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1.0 SCOPE AND INTRODUCTION

1.1 Scope

1.2 Introduction

1.3 A Brief Description of the 757 Airplane
1.0 SCOPE AND INTRODUCTION

1.1 Scope

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

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

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

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

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

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

For additional information contact:

Boeing Commercial Airplanes
P.O. Box 3707
Seattle, Washington 98124-2207
USA

Attention: Manager, Airport Technology
Mail Code:20-93
1.3 A Brief Description of the 757 Airplane

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

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

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**757-200**

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

The passenger version is available in two configurations:

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

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

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

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

757-300

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

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

2.1 General Characteristics

2.2 General Dimensions

2.3 Ground Clearances

2.4 Interior Arrangements

2.5 Cabin Cross Sections

2.6 Lower Cargo Compartments

2.7 Door Clearances
2.0 AIRPLANE DESCRIPTION

2.1 General Characteristics

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

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

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

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

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

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

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

Maximum Cargo Volume. The maximum space available for cargo.

Usable Fuel. Fuel available for aircraft propulsion.
## CHARACTERISTICS

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Units</th>
<th>757-200</th>
</tr>
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<td>186 - 16 FIRST + 170 ECONOMY</td>
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<td>KILOGRAMS</td>
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**NOTES:**

- WEIGHTS SHOWN ARE FOR TYPICAL AS-DELIVERED OR AS-OFFERED CONFIGURATIONS.
- CONSULT WITH AIRLINE FOR ACTUAL WEIGHTS.
- (1) 255,500 LB (115,900 KG) FOR AIRPORT ALTITUDES BELOW 1,500 FT.
- (2) OVERWING-EXIT CONFIGURATION AIRPLANE.
- (3) FOUR-DOOR CONFIGURATION AIRPLANE.
- (4) VOLUME IS REDUCED BY 100 CU FT (3 CU M) WITH TELESCOPING BAGGAGE SYSTEM.

### 2.1.1 GENERAL CHARACTERISTICS

**MODEL 757-200 (RB211-535C, -535E4, -535E4B ENGINES)**

D6-58327

**JUNE 1999** 9
<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>UNITS</th>
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**NOTES:** WEIGHTS SHOWN ARE FOR TYPICAL AS-DELIVERED OR AS-OFFERED CONFIGURATIONS. CONSULT WITH AIRLINE FOR ACTUAL WEIGHTS.

(1) 255,500 LB (115,900 KG) FOR AIRPORT ALTITUDES BELOW 1,500 FT.
(2) OVERWING-EXIT CONFIGURATION AIRPLANE.
(3) FOUR-DOOR CONFIGURATION AIRPLANE.
(4) VOLUME IS REDUCED BY 100 CU FT (3 CU M) WITH TELESCOPING BAGGAGE SYSTEM.
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NOTES:  WEIGHTS SHOWN ARE FOR TYPICAL AS-DELIVERED OR AS-OFFERED CONFIGURATIONS. CONSULT WITH AIRLINE FOR ACTUAL WEIGHTS.

1) 255,500 LB (115,900 KG) FOR AIRPORT ALTITUDES BELOW 1,500 FEET.

2) VOLUME IS REDUCED BY 100 CU FT (3 CU M) WITH TELESCOPING BAGGAGE SYSTEM.

3) 15 UNIT LOAD DEVICES (ULD) AT 440 CU FT (12.36 CU M) EACH.
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<tr>
<th>CHARACTERISTICS</th>
<th>UNITS</th>
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NOTES:  
(1) SPEC WEIGHT FOR BASELINE CONFIGURATION OF 243 PASSENGERS. CONSULT WITH AIRLINE FOR SPECIFIC WEIGHTS AND CONFIGURATIONS.

(2) FWD CARGO = 1,070 CU FT (30.3 CU M). AFT CARGO = 1,312 CU FT (37.2 CU M).

2.1.4 GENERAL CHARACTERISTICS
MODEL 757-300

D6-58327

12 AUGUST 2002
2.2.1 GENERAL DIMENSIONS

MODEL 757-200, -200PF
2.2.2 GENERAL DIMENSIONS

MODEL 757-300

178 FT 7 IN (54.43 M)

(PW) 67 FT 10 IN (20.68 M)

(RR) 68 FT 7 IN (20.90 M)

12 FT 4 IN (3.76 M)

21 FT 3 IN (6.50 M)

177 FT 5 IN (54.08 M)

SEE SEC 2.3

19 FT 4 IN (5.89 M)

73 FT 4 IN (22.35 M)

124 FT 10 IN (38.06 M)

49 FT 11 IN (15.22 M)

(RR) 8 FT 1 IN (2.46 M)

(PW) 8 FT 10 IN (2.70 M)

24 FT (7.32 M)

SCALE 1 IN. = 40 FT

0 10 20 30 40 50

0 5 10 15

D6-58327

14 JUNE 1999
### Table 2.3.1: Ground Clearances

<table>
<thead>
<tr>
<th>MINIMUM*</th>
<th>MAXIMUM*</th>
<th>MODEL</th>
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<td>FEET - INCHES</td>
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<td>B</td>
<td>7 - 4</td>
<td>2.24</td>
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<td>C</td>
<td>12 - 5</td>
<td>3.79</td>
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<tr>
<td>D</td>
<td>8 - 1</td>
<td>2.46</td>
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<tr>
<td>E</td>
<td>12 - 7</td>
<td>3.84</td>
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<td>F</td>
<td>12 - 9</td>
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<td>H</td>
<td>8 - 6</td>
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<td>J</td>
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<td>Q</td>
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**NOTES:** VERTICAL CLEARANCES SHOWN OCCUR DURING MAXIMUM VARIATIONS OF AIRPLANE ATTITUDE. COMBINATIONS OF AIRPLANE LOADING AND UNLOADING ACTIVITIES THAT PRODUCE THE GREATEST POSSIBLE VARIATIONS IN ATTITUDE WERE USED TO ESTABLISH THE VARIATIONS SHOWN.

* NOMINAL DIMENSIONS

### 2.3.1 Ground Clearances

**Model 757-200, 200PF**

---

**Diagram:**

- Emergency exits LH and RH - Overwing Exit Airplane 1
- Emergency exits LH and RH - Four Door Airplane 2
- 757-200PF Airplane Only 3

**Optional Bulk Cargo Door**
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<td>7 - 5</td>
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<td>D</td>
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<td>19 - 1</td>
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NOTES: VERTICAL CLEARANCES SHOWN OCCUR DURING MAXIMUM VARIATIONS OF AIRPLANE ATTITUDE. COMBINATIONS OF AIRPLANE LOADING AND UNLOADING ACTIVITIES THAT PRODUCE THE GREATEST POSSIBLE VARIATIONS IN ATTITUDE WERE USED TO ESTABLISH THE VARIATIONS SHOWN.

* NOMINAL DIMENSIONS

2.3.2 GROUND CLEARANCES

MODEL 757-300

D6-58327

16 JUNE 1999
2.4.1 INTERIOR ARRANGEMENTS - OVERWING-EXIT AIRPLANE

MODEL 757-200
2.4.2 INTERIOR ARRANGEMENTS - FOUR-DOOR AIRPLANE
MODEL 757-200

D6-58327

18 JUNE 1999
2.4.3 INTERIOR ARRANGEMENTS - MAIN DECK CARGO
MODEL 757-200PF

440 CU FT (12.47 CU M) CONTAINER

ULD DATA

15 UNIT LOAD DEVICES (ULD)

LAVATORY

RIGID BARRIER

MAIN DECK CARGO DOOR (LH)
134 BY 86 IN (3.40 BY 18.0 M)

CREW ENTRY DOOR (LH)
22 BY 48 IN (0.56 BY 1.22 M)

STRAPPED PALLET
UP TO 440 CU FT

80.78 IN (2.05 M)
125 IN (3.17 M)
88 IN (2.23 M)
2.4.4 INTERIOR ARRANGEMENTS

MODEL 757-300

DUAL CLASS ARRANGEMENT - 243 SEATS
12 FIRST CLASS SEATS
231 ECONOMY CLASS SEATS

SINGLE CLASS ARRANGEMENT - 279 ECONOMY CLASS SEATS

GALLEY
LAVATORY
ATTENDANT

D6-58327

20 JUNE 1999
2.5 CABIN CROSS-SECTIONS
MODEL 757-200, -300
2.6.1 LOWER CARGO COMPARTMENTS - BULK CARGO CAPACITIES

MODEL 757-200, -300

D6-58327

22 JUNE 1999
• System available in either or both cargo compartments
• Forward cargo compartment uses a three-module system aft of the cargo door
• Aft cargo compartment uses a two-module system forward of the cargo door

<table>
<thead>
<tr>
<th>VOLUME</th>
<th>CU FT</th>
<th>ADD'L BULK</th>
<th>CU M</th>
<th>ADD'L BULK</th>
<th>TOTAL(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWD COMPARTMENT</td>
<td>420</td>
<td>220</td>
<td>11.9</td>
<td>6.2</td>
<td>11.9</td>
</tr>
<tr>
<td>AFT COMPARTMENT</td>
<td>220</td>
<td>420</td>
<td>6.2</td>
<td>11.9</td>
<td>11.9</td>
</tr>
</tbody>
</table>

Note: (1) Optional third cargo door reduces volume by 100 CU FT

2.6.2 Lower cargo compartments - optional telescoping baggage system
Model 757-200, -200PF
### Door Clearances - Passenger, Service, and Cargo Door Locations

**Model 757-200, -300**

<table>
<thead>
<tr>
<th>Door Name</th>
<th>Distance From Nose(1) - 757-200</th>
<th>Distance From Nose(1) - 757-300</th>
<th>Door Opening Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1 Passenger Door (LH)</td>
<td>16 FT 7 IN (5.05 M)</td>
<td>16 FT 7 IN (5.05 M)</td>
<td>33 BY 72 IN (0.84 BY 1.83 M)</td>
</tr>
<tr>
<td>No. 1 Service Door (RH)</td>
<td>15 FT 8 IN (4.78 M)</td>
<td>15 FT 8 IN (4.78 M)</td>
<td>30 BY 65 IN (0.76 BY 1.65 M)</td>
</tr>
<tr>
<td>No. 2 Passenger Door (LH &amp; RH)</td>
<td>45 FT 11 IN (13.99 M)</td>
<td>45 FT 11 IN (13.99 M)</td>
<td>33 BY 72 IN (0.84 BY 1.83 M)</td>
</tr>
<tr>
<td>No. 3 Exit Door (LH &amp; RH)</td>
<td>(N/A)</td>
<td>121 FT 4 IN (35.99 M)</td>
<td>24 BY 44 IN (0.61 BY 1.18 M)</td>
</tr>
<tr>
<td>No. 4 Passenger Door (LH &amp; RH)</td>
<td>125 FT 5 IN (38.23 M)</td>
<td>148 FT 9 IN (45.34 M)</td>
<td>30 BY 72 IN (0.76 BY 1.83 M)</td>
</tr>
<tr>
<td>FWD Cargo Door (RH)</td>
<td>35 FT 11 IN (10.95 M)</td>
<td>35 FT 11 IN (10.95 M)</td>
<td>55 BY 45 IN (1.40 BY 1.14 M)</td>
</tr>
<tr>
<td>AFT Cargo Door (RH)</td>
<td>104 FT 3 IN (31.78 M)</td>
<td>127 FT 7 IN (38.89 M)</td>
<td>55 BY 45 IN (1.40 BY 1.14 M)</td>
</tr>
<tr>
<td>Bulk Cargo Door (2)</td>
<td>117 FT 3 IN (35.74 M)</td>
<td>(N/A)</td>
<td>48 BY 32 IN (1.22 BY 0.81 M)</td>
</tr>
</tbody>
</table>

**Notes:**
1. Longitudinal distance from nose to center of door
2. Early production 757-200 airplanes only

---

2.7.1 Door Clearances - Passenger, Service, and Cargo Door Locations

*Model 757-200, -300*
2.7.2 DOOR CLEARANCES - MAIN DECK DOOR NO 1
MODEL 757-200, -300

D6-58327
2.7.3 DOOR CLEARANCES - MAIN DECK DOOR NO 2

MODEL 757-200, -300

36 IN (0.91 m) RADIUS

38.0 IN (0.97 m) DOOR OPENING TO EXTREMEITY

22.2 IN (0.56 m) DOOR THRESHOLD TO OUTER LIMIT

3 IN (0.08 m)

3 IN (0.08 m)

CENTERLINE OF HINGE AND TORQUE TUBE

BODY CONTOUR AT MAX HALF BREADTH

DOOR CLOSED

INBD

FWD

SECTION A-A

DOOR SIZE 33 BY 72 IN (0.84 BY 1.83 M)

INTERMEDIATE POSITION

BODY CENTERLINE

CENTERLINE OF BODY TORQUE TUBE

CENTERLINE OF LOWER HINGE

83.0°

FLOOR

36.4 IN (0.93 m) DOOR THRESHOLD TO DOOR EXTREMEITY

72 IN (1.83 m)

70.9 IN (1.8 m)

VIEW LOOKING FORWARD AT NO 2 PASSENGER DOOR (LH)

D6-58327
2.7.4 DOOR CLEARANCES - MAIN DECK DOOR NO 4
MODEL 757-200, -300
2.7.5 DOOR CLEARANCES - CARGO DOORS
MODEL 757-200, 300

<table>
<thead>
<tr>
<th></th>
<th>W WIDTH</th>
<th>H HEIGHT</th>
<th>A VERTICAL</th>
<th>B LATERAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWD CARGO DOOR</td>
<td>55.0 IN</td>
<td>42.5 IN</td>
<td>57.0 IN</td>
<td>111.1 IN</td>
</tr>
<tr>
<td></td>
<td>(1.40 M)</td>
<td>(1.08 M)</td>
<td>(1.45 M)</td>
<td>(2.82 M)</td>
</tr>
<tr>
<td>AFT CARGO DOOR</td>
<td>55.0 IN</td>
<td>45.0 IN</td>
<td>61.0 IN</td>
<td>111.3 IN</td>
</tr>
<tr>
<td></td>
<td>(1.40 M)</td>
<td>(1.14 M)</td>
<td>(1.55 M)</td>
<td>(2.83 M)</td>
</tr>
</tbody>
</table>
2.7.6 DOOR CLEARANCES - MAIN DECK DOORS

MODEL 757-200PF
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3.0 AIRPLANE PERFORMANCE

3.1 General Information

3.2 Payload/Range for Long-Range Cruise

3.3 F.A.R. and J.A.R. Takeoff Runway Length Requirements

3.4 F.A.R. Landing Runway Length Requirements
3.0 AIRPLANE PERFORMANCE

3.1 General Information

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

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

<table>
<thead>
<tr>
<th>PRESSURE ALTITUDE</th>
<th>STANDARD DAY TEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEET</td>
<td>METERS</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2,000</td>
<td>609</td>
</tr>
<tr>
<td>4,000</td>
<td>1,219</td>
</tr>
<tr>
<td>6,000</td>
<td>1,828</td>
</tr>
<tr>
<td>8,000</td>
<td>2,438</td>
</tr>
</tbody>
</table>

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

The graphs in Section 3.4 provides information on landing runway length requirements for different airplane weights and airport altitudes. The maximum landing weights shown are the heaviest for the particular airplane model.
3.2.1. PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL 757-200 (RB211-535C ENGINES)

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

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JUNE 1999  33
3.2.2. PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL 757-200 (RB211-53E4, -535E4B ENGINES)

NOTES:
* 0.80 MACH AT 35,000 AND 39,000 FT (10,668 AND 11,887 M)
* ATA DOMESTIC RESERVES
* STANDARD DAY
* NOMINAL PERFORMANCE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
3.2.3. PAYLOAD/RANGE FOR LONG-RANGE CRUISE
MODEL 757-200, -200PF (PW2037, PW2040 ENGINES)

D6-58327
3.2.4. PAYLOAD/RANGE FOR 0.80 MACH CRUISE

MODEL 757-300 (RB211-535E4, -535E4B ENGINES)

NOTES:
* 31–35–39,000 FT STEP CRUISE
* CRUISE MACH = 0.80
* STANDARD DAY
* 200 NMI ALTERNATE
* TYPICAL MISSION RESERVES
* NOMINAL PERFORMANCE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN

MAX ZERO FUEL WEIGHT
210,000 LB (95,250 KG)

GROSS WEIGHT (LB) (1,000)
270 (122.5)
260 (118.5)
250 (113.4)
240 (108.9)
230 (104.3)
220 (100.0)
210 (95.5)
200 (91.7)
190 (88.7)
180 (86.2)
170 (83.8)
160 (81.1)

U.S. GALLONS (1)
11,480 (43,480)

D6-58327
3.2.5. PAYLOAD/RANGE FOR 0.80 MACH CRUISE
MODEL 757-300 (PW2040, PW2043 ENGINES)

NOTES:
* 31–35–39,000 FT STEP CRUISE
* CRUISE MACH = 0.80
* STANDARD DAY
* 200 NMI ALTERNATE
* TYPICAL MISSION RESERVES
* NOMINAL PERFORMANCE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
PROCEDURE PRIOR TO FACILITY DESIGN

D6-58327

AUGUST 2002  37
3.3.1 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY

MODEL 757-200 (RB211-535C ENGINES)

NOTES:
- RB211-535C ENGINES
- NO ENGINE AIRBLEED FOR AIR CONDITIONING
- ZERO WIND, ZERO RUNWAY GRADIENT
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
- LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
- NOMINAL PERFORMANCE
3.3.2 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS -  
STANDARD DAY +25°F (STD + 14°C) 

MODEL 757-200 (RB211-535C ENGINES)
3.3.3 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY

MODEL 757-200 (RB211-535E4 ENGINES)

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

---

D6-58327
3.3.4 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS -
STANDARD DAY +25°F (STD + 14°C)
MODEL 757-200 (RB211-535E4 ENGINES)

D6-58327
3.3.5 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY
MODEL 757-200 (RB211-535E4B ENGINES)

NOTES:
* RB211-535E4B ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* NOMINAL PERFORMANCE
3.3.6 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS -
STANDARD DAY +25°F (STD + 14°C)
MODEL 757-200 (RB211-535E4B ENGINES)

NOTES:
* RB211-535E4B ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* NOMINAL PERFORMANCE
3.3.7 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY

MODEL 757-200 (PW2037 ENGINES)

NOTES:
* PW2037 ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* NOMINAL PERFORMANCE

3.3.7 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY
MODEL 757-200 (PW2037 ENGINES)

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3.3.8 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS -
STANDARD DAY +25°F (STD + 14°C)
MODEL 757-200 (PW2037 ENGINES)
3.3.9 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY
MODEL 757-200 (PW2040 ENGINES)

3.3.9 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY
MODEL 757-200 (PW2040 ENGINES)

NOTES:
* PW2040 ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* NOMINAL PERFORMANCE
3.3.10 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS -
STANDARD DAY +25°F (STD + 14°C)

Model 757-200 (PW2040 ENGINES)

Notes:
- PW2040 ENGINES
- NO ENGINE AIRBLEED FOR AIR CONDITIONING
- ZERO WIND, ZERO RUNWAY GRADIENT
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
- LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
- LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
- NOMINAL PERFORMANCE

D6-58327
JUNE 1999
3.3.11 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY

MODEL 757-300 (RB211-535E4 ENGINES)

NOTES:
* RB211-535E4 ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* DRY RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
3.3.12 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

STANDARD DAY +25°F (STD + 14°C)

MODEL 757-200 (RB211-535E4 ENGINES)

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

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JUNE 1999  49
3.3.13 J.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY - WET RUNWAY
MODEL 757-300 (RB211-535E4 ENGINES)

NOTES:
* RB211-535E4 ENGINES
* NO ENGINE AIR BLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* WET SMOOTH RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* TAKEOFF PERFORMANCE IMPROVEMENTS ARE POSSIBLE USING GROOVED RUNWAY

3.3.13 J.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY - WET RUNWAY
MODEL 757-300 (RB211-535E4 ENGINES)
3.3.14 J.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

STANDARD DAY +25°F (STD + 14°C) - WET RUNWAY

MODEL 757-300 (RB211-535E4 ENGINES)

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AUGUST 2002  51
3.3.15 F.A.R TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY

MODEL 757-300 (RB211-535E4B ENGINES)

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

D6-58327
3.3.16 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

STANDARD DAY +25°F (STD + 14°C)

MODEL 757-300 (RB211-535E4B ENGINES)

NOTES:
- RB211-535E4B ENGINES
- NO ENGINE AIRBLEED FOR AIR CONDITIONING
- ZERO WIND, ZERO RUNWAY GRADIENT
- DRY RUNWAY SURFACE
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
- LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
3.3.17 J.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY - WET RUNWAY
MODEL 757-300 (RB211-535E4B ENGINES)
3.3.18 J.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

STANDARD DAY +25°F (STD + 14°C) - WET RUNWAY

MODEL 757-300 (RB211-535E4B ENGINES)

D6-58327

AUGUST 2002  55
3.3.19 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY

MODEL 757-300 (PW2040 ENGINES)

NOTES:
* PW2040 ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADIENT
* DRY RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID

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AUGUST 2002
3.3.20 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

STANDARD DAY +28ºF (STD + 16ºC)

MODEL 757-300 (PW2040 ENGINES)

NOTES:
* PW2040 ENGINES
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADE
* DRY RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID

---

3.3.20 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

STANDARD DAY +28ºF (STD + 16ºC)

MODEL 757-300 (PW2040 ENGINES)

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AUGUST 2002  57
3.3.21 J.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY - WET RUNWAY

MODEL 757-300 (PW2040 ENGINES)

D6-58327

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

STANDARD DAY
225 MPH
TIRE SPEED LIMIT
3.3.22 J.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

STANDARD DAY +28°F (STD + 16°C) - WET RUNWAY

MODEL 757-300 (PW2040 ENGINES)

NOTES:
* NO ENGINE AIRBLEED FOR AIR CONDITIONING
* ZERO WIND, ZERO RUNWAY GRADE
* WET SMOOTH RUNWAY SURFACE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
* LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID
* TAKEOFF PERFORMANCE IMPROVEMENTS ARE POSSIBLE USING GROOVED RUNWAY
3.3.23 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY
MODEL 757-300 (PW2043 ENGINES)

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

STANDARD DAY +28°F (STD + 16°C)

MODEL 757-300 (PW2043 ENGINES)

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

225 MPH
TIRE SPEED LIMIT

MAX BRAKE
ENERGY LIMIT

FLAP 15

FLAP 30

AIRPORT ELEVATION
FEET (METERS)

8,000 (2,439)

6,000 (1,829)

4,000 (1,219)

2,000 (609.6)

SEA LEVEL

1,000,000 POUNDS
(1,000 KILOGRAMS)

OPERATIONAL TAKEOFF WEIGHT

80  85  90  95  100  105  110  115  120

1,000 FEET
(1,000 METERS)

3.3.24 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS
3.3.25 J.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY - WET RUNWAY

MODEL 757-300 (PW2043 ENGINES)

D6-58327

AUGUST 2002
3.3.26 J.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

STANDARD DAY +28°F (STD + 16°C) - WET RUNWAY

MODEL 757-300 (PW2043 ENGINES)

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

\[ \text{STD DAY + 28°F} \]
\[ \text{(STD + 16°C)} \]

\[ \text{TIRE SPEED LIMIT} \]
\[ 225 \text{ MPH} \]

\[ \text{FLAP 15} \]

\[ \text{FLAP 30} \]

\[ \text{SEA LEVEL} \]
\[ 2,000 \text{ (609.6)} \]

\[ 4,000 \text{ (1,219)} \]

\[ 6,000 \text{ (1,829)} \]

\[ 8,000 \text{ (2,438)} \]

\[ \text{ELEVATION (METERS)} \]

\[ \text{F.A.R. TAKEOFF FIELD LENGTH} \]
\[ (1,000 \text{ METERS}) \]

\[ \text{1,000 FEET} \]

\[ \text{1,000 POUNDS} \]

\[ (1,000 \text{ KILOGRAMS}) \]

\[ \text{OPERATIONAL TAKEOFF WEIGHT} \]
3.4.1 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS
MODEL 757-200 (RB211-535C, -535E4, -535E4B ENGINES)

NOTES:
* STANDARD DAY
* AUTO SPOILERS OPERATIVE
* ANTI-SKID OPERATIVE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
* ZERO WIND

FLAPS 30

MAX LANDING WEIGHT
(RB211-535E4, -535E4B)

MAX LANDING WEIGHT
(RB211-535C)

AIRPORT ELEVATION
FEET (METERS)
8,000 (2,438)
6,000 (1,829)
4,000 (1,219)
2,000 (609.6)
SEA LEVEL

LEGEND:
DRY RUNWAY
WET RUNWAY

F.A.R. LANDING RUNWAY LENGTH
(1,000 METERS)

1,000 FEET

8
7
6
5
4
3
1.5
1.0
0.5

100
200
300
400
500
600
700
800
900
1,000 POUNDS

OPERATIONAL LANDING WEIGHT

(1,000 KILOGRAMS)

155 160 165 170 175 180 185 190 195 200 205 210

D6-58327
3.4.2 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS
MODEL 757-200, -200PF (PW2037, PW2040 ENGINES)

NOTES:
* STANDARD DAY
* AUTO SPOILERS OPERATIVE
* ANTI-SKID OPERATIVE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
* ZERO WIND

FLAPS 30

AIRPORT ELEVATION
FEET (METERS)
8,000 (2,438)
6,000 (1,829)
4,000 (1,219)

SEA LEVEL

LEGEND:
DRY RUNWAY
WET RUNWAY

1,000 POUNDS
OPERATIONAL LANDING WEIGHT

(1,000 KILOGRAMS)

155 160 165 170 175 180 185 190 195 200 205 210

1.5
1.0
0.5

1,000 FEET

FLAPS 30
3.4.3 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS
MODEL 757-300 (RB211-535E4, -535E4B ENGINES)

NOTES:
* STANDARD DAY
* AUTO SPOILERS OPERATIVE
* ANTI-SKID OPERATIVE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING
  PROCEDURE PRIOR TO FACILITY DESIGN
* ZERO WIND
3.4.4 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS
MODEL 757-300 (PW2040, PW2043 ENGINES)

NOTES:
* STANDARD DAY
* AUTO SPOILERS OPERATIVE
* ANTI-SKID OPERATIVE
* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
* ZERO WIND

FLAPS 30

MAX LANDING WEIGHT

AIRPORT ELEVATION (METERS)
8,000 (2,438)
6,000 (1,829)
4,000 (1,219)
2,000 (609.6)

SEA LEVEL

1,000 FEET

170 175 180 185 190 195 200 205 210 215 220 225
1,000 POUNDS

(1,000 KILOGRAMS)

OPERATIONAL LANDING WEIGHT

D6-58327
AUGUST 2002  67
4.0 GROUND MANEUVERING

4.1 General Information
4.2 Turning Radii
4.3 Clearance Radii
4.4 Visibility From Cockpit in Static Position
4.5 Runway and Taxiway Turn Paths
4.6 Runway Holding Bay
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, provide for a normal allowance for tire slippage. As such, they reflect the turning capability of the aircraft in favorable operating circumstances. These data should be used only as guidelines for the method of determination of such parameters and for the maneuvering characteristics of this aircraft.

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

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

Section 4.3 provides data on minimum width of pavement required for 180° turn.

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

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

Section 4.6 illustrates a typical runway holding bay configuration for the 757-300.
### Turning Radii - No Slip Angle

**Model 757-200**

<table>
<thead>
<tr>
<th>Steering Angle (Deg)</th>
<th>R1 Inner Gear (FT)</th>
<th>R1 Inner Gear (M)</th>
<th>R2 Outer Gear (FT)</th>
<th>R2 Outer Gear (M)</th>
<th>R3 Nose Gear (FT)</th>
<th>R3 Nose Gear (M)</th>
<th>R4 Wing Tip (FT)</th>
<th>R4 Wing Tip (M)</th>
<th>R5 Nose (FT)</th>
<th>R5 Nose (M)</th>
<th>R6 Tail (FT)</th>
<th>R6 Tail (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>90</td>
<td>27.4</td>
<td>118</td>
<td>35.9</td>
<td>122</td>
<td>37.0</td>
<td>167</td>
<td>50.9</td>
<td>131</td>
<td>39.9</td>
<td>149</td>
<td>45.3</td>
</tr>
<tr>
<td>35</td>
<td>72</td>
<td>21.9</td>
<td>100</td>
<td>30.4</td>
<td>106</td>
<td>32.3</td>
<td>149</td>
<td>45.4</td>
<td>117</td>
<td>35.6</td>
<td>133</td>
<td>40.6</td>
</tr>
<tr>
<td>40</td>
<td>58</td>
<td>17.5</td>
<td>86</td>
<td>26.1</td>
<td>95</td>
<td>28.9</td>
<td>135</td>
<td>41.1</td>
<td>107</td>
<td>32.6</td>
<td>121</td>
<td>37.0</td>
</tr>
<tr>
<td>45</td>
<td>46</td>
<td>14.0</td>
<td>74</td>
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<td>86</td>
<td>26.3</td>
<td>124</td>
<td>37.6</td>
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<td>30.3</td>
<td>112</td>
<td>34.3</td>
</tr>
<tr>
<td>50</td>
<td>36</td>
<td>11.1</td>
<td>64</td>
<td>19.6</td>
<td>80</td>
<td>24.4</td>
<td>114</td>
<td>34.7</td>
<td>94</td>
<td>28.6</td>
<td>105</td>
<td>32.1</td>
</tr>
<tr>
<td>55</td>
<td>28</td>
<td>8.5</td>
<td>56</td>
<td>17.1</td>
<td>75</td>
<td>22.8</td>
<td>106</td>
<td>32.2</td>
<td>90</td>
<td>27.3</td>
<td>100</td>
<td>30.4</td>
</tr>
<tr>
<td>60</td>
<td>21</td>
<td>6.3</td>
<td>49</td>
<td>14.8</td>
<td>71</td>
<td>21.6</td>
<td>98</td>
<td>30.0</td>
<td>87</td>
<td>26.4</td>
<td>95</td>
<td>28.9</td>
</tr>
<tr>
<td>65 (Max)</td>
<td>14</td>
<td>4.3</td>
<td>42</td>
<td>12.8</td>
<td>68</td>
<td>20.6</td>
<td>92</td>
<td>28.0</td>
<td>84</td>
<td>25.6</td>
<td>91</td>
<td>27.6</td>
</tr>
</tbody>
</table>

NOTES:

* Actual operating turning radii may be greater than shown.
* Consult with airline for specific operating procedure.
* Dimensions rounded to nearest foot and 0.1 meter.
### 4.2.2 TURNING RADIi - NO SLIP ANGLE

**MODEL 757-300**

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

**NOTES:**
- Actual operating turning radii may be greater than shown.
- Consult with airline for specific operating procedure.
- Dimensions rounded to nearest foot and 0.1 meter.
4.3 CLEARANCE RADII

MODEL 757-200,-300

<table>
<thead>
<tr>
<th>MODEL</th>
<th>EFF STEERING ANGLE-DEG</th>
<th>X</th>
<th>Y</th>
<th>A</th>
<th>R3</th>
<th>R4</th>
<th>R5</th>
<th>R6</th>
</tr>
</thead>
<tbody>
<tr>
<td>757-200</td>
<td></td>
<td>60</td>
<td>60</td>
<td>18.3</td>
<td>35</td>
<td>10.5</td>
<td>120</td>
<td>36.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60</td>
<td>60</td>
<td>18.3</td>
<td>35</td>
<td>10.5</td>
<td>120</td>
<td>36.4</td>
</tr>
<tr>
<td>757-300</td>
<td></td>
<td>60</td>
<td>73</td>
<td>22.3</td>
<td>42</td>
<td>12.9</td>
<td>141</td>
<td>43.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60</td>
<td>73</td>
<td>22.3</td>
<td>42</td>
<td>12.9</td>
<td>141</td>
<td>43.0</td>
</tr>
</tbody>
</table>

NOTES:
- 5° TIRE SLIP ANGLE APPROXIMATE FOR 65° STEERING ANGLE.
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE
- DIMENSIONS ROUNDED TO NEAREST FOOT AND 0.10 METER.
4.4 VISIBILITY FROM COCKPIT IN STATIC POSITION

MODEL 757-200, -300

D6-58327
NOTE:
BEFORE DETERMINING THE SIZE OF THE INTERSECTION FILLET, CHECK WITH THE AIRLINES REGARDING THE OPERATING PROCEDURES THAT THEY USE AND THE AIRCRAFT TYPES THAT ARE EXPECTED TO SERVE THE AIRPORT.

4.5.1 RUNWAY AND TAXIWAY TURNPATHS - 90° TURN - RUNWAY-TO-TAXIWAY

MODEL 757-300

D6-58327

JUNE 1999  75
NOTE:
BEFORE DETERMINING THE SIZE OF THE INTERSECTION FILLET, CHECK WITH THE AIRLINES REGARDING THE OPERATING PROCEDURES THAT THEY USE AND THE AIRCRAFT TYPES THAT ARE EXPECTED TO SERVE THE AIRPORT.

4.5.2 RUNWAY AND TAXIWAY TURNPATHS - MORE THAN 90° TURN - RUNWAY-TO-TAXIWAY
MODEL 757-300

150 FT (46 M)
APPROX 15 FT (4.5 M)
MODIFIED FILLET AS REQUIRED
75 FT (23 M)
APPROX PATH OF OUTSIDE EDGE OF MAIN GEAR TIRES

NOSE GEAR FOLLOWING CENTER LINE OF TURN
NOTE:
BEFORE DETERMINING THE SIZE OF THE INTERSECTION FILLET, CHECK WITH THE AIRLINES REGARDING THE OPERATING PROCEDURES THAT THEY USE AND THE AIRCRAFT TYPES THAT ARE EXPECTED TO SERVE THE AIRPORT.

4.5.3 RUNWAY AND TAXIWAY TURNPATHS - TAXIWAY-TO-TAXIWAY, 90 DEGREES, NOSE GEAR TRACKS CENTERLINE
MODEL 757-300

D6-58327
NOTE:
BEFORE DETERMINING THE SIZE OF THE INTERSECTION FILLET, CHECK WITH THE AIRLINES REGARDING THE OPERATING PROCEDURES THAT THEY USE AND THE AIRCRAFT TYPES THAT ARE EXPECTED TO SERVE THE AIRPORT.

150 FT (45 M) R
85 FT (26 M) R
MODIFIED FILLET AS REQUIRED
APPROX PATH OF OUTSIDE EDGE OF MAIN GEAR TIRES

COCKPIT FOLLOWING CENTER LINE OF TURN

4.5.4 RUNWAY AND TAXIWAY TURNPATHS - TAXIWAY-TO-TAXIWAY, 90 DEGREES, COCKPIT TRACKS CENTERLINE
MODEL 757-300

D6-58327
4.6 RUNWAY HOLDING BAY

MODEL 757-300

NOTE

BEFORE DETERMINING THE SIZE OF THE INTERSECTION FILLET, CHECK WITH THE AIRLINES REGARDING THE OPERATING PROCEDURES THAT THEY USE AND THE AIRCRAFT TYPES THAT ARE EXPECTED TO SERVE THE AIRPORT.
5.0 TERMINAL SERVICING

5.1 Airplane Servicing Arrangement - Typical Turnaround
5.2 Terminal Operations - Turnaround Station
5.3 Terminal Operations - En Route Station
5.4 Ground Servicing Connections
5.5 Engine Starting Pneumatic Requirements
5.6 Ground Pneumatic Power Requirements
5.7 Conditioned Air Requirements
5.8 Ground Towing Requirements
5.0 TERMINAL SERVICING

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

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

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

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

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

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

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

Section 5.8 shows ground towing requirements for various ground surface conditions.
5.1.1. AIRPLANE SERVICING ARRANGEMENT - TYPICAL TURNAROUND

MODEL 757-200

D6-58327

JUNE 1999
5.1.2. AIRPLANE SERVICING ARRANGEMENT - TYPICAL TURNAROUND

MODEL 757-200PF

NOTE: IF THE APU IS USED, ELECTRICAL, PNEUMATIC AND AIR CONDITIONING TRUCKS ARE NOT REQUIRED

SCALE

FEET  METERS
0  2  4  6  8  10  12
0  10  20  30  40

D6-58327
5.1.3. AIRPLANE SERVICING ARRANGEMENT - TYPICAL TURNAROUND

MODEL 757-300

D6-58327

JUNE 1999  85

NOTE: IF THE APU IS USED, ELECTRICAL PNEUMATIC AND AIR CONDITIONING TRUCKS ARE NOT REQUIRED.
### 5.2.1 TERMINAL OPERATIONS - TURNAROUND STATION

#### MODEL 757-200

<table>
<thead>
<tr>
<th>Time (Minutes)</th>
<th>Position/Remove Equipment</th>
</tr>
</thead>
</table>

#### PASSENGER SERVICES

- **POSITION PASSENGER BRIDGES OR STAIRS**
  - 1.0

- **DEPLANED PASSENGERS**
  - 10.0

- **SERVICE CABIN**
  - 10.0

- **SERVICE GALLEYS**
  - 20.0

- **BOARD PASSENGERS**
  - 21.0

- **REMOVE PASSENGER BRIDGES**
  - 1.0

#### BAGGAGE/CARGO HANDLING

- **FORWARD CARGO COMPARTMENT**
  - 13.0

- **AFT CARGO COMPARTMENT**
  - 27.0

#### AIRPLANE SERVICING

- **FUEL AIRPLANE**
  - 15.0

- **SERVICE LAVATORIES**
  - 14.0

- **SERVICE POTABLE WATER**
  - 2.0

- **PUSH BACK**
  - ----

---

**NOTES:**

- **MIXED CLASS 186 (16 FIRST CLASS, 170 ECONOMY CLASS) PASSENGERS**
- **100% LOAD FACTOR**
- **DEPLANED RATE: 18 PASSENGERS PER MINUTE**
- **ENPLANED RATE: 9 PASSENGERS PER MINUTE**
- **100% PASSENGER, BAGGAGE, AND CARGO EXCHANGE**
- **FUEL: 8,175 USG (30,946 LITERS) AT 545 GAL/MIN. (2,063 LITERS/MIN)**

---

**This Data Is Provided to Illustrate the General Scope and Types of Tasks Involved in Terminal Operations. Varying Airline Practices and Operating Circumstances Will Result in Different Sequence and Time Intervals to Accomplish the Tasks Shown. Consult Using Airline Prior to Ramp Planning.**
### 5.2.2 TERMINAL OPERATIONS - TURNAROUND STATION

#### MODEL 757-200PF

<table>
<thead>
<tr>
<th>AIRPLANE SERVICES</th>
<th>TIME - MINUTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINE RUNDOWN</td>
<td>1.0</td>
</tr>
<tr>
<td>FUEL AIRPLANE</td>
<td>15.0</td>
</tr>
<tr>
<td>SERVICE LAVATORY</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOWER LOBE CARGO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UNLOAD LOWER LOBE COMPARTMENT</td>
<td></td>
</tr>
<tr>
<td>LOAD LOWER LOBE COMPARTMENT</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAIN DECK CARGO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OPEN MAIN DECK CARGO DOOR</td>
<td>2.0</td>
</tr>
<tr>
<td>POSITION MAIN DECK CARGO LOADER</td>
<td>1.0</td>
</tr>
<tr>
<td>UNLOAD PALLET (1)</td>
<td>23.0</td>
</tr>
<tr>
<td>LOAD PALLET (2)</td>
<td>23.0</td>
</tr>
<tr>
<td>REMOVE MAIN DECK CARGO LOADER</td>
<td>1.0</td>
</tr>
<tr>
<td>CLOSE MAIN DECK CARGO DOOR</td>
<td>1.0</td>
</tr>
<tr>
<td>START ENGINES</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**NOTES:**
- POSITION/REMOVE EQUIPMENT
- 15 MAIN DECK PALLET
- 100% LOAD FACTOR AND CARGO EXCHANGE
- **FUEL:** 8,175 U.S. GAL (30,946 LITERS) AT 545 GAL/MIN (2,063 LITERS/MIN)

(1) 1.5 MINUTES EACH - SEQUENCE: 2 THRU 15, 1
(2) 1.5 MINUTES EACH - SEQUENCE: 1, 15 THRU 2

THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN VARYING SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. CONSULT USING AIRLINE PRIOR TO RAMP PLANNING.
### 5.2.3. TERMINAL OPERATIONS - TURNAROUND STATION

#### MODEL 757-300

**D6-58327**

**88 JUNE 1999**

<table>
<thead>
<tr>
<th>Description</th>
<th>Time (Min)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PASSENGER SERVICES</strong></td>
<td></td>
</tr>
<tr>
<td>Position Passenger Bridges or Stairs</td>
<td>1.0</td>
</tr>
<tr>
<td>Deplane Passengers - Door L1</td>
<td>14.0</td>
</tr>
<tr>
<td>Service Cabin</td>
<td>14.0</td>
</tr>
<tr>
<td>Service Galleys - One Truck</td>
<td>27.0</td>
</tr>
<tr>
<td>Board Passengers - L1</td>
<td>27.0</td>
</tr>
<tr>
<td>Remove Passenger Bridges</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>LUGGAGE/CARGO HANDLING</strong></td>
<td></td>
</tr>
<tr>
<td>Forward Cargo Compartment</td>
<td>28.0</td>
</tr>
<tr>
<td>Aft Cargo Compartment</td>
<td>35.0</td>
</tr>
<tr>
<td><strong>AIRPLANE SERVICING</strong></td>
<td></td>
</tr>
<tr>
<td>Fuel Airplane</td>
<td>18.0</td>
</tr>
<tr>
<td>Service Lavatories</td>
<td>11.0</td>
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<tr>
<td>Service Potable Water</td>
<td>5.0</td>
</tr>
<tr>
<td>Push Back</td>
<td>45.0</td>
</tr>
</tbody>
</table>

**NOTES:**

- 243 Passengers Board and Deplane via FWD LH Entry Door
- 100% Load Factor
- 100% Passenger and Baggage Exchange, No Cargo Exchange
- Assumes Mechanized Cargo Handling Equipment (FWD and AFT)
- Fuel: 9600 USG at 545 GAL/MN.
- Passenger Loading Rates (One Door)
  - Deplane Rate: 18 Passengers Per Minute
  - Enplane Rate: 9 Passengers Per Minute
- Baggage Loading Rates
  - Unloading: 15 Bags Per Minute
  - Loading: 10 Bags Per Minute
- 1.3 Bags Per Passenger (4.5 Cu Ft)
- 83% Stacking Efficiency
- 67% Bags Aft, 33% Bags FWD
- One Galley Truck Used

**THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN VARYING SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. CONSULT USING AIRLINE PRIOR TO RAMP PLANNING.**
### Passenger Services

<table>
<thead>
<tr>
<th>Operation</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position Passenger Bridges or Stairs</td>
<td>1.0</td>
</tr>
<tr>
<td>Deplane Passengers - Door L1</td>
<td>6.0</td>
</tr>
<tr>
<td>Service Cabin</td>
<td>6.0</td>
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<tr>
<td>Service Galleys - 1 Truck</td>
<td>0.0</td>
</tr>
<tr>
<td>Board Passengers</td>
<td>12.0</td>
</tr>
<tr>
<td>Remove Passenger Bridges</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### Baggage/Cargo Handling

<table>
<thead>
<tr>
<th>Operation</th>
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</thead>
<tbody>
<tr>
<td>Forward Cargo Compartment</td>
<td>8.0</td>
</tr>
<tr>
<td>Aft Cargo Compartment</td>
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</table>

### Airplane Servicing

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Fuel Airplane</td>
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</tr>
<tr>
<td>Service Toilets</td>
<td>0.0</td>
</tr>
<tr>
<td>Service Potable Water</td>
<td>0.0</td>
</tr>
<tr>
<td>Push Back</td>
<td>----</td>
</tr>
</tbody>
</table>

**Notes:**
- Position/Remove Equipment
- No Galley, Fuel, Potable Water, or Lavatory Service
- 60% Passenger Baggage and Cargo Exchange
- 186 Passengers (16 First Class, 170 Economy)
- 100% Load Factor
- 1.3 Bags per Passenger
- Deplane and Boarding Times based on rates of 18 and 9 passengers per minute respectively
- 67% Bags Aft, 33% Bags Fwd

**Notes:**
- This data is provided to illustrate the general scope and types of tasks involved in terminal operations. Varying airline practices and operating circumstances will result in different sequence and time intervals to accomplish the tasks shown. Ground operation requirements should be coordinated with using airlines prior to ramp planning.
|                      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| **PAASSENGER SERVICES** |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| POSITION PASSENGER BRIDGES OR STAIRS | 1.0 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| DEPLANING PASSENGERS | 8.0 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| SERVICE CABIN | 8.0 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| SERVICE GALLEYS | 0.0 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| BOARDING PASSENGERS | 16.0 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| REMOVE PASSENGER BRIDGES | 1.0 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| **LUGGAGE/CARGO HANDLING** |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| FORWARD CARGO COMPARTMENT | 11.0 | UNLOAD | LOAD |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| AFT CARGO COMPARTMENT | 22.0 | UNLOAD | LOAD |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| **AIRPLANE SERVICING** |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| FUEL AIRPLANE | 0.0 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| SERVICE TOILETS | 0.0 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| SERVICE POTABLE WATER | 0.0 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| **NOTES:** |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| ▶ ▶ ▶ POSITION/REMOVE EQUIPMENT |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| ▶ NO GALLEY, FUEL, POTABLE WATER, OR LAVATORY SERVICE |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| • 60% PASSENGERS AND CARGO EXCHANGE |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| • 146 PASSENGERS BOARD AND DEPLANING VIA FW LH ENTRY DOOR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| • 100% LOAD FACTOR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| • PASSENGER LOADING RATES (1 DOOR) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| UNLOADING - 18 PASSENGERS PER MINUTE |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| LOADING - 9 PASSENGERS PER MINUTE |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| • BAGGAGE LOADING RATES |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| UNLOADING - 15 BAGS PER MINUTE |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| LOADING - 10 BAGS PER MINUTE |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| • 1.3 BAGS PER PASSENGER (4.5 CU FT) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| • 83% STACKING EFFICIENCY |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| • THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN DIFFERENT SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. CONSULT USING AIRLINE PRIOR TO RAMP PLANNING. |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
5.4.1 GROUND SERVICING CONNECTIONS

MODEL 757-200

D6-58327
5.4.2 GROUND SERVICING CONNECTIONS

MODEL 757-300

D6-58327
<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>MODEL</th>
<th>DISTANCE AFT OF NOSE</th>
<th>DISTANCE FROM AIRPLANE CENTERLINE</th>
<th>MAX HT ABOVE GROUND</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FT  M</td>
<td>FT  M</td>
<td>FT  M</td>
</tr>
<tr>
<td>CONDITIONED AIR</td>
<td>757-200</td>
<td>60   18.3</td>
<td>0    0</td>
<td>0    0</td>
</tr>
<tr>
<td>ONE 8-IN (20.3 CM) PORT</td>
<td>757-300</td>
<td>73   22.4</td>
<td>0    0</td>
<td>0    0</td>
</tr>
<tr>
<td>ELECTRICAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ONE CONNECTION</td>
<td>757-200</td>
<td>22   6.6</td>
<td>-    -</td>
<td>1    0.3</td>
</tr>
<tr>
<td>90 KVA, 200/115 V AC 400 HZ, 3-PHASE EACH</td>
<td>757-300</td>
<td>22   6.6</td>
<td>-    -</td>
<td>1    0.3</td>
</tr>
<tr>
<td>FUEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWO UNDERWING PRESSURE</td>
<td>757-200</td>
<td>77   23.5</td>
<td>-    -</td>
<td>37   11.3</td>
</tr>
<tr>
<td>CONNECTORS ON RIGHT WING</td>
<td>757-300</td>
<td>90   27.5</td>
<td>-    -</td>
<td>37   11.3</td>
</tr>
<tr>
<td>(SEE SEC 2.2 FOR CAPACITIES)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWO OVERWING GRAVITY PORTS</td>
<td>757-200</td>
<td>82   24.9</td>
<td>33  10.1</td>
<td>33   10.1</td>
</tr>
<tr>
<td>* TOP OF THE WING</td>
<td>757-300</td>
<td>95   29.1</td>
<td>33  10.1</td>
<td>33   10.1</td>
</tr>
<tr>
<td>FUEL VENTS</td>
<td>757-200</td>
<td>88   26.9</td>
<td>53  16.3</td>
<td>53   16.3</td>
</tr>
<tr>
<td></td>
<td>757-300</td>
<td>101  30.1</td>
<td>53  16.3</td>
<td>53   16.3</td>
</tr>
<tr>
<td>HYDRAULIC</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL SYSTEM CAPACITY = 72 GAL (273 L)</td>
<td>757-200</td>
<td>84   25.6</td>
<td>5    1.5</td>
<td>-    -</td>
</tr>
<tr>
<td>FILL PRESSURE = 150 PSIG (10.55 KG/CM²)</td>
<td>757-300</td>
<td>97   29.6</td>
<td>5    1.5</td>
<td>-    -</td>
</tr>
<tr>
<td>LAVATORY</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWO CONNECTIONS - 757-200</td>
<td>757-200</td>
<td>22   6.7</td>
<td>1    0.3</td>
<td>-    -</td>
</tr>
<tr>
<td>* OVERWING EXIT AIRPLANE</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>** FOUR-DOOR AIRPLANE</td>
<td>757-200PF</td>
<td>17   5.0</td>
<td>0    0</td>
<td>0    0</td>
</tr>
<tr>
<td>ONE SERVICE CONNECTION - 757-200PF</td>
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<td></td>
<td></td>
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<tr>
<td>ONE SERVICE CONNECTION - 757-300</td>
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<td></td>
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<tr>
<td>PNEUMATIC</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THREE 3-IN(7.6-CM) PORTS (RB211)</td>
<td>757-200</td>
<td>63   19.2</td>
<td>-    -</td>
<td>3    0.9</td>
</tr>
<tr>
<td>TWO 3-IN (7.6-CM) PORTS (PW)</td>
<td>757-300</td>
<td>63   19.2</td>
<td>3    0.9</td>
<td>-    -</td>
</tr>
<tr>
<td>** RB211 ENGINES ONLY</td>
<td>757-300</td>
<td>76   23.3</td>
<td>2    0.6</td>
<td>-    -</td>
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<tr>
<td></td>
<td>757-300</td>
<td>76   23.3</td>
<td>2    0.6</td>
<td>2    0.6</td>
</tr>
<tr>
<td>POTABLE WATER</td>
<td>757-200</td>
<td>124  37.8</td>
<td>1    0.3</td>
<td>-    -</td>
</tr>
<tr>
<td>ONE SERVICE CONNECTION</td>
<td>757-300</td>
<td>124  37.8</td>
<td>0    0</td>
<td>0    0</td>
</tr>
<tr>
<td>* OVERWING-EXIT AIRPLANE</td>
<td>757-300</td>
<td>147  44.8</td>
<td>1    0.3</td>
<td>-    -</td>
</tr>
<tr>
<td>** FOUR-DOOR AIRPLANE</td>
<td>757-300</td>
<td>124  37.8</td>
<td>0    0</td>
<td>0    0</td>
</tr>
<tr>
<td></td>
<td>757-300</td>
<td>124  37.8</td>
<td>0    0</td>
<td>0    0</td>
</tr>
</tbody>
</table>

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

5.4.3 GROUND SERVICING CONNECTIONS
MODEL 757-200, -300

D6-58327 JUNE 1999 93
5.5.1 ENGINE START PNEUMATIC REQUIREMENTS - SEA LEVEL
MODEL 757—200, 300 (ROLLS ROYCE ENGINES)
5.5.2 ENGINE START PNEUMATIC REQUIREMENTS - SEA LEVEL

MODEL 757-200, -300 (PRATT & WHITNEY ENGINES)
HEATING (PULL-UP)
- Initial Cabin Temperature: 0°F (-17.8°C)
- Outside Air Temperature: 0°F (-17.8°C)
- No Galley Load, Electrical Load, or Solar Load
- Temperature at Ground Air Connection: 300°F (149°C)
- P = Pressure at Ground Air Connection, PSIG
- No Occupants
- RH Recirculating Fan Must Be Off During Ground Operations


time to heat cabin to 70°F (21°C), minutes

0 10 20 30 40 50

kilo grams per minute

ground pneumatic supply airflow (W)
0 25 50 75 100 150 200 250

pounds per minute

full heating
auto temp control
2 packs, 1 recirc fan
W = 5.189 (P)1.431

full heating
auto temp control
1 pack, 1 recirc fan
W = 2.134 (P)1.539

Cooling (Pull-Down)
- Initial Cabin Temperature: 103°F (39.5°C)
- Outside Air Temperature: 103°F (39.5°C)
- Solar Load: 8520 BTU/HR (2145 Kcal/hr)
- No Galley Load or Electrical Load
- Temperature at Ground Air Connection: 450°F (232°C)
- P = Pressure at Ground Air Connection, PSIG
- No Occupants
- RH Recirculating Fan Must Be Off During Ground Operations


time to cool cabin to 80°F (26.7°C), minutes

0 10 20 30 40 50

kilo grams per minute

ground pneumatic supply airflow (W)
0 25 50 75 100 150 200 250

pounds per minute

full cooling
auto temp control
2 packs, 1 recirc fan
W = 9.506 (P)0.884

5.6.1 GROUND PNEUMATIC POWER REQUIREMENTS - HEATING & COOLING
MODEL 757-200
5.6.2 GROUND PNEUMATIC POWER REQUIREMENTS - HEATING & COOLING

MODEL 757-300
NOTES:
1. ALL DATA WITH LH RECIRCULATING FAN ON FOR ELECTRONIC COOLING AIRFLOW
2. GROUND OPERATION IS LIMITED TO ONE RECIRCULATING FAN OPERATION
3. MAXIMUM STATIC PRESSURE $\Delta P_s$ AT 8-IN SUPPLY DUCT AT GROUND AIR CONNECTION (GAC) TO MIX MANIFOLD LIMITED TO 16 INCHES OF WATER.
4. MAXIMUM TEMPERATURE OF GAC SUPPLY FLOW TO MIX MANIFOLD IS 160°F

<table>
<thead>
<tr>
<th>CONDITIONS</th>
<th>TAMR</th>
<th>SOLAR LOAD</th>
<th>ELECTRICAL LOAD</th>
<th>PASS</th>
<th>CABIN TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>103°F(39°C)</td>
<td>142 BTU/Min</td>
<td>160 BTU/Min</td>
<td>186</td>
<td>70°F(21°C)</td>
</tr>
<tr>
<td>2</td>
<td>103°F(39°C)</td>
<td>39 KG CAL/Min</td>
<td>40 KG CAL/Min</td>
<td>186</td>
<td>75°F(24°C)</td>
</tr>
<tr>
<td>3</td>
<td>103°F(39°C)</td>
<td>39 KG CAL/Min</td>
<td>40 KG CAL/Min</td>
<td>186</td>
<td>80°F(27°C)</td>
</tr>
<tr>
<td>4</td>
<td>0°F(−18°C)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>75°F(24°C)</td>
</tr>
<tr>
<td>5</td>
<td>−20°F(−29°C)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>75°F(24°C)</td>
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<tr>
<td>6</td>
<td>−40°F(−40°C)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>75°F(24°C)</td>
</tr>
</tbody>
</table>

5.7.1 CONDITIONED AIR FLOW REQUIREMENTS - STEADY STATE AIRFLOW
MODEL 757-200

D6-58327
5.7.2 CONDITIONED AIR FLOW REQUIREMENTS - STEADY STATE AIRFLOW

MODEL 757-300
5.8.1 GROUND TOWING REQUIREMENTS - ENGLISH UNITS

NOTES:
1. STRAIGHT-LINE TOW
2. UNUSUAL BREAKAWAY CONDITIONS NOT SHOWN
3. COEFFICIENTS OF FRICTION (μ) ARE ESTIMATED FOR RUBBER-TIRED TOW VEHICLES

<table>
<thead>
<tr>
<th>Surface Type</th>
<th>μ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Concrete</td>
<td>0.80</td>
</tr>
<tr>
<td>Wet Asphalt</td>
<td>0.75</td>
</tr>
<tr>
<td>Wet Concrete</td>
<td>0.57</td>
</tr>
<tr>
<td>Snow w/ Chains</td>
<td>0.45</td>
</tr>
<tr>
<td>Hard Snow</td>
<td>0.30</td>
</tr>
<tr>
<td>Ice</td>
<td>0.05</td>
</tr>
</tbody>
</table>

![Graph showing drawbar pull vs. total traction wheel load for different surfaces and conditions.](attachment:image.png)
5.8.2 GROUND TOWING REQUIREMENTS - METRIC UNITS

MODEL 757-200, -300
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6.0 JET ENGINE WAKE AND NOISE DATA

6.1 Jet Engine Exhaust Velocities and Temperatures

6.2 Airport and Community Noise
6.0 JET ENGINE WAKE AND NOISE DATA

6.1 Jet Engine Exhaust Velocities and Temperatures

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

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

MODEL 757-200, -300

NOTES:
* SEA LEVEL
* STANDARD DAY
* ZERO WIND
* STATIC AIRPLANE
* TWO ENGINES OPERATING
* 2,000 LB (910 KG) THRUST PER ENGINE
6.1.2 PREDICTED JET ENGINE EXHAUST VELOCITY CONTOURS - BREAKAWAY THRUST
MODEL 757-200, -300

NOTES:
* SEA LEVEL
* STANDARD DAY
* ZERO WIND
* STATIC AIRPLANE
* TWO ENGINES OPERATING
* 6000 LBF (2720 KG) THRUST PER ENGINE

757-200
757-300
100 MPH (161 KMPH)
50 MPH (80 KMPH)
35 MPH (55 KMPH) TO 400 FT (120 M)

HEIGHT ABOVE GROUND

ELEVATION

FEET
METERS

GROUND PLANE

AXIAL DISTANCE BEHIND AIRPLANE

DISTANCE FROM AIRPLANE CENTERLINE

PLAN

AIRPLANE CENTERLINE
6.1.3 PREDICTED JET ENGINE EXHAUST VELOCITY CONTOURS - TAKEOFF THRUST MODEL 757-200, -300

NOTES:
* SEA LEVEL
* STANDARD DAY
* ZERO WIND
* STATIC AIRPLANE
* TWO ENGINES OPERATING
* 35,500 LB (16,100 KG) TAKEOFF THRUST RATING PER ENGINE

- 100 MPH (161 KMPH) TO 460 FT (140 M)
- 50 MPH (80 KMPH) TO APPROX 1200 FT (366 M)

Graph showing height above ground, elevation, feet, meters, axial distance behind airplane, and distance from airplane centerline.
6.1.4 PREDICTED JET ENGINE EXHAUST TEMPERATURE CONTOURS - IDLE THRUST MODEL 757-200, -300 D6-58327

NOTES:
- SEA LEVEL
- STANDARD DAY
- ZERO WIND
- STATIC AIRPLANE
- TWO ENGINES OPERATING
- 2000 LB (910 KG) THRUST PER ENGINE
6.1.5 Predicted Jet Engine Exhaust Temperature Contours - Breakaway Thrust

Model 757-200, -300

D6-58327

June 1999

Notes:
* Sea level
* Standard day
* Zero wind
* Static airplane
* Two engines operating
* 5000 lb (2720 kg) thrust per engine

Diagram showing exhaust temperature contours for 757-200 and 757-300 models.

Legend:
- Height above ground
- Axial distance behind airplane
- Distance from airplane centerline

Temperature contours at 100°F (38°C).
6.1.6  PREDICTED JET ENGINE EXHAUST TEMPERATURE CONTOURS - TAKEOFF THRUST MODEL 757-200, -300

NOTES:
- SEA LEVEL
- STANDARD DAY
- ZERO WIND
- STATIC AIRPLANE
- TWO ENGINES OPERATING
- 35,500 LB (16,100 KG) TAKEOFF THRUST RATING PER ENGINE

Graphs showing predicted jet engine exhaust temperature contours for Model 757-200 and 757-300. The graphs illustrate temperature changes with height above the ground and axial distance behind the airplane. Temperature levels include 100°F (38°C) to 550 ft (170 m) and 150°F (66°C).
6.2 Airport and Community Noise

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

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

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

1. Operational Factors

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

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

   (c) **Airport Altitude**-Higher airport altitude will affect engine performance and thus can influence noise.
2. Atmospheric Conditions-Sound Propagation

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

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

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

   (a) **Terrain**-If the ground slopes down after takeoff or up before landing, noise will be reduced since the aircraft will be at a higher altitude above ground. Additionally, hills, shrubs, trees, and large buildings can act as sound buffers.
All these factors can alter the shape and size of the contours appreciably. To demonstrate the effect of some of these factors, estimated noise level contours for two different operating conditions are shown below. These contours reflect a given noise level upon a ground level plane at runway elevation.

**Condition 1**

<table>
<thead>
<tr>
<th>Landing</th>
<th>Takeoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Structural Landing Weight</td>
<td>Maximum Gross Takeoff Weight</td>
</tr>
<tr>
<td>10-knot Headwind</td>
<td>Zero Wind</td>
</tr>
<tr>
<td>3° Approach</td>
<td>84 °F</td>
</tr>
<tr>
<td>84 °F</td>
<td>Humidity 15%</td>
</tr>
<tr>
<td>Humidity 15%</td>
<td></td>
</tr>
</tbody>
</table>

**Condition 2**

<table>
<thead>
<tr>
<th>Landing</th>
<th>Takeoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% of Maximum Structural Landing Weight</td>
<td>80% of Maximum Gross Takeoff Weight</td>
</tr>
<tr>
<td>10-knot Headwind</td>
<td>10-knot Headwind</td>
</tr>
<tr>
<td>3° Approach</td>
<td>59 °F</td>
</tr>
<tr>
<td>59 °F</td>
<td>Humidity 70%</td>
</tr>
<tr>
<td>Humidity 70%</td>
<td></td>
</tr>
</tbody>
</table>
As indicated from these data, the contour size varies substantially with operating and atmospheric conditions. Most aircraft operations are, of course, conducted at less than maximum gross weights because average flight distances are much shorter than maximum aircraft range capability and average load factors are less than 100%. Therefore, in developing cumulative contours for planning purposes, it is recommended that the airlines serving a particular city be contacted to provide operational information.

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

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

7.1 General Information
7.2 Landing Gear Footprint
7.3 Maximum Pavement Loads
7.4 Landing Gear Loading on Pavement
7.5 Flexible Pavement Requirements - U.S. Army Corps of Engineers Method S-77-1
7.6 Flexible Pavement Requirements - LCN Conversion
7.7 Rigid Pavement Requirements - Portland Cement Association Design Method
7.8 Rigid Pavement Requirements - LCN Conversion
7.9 Rigid Pavement Requirements - FAA Method
7.10 ACN/PCN Reporting System - Flexible and Rigid Pavements
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 six loads imposed on the main landing gear to aid in interpolation between the discrete values shown. All curves for any single chart represent data based on rated loads and tire pressures considered normal and acceptable by current aircraft tire manufacturer's standards. Tire pressures, where specifically designated on tables and charts, are at values obtained under loaded conditions as certificated for commercial use.

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

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

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

The flexible pavement design curves (Section 7.5) are based on procedures set forth in Instruction Report No. S-77-1, "Procedures for Development of CBR Design Curves," dated June 1977, and as modified according to the methods described in ICAO Aerodrome Design Manual, Part 3, Pavements, 2nd Edition, 1983, Section 1.1 (The ACN-PCN Method), and utilizing the alpha factors approved by ICAO in October 2007. Instruction Report No. S-77-1 was prepared by the U.S. Army Corps of Engineers Waterways Experiment Station, Soils and Pavements Laboratory, Vicksburg, Mississippi. The line showing 10,000 coverages is used to calculate Aircraft Classification Number (ACN).
The following procedure is used to develop the curves, such as shown in Section 7.5:

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

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

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

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

All Load Classification Number (LCN) curves (Sections 7.6 and 7.8) have been developed from a computer program based on data provided in International Civil Aviation Organization (ICAO) document 9157-AN/901, Aerodrome Design Manual, Part 3, “Pavements”, First Edition, 1977. LCN values are shown directly for parameters of weight on main landing gear, tire pressure, and radius of relative stiffness (ι) 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 American Concrete Pavement Association, 3800 North Wilke Road, Arlington Heights, Illinois 60004-1268. 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 ACN/PCN system (Section 7.10) as referenced in ICAO Annex 14, "Aerodromes," First Edition, July 1990, provides a standardized international airplane/pavement rating system replacing the various S, T, TT, LCN, AUW, ISWL, etc., rating systems used throughout the world. ACN is the Aircraft Classification Number and PCN is the Pavement Classification Number. An aircraft having an ACN equal to or less than the PCN can operate on the pavement subject to any limitation on the tire pressure. Numerically, the ACN is two times the derived single-wheel load expressed in thousands of kilograms, where the derived single wheel load is defined as the load on a single tire inflated to 181 psi (1.25 MPa) that would have the same pavement requirements as the aircraft. Computationally, the ACN/PCN system uses the PCA program PDILB for rigid pavements and S-77-1 for flexible pavements to calculate ACN values. The method of pavement evaluation is left up to the airport with the results of their evaluation presented as follows:

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

Section 7.10.1 shows 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

Section 7.10.2 shows the aircraft ACN values for rigid pavements. The four subgrade categories are:

- Code A - High Strength, k = 550 pci (150 MN/m³)
- Code B - Medium Strength, k = 300 pci (80 MN/m³)
- Code C - Low Strength, k = 150 pci (40 MN/m³)
- Code D - Ultra Low Strength, k = 75 pci (20 MN/m³)
### 7.2 LANDING GEAR FOOTPRINT

*Model 757-200, -200PF, -300*

<table>
<thead>
<tr>
<th>UNIT</th>
<th>757-200, -200PF</th>
<th>757-300</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAXIMUM DESIGN WEIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lb</td>
<td>221,000</td>
<td>231,000</td>
</tr>
<tr>
<td>kg</td>
<td>102,500</td>
<td>104,800</td>
</tr>
</tbody>
</table>

#### Percent of Weight on Main Gear

- See Section 7.4

<table>
<thead>
<tr>
<th>NOSE GEAR TIRE SIZE</th>
<th>H31 x 13 - 12</th>
<th>H31 x 13 - 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI</td>
<td>150</td>
<td>155</td>
</tr>
<tr>
<td>KG/CM²</td>
<td>10.55</td>
<td>10.90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAIN GEAR TIRE SIZE</th>
<th>H40 x 14.5 - 19</th>
<th>H40 x 14.5 - 19</th>
<th>H40 x 14.5 - 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI</td>
<td>162</td>
<td>168</td>
<td>170</td>
</tr>
<tr>
<td>KG/CM²</td>
<td>11.39</td>
<td>11.81</td>
<td>11.95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAIN GEAR TIRE PRESSURE</th>
<th>22 PR</th>
<th>24 PR</th>
<th>26 PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI</td>
<td>179</td>
<td>183</td>
<td>195</td>
</tr>
<tr>
<td>KG/CM²</td>
<td>12.80</td>
<td>12.87</td>
<td>13.70</td>
</tr>
</tbody>
</table>

---

**NOT TO SCALE**

---

**UNITS 757-200, -200PF 757-300**

**MAXIMUM DESIGN LB**

- 221,000
- 231,000
- 241,000
- 251,000
- 256,000
- 271,000

**TAXI WEIGHT KG**

- 102,500
- 104,800
- 109,300
- 113,850
- 116,100
- 122,920

**PERCENT OF WEIGHT ON MAIN GEAR**

- See Section 7.4

**NOSE GEAR TIRE SIZE**

- H31 x 13 - 12, 20 PR
- H31 x 13 - 12, 20 PR

**MAIN GEAR TIRE SIZE**

- H40 x 14.5 - 19, 22 PR
- H40 x 14.5 - 19, 24 PR
- H40 x 14.5 - 19, 26 PR

**MAIN GEAR TIRE PRESSURE**

- PSI
- KG/CM²

---

**7.2 LANDING GEAR FOOTPRINT**

*Model 757-200, -200PF, -300*
\( V_{(\text{NG})} \) = MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FORWARD CENTER OF GRAVITY

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

\( H \) = MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

NOTE: ALL LOADS CALCULATED USING AIRPLANE MAXIMUM DESIGN TAXI WEIGHT

\[ V_{(\text{NG})} \]
\[ V_{(\text{MG})} \]
\[ H \]

<table>
<thead>
<tr>
<th>MODEL</th>
<th>UNIT</th>
<th>MAXIMUM DESIGN TAXI WEIGHT</th>
<th>( V_{(\text{NG})} )</th>
<th>( V_{(\text{MG})} ) PER STRUT</th>
<th>( H ) PER STRUT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>STATIC AT MOST FWD C.G.</td>
<td>STATIC + BRAKING 10 FT/SEC^2 DECEL</td>
<td>MAX LOAD AT STATIC AFT C.G.</td>
</tr>
<tr>
<td>757-200,-200PF</td>
<td>LB</td>
<td>221,000</td>
<td>31,100</td>
<td>45,100</td>
<td>102,900</td>
</tr>
<tr>
<td></td>
<td>KG</td>
<td>100,250</td>
<td>14,100</td>
<td>20,450</td>
<td>46,650</td>
</tr>
<tr>
<td>757-200,-200PF</td>
<td>LB</td>
<td>231,000</td>
<td>31,700</td>
<td>46,400</td>
<td>105,600</td>
</tr>
<tr>
<td></td>
<td>KG</td>
<td>104,800</td>
<td>14,400</td>
<td>21,050</td>
<td>47,900</td>
</tr>
<tr>
<td>757-200,-200PF</td>
<td>LB</td>
<td>241,000</td>
<td>31,900</td>
<td>47,200</td>
<td>108,900</td>
</tr>
<tr>
<td></td>
<td>KG</td>
<td>109,300</td>
<td>14,450</td>
<td>21,400</td>
<td>49,400</td>
</tr>
<tr>
<td></td>
<td>LB</td>
<td>251,000</td>
<td>33,300</td>
<td>48,900</td>
<td>115,800</td>
</tr>
<tr>
<td></td>
<td>KG</td>
<td>113,850</td>
<td>15,100</td>
<td>22,200</td>
<td>52,550</td>
</tr>
<tr>
<td>757-200,-200PF</td>
<td>LB</td>
<td>256,000</td>
<td>28,200</td>
<td>44,800</td>
<td>116,700</td>
</tr>
<tr>
<td></td>
<td>KG</td>
<td>116,100</td>
<td>12,800</td>
<td>20,300</td>
<td>52,950</td>
</tr>
<tr>
<td>757-300</td>
<td>LB</td>
<td>271,000</td>
<td>28,600</td>
<td>42,800</td>
<td>125,500</td>
</tr>
<tr>
<td></td>
<td>KG</td>
<td>122,920</td>
<td>12,980</td>
<td>19,400</td>
<td>56,900</td>
</tr>
</tbody>
</table>

7.3 MAXIMUM PAVEMENT LOADS

MODEL 757-200, 300

D6-58327

120 JUNE 1999
7.4.1 LANDING GEAR LOADING ON PAVEMENT
MODEL 757-200, -200PF

D6-58327
7.4.2 LANDING GEAR LOADING ON PAVEMENT

MODEL 757-300

D6-58327
7.5 Flexible Pavement Requirements - U.S. Army Corps of Engineers Method
   (S-77-1)

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

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

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

The FAA design method uses a similar procedure using total airplane weight instead of weight on
the main landing gears. The equivalent main gear loads for a given airplane weight could be
calculated from Section 7.4.
7.5 FLEXIBLE PAVEMENT REQUIREMENTS - U.S. ARMY CORPS OF ENGINEERS DESIGN METHOD (S-77-1)
MODEL 757-200, -200PF, -300

NOTE: TIRES - H40 x 14.5-19, 22PR, 24PR, 26PR
CALIFORNIA BEARING RATIO, CBR

WEIGHT ON MAIN LANDING GEAR
(SEE SEC 7.4)

<table>
<thead>
<tr>
<th>LB</th>
<th>KG</th>
</tr>
</thead>
<tbody>
<tr>
<td>250,133</td>
<td>113,500</td>
</tr>
<tr>
<td>225,000</td>
<td>102,100</td>
</tr>
<tr>
<td>200,000</td>
<td>90,700</td>
</tr>
<tr>
<td>175,000</td>
<td>79,400</td>
</tr>
<tr>
<td>150,000</td>
<td>68,000</td>
</tr>
<tr>
<td>125,000</td>
<td>56,700</td>
</tr>
</tbody>
</table>

ANNUAL DEPARTURES
1,200
3,000
6,000
15,000
25,000

MAXIMUM POSSIBLE MAIN GEAR LOAD AT MAXIMUM DESIGN TAXI WEIGHT AND TAIL C.G. (271,000 LB MTW)

10,000 COVERAGES (USCD FOR ACN CALCULATIONS)

FLEXIBLE PAVEMENT THICKNESS, h

( CENTIMETERS )

INCHES

10  15  20  25  30  35  40  45  50  55  60  65  70

10  15  20  25  30  35  40  45  50  55  60  65  70

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7.6 Flexible Pavement Requirements - LCN Method

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

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

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

Note: If the resultant aircraft LCN is not more 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 10% has been chosen as representing the lowest degree of variation in LCN that is significant (reference: ICAO Aerodrome Manual, Part 2, "Aerodrome Physical Characteristics," Chapter 4, Paragraph 4.1.5.7v, 2nd Edition dated 1965).
7.6.1 FLEXIBLE PAVEMENT REQUIREMENTS - LCN METHOD
MODEL 757-200, -200PF

NOTES:
* TIRE - 14.5-19, 22PR, 24PR.
* EQUIVALENT SINGLE-WHEEL LOADS ARE DERIVED FROM
ICAO AERODROME MANUAL, PART 2 PAR. 4.1.3, DATED 1965.

MAXIMUM POSSIBLE MAIN GEAR LOAD AT MAXIMUM DESIGN AXLE LOAD (56,000 KG)
WEIGHT ON MAIN GEAR (SEC. 7.4)
WEIGHT ON LANDING GEAR (SEC. 7.4)
MAXIMUM LOADS ARE DERIVED FROM:
- TIRE PRESSURE (KG/CM²)
- INCHES (CENTIMETERS)
- KG (Pounds)
- TONS (Kilograms)

LOAD CLASSIFICATION NUMBER (LCN)

JUNE 1999
7.6.2 FLEXIBLE PAVEMENT REQUIREMENTS - LCN METHOD

MODEL 757-300
7.7 Rigid Pavement Requirements - Portland Cement Association Design Method


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

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

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

MODEL 757-200, -200PF

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

NOTE: THE VALUES OBTAINED BY USING THE MAXIMUM LOAD REFERENCE LINE AND ANY VALUE OF k ARE EXACT.
FOR LOADS LESS THAN MAXIMUM, THE CURVES ARE EXACT FOR k = 500 BUT DEVIATE SLIGHTLY FOR OTHER VALUES OF k.

REFERENCES:
"DESIGN OF CONCRETE AIRPORT PAVEMENT" AND "COMPUTER PROGRAM FOR AIRPORT PAVEMENT DESIGN - PROGRAM PPILB" PORTLAND CEMENT ASSOCIATION.
7.7.2 RIGID PAVEMENT REQUIREMENTS - PORTLAND CEMENT ASSOCIATION DESIGN METHOD
MODEL 757-300

NOTE: TIRES - H40x14.5-19 2GPR

REFERENCES:
"DESIGN OF CONCRETE AIRPORT PAVEMENT" AND "COMPUTER PROGRAM FOR AIRPORT PAVEMENT DESIGN - PROGRAM PDLB" PORTLAND CEMENT ASSOCIATION.
7.8 Rigid Pavement Requirements - LCN Conversion

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

In the example shown in Section 7.8.2, for a rigid pavement with a radius of relative stiffness of 37 with an LCN of 45, the apparent maximum allowable weight permissible on the main landing gear is 150,000 lb for an airplane with 195-psi main tires.

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

*Reference: Portland Cement Association*

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7.8.2 RIGID PAVEMENT REQUIREMENTS - LCN CONVERSION

MODEL 757-200, -200PF, 300

D6-58327
7.9 Rigid Pavement Requirements - FAA Design Method

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

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

MODEL 757-200, -200PF, 300

D6-58327
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 in Section 7.10.1, for 757-200 aircraft with gross weight of 208,500 lb and medium subgrade strength (Code B), the flexible pavement ACN is 24.8. In Section 7.10.3, for the same aircraft with gross weight of 190,000 lb and medium subgrade strength (Code B), the rigid pavement ACN is 26.5.

In the chart in Section 7.10.2, for 757-300 aircraft with gross weight of 230,000 lb and medium subgrade strength (Code B), the flexible pavement ACN is 29. In Section 7.10.4, for the same aircraft and gross weight and medium subgrade strength (Code B), the rigid pavement ACN is 33.2.

Note: An aircraft with an ACN equal to or less that the reported PCN can operate on that pavement subject to any limitations on the tire pressure. (Ref.: ICAO Annex 14 Aerodrome, First Edition, July 1990.)
7.10.1. AIRCRAFT CLASSIFICATION NUMBER - FLEXIBLE PAVEMENT

MODEL 757-200, -200PF

NOTES:
- TOWS - M40 x 14.5-19 22 PB
- PRESSURE - 183 PSI (12.87 KG/SQ CM)

CODE D - CRN 3 (ULTRA LOW)
CODE C - CRN 6 (LOW)
CODE B - CRN 10 (MEDIUM)
CODE A - CRN 15 (HIGH)

NOTES:
1. TO DETERMINE MAIN LANDING GEAR LOADING, SEE SECTION 7.4.
2. PERCENT WEIGHT ON MAIN LANDING GEAR: 91.19

(AIRCRAFT GROSS WEIGHT)

(1,000 KG)
7.10.2. AIRCRAFT CLASSIFICATION NUMBER - FLEXIBLE PAVEMENT

MODE 757-300

NOTES:
- TIRES = H40 x 14.5-19 26 PR
- PRESSURE = 200 PSI (1406 KG/50 CM)

CODE D = CBR 3 (ULTRA LOW)
CODE C = CBR 6 (LOW)
CODE B = CBR 10 (MEAN)
CODE A = CBR 15 (HIGH)

1. TO DETERMINE MAIN LANDING GEAR LOADING, SEE SECTION 7.4.
2. PERCENT WEIGHT ON MAIN LANDING GEAR: 92.6
7.10.3. AIRCRAFT CLASSIFICATION NUMBER - RIGID PAVEMENT

MODEL 757-200, -200PF

NOTES:

* TIRES - 1140 x 14.5-19 22PR OR 24PR
* PRESSURE - 183 PSI (12.87 KG/SQ CM)

CODE D - k = 75 (ULTRA LOW)
CODE C - k = 150 (LOW)
CODE B - k = 300 (MEDIUM)
CODE A - k = 550 (HIGH)

NOTES:

1. ACN WAS DETERMINED AS REFERENCED IN AMENDMENT 35 TO ICAO ANNEX 14, "AERODROMES", 85TH EDITION, JUNE 1983
2. TO DETERMINE MAIN LANDING GEAR LOADING, SEE SECTION 7.4.
3. PERCENT WEIGHT ON MAIN LANDING GEAR: 91.19
7.10.4. AIRCRAFT CLASSIFICATION NUMBER - RIGID PAVEMENT
MODEL 757-300
8.0  FUTURE 757 DERIVATIVE AIRPLANES
8.0  FUTURE 757 DERIVATIVE AIRPLANES

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

9.1 - 9.5  Scaled Drawings, 757-200
9.6 - 9.10 Scaled Drawings, 757-200PF
9.11 - 9.15 Scaled Drawings, 757-300
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.1 SCALED DRAWING - 1 IN. = 32 FT
MODEL 757-200

D6-58327
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.1.2 SCALED DRAWING - 1 IN. = 32 FT
MODEL 757-200

D6-58327
LEGEND
A  AIR CONDITIONING
B  BULK CARGO DOOR (OPTIONAL)
C  CARGO DOOR
E  ELECTRICAL
F  FUEL
H  HYDRAULIC
H2O  POTABLE WATER
L  LAVATORY
MLG  MAIN LANDING GEAR
NS  NOSE GEAR
P  PNEUMATIC
V  FUEL VENT
X  PASSENGER DOOR

NOTES:
(1) OVERWING-EXIT AIRPLANE
(2) FOUR-DOOR AIRPLANE
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.2.2 SCALED DRAWING - 1 IN. = 50 FT
MODEL 757-200

D6-58327
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.3.1 SCALED DRAWING - 1 IN. = 100 FT
MODEL 757-200

D6-58327

JUNE 1999  149
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.3.2 SCALED DRAWING - 1 IN. = 100 FT
MODEL 757-200

D6-58327

150 JUNE 1999
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.4.1  SCALED DRAWING - 1:500

MODEL 757-200

D6-58327

JUNE 1999  151
9.4.2 SCALED DRAWING - 1:500
MODEL 757-200

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

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

NOTE:
SEE SECTION 9.1.1 FOR IDENTIFICATION OF SERVICE POINT LOCATIONS

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

9.5.1  SCALED DRAWING - 1:1000
MODEL 757-200
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.5.2 SCALED DRAWING - 1:1000
MODEL 757-200

D6-58327
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.6.1 SCALED DRAWING - 1 IN. = 32 FT

MODEL 757-200PF

D6-58327

JUNE 1999 155
9.6.2 SCALED DRAWING - 1 IN. = 32 FT
MODEL 757-200PF

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

D6-58327

156  JUNE 1999
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.7.2 SCALED DRAWING - 1 IN. = 50 FT
MODEL 757-200PF
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.8.1 SCALED DRAWING - 1 IN. = 100 FT
MODEL 757-200PF

D6-58327
JUNE 1999   159
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.8.2 SCALED DRAWING - 1 IN. = 100 FT
MODEL 757-200PF

D6-58327
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.9.1 SCALED DRAWING - 1:500
MODEL 757-200PF

D6-58327
JUNE 1999  161
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.9.2 SCALED DRAWING - 1:500
MODEL 757-200PF

162 JUNE 1999
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.10.1 SCALED DRAWING - 1:1000
MODEL 757-200PF

D6-58327
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.10.2 SCALED DRAWING - 1:1000
MODEL 757-200PF

D6-58327
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.11.1 SCALED DRAWING - 1 IN. = 32 FT
MODEL 757-300

D6-58327

JUNE 1999  165
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.11.2 SCALED DRAWING - 1 IN. = 32 FT

MODEL 757-300

D6-58327

166 JUNE 1999
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.12.1 SCALED DRAWING - 1 IN. = 50 FT
MODEL 757-300

D6-58327

JUNE 1999 167
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.12.2 SCALED DRAWING - 1 IN. = 50 FT
MODEL 757-300

D6-58327
NOTE:  WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.13.1   SCALED DRAWING - 1 IN = 100 FT
MODEL 757-300

D6-58327

JUNE 1999    169
9.13.2 SCALED DRAWING - 1 IN = 100 FT
MODEL 757-300

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

9.14.1 SCALED DRAWING - 1:500
MODEL 757-300

D6-58327

JUNE 1999  171
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.14.2 SCALED DRAWING - 1:500
MODEL 757-300

D6-58327

172 JUNE 1999
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.15.1 SCALED DRAWING - 1:1000
MODEL 757-300

D6-58327

JUNE 1999  173
NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING

9.15.2 SCALED DRAWING - 1:1000
MODEL 757-300

D6-58327