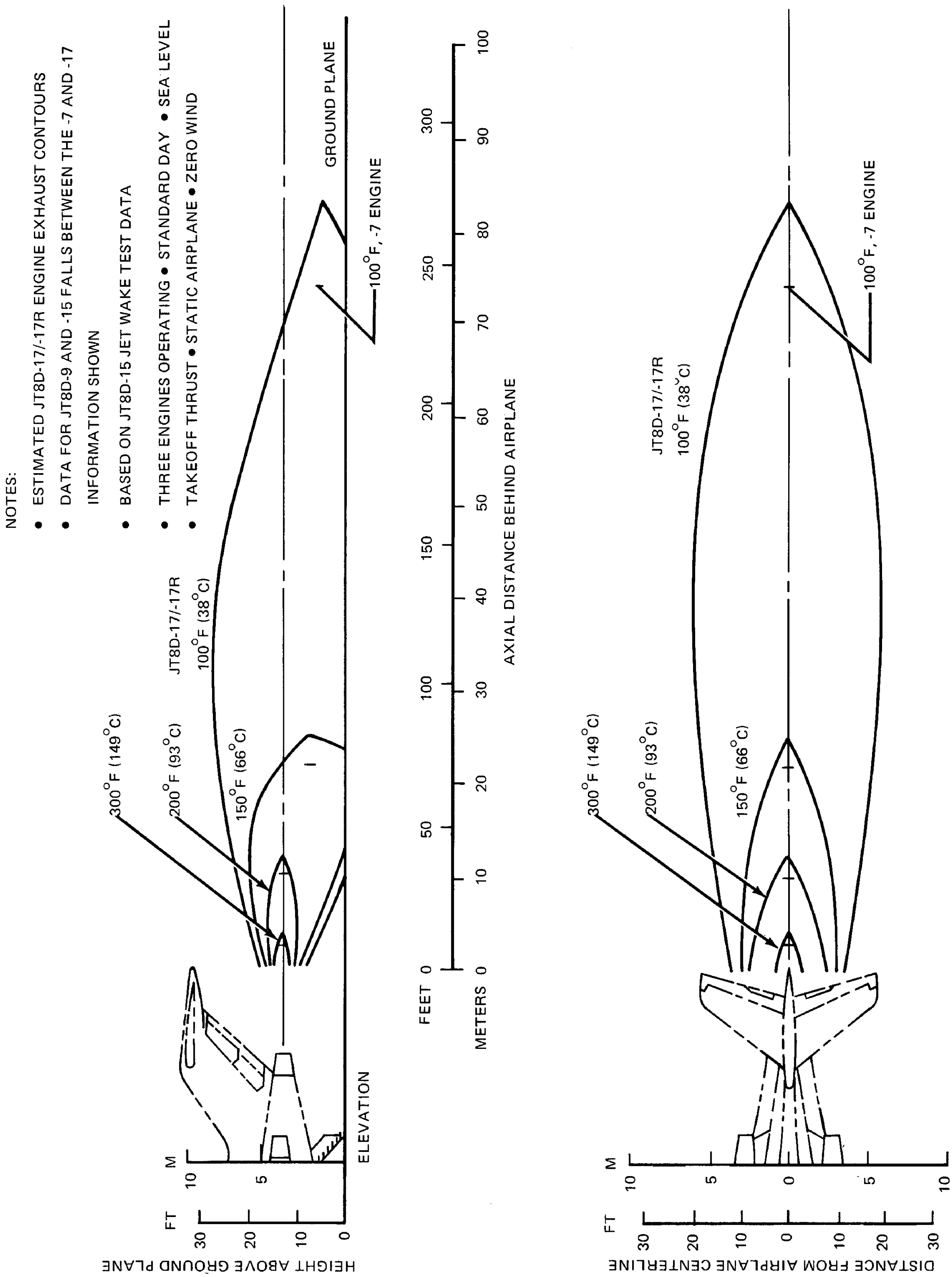
JET ENGINE EXHAUST TEMPERATURE CONTOURS—BREAKAWAY THRUST

MODELS 727-100, -100C, -200



JET ENGINE EXHAUST VELOCITY CONTOURS—TAKEOFF THRUST

MODELS 727-100, -100C, -200



JET ENGINE EXHAUST TEMPERATURE CONTOURS—TAKEOFF THRUST

MODELS 727-100, -100C, -200

6.2 Airport and Community Noise

Aircraft 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:

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 observor varies with both temperature and relative humidity.

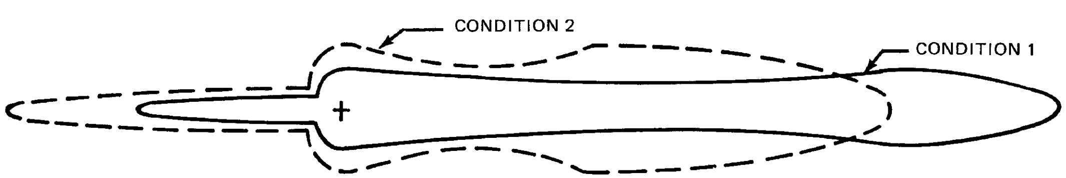
3. Surface Condition Shielding, Extra Ground Attenuation (EGA)

(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 of 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.

Condition 1

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%	



Condition 2

Landing:

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

Takeoff

- 80% of Maximum Gross Takeoff Weight
- 10-knot Headwind
- 59°F
- 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 percent. 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 noise 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 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. Each airplane configuration is depicted with a minimum range of four 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 manufacturers' standards. Tire pressures, where specifically designated on tables and charts, are at values obtained under loaded conditions as certified for commercial use.

Section 7.2 presents basic data on the landing-gear footprint configuration, maximum design taxi loads, and tire sizes and pressures. The tire pressures shown in this section and in subsequent sections are given for optimum flotation at the condition of maximum design taxi weight.

Maximum pavement loads for certain critical conditions at the tire-ground interface are shown in Section 7.3.

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 to enter the pavement design charts, interpolating load values where necessary.

The flexible-pavement design curves (sec. 7.5) are based on procedures set forth in Instruction Report No. S-77-1, "Procedures for Development of CBR Design Curves," dated June 1977, and as modified according to the methods described in FAA Advisory Circular 150/5320-6C, "Airport Pavement Design and Evaluation," dated December 7, 1978. 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 shown in Section 7.5:

1. Having established the scale for pavement thickness at the bottom and the scale for CBR at the top, an arbitrary line is drawn representing 6,000 annual departures.

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

3. Additional annual departure lines are then 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 7920-AN/865/2, Aerodrome manual, Part 2, "Aerodrome Physical Characteristics," 2nd edition, 1965. 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 60076. 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:

1. 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.

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

3. 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 150/5320-6C, 7 December 1978. The following procedure is used to develop the curves shown in Section 7.9:

1. Having established the scale for pavement flexural strength on the left and a 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.

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

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

4. 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 Amendment 35 to ICAO Annex 14, "Aerodromes", 7th Edition, June 1976, 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 180 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 method of pavement evaluation is left up to the airport with the results of their evaluation presented as follows:

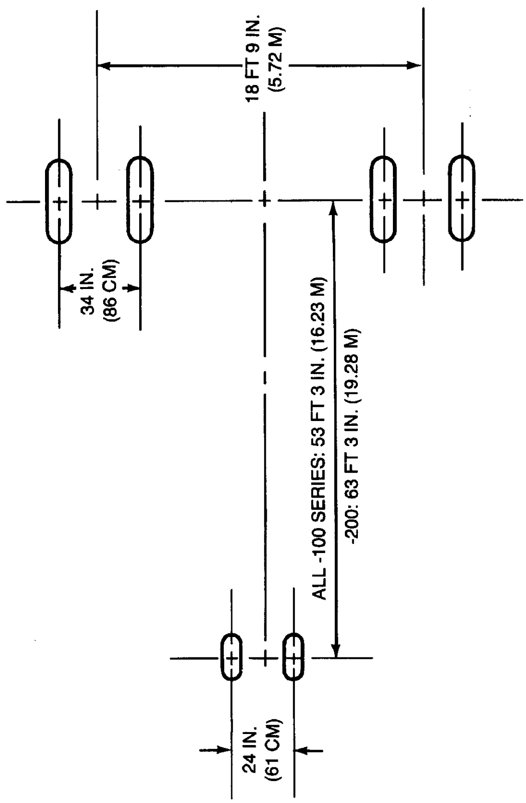
PCN	PAVEMENT TYPE	SUBGRADE CATEGORY	TIRE-PRESSURE CATEGORY	EVALUATION METHOD
	R — Rigid	A — High	W — No Limit	T — Technical
	F — Flexible	B — Medium	X — To 254 psi (1.75 MPa)	U — Using aircraft
		C — Low	Y — To 181 psi (1.25 MPa)	
		D — Ultra Low	Z — To 73 psi (0.5 MPa)	

Sections 7.10.1 to 7.10.3 show the aircraft ACN values for flexible pavements. The four subgrade categories are:

Code A — High Strength — CBR 15
Code B — Medium Strength — CBR 10
Code C — Low Strength — CBR 6
Code D — Ultra Low Strength — CBR 3

Sections 7.10.4 to 7.10.6 show the aircraft ACN values for rigid pavements. The four subgrade categories are:

Code A — High Strength, k = 550 pci (150 MN/m^3)
Code B — Medium Strength, k = 300 pci (80 MN/m^3)
Code C — Low Strength, k = 150 pci (40 MN/m^3)
Code D — Ultra Low Strength, k = 75 pci (20 MN/m^3)



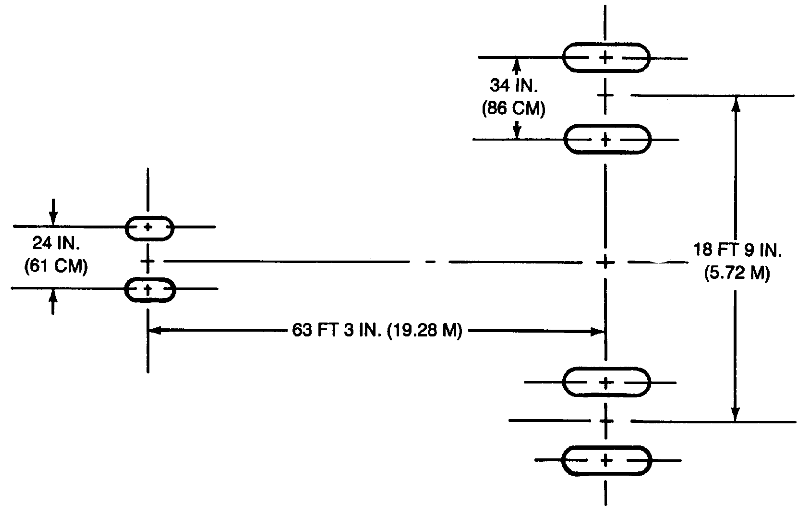
		727 MODEL				
		-100	-100/C	-100/C	-200	-200
MAXIMUM DESIGN TAXI WEIGHT	LB (KG)	153,000 (69,400)	161,000 (73,000)	170,000 (77,100)	170,000 (77,100)	173,000 (78,500)
PERCENT OF WEIGHT ON MAIN GEAR		SEE SECTION 7.4				
NOSE GEAR TIRE SIZE		32x11.5 TYPE VIII				
NOSE GEAR TIRE PRESSURE (LOADED)	PSI (KG/CM^2)	100 (7.03)	100 (7.03)	100 (7.03)	100 (7.03)	100 (7.03)
MAIN GEAR TIRE SIZE		49x17, 26PR TYPE VII	49x17, 26PR TYPE VII*	49x17, 28PR TYPE VII**	49x17, 28PR TYPE VII**	49x17, 28PR TYPE VII**
MAIN GEAR TIRE PRESSURE (LOADED)	PSI (KG/CM^2)	158 (11.11)	158 (11.11)	165 (11.60)	165 (11.60)	167 (11.74)

*OPTIONAL 50x20, 24PR
**OPTIONAL 50x20, 26PR

7.2.1 LANDING GEAR FOOTPRINT
MODELS 727-100, -100C, and -200

7.2.2 LANDING GEAR FOOTPRINT

MODELS ADVANCED 727-200 AND -200F



		ADV 727 MODEL								
		-200	-200	-200	-200	-200	-200	-200	-200F	-200
MAXIMUM DESIGN TAXI WEIGHT	LB (KG)	176,000 (79,800)	179,400 (81,400)	183,000 (83,000)	185,200 (84,000)	191,000 (86,600)	195,500 (88,700)	197,700 (89,700)	204,000 (92,500)	210,000 (95,200)
PERCENT OF WEIGHT ON MAIN GEAR		SEE SECTION 7.4								
NOSE GEAR TIRE SIZE		32x11.5 TYPE VIII								
NOSE GEAR TIRE PRESSURE (LOADED)	PSI (KG/CM^2)	100 (7.03)	100 (7.03)	100 (7.03)	100 (7.03)	100 (7.03)	100 (7.03)	100 (7.03)	100 (7.03)	100 (7.03)
MAIN GEAR TIRE SIZE		49x17 28 PR	50x21 30 PR	50x21 30 PR	50x21 30 PR*	50x21 30 PR*	50x21 30 PR**	50x21 30 PR**	50x21 30 PR	50x21 30 PR
MAIN GEAR TIRE PRESSURE (LOADED)	PSI (KG/CM^2)	169 (11.88)	148 (10.41)	148 (10.41)	148 (10.41)	154 (10.83)	167 (11.74)	167 (11.74)	167 (11.74)	173 (12.16)

*OPTIONAL 49x17, 30 PR

**OPTIONAL 50x20, 30 PR

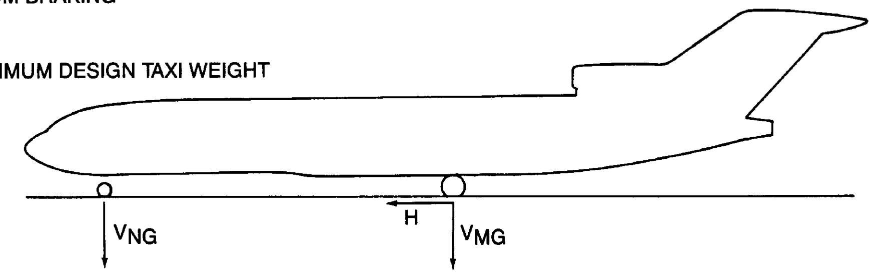
7.3 MAXIMUM PAVEMENT LOADS
MODEL 727

V_{NG} = MAXIMUM VERTICAL NOSEGEAR GROUND LOAD AT MOST FORWARD CG

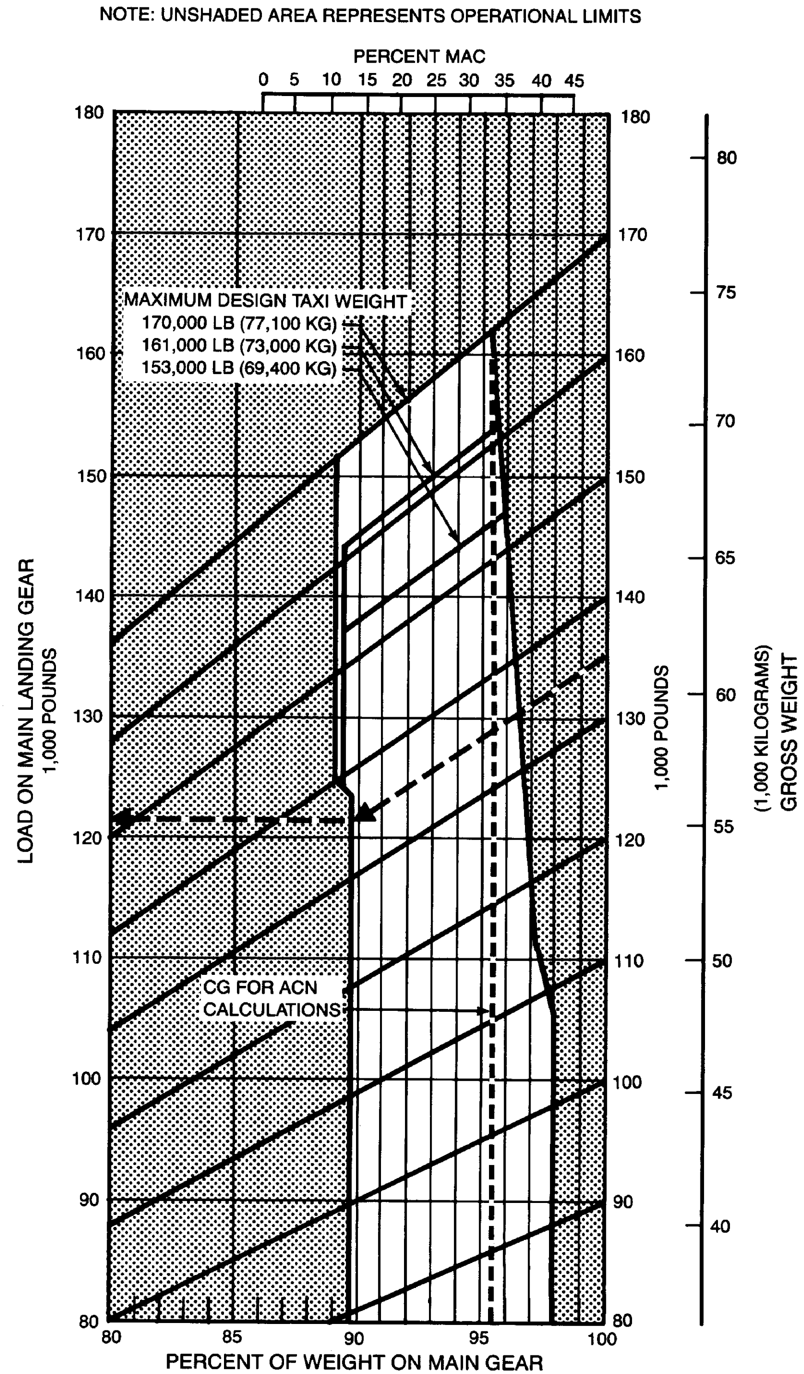
V_{MG} = MAXIMUM VERTICAL MAINGEAR GROUND LOAD AT MOST AFT CG

H = MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

NOTE:
ALL LOADS CALCULATED USING AIRPLANE MAXIMUM DESIGN TAXI WEIGHT

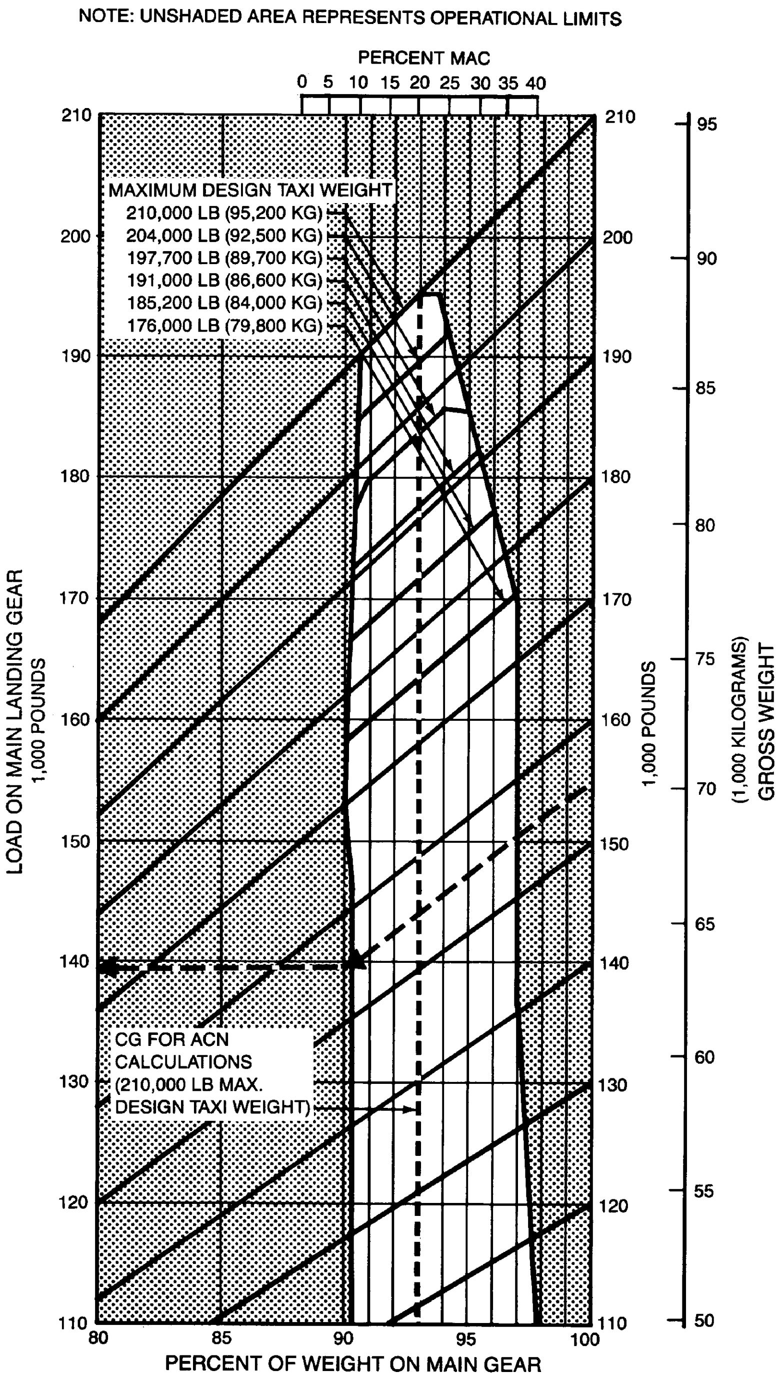


MODEL	MAXIMUM DESIGN TAXI WEIGHT		V_{NG}				V_{MG} PER STRUT (4)		H PER STRUT (4)			
			STATIC AT MOST FORWARD CG		STATIC PLUS FORCE DUE TO BRAKING AT MOST FORWARD CG		MAXIMUM LOAD OCCURRING AT STATIC AFT CG		AT STEADY BRAKING 10 FT/SEC^2 DECELERATION		AT INSTANTANEOUS BRAKING (COEFF OF FRICTION = 0.8)	
	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG
-100	153,000	69,400	16,300	7,400	24,000	10,900	73,200	33,200	23,800	10,800	58,600	26,600
-100C	161,000	73,000	17,100	7,800	25,300	11,500	77,000	34,900	25,000	11,300	61,600	27,900
-100/C	170,000	77,100	18,600	8,400	27,200	12,300	81,000	36,700	26,400	12,000	64,800	29,400
-200	170,000	77,100	16,500	7,500	23,700	10,800	82,400	37,400	26,400	12,000	65,900	29,900
-200	173,000	78,500	17,100	7,800	24,300	11,000	83,900	38,100	26,900	12,200	67,100	30,400
-200	176,000	79,800	17,400	7,900	24,900	11,300	85,300	38,700	27,300	12,400	68,200	30,900
-200	179,400	81,400	17,600	8,000	25,300	11,500	86,600	39,300	27,900	12,600	69,300	31,400
-200	183,000	83,000	17,850	8,100	25,600	11,600	87,800	39,800	28,400	12,900	70,200	31,900
-200	185,200	84,000	18,100	8,200	26,000	11,800	88,900	40,300	28,800	13,000	71,200	32,300
-200	191,000	86,600	18,500	8,400	26,600	12,100	91,100	41,300	29,700	13,500	72,900	33,100
-200	195,500	88,700	18,900	8,600	27,200	12,300	92,800	42,100	30,400	13,800	74,300	33,700
-200	197,700	89,700	18,200	8,300	27,100	12,300	92,800	42,100	30,700	13,900	74,200	33,700
-200F	204,000	92,500	20,700	9,400	29,400	13,300	96,100	43,600	31,700	14,400	76,900	34,900
-200	210,000	95,200	19,900	9,000	28,800	13,100	97,600	44,300	32,600	14,800	78,100	35,400



7.4.1 LANDING GEAR LOADING ON PAVEMENT

MODELS 727-100, -100C



7.4.2 LANDING GEAR LOADING ON PAVEMENT

MODEL 727-200, -200F

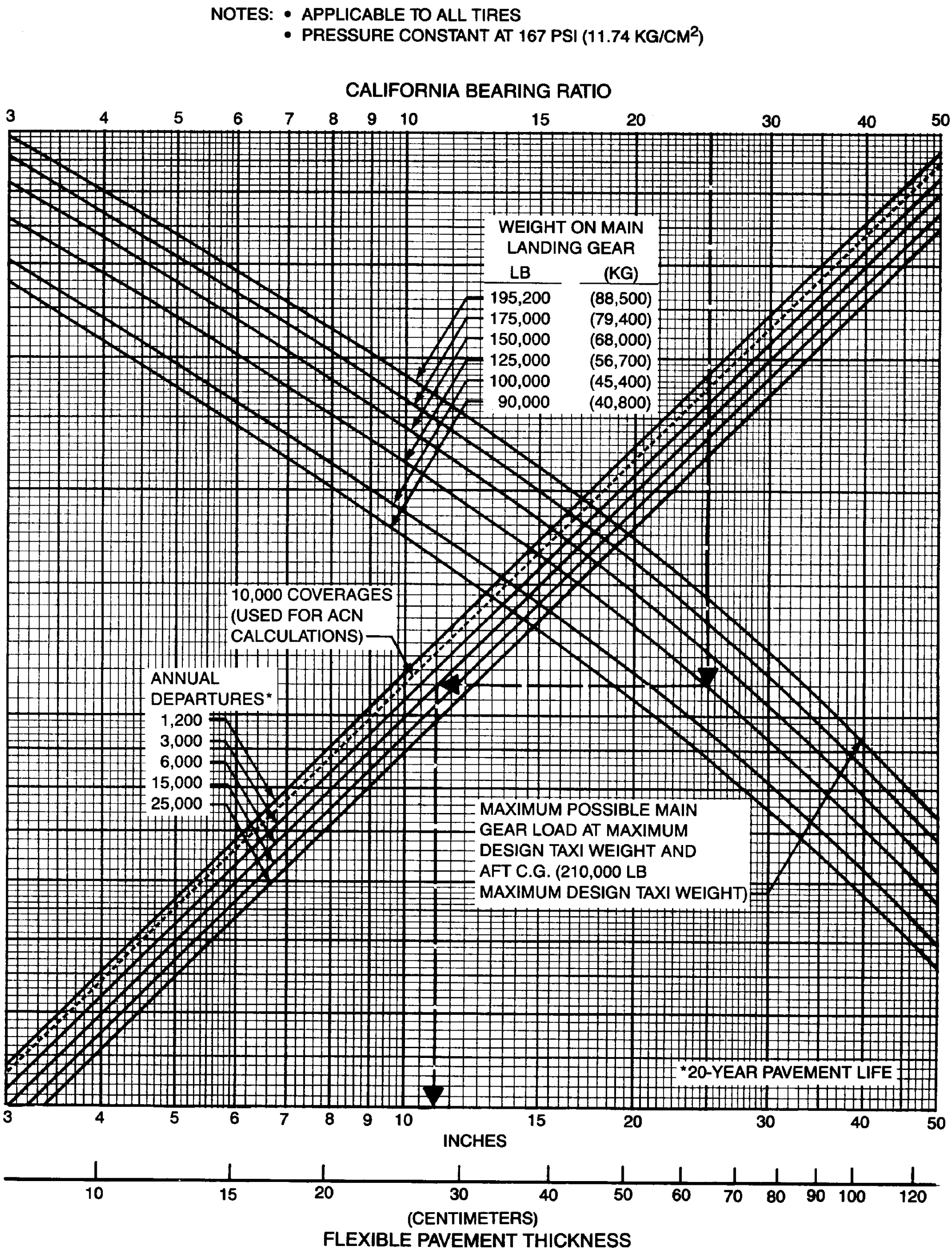
7.5 Flexible-Pavement Requirements: U.S. Army Corps of Engineers Method (S-77-1)

The following flexible-pavement design chart presents the data of six incremental main-gear weights at a constant pressure of 167 psi.

In the example shown on the next page, for a CBR of 25 and an annual departure level of 6,000, the required flexible-pavement thickness for an airplane with a main gear loading of 125,000 lb is 11.0 in.

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 main landing gear. The equivalent main gear loads for a given airplane weight can be calculated from Section 7.4.



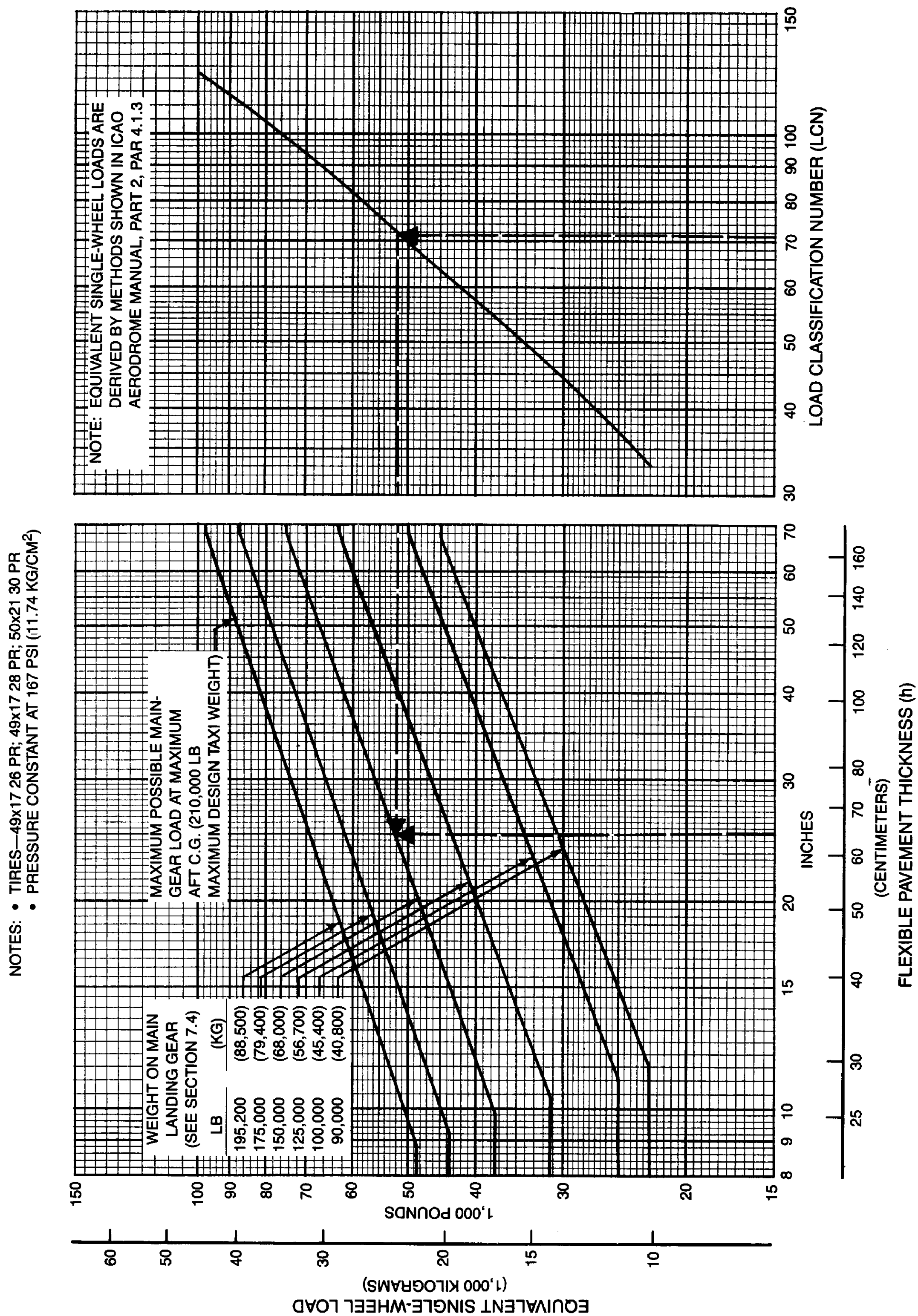
7.5.1 FLEXIBLE PAVEMENT REQUIREMENTS—U.S. ARMY CORPS OF ENGINEERS DESIGN METHOD (S-77-1) AND F.A.A. DESIGN METHOD
MODEL 727

7.6 Flexible-Pavement Requirements: LCN Conversion

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

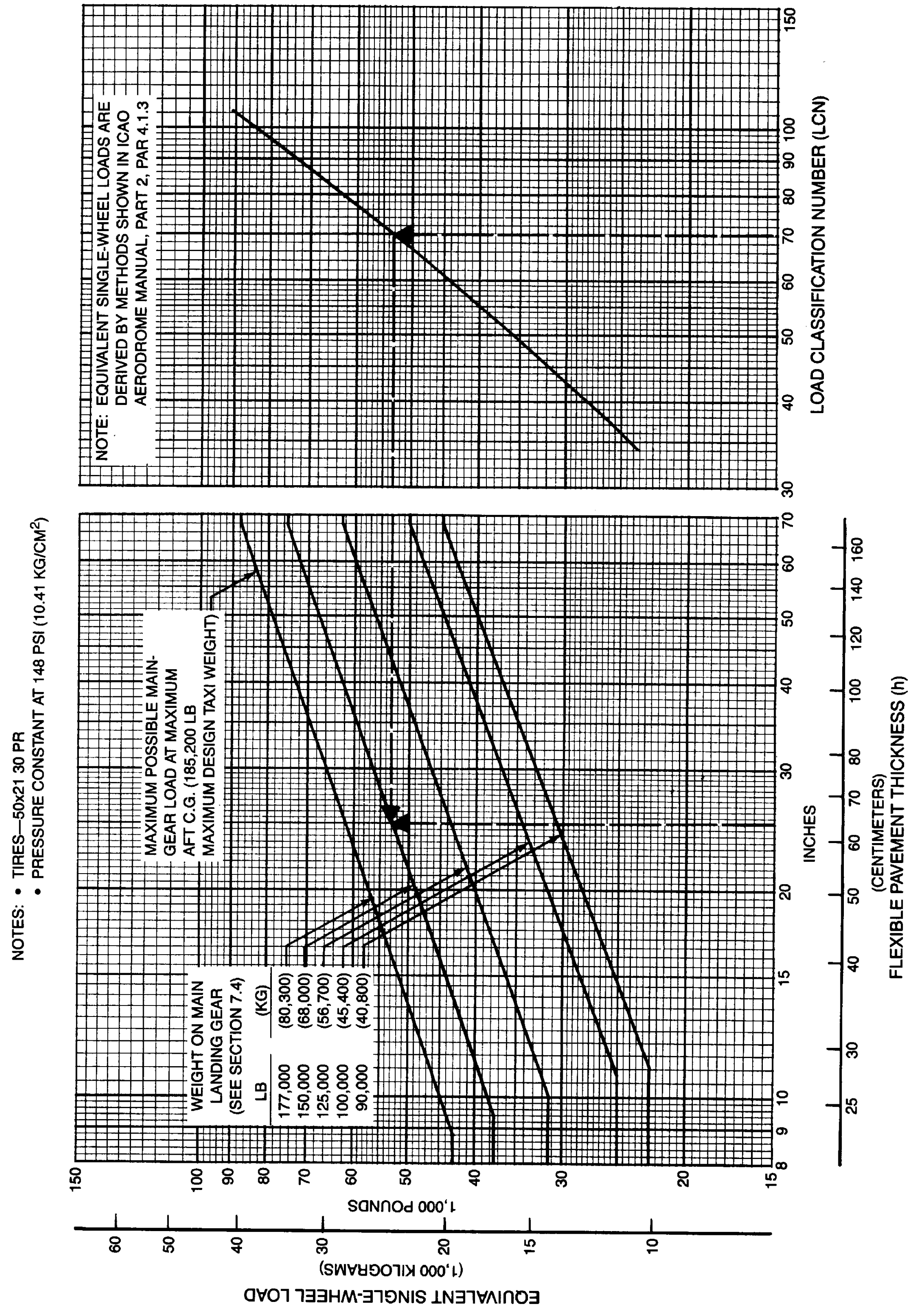
In the example shown on the next page, flexible-pavement thickness (h) is shown at 25 in. with an LCN of 71. For these conditions, the apparent maximum allowable weight permissible on the main landing gear is 150,000 lb.

Note: Provided that the resultant airplane LCN is not more than 10% above the published pavement LCN, the bearing strength of the pavement can be sufficient for unlimited use by the aircraft. The figure of 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 CONVERSION

MODELS 727-100, -100C, -200 AT 153,000 TO 179,400 LB (69,400 TO 81,400 KG) MTW AND 727-200 AT 191,000 TO 210,000 LB (86,600 TO 95,200 KG) MTW



7.6.2 FLEXIBLE PAVEMENT REQUIREMENTS—LCN CONVERSION

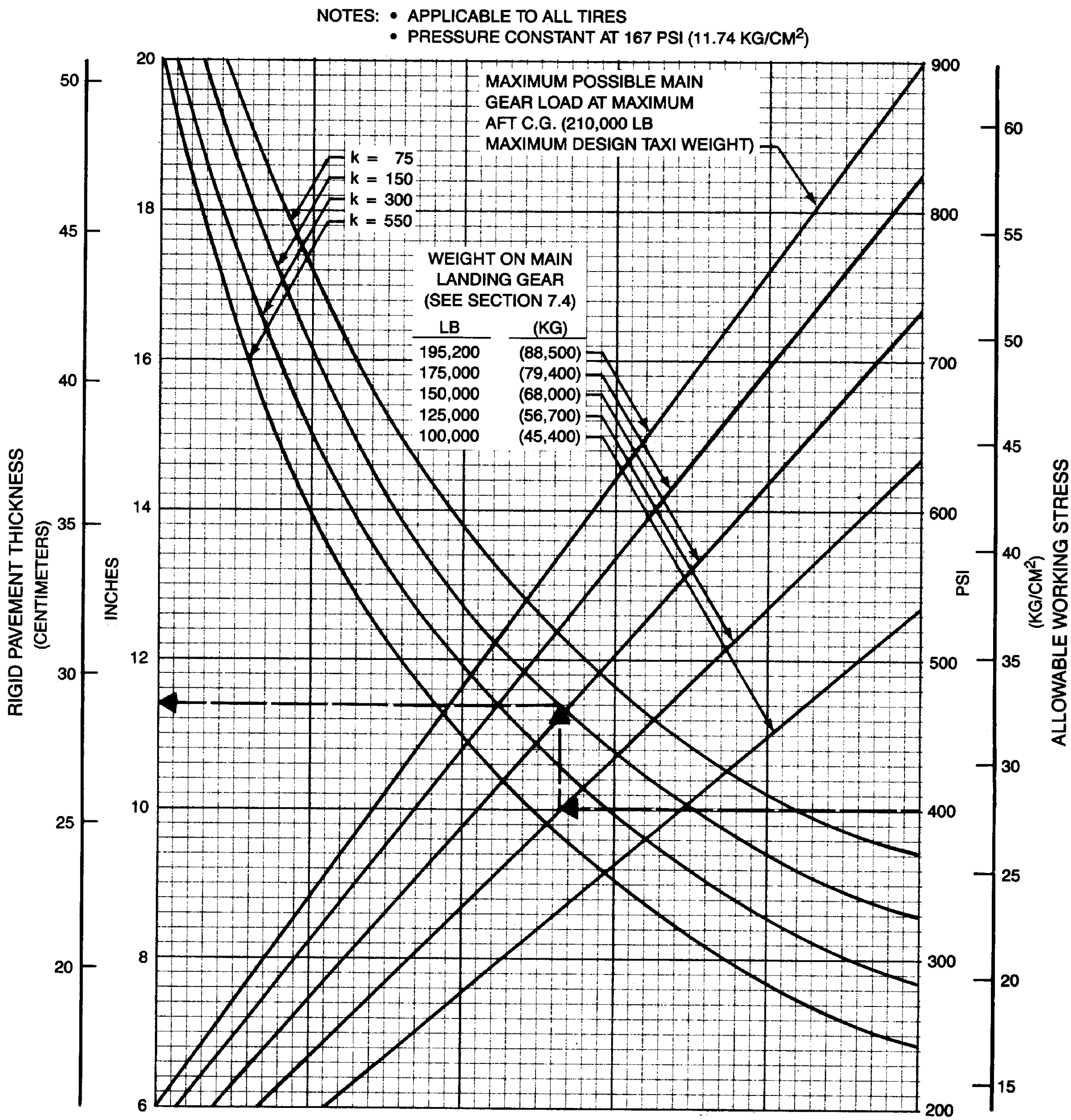
MODEL 727-200 AT 183,000 TO 185,200 LB (83,000 TO 84,000 KG) MTW

7.7 Rigid-Pavement Requirements: Portland Cement Association Design Method

Rigid-pavement requirements are based on the Portland Cement Association computerized version of the methods 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 of five incremental main-gear weights at a constant pressure of 167 psi.

In the example shown on the next page, for an allowable working stress of 400 psi, a main gear load of 125,000 lb, and a subgrade strength k of 150, the required rigid-pavement thickness is 11.4 in.



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.

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

7.7.1 RIGID-PAVEMENT REQUIREMENTS—PORTLAND CEMENT ASSOCIATION DESIGN METHOD
MODEL 727

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 Figure 7.8.2 the rigid-pavement radius of relative stiffness is shown at 40 with an LCN of 66. For these conditions, the apparent maximum allowable weight permissible on the main landing gear is 125,000 lb.

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

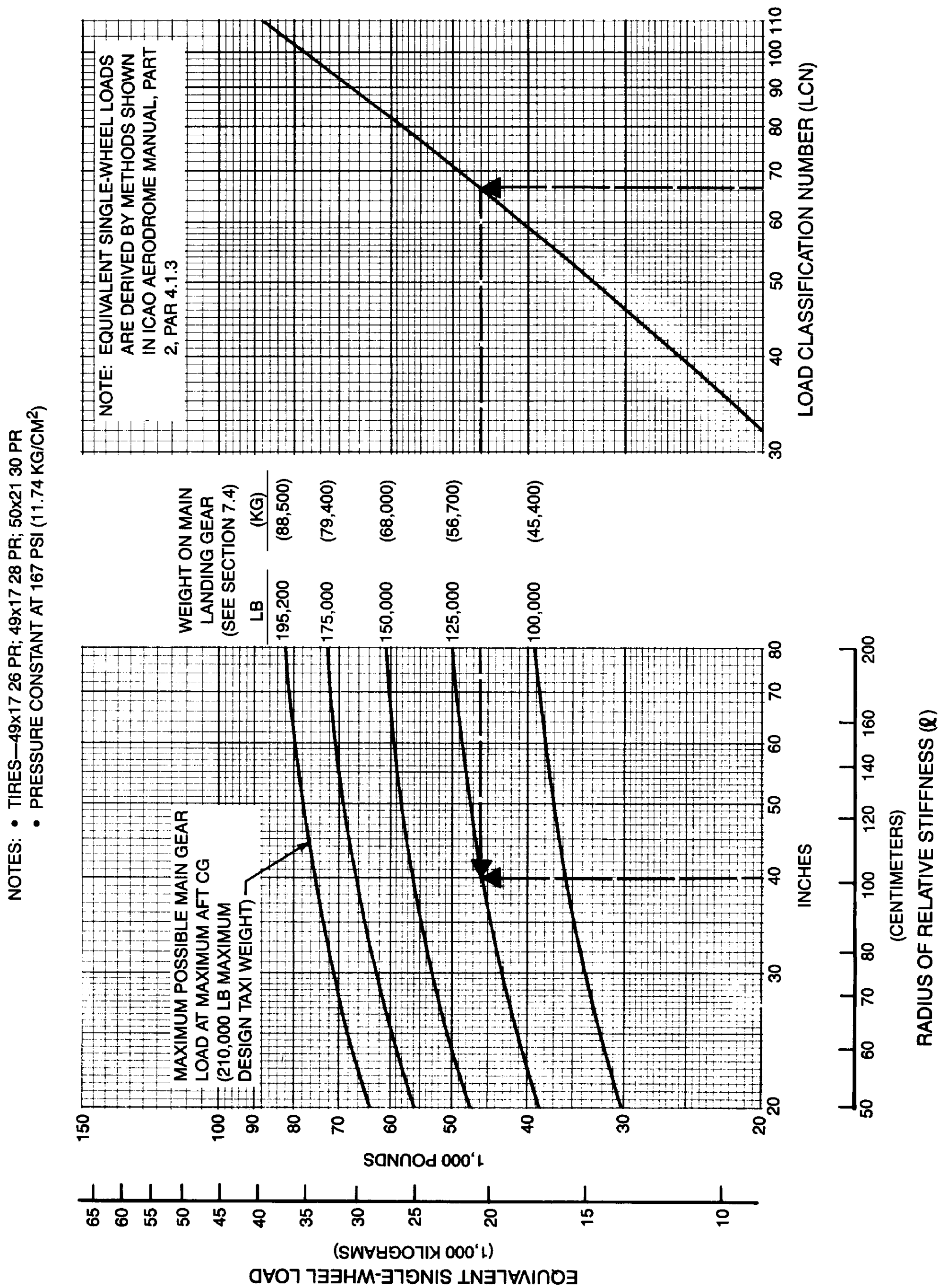
RADIUS OF RELATIVE STIFFNESS (ℓ)
VALUES IN INCHES

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

WHERE: E = YOUNG'S MODULUS = 4×10^6 PSI
k = SUBGRADE MODULUS, LB/IN.^{3}
d = RIGID-PAVEMENT THICKNESS, IN.
μ = POISSON'S RATIO = 0.15

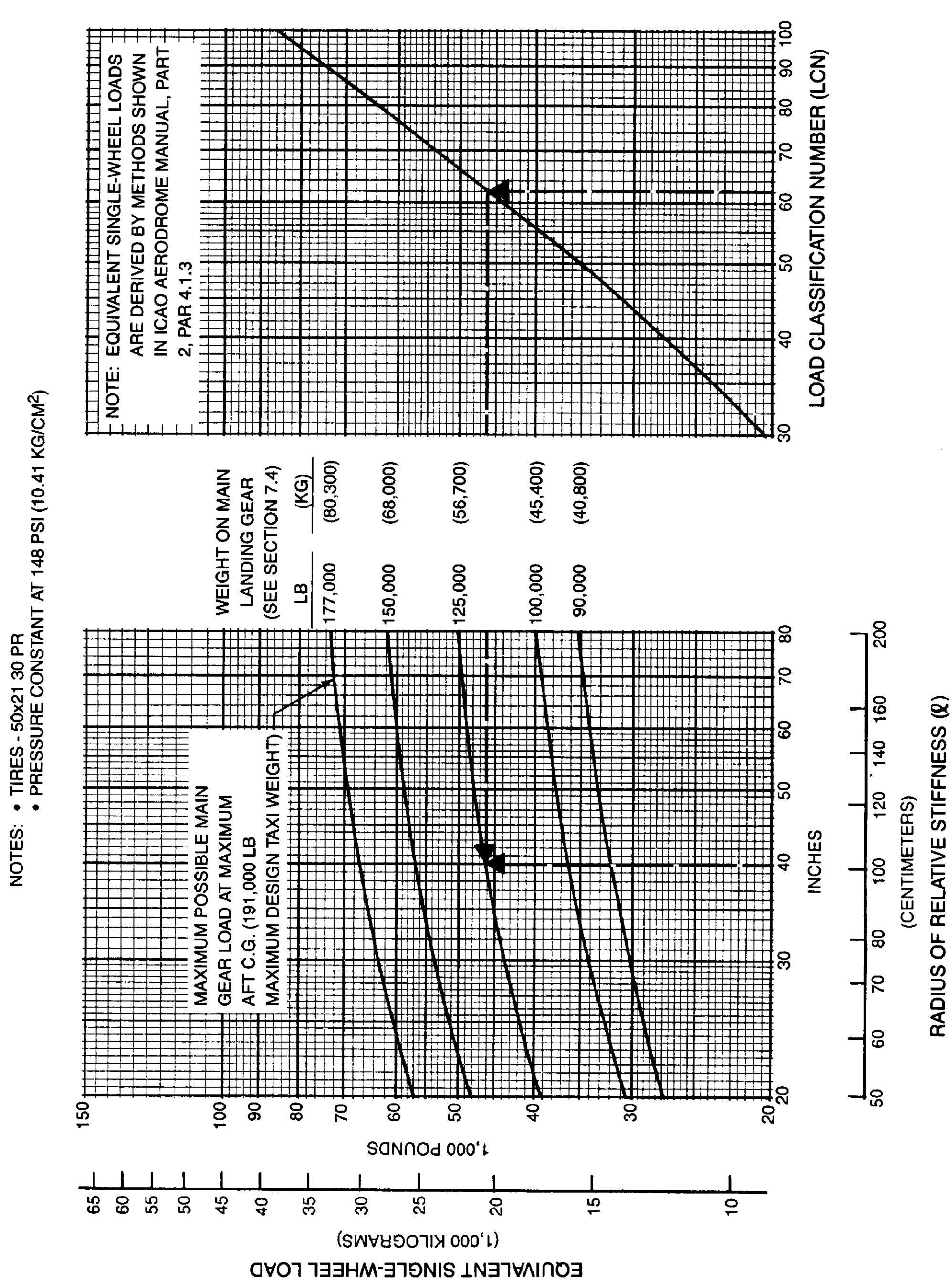
d (IN.)	k = 75	k = 100	k = 150	k = 200	k = 250	k = 300	k = 350	k = 400	k = 500	k = 550
6.0	31.48	29.30	26.47	24.63	23.30	22.26	21.42	20.72	19.59	19.13
6.5	33.43	31.11	28.11	26.16	24.74	23.64	22.74	22.00	20.80	20.31
7.0	35.34	32.89	29.72	27.65	26.15	24.99	24.04	23.25	21.99	21.47
7.5	37.22	34.63	31.29	29.12	27.54	26.32	25.32	24.49	23.16	22.61
8.0	39.06	36.35	32.85	30.57	28.91	27.62	26.58	25.70	24.31	23.74
8.5	40.88	38.04	34.37	31.99	30.25	28.91	27.81	26.90	25.44	24.84
9.0	42.67	39.71	35.88	33.39	31.58	30.17	29.03	28.08	26.55	25.93
9.5	44.43	41.35	37.36	34.77	32.89	31.42	30.23	29.24	27.65	27.00
10.0	46.18	42.97	38.83	36.14	34.17	32.65	31.42	30.39	28.74	28.06
10.5	47.90	44.57	40.28	37.48	35.45	33.87	32.59	31.52	29.81	29.11
11.0	49.60	46.16	41.71	38.81	36.71	35.07	33.75	32.64	30.87	30.14
11.5	51.28	47.72	43.12	40.13	37.95	36.26	34.89	33.74	31.91	31.16
12.0	52.94	49.27	44.52	41.43	39.18	37.44	36.02	34.84	32.95	32.17
12.5	54.59	50.80	45.90	42.72	40.40	38.60	37.14	35.92	33.97	33.17
13.0	56.22	52.32	47.27	43.99	41.61	39.75	38.25	36.99	34.99	34.16
13.5	57.83	53.82	48.63	45.26	42.80	40.89	39.35	38.06	35.99	35.14
14.0	59.43	55.31	49.98	46.51	43.98	42.02	40.44	39.11	36.99	36.12
14.5	61.02	56.78	51.31	47.75	45.16	43.15	41.51	40.15	37.97	37.08
15.0	62.59	58.25	52.63	48.98	46.32	44.26	42.58	41.19	38.95	38.03
15.5	64.15	59.70	53.94	50.20	47.47	45.36	43.64	42.21	39.92	38.98
16.0	65.69	61.13	55.24	51.41	48.62	46.45	44.70	43.23	40.88	39.92
16.5	67.23	62.56	56.53	52.61	49.75	47.54	45.74	44.24	41.84	40.85
17.0	68.75	63.98	57.81	53.80	50.88	48.61	46.77	45.24	42.78	41.78
17.5	70.26	65.38	59.48	54.98	52.00	49.68	47.80	46.23	43.72	42.70
18.0	71.76	66.78	60.35	56.16	53.11	50.74	48.82	47.22	44.66	43.61
19.0	74.73	69.54	62.84	58.48	55.31	52.84	50.84	49.17	46.51	45.41
20.0	77.66	72.27	65.30	60.77	57.47	54.92	52.84	51.10	48.33	47.19
21.0	80.55	74.97	67.74	63.04	59.62	56.96	54.81	53.01	50.13	48.95
22.0	83.41	77.63	70.14	65.28	61.73	58.98	56.75	54.89	51.91	50.69
23.0	86.24	80.26	72.52	67.49	63.83	60.98	58.68	56.75	53.67	52.41
24.0	89.04	82.86	74.87	69.68	65.90	62.96	60.58	58.59	55.41	54.11
25.0	91.81	85.44	77.20	71.84	67.95	64.92	62.46	60.41	57.14	55.79

7.8.1 RADIUS OF RELATIVE STIFFNESS (REFERENCE: PORTLAND CEMENT ASSOCIATION)



7.8.2 RIGID PAVEMENT REQUIREMENTS—LCN CONVERSION

MODELS 727-100, -100C, -200 AT 153,000 TO 179,400 LB (69,400 TO 81,400 KG) MTW AND 727-200 AT 191,000 TO 210,000 LB (86,600 TO 95,200 KG) MTW



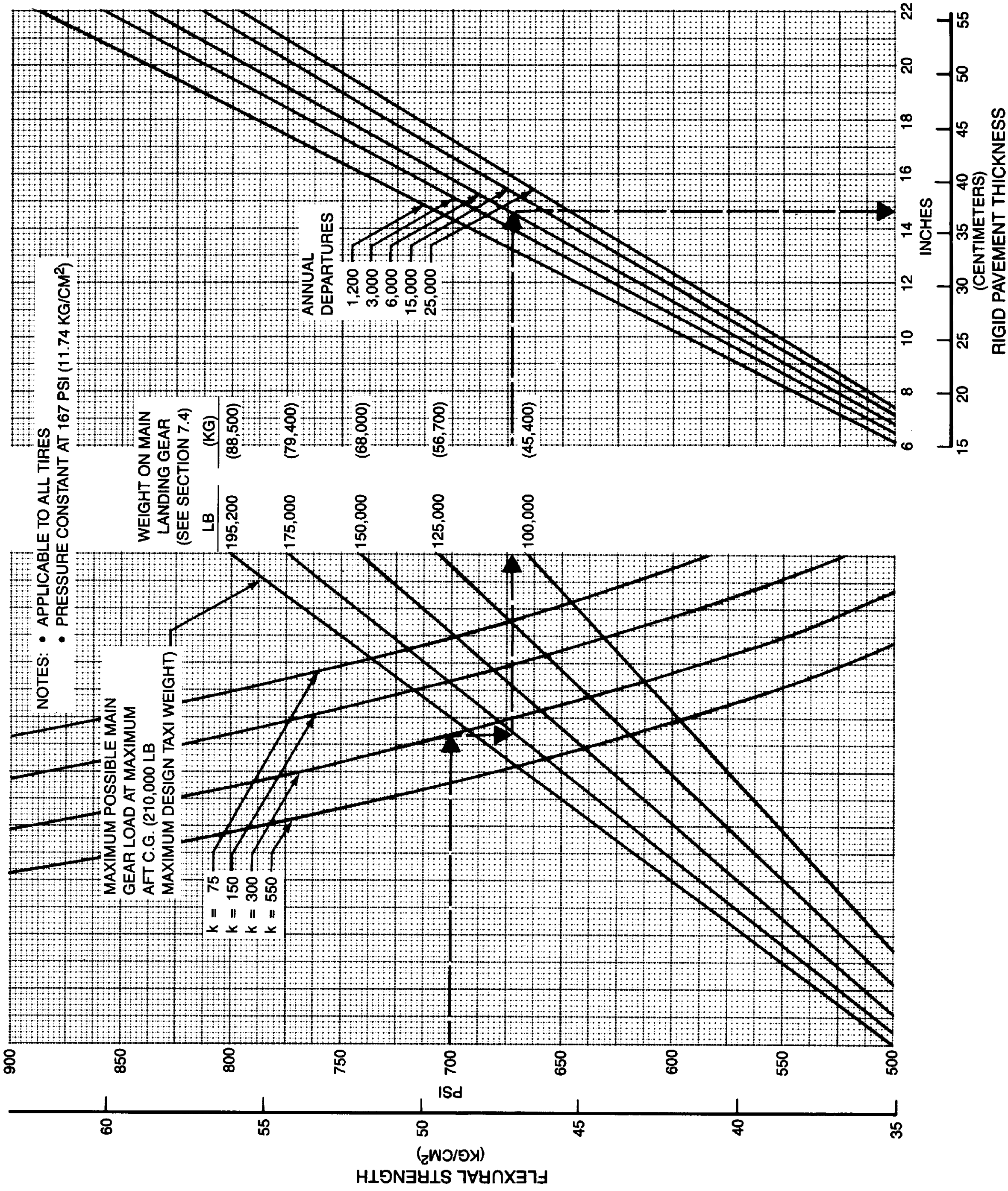
7.8.3 RIGID PAVEMENT REQUIREMENTS—LCN CONVERSION

MODEL 727-200 AT 183,000 TO 185,200 LB (83,000 TO 84,000 KG) MTW

7.9 Rigid-Pavement Requirements: FAA Design Method

The following rigid-pavement design charts present the data of five incremental main-gear weights at a constant pressure of 167 psi.

In the example shown on the next page, the pavement flexural strength is shown at 700 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 load of 175,000 lb is 14.6 in.

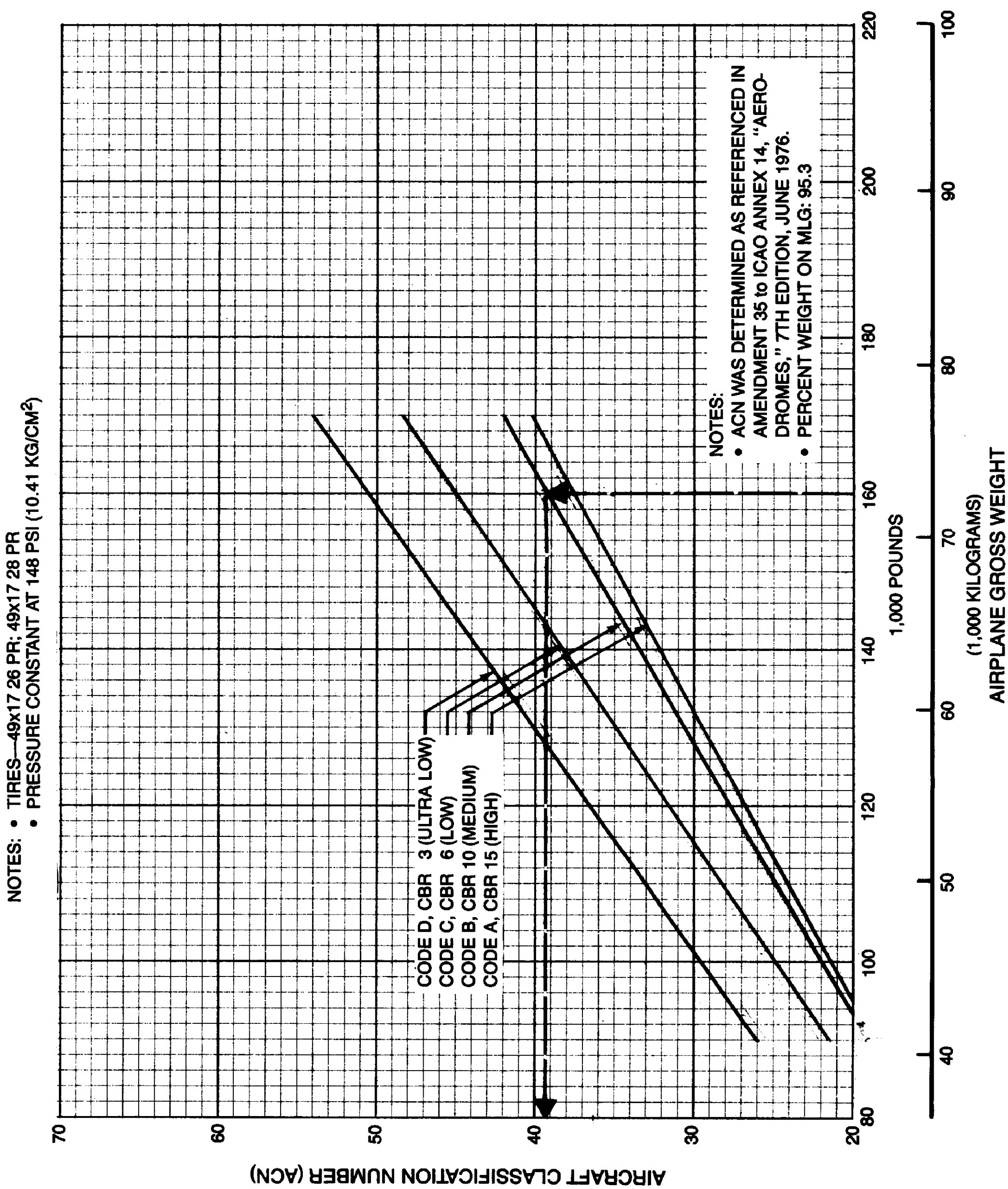


7.9.1 RIGID PAVEMENT REQUIREMENTS—FAA METHOD
MODEL 727

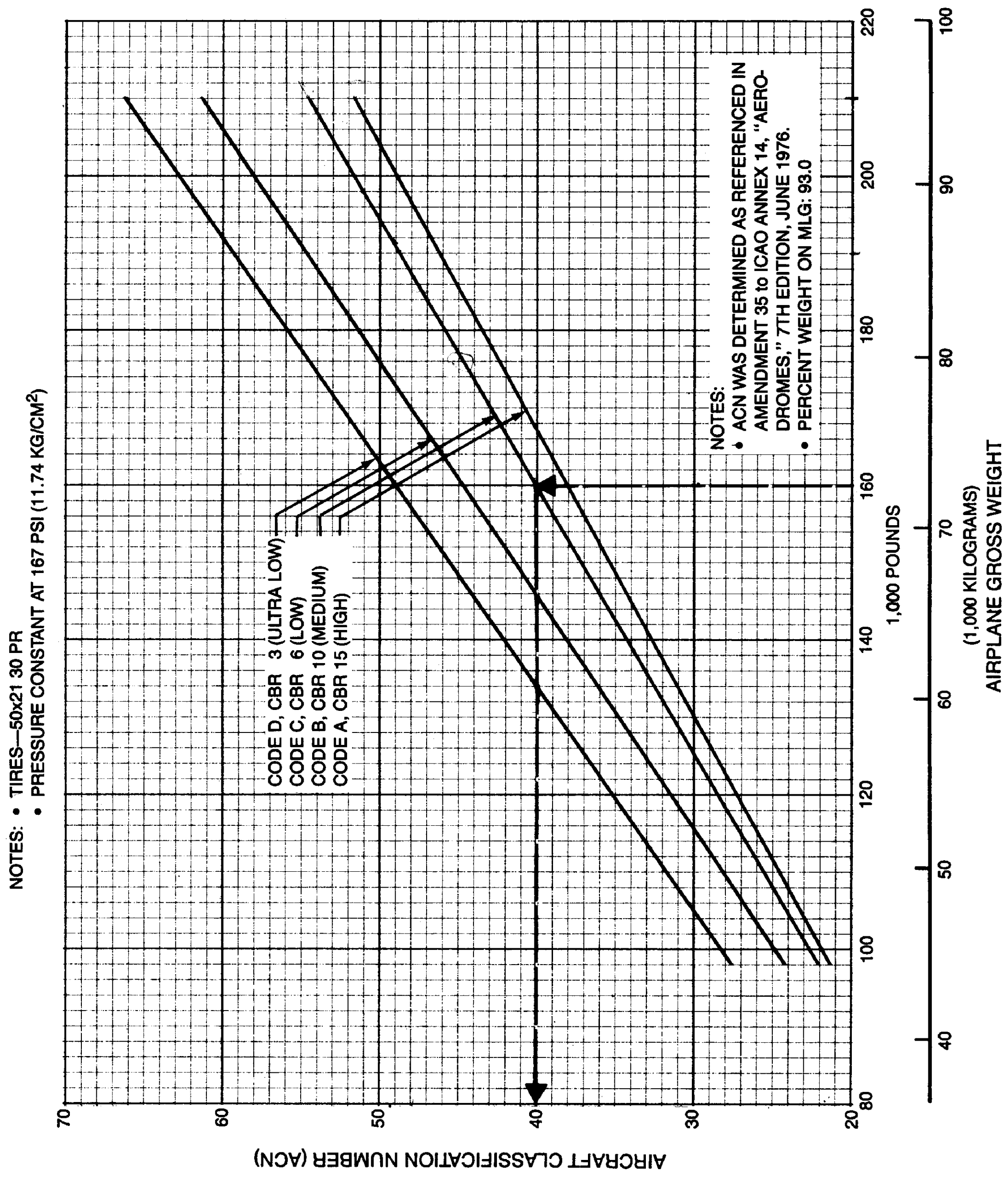
7.10 ACN/PCN Reporting System: Flexible and Rigid Pavements

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. In the chart on 7.10.1, for example, for an aircraft gross weight of 160,000 lb and medium subgrade strength, the ACN for flexible pavement is 39. Referring to 7.10.3 for the same gross weight and subgrade strength, the ACN for rigid pavement is 42.

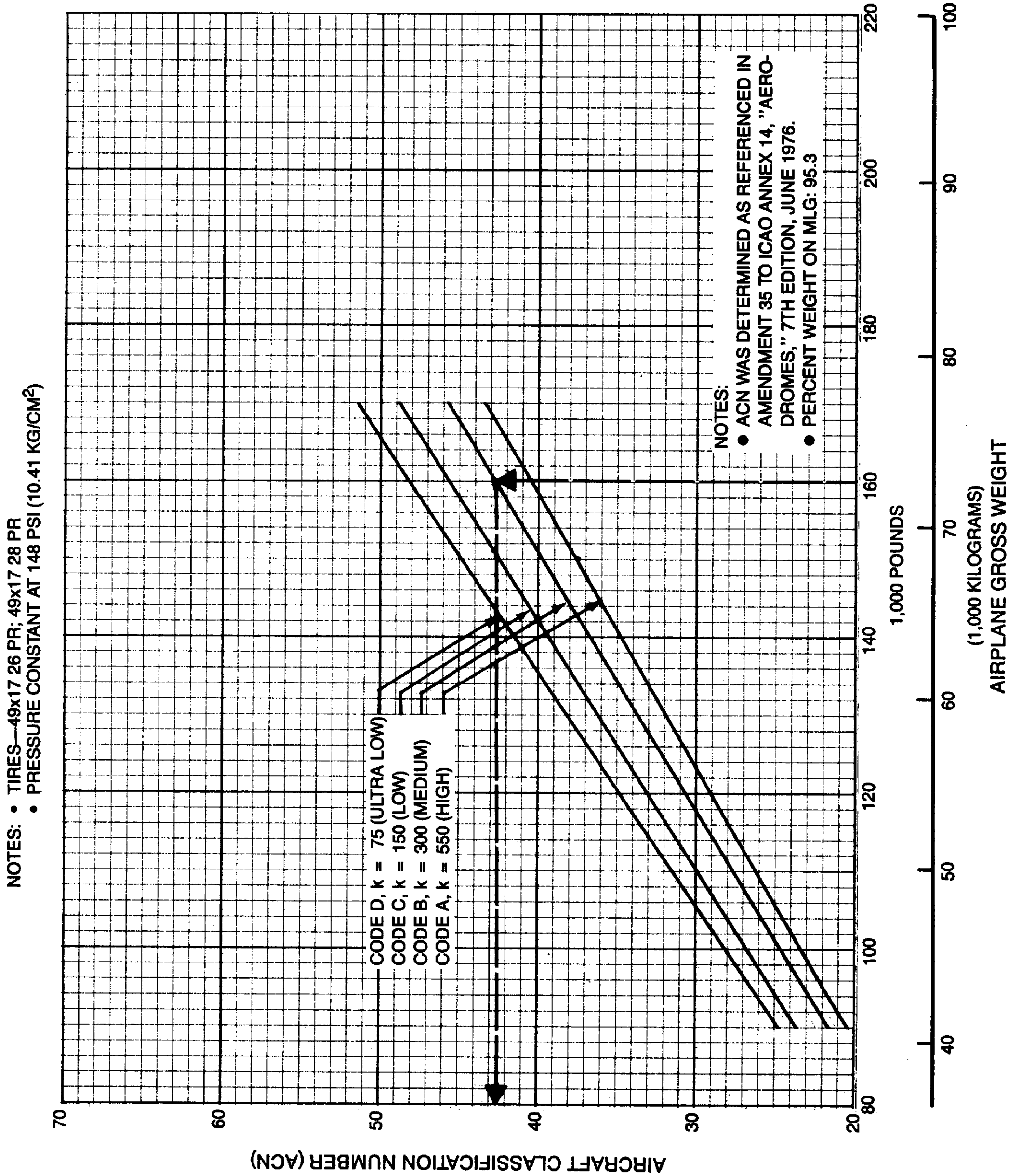
Note: An aircraft with an ACN equal to or less than the reported PCN can operate on the pavement subject to any limitations on the tire pressure. (Ref.: Amendment 35 to ICAO Annex 14 Aerodromes, 7th Edition, June 1976).



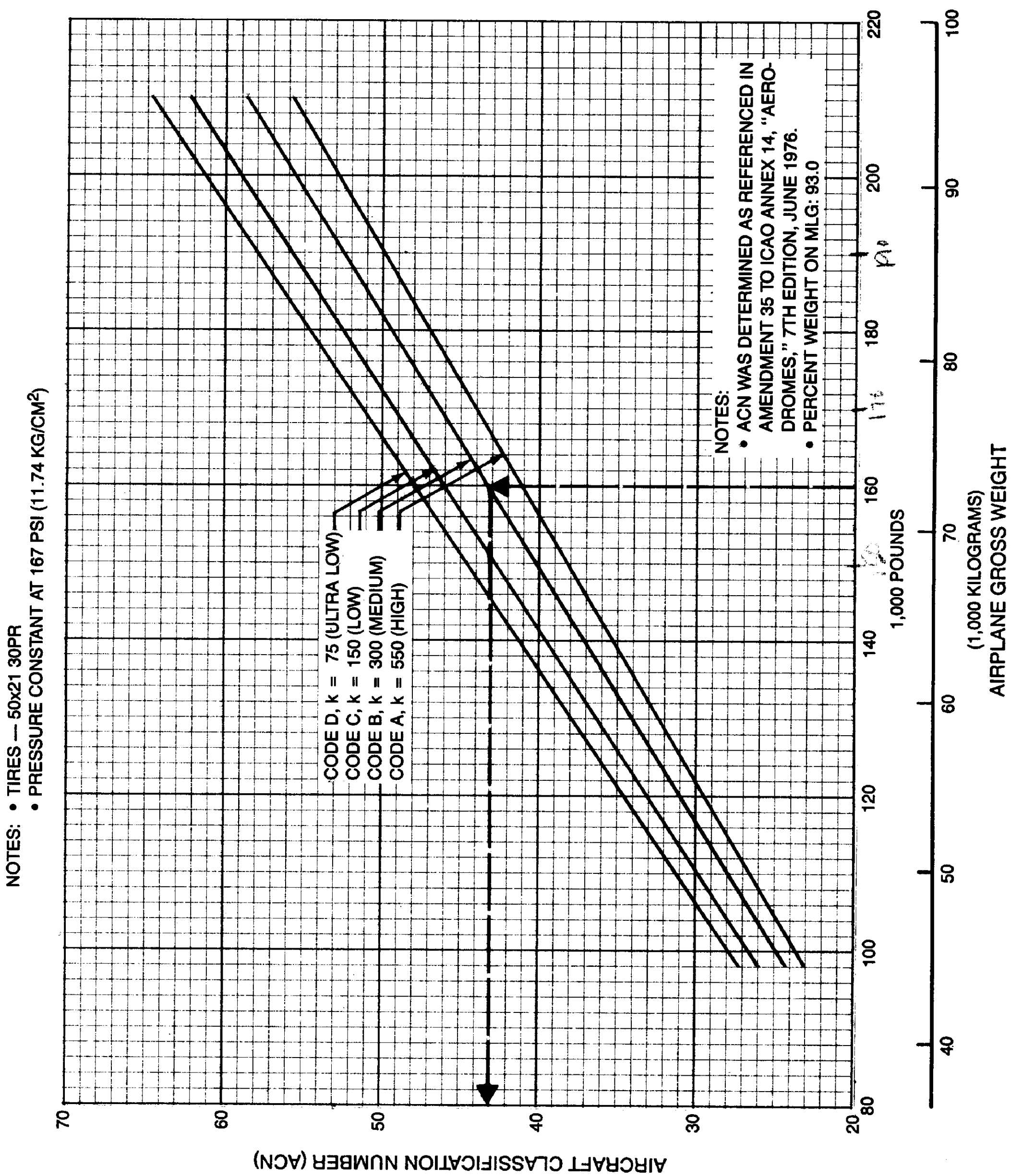
7.10.1 AIRCRAFT CLASSIFICATION NUMBER—FLEXIBLE PAVEMENT—49x17 TIRES
MODEL 727



7.10.2 AIRCRAFT CLASSIFICATION NUMBER—FLEXIBLE PAVEMENT—50x21 TIRES
MODEL 727



7.10.3 AIRCRAFT CLASSIFICATION NUMBER—RIGID PAVEMENT—49x17 TIRES
MODEL 727



7.10.4 AIRCRAFT CLASSIFICATION NUMBER—RIGID PAVEMENT—50x21 TIRES
MODEL 727

7.10.5 Development of ACN Charts

The ACN charts for flexible and rigid pavements were developed by methods referenced in Amendment 35 to ICAO Annex 14. The procedures used to develop these charts are also described below.

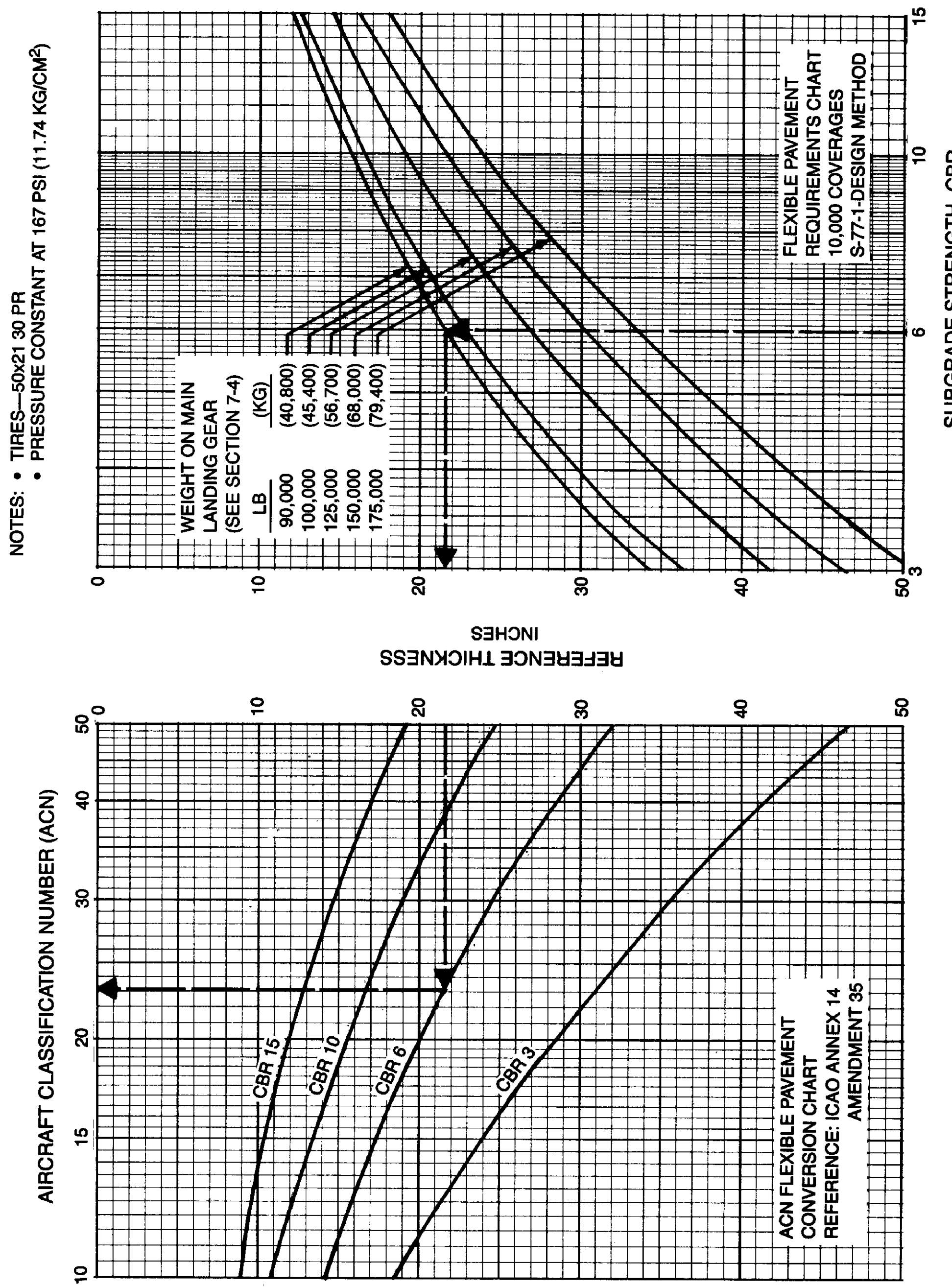
The following procedure is used to develop the flexible-pavement ACN charts:

1. Determine the percentage of weight on the main gear to be used in steps 2, 3, and 4 below. It is the maximum aft center of gravity position that yields the critical loading on the critical gear (see Section 7.4). This center of gravity position is used to determine the main-gear loads at all gross weights of the model being considered.

2. Establish a flexible-pavement requirements chart using the S-77-1 design method, such as shown on the right-hand side of the chart (7.10.6). Use standard subgrade strengths of CBR 3, 6, 10, and 15 at 10,000 coverages. This chart provides the same thickness values as those of section 7.5, but is presented here in a different format.

3. Determine reference thickness values from the pavement requirements chart of step 2 for each standard subgrade strength and gear loading.

4. Enter the reference thickness values into the ACN flexible-pavement conversion chart shown on the left-hand side of the chart to determine ACN. This chart was developed using the S-77-1 design method with a single tire inflated to 180 psi (1.25 MPa) pressure and 10,000 coverages. The ACN is two times the derived single-wheel load expressed in thousands of kilograms. These values of ACN are then plotted as a function of aircraft gross weight, as shown on 7.10.1 and 7.10.2.



7.10.6 DEVELOPMENT OF AIRCRAFT CLASSIFICATION NUMBER (ACN), FLEXIBLE PAVEMENT
MODEL 727

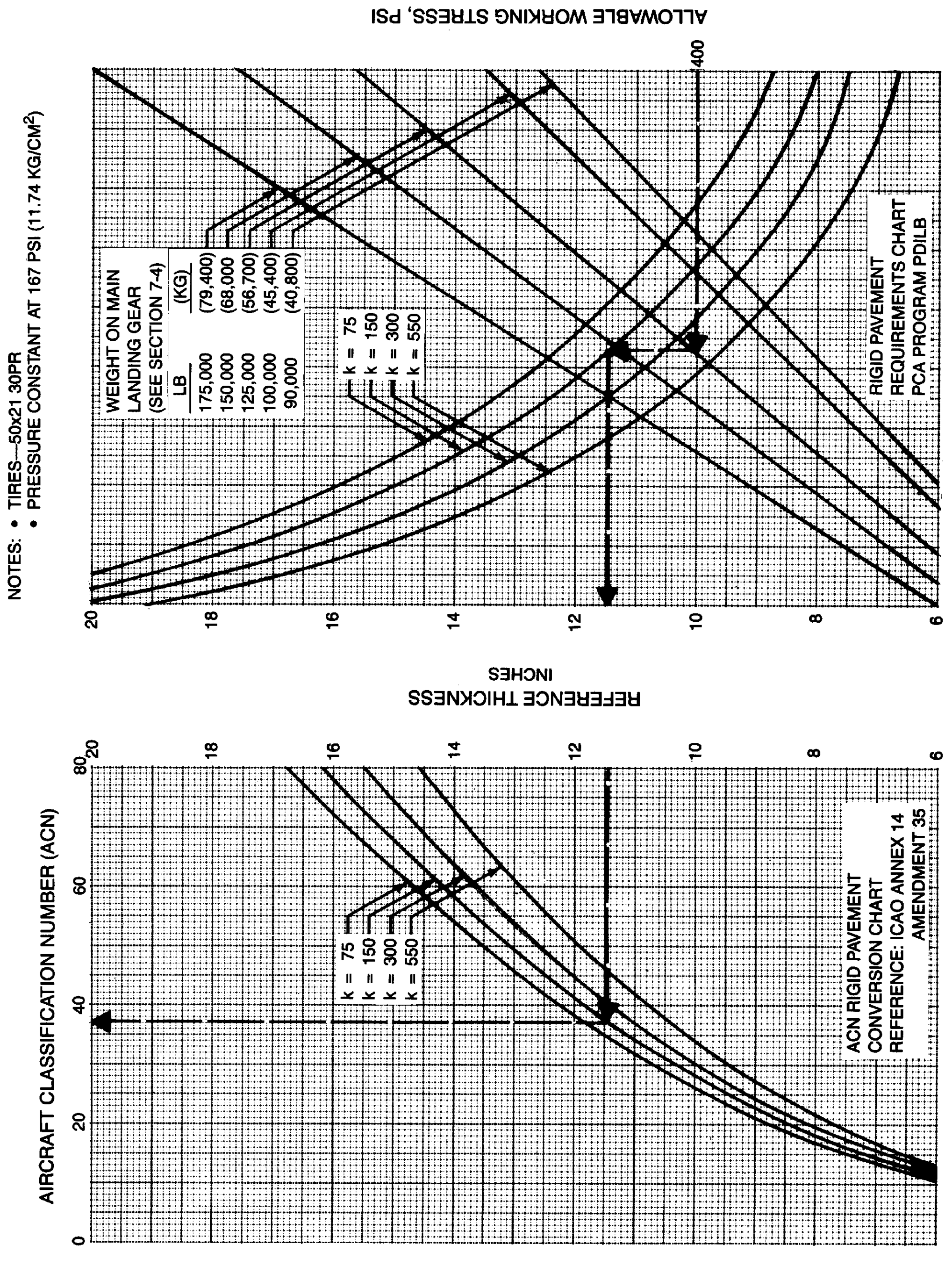
The following procedure is used to develop the rigid-pavement ACN charts:

1. Determine the percentage of weight on the main gear to be used in steps, 2, 3 and 4 below. It is the maximum aft center of gravity position that yields the critical loading on the critical gear (see Section 7.4). This center of gravity position is used to determine main-gear loads at all gross weights of the model being considered.

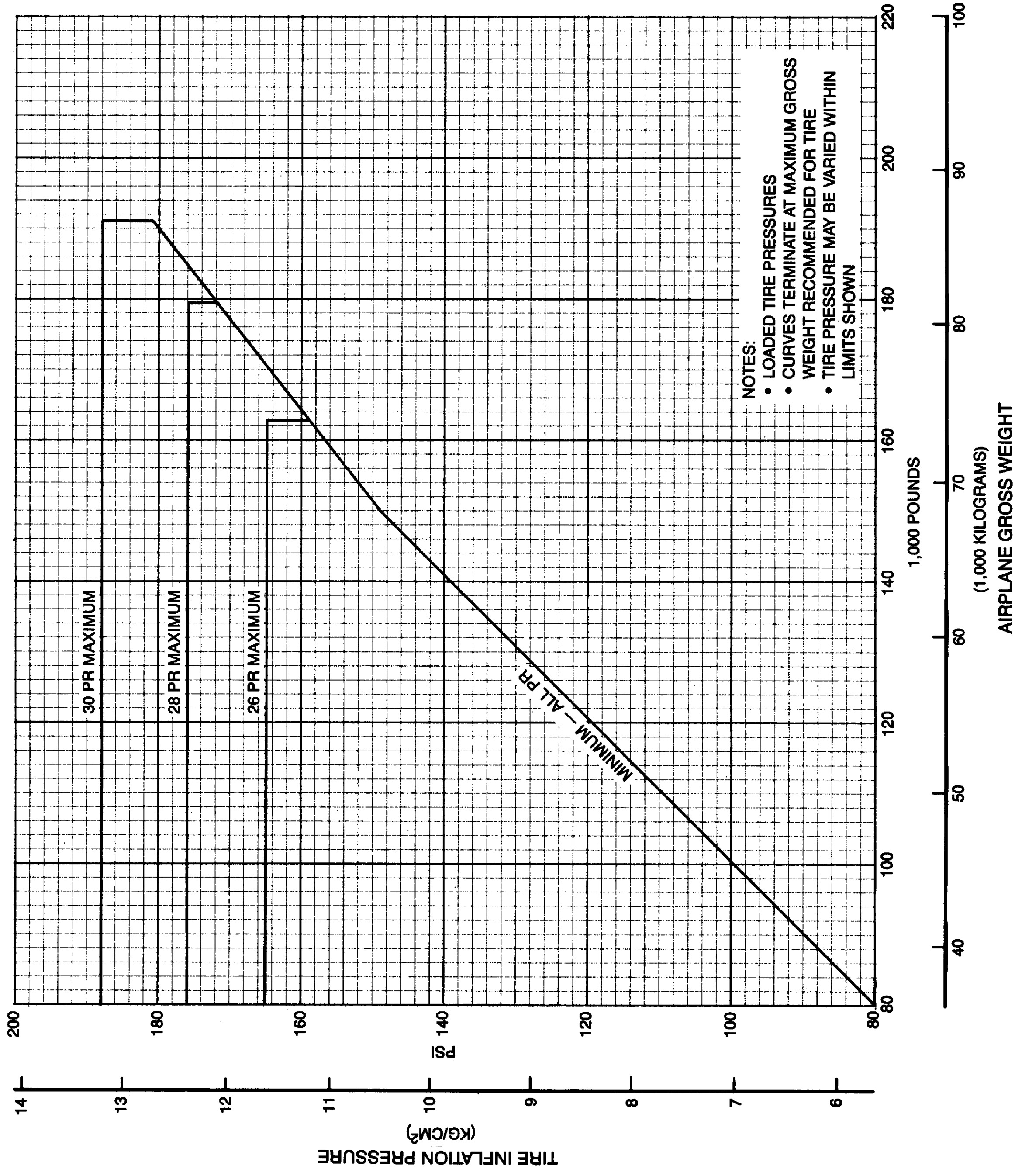
2. Establish a rigid-pavement requirements chart using the PCA computer program PDILB, such as shown on the right-hand side of the chart (7.10.7). Use standard subgrade strengths of k = 75, 150, 300, and 550 pci — nominal values for K = 20, 40, 80, and 150 MN/m^3, respectively. This chart provides the same thickness values of those in Section 7.7.

3. Determine reference thickness values from the pavement requirements chart of step 2 for each standard subgrade strength and gear loading at 400 psi working stress (nominal value for 2.75 MPa working stress).

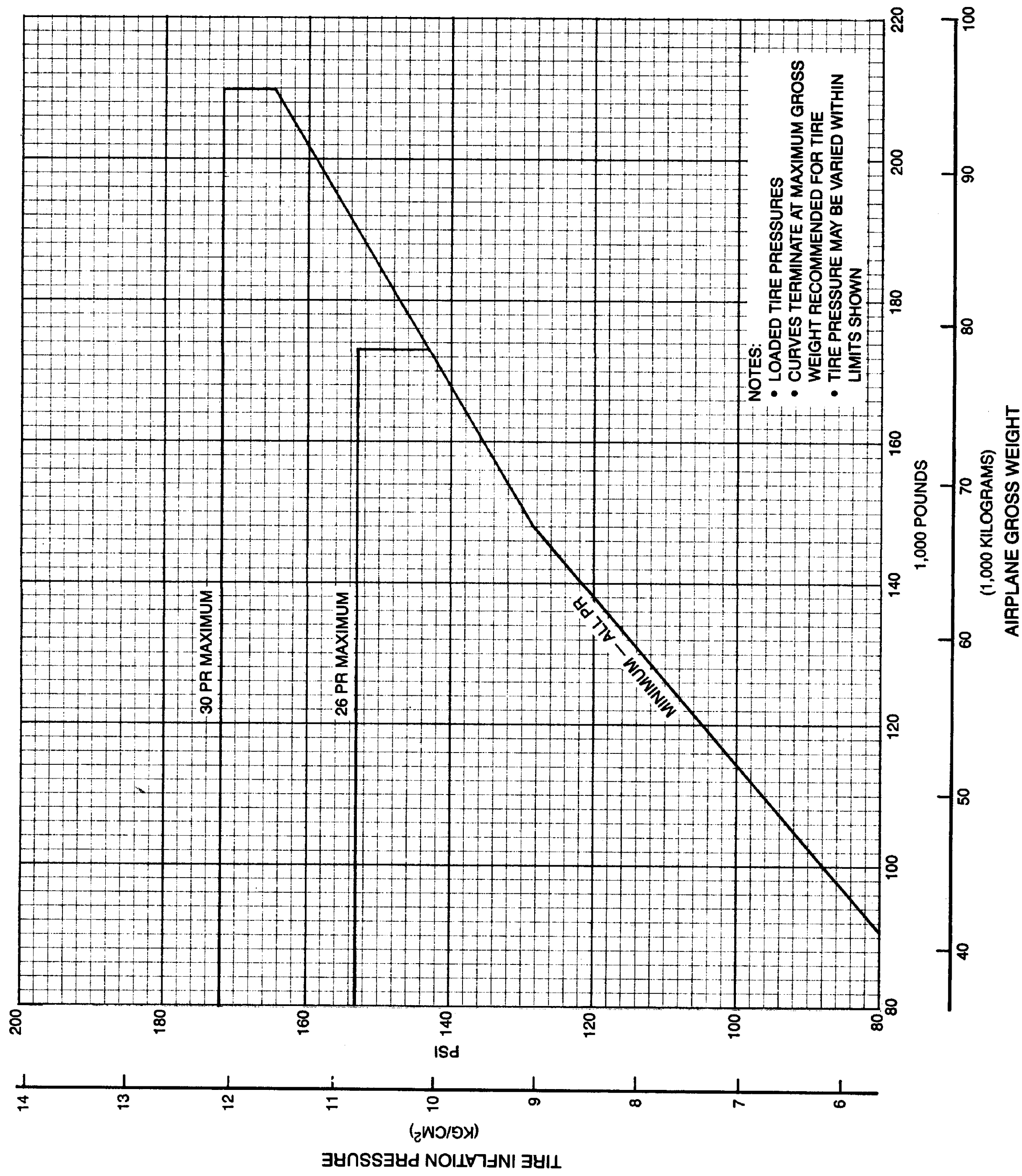
4. Enter the reference thickness values into the ACN rigid-pavement conversion chart shown on the left-hand side of the chart to determine ACN. This chart was developed using the PCA Computer program PDILB with a single tire inflated to 180 psi (1.25 MPa) pressure and a working stress of 400 psi. The ACN is two times the derived single-wheel load expressed in thousands of kilograms. These values of ACN are then plotted as a function for aircraft gross weight, as shown on 7.10.3 and 7.10.4.



7.10.7 DEVELOPMENT OF AIRCRAFT CLASSIFICATION NUMBER (ACN), RIGID PAVEMENT
MODEL 727



7.11.1 TIRE INFLATION CHART (VARIABLE PRESSURE)—49x17 TIRES
MODEL 727



7.11.2 TIRE INFLATION CHART (VARIABLE PRESSURE)—50x21 TIRES
MODEL 727

8.0 FUTURE 727 DERIVATIVE AIRPLANES

8.0 FUTURE 727 DERIVATIVE AIRPLANES

No additional versions of the 727 airplane are currently planned. However, all products are continually evaluated for possible modifications with the potential of leading to new derivative models tailored to meet specific new airline requirements.

The current 727-200 represents an increase in body length and a significant increase in maximum gross weight, meeting airline requirements that have materialized some time after introduction of the basic airplane.

9.0 SCALED 727 DRAWINGS

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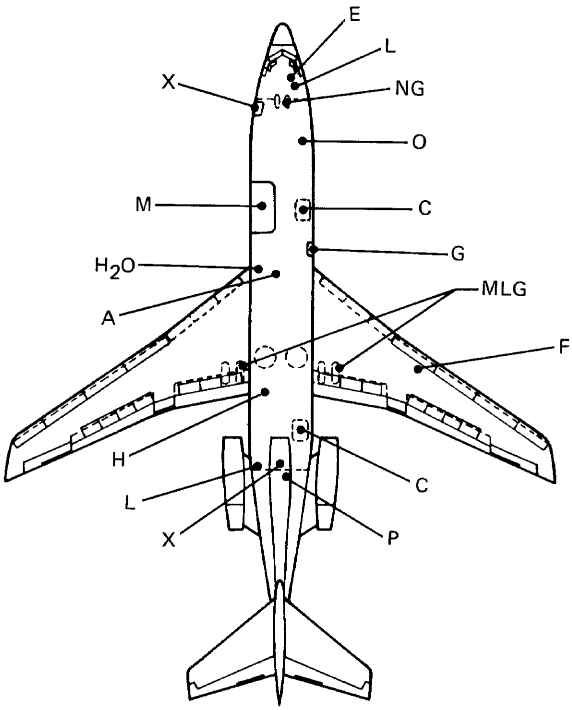

LEGEND

A	AIR CONDITIONING
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
M	MAIN-DECK CARGO DOOR (-100C)
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA SEE PAGES 57 THRU 59.

SCALED DRAWING—1 IN. = 32 FT

MODELS 727-100, -100C

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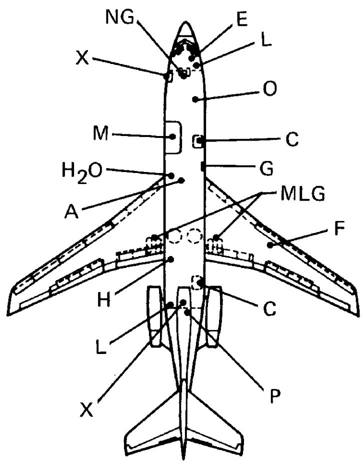

LEGEND

A	AIR CONDITIONING
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
M	MAIN-DECK CARGO DOOR (-100C)
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA
SEE PAGES 57 THRU 59.

SCALED DRAWING—1 IN. = 50 FT

MODELS 727-100, -100C

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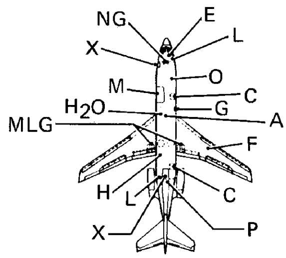

LEGEND	
A	AIR CONDITIONING
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
M	MAIN-DECK CARGO DOOR (-100C)
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA SEE PAGES 57 THRU 59.

SCALED DRAWING—1 IN. = 100 FT

MODELS 727-100, -100C

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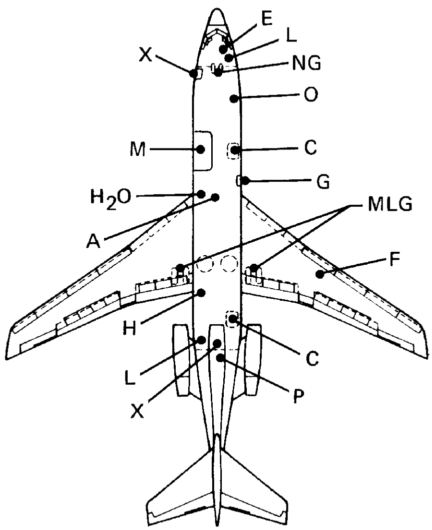

LEGEND

A	AIR CONDITIONING
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
M	MAIN-DECK CARGO DOOR (-100C)
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA SEE PAGES 57 THRU 59.

SCALED DRAWING—1 TO 500
MODELS 727-100, -100C

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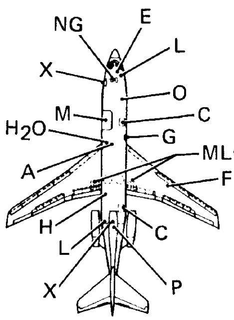

LEGEND	
A	AIR CONDITIONING
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
M	MAIN-DECK CARGO DOOR (-100C)
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA SEE PAGES 57 THRU 59.

SCALED DRAWING—1 TO 1,000
MODELS 727-100, -100C

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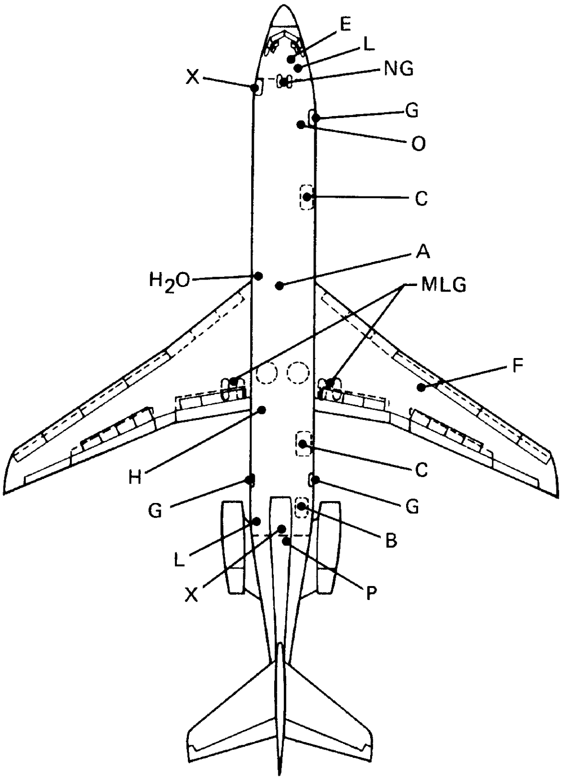

LEGEND

A	AIR CONDITIONING
B	BULK CARGO DOOR
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA SEE PAGES 57 THRU 59.

SCALED DRAWING—1 IN. = 32 FT
MODEL 727-200

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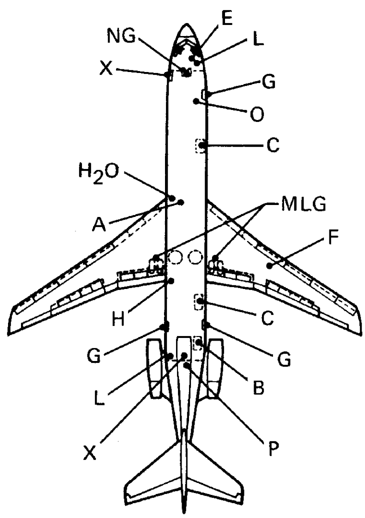

LEGEND

A	AIR CONDITIONING
B	BULK CARGO DOOR
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA SEE PAGES 57 THRU 59.

SCALED DRAWING—1 IN. = 50 FT
MODEL 727-200

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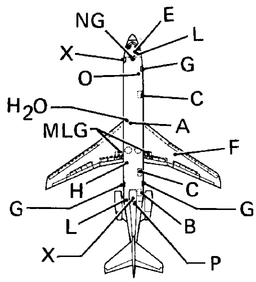

LEGEND

A	AIR CONDITIONING
B	BULK CARGO DOOR
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA SEE PAGES 57 THRU 59.

SCALED DRAWING–1 IN. = 100 FT

MODEL 727-200

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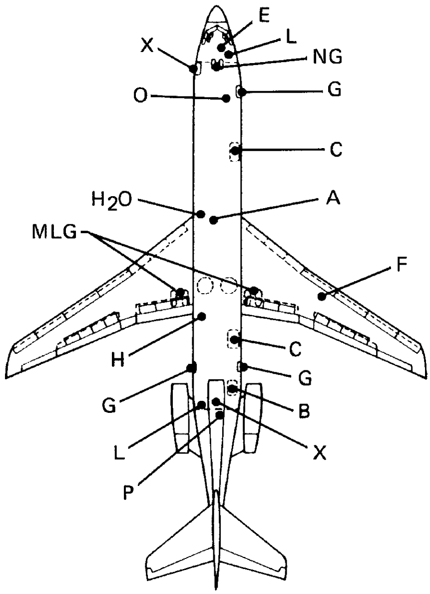

LEGEND

A	AIR CONDITIONING
B	BULK CARGO DOOR
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA SEE PAGES 57 THRU 59.

SCALED DRAWING–1 TO 500
MODEL 727-200

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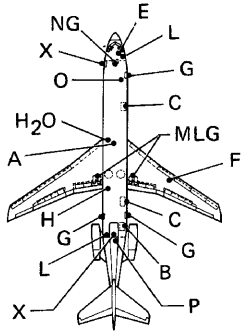

LEGEND	
A	AIR CONDITIONING
B	BULK CARGO DOOR
C	CARGO DOOR
E	ELECTRICAL
F	FUEL
G	GALLEY DOOR
H	HYDRAULIC CONNECTION
H_2O	POTABLE WATER
L	LAVATORY
MLG	MAIN LANDING GEAR
NG	NOSE GEAR
O	OXYGEN
P	PNEUMATIC (AIR START)
X	PASSENGER DOOR

NOTE: FOR TURNING RADIUS DATA SEE PAGES 57 THRU 59.

SCALED DRAWING—1 TO 1,000
MODEL 727-200

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