

## **1.0 SCOPE AND INTRODUCTION**

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### 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:

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Seattle, Washington 98124-2207  
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### 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

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

#### 757-200

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

The passenger version is available in two configurations:

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

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

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

### **757-200PF**

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

### **757-300**

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

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

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