

PRELIMINARY

747-8

Airport Compatibility



August 2007

Specific airport compatibility questions concerning commercial aircraft should be forwarded to:

Airport Technology
Boeing (Seattle, WA)

Voice 1-425-237-0126, Fax 1-425-237-8281

E-mail: AirportTechnology@Boeing.com

Introduction

This brochure provides airport compatibility data for the 747-8 Family. This information is intended solely for airport planning purposes. All information in this brochure is preliminary and may change during development and testing.

The 747-8 is the latest derivative of the 747 family of airplanes and is being developed in both passenger and freighter versions. Based upon the 747-400, the 747-8 has a higher gross weight, 970,000 lb (439,985 Kg) MTOW and will be 18 ft 10 in (5.7 m) longer. The passenger version will have a passenger count of 465, and the freighter will have an increase of almost 40,000 lb (18 metric tones) over the 747-400F. To improve performance and reduce noise and emissions, the 747-8 will use the new quiet, efficient GENx engines being developed for the 787. Additional noise and performance improvements are a result of changes to the 747-400 wing, including raked wingtips. These combined improvements will lower noise, reduce fuel burn and operating costs, and allows the 747-8 to continue to be the fastest flying aircraft (Mach .855). The raked wingtip will increase the 747's wingspan from today's 213 feet (64.9 meters) to 224 feet 5 inches (68.4 meters). The 747-8 will see noise reductions in both takeoff and approach, compared to today's 747-400s. The 747-8 will enter into service in 2009.

General Airplane Characteristics

747-8 Intercontinental

| CHARACTERISTICS | UNITS | 747-400 | 747-400ER | 747-8 |
|-----------------------------|-------------|---------------------------------------|---|-------------------------------|
| MAX DESIGN TAXI WEIGHT | POUNDS | 878,000 | 913,000 | 973,000 |
| | KILOGRAMS | 398,254 | 414,130 | 441,345 |
| MAX DESIGN TAKEOFF WEIGHT | POUNDS | 875,000 | 910,000 | 970,000 |
| | KILOGRAMS | 396,893 | 412,769 | 439,985 |
| MAX DESIGN LANDING WEIGHT | POUNDS | 652,000 | 581,000 / 652,000 ⁽²⁾ | 675,000 |
| | KILOGRAMS | 295,742 | 263,537 / 295,742 | 306,175 |
| MAX DESIGN ZERO FUEL WEIGHT | POUNDS | 555,000 | 542,000 / 555,000 ⁽²⁾ | 635,000 |
| | KILOGRAMS | 251,744 | 245,847 / 251,744 | 288,031 |
| MAX STRUCTURAL PAYLOAD | POUNDS | 156,200 | 136,700 / 148,100 ⁽²⁾ | 168,300 |
| | KILOGRAMS | 70,851 | 62,006 / 67,177 | 76,340 |
| SEATING CAPACITY | THREE-CLASS | 416 23FC + 80 BC + 313 EC | 416 23FC + 80 BC + 313 EC | 467 25 FC + 89 BC + 353 EC |
| MAX CARGO | | 30 LD-1 OR 5 96" PALLETS + 14 LD-1 | 1 BODY TANK + 28 LD-1 OR 4 96" PALLETS + 14 LD1 OR 2 BODY TANKS + 24 LD-1 | |
| MAXIMUM FUEL CAPACITY | US GALLONS | 57,065 ⁽¹⁾ | 60,305 ⁽²⁾ / 63,545 ⁽²⁾ | 64,225 ⁽¹⁾ |
| | LITERS | 216,014 | 228,279 / 240,544 | 241,619 |

NOTES:

(1) INCLUDES TAIL FUEL, GE ENGINES

(2) BASIC (1 AUX TANK) / MAX (2 AUX TANKS)

General Airplane Characteristics

747-8 Freighter

| CHARACTERISTICS | UNITS | 747-400F | 747-400ERF | 747-8 |
|------------------------------------|--------------|------------------------|------------------------|---------|
| MAX DESIGN TAXI WEIGHT | POUNDS | 878,000 | 913,000 | 973,000 |
| | KILOGRAMS | 398,254 | 414,130 | 441,345 |
| MAX DESIGN TAKEOFF WEIGHT | POUNDS | 875,000 | 910,000 | 970,000 |
| | KILOGRAMS | 396,893 | 412,769 | 439,985 |
| MAX DESIGN LANDING WEIGHT | POUNDS | 652,000 ⁽¹⁾ | 653,000 ⁽¹⁾ | 749,000 |
| | KILOGRAMS | 295,742 | 296,196 | 339,741 |
| MAX DESIGN ZERO FUEL WEIGHT | POUNDS | 610,000 ⁽²⁾ | 611,000 ⁽²⁾ | 709,000 |
| | KILOGRAMS | 276,691 | 277,145 | 321,597 |
| MAX STRUCTURAL PAYLOAD | POUNDS | 248,300 | 248,600 ⁽³⁾ | 295,400 |
| | KILOGRAMS | 112,627 | 112,763 | 133,991 |
| MAX CARGO | CUBIC FEET | 27,467 | 27,467 | 29,426 |
| | CUBIC METERS | 777.8 | 777.8 | 833.3 |
| MAXIMUM FUEL CAPACITY | US GALLONS | 53,765 | 53,765 | 60,930 |
| | LITERS | 203,523 | 203,523 | 230,645 |

NOTES:

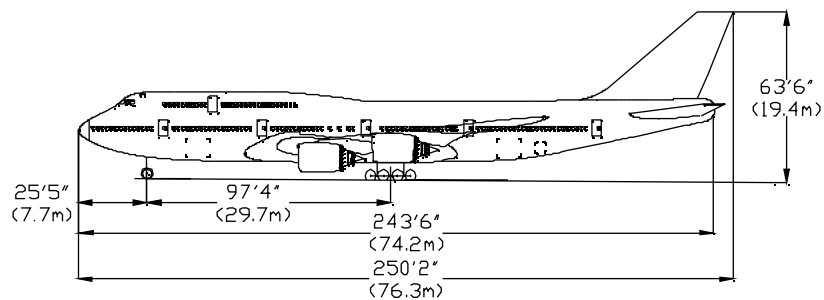
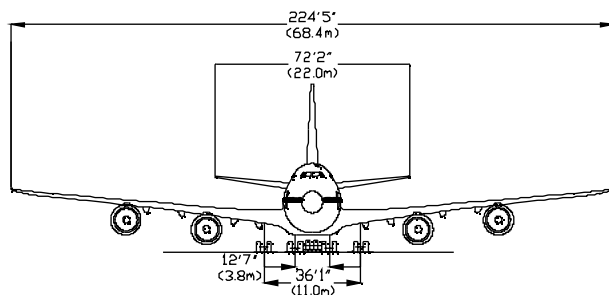
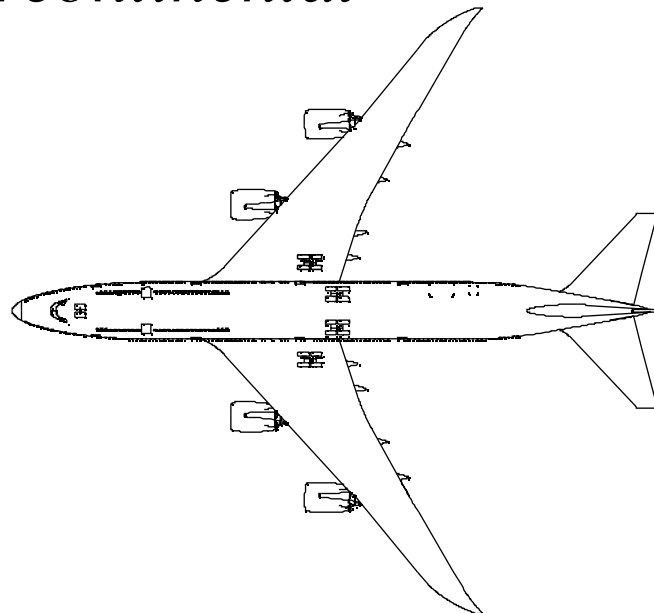
(1) OPTION FOR 666,000 LB (302,093 KG)

(2) OPTION FOR 635,000 (288,031 KG) ONLY WITH 811,000 (367,863 KG) MTOW

(3) OPTION FOR 272,600 LB (123,649 KG) ONLY WITH 811,000 LB (367,863 KG) MTOW.

General Arrangement

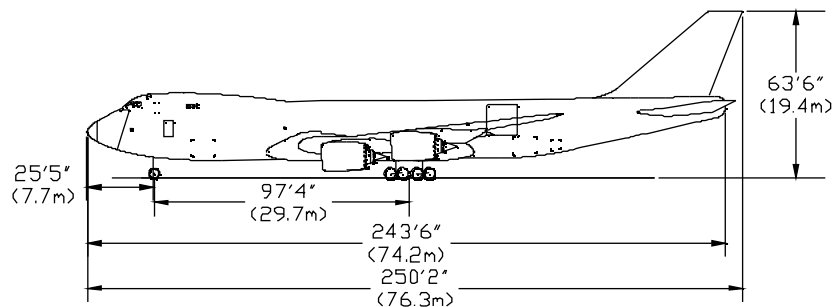
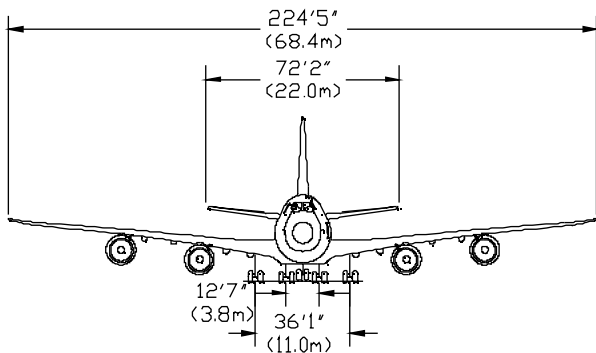
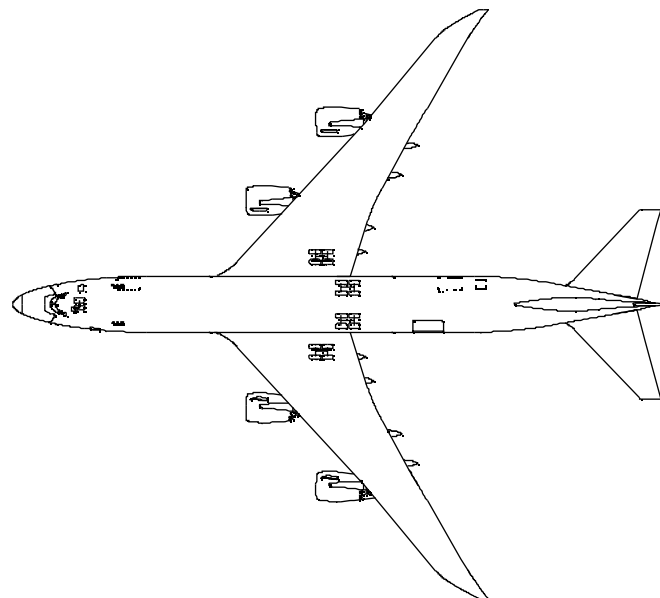
747-8 Intercontinental



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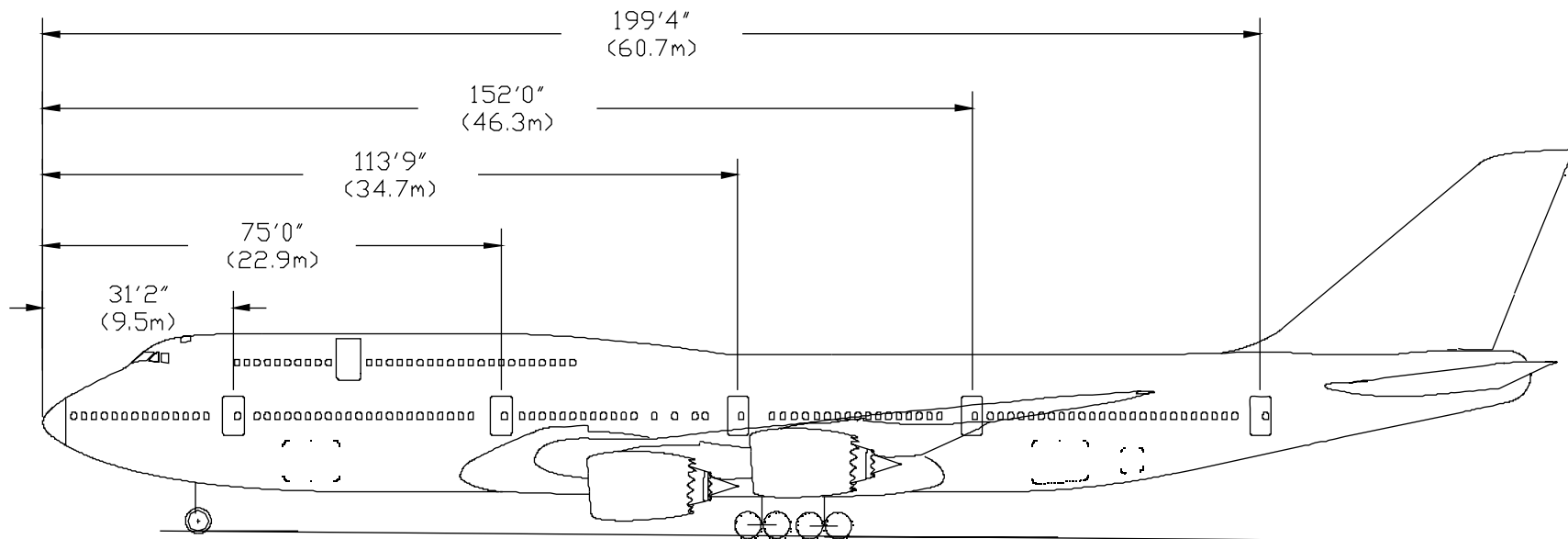
General Arrangement

747-8 Freighter



Door Locations

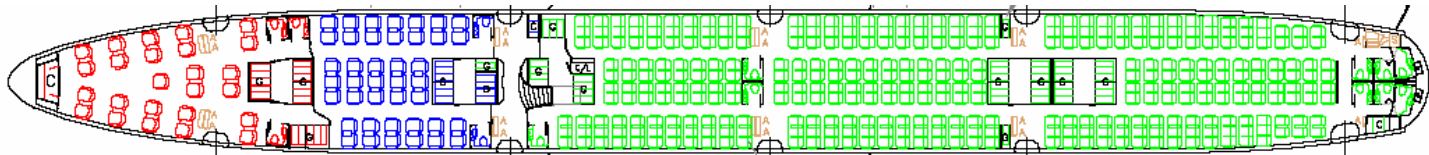
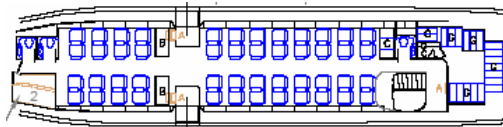
747-8 Intercontinental



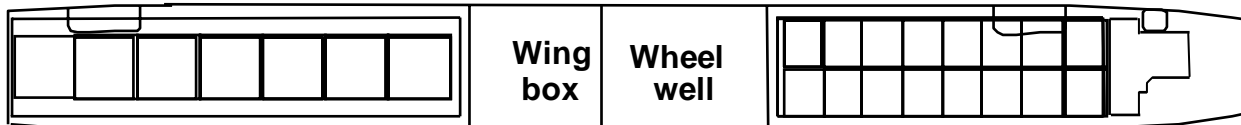
Interior Arrangement

747-8 Intercontinental

25 first
89 business
353 economy



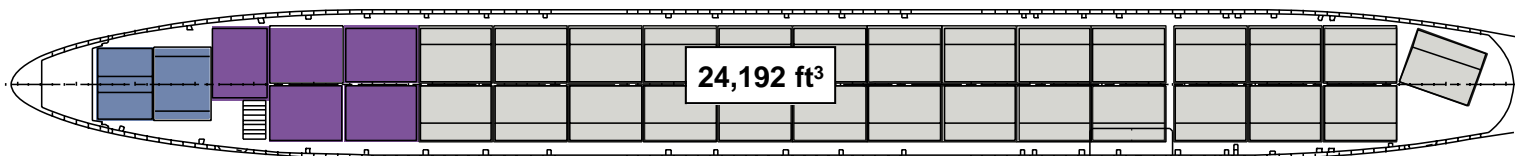
467 Passengers



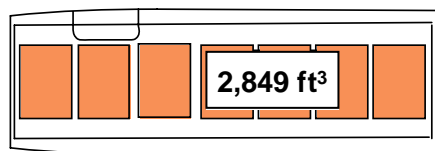
Interior Arrangement

747-8 Freighter

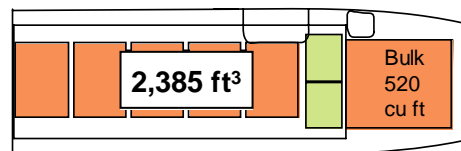
Main deck



34 pallets



Forward lower lobe



Aft lower lobe

- (27) 96-in x 125-in contoured pallets (740 ft³)
- (5) 96-in x 125-in x 8-ft contoured pallets (613 ft³)
- (2) 96-in x 125-in x 8-ft contoured pallets (540 ft³ + 607 ft³)
- (12) 96-in x 125-in contoured pallets (407 ft³)
- (2) LD-1/3 containers (175 ft³)

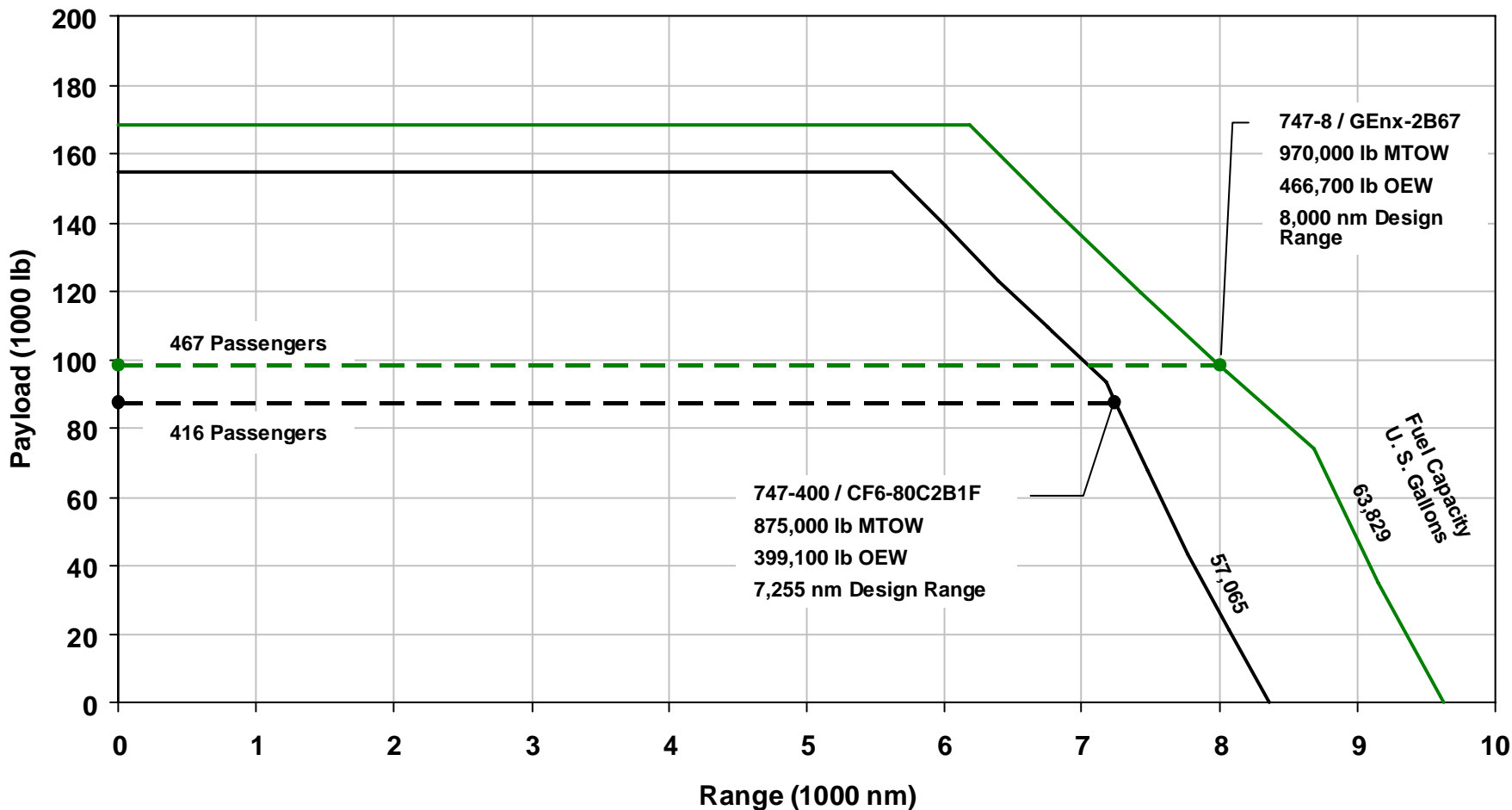
Total volume* = 29,426 ft³ (833 m³)

* Excludes bulk cargo

Payload Range Capability

747-8 Intercontinental

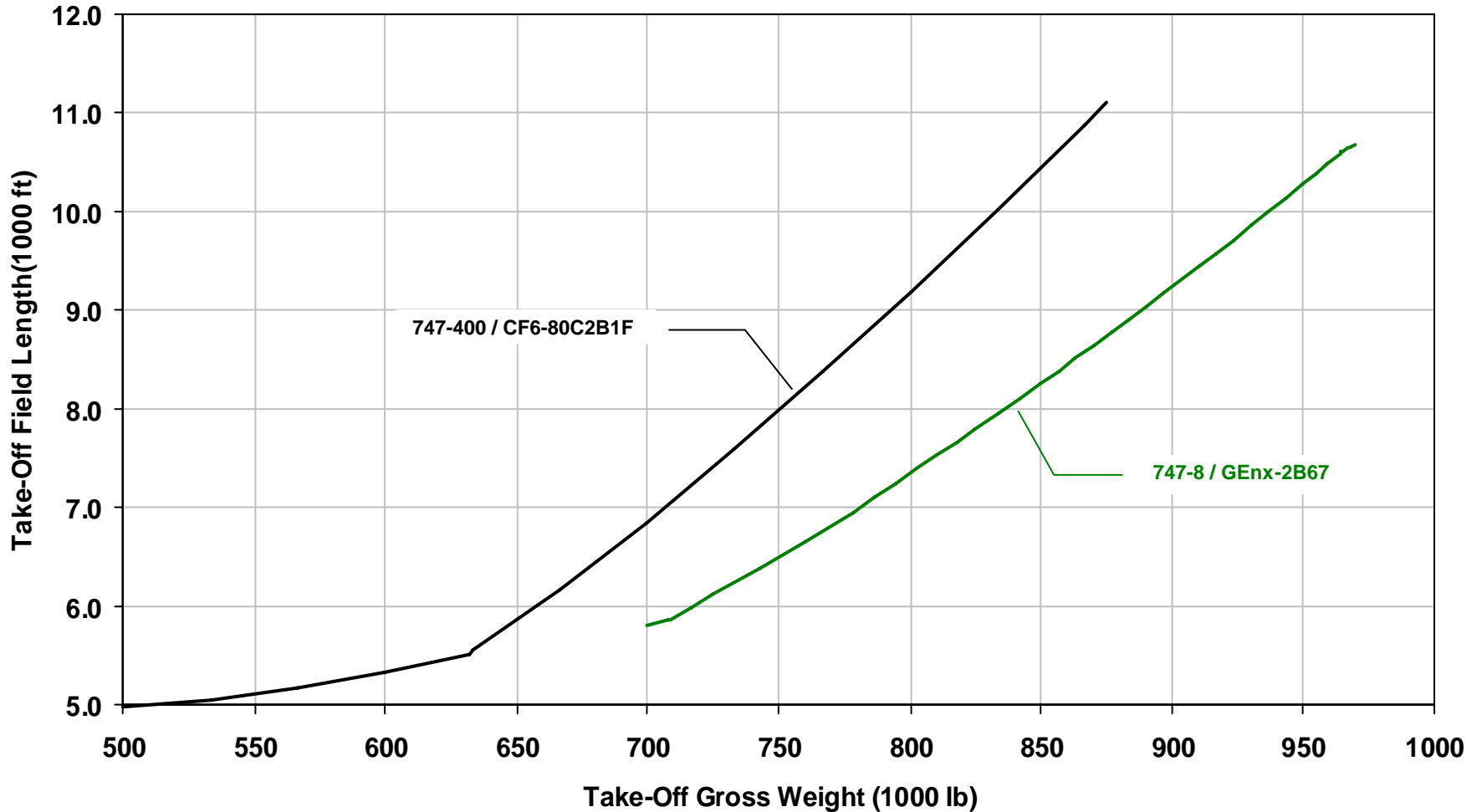
- Typical Mission Rules
- Nominal Fuel Flow
- Standard Day / Sea Level
- Passenger Allowance: 210 lb / pax
- Fuel Density: 6.7 lb / USG



Take-off Field Length

747-8 Intercontinental

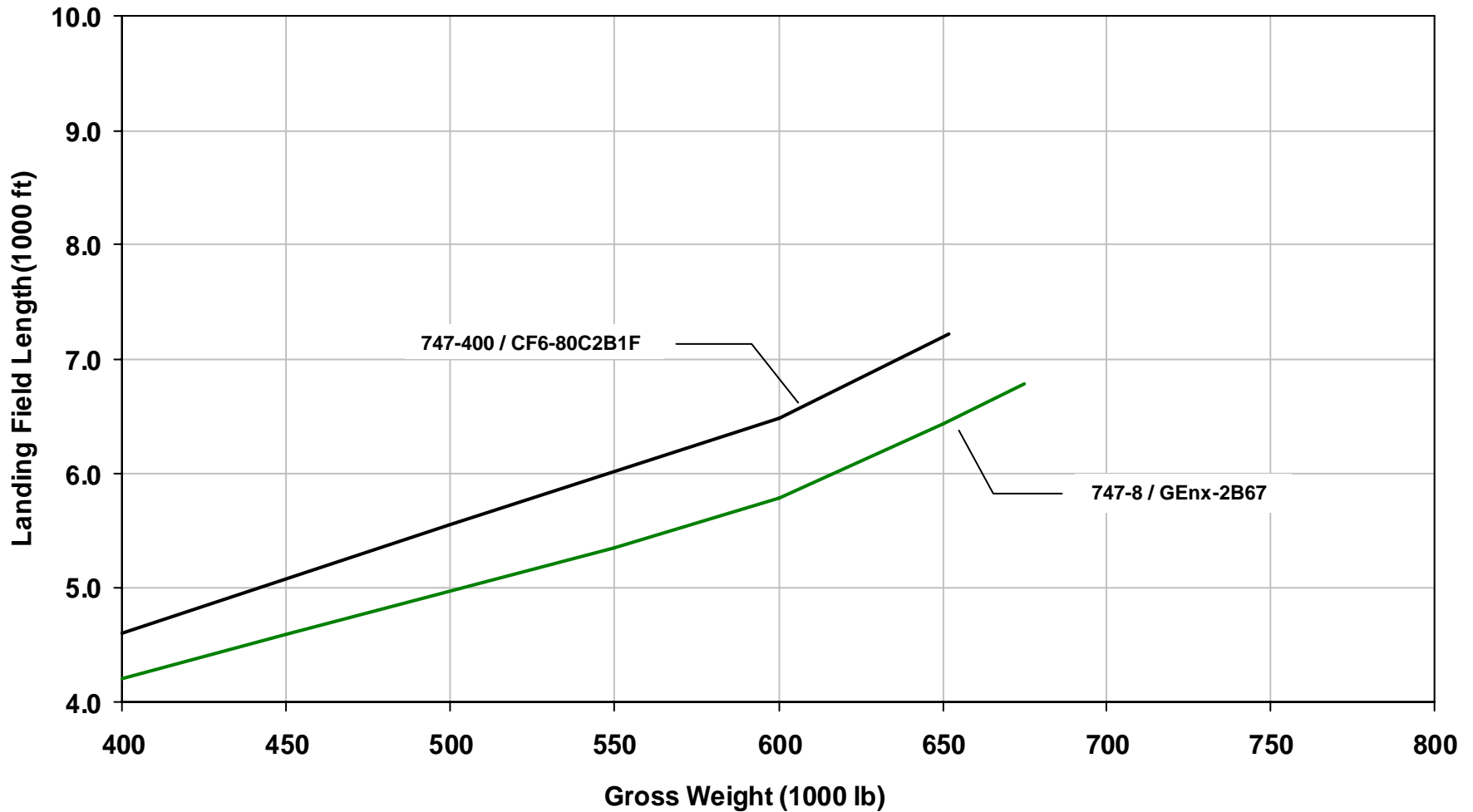
- Sea Level
- ISA+27F (15C)
- Optimum Take-Off



Landing Field Length

747-8 Intercontinental

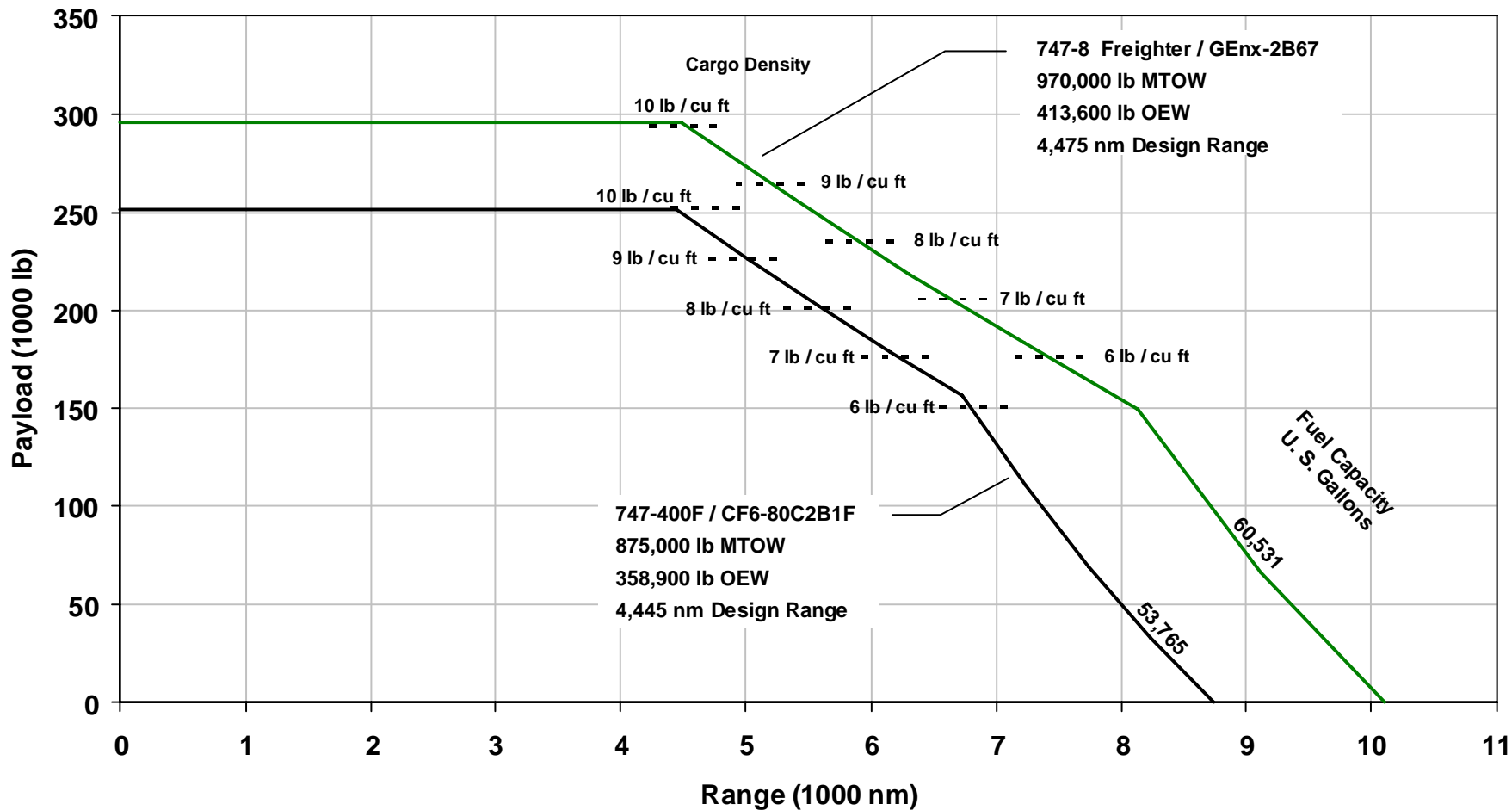
- Sea Level
- Standard Day
- Flaps 30



Payload Range Capability

747-8 Freighter

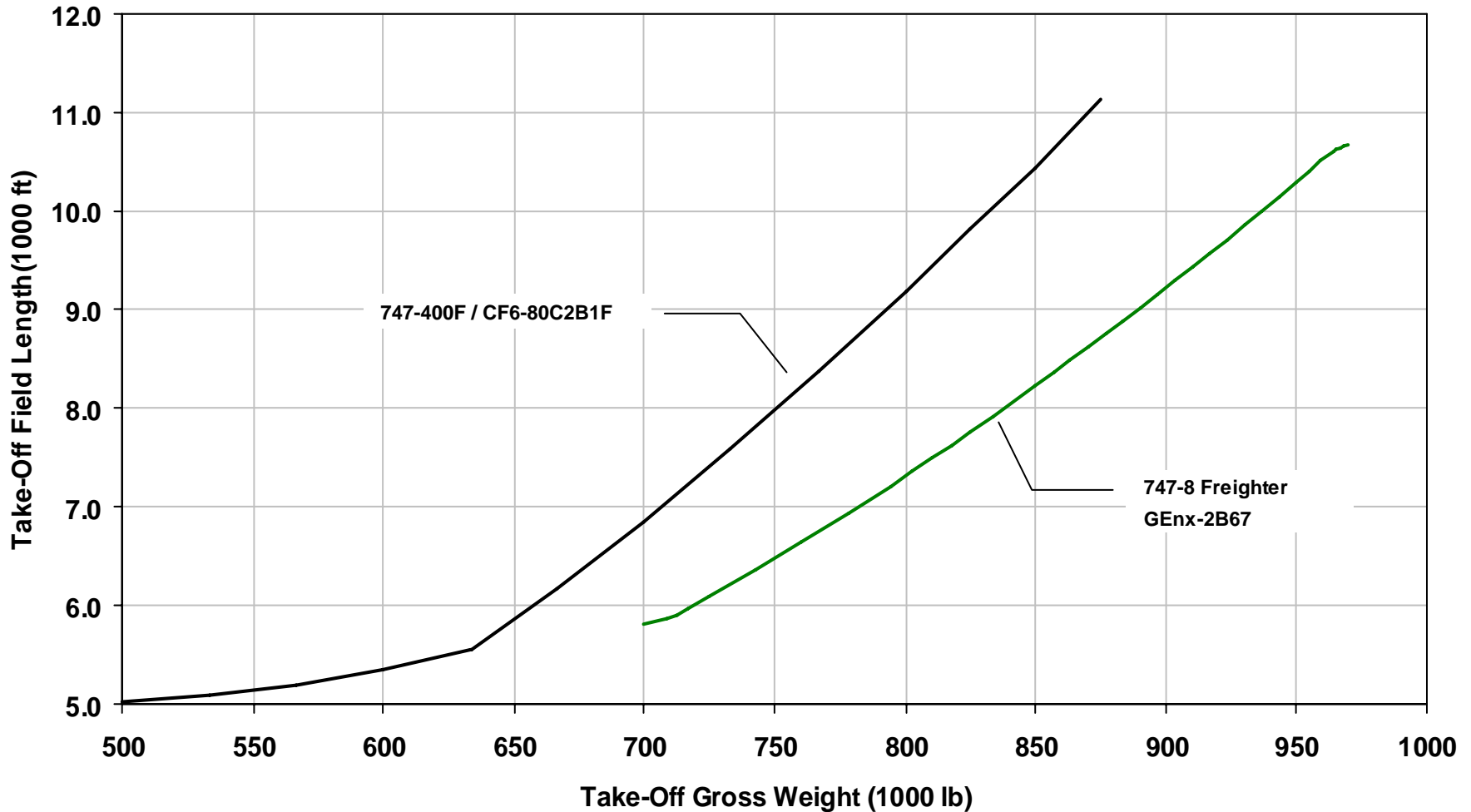
- Typical Mission Rules
- Nominal Fuel Flow
- Standard Day / Sea Level
- Fuel Density: 6.7 lb / USG



Take-off Field Length

747-8 Freighter

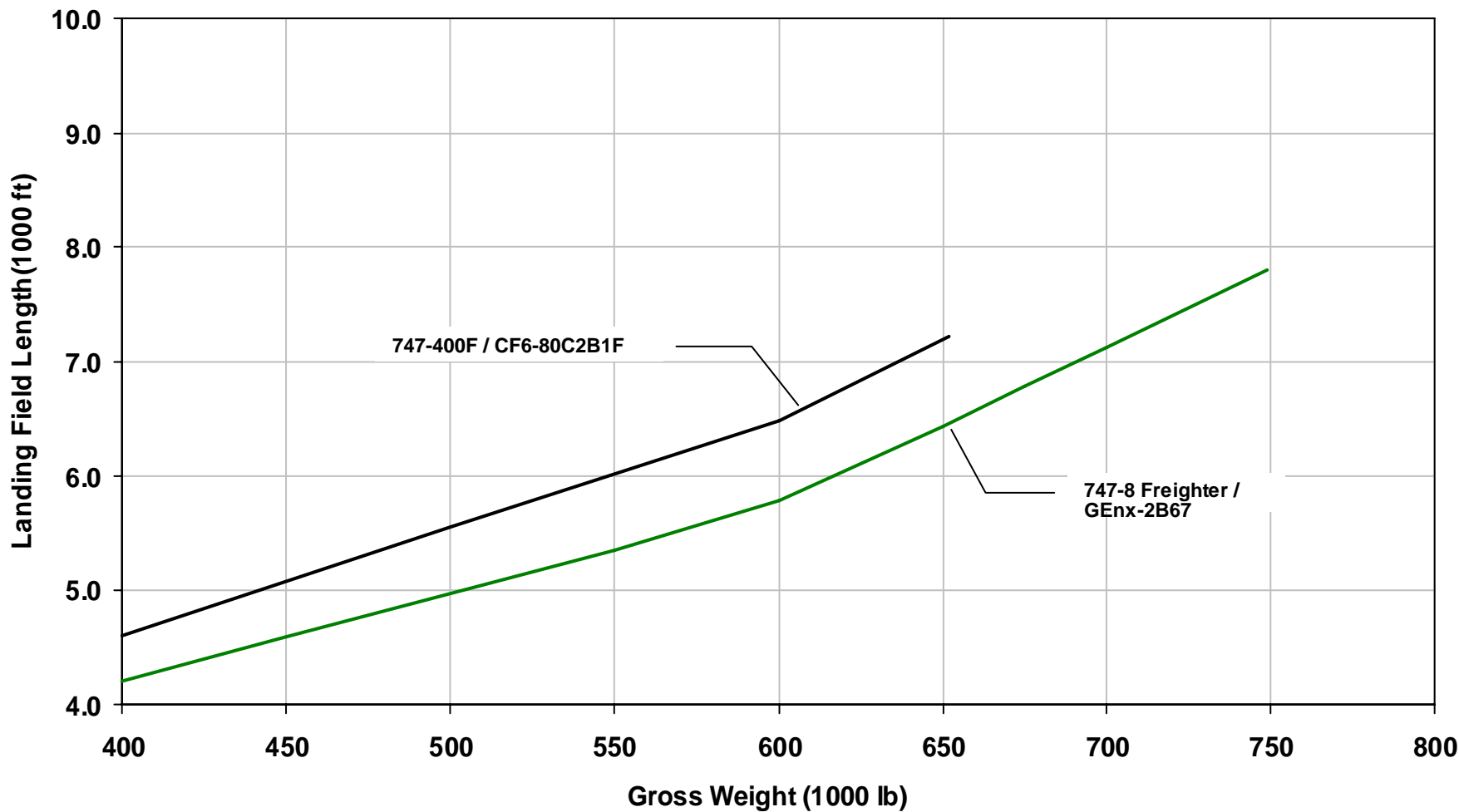
- Sea Level
- ISA+27F (15C)
- Optimum Take-Off



Landing Field Length

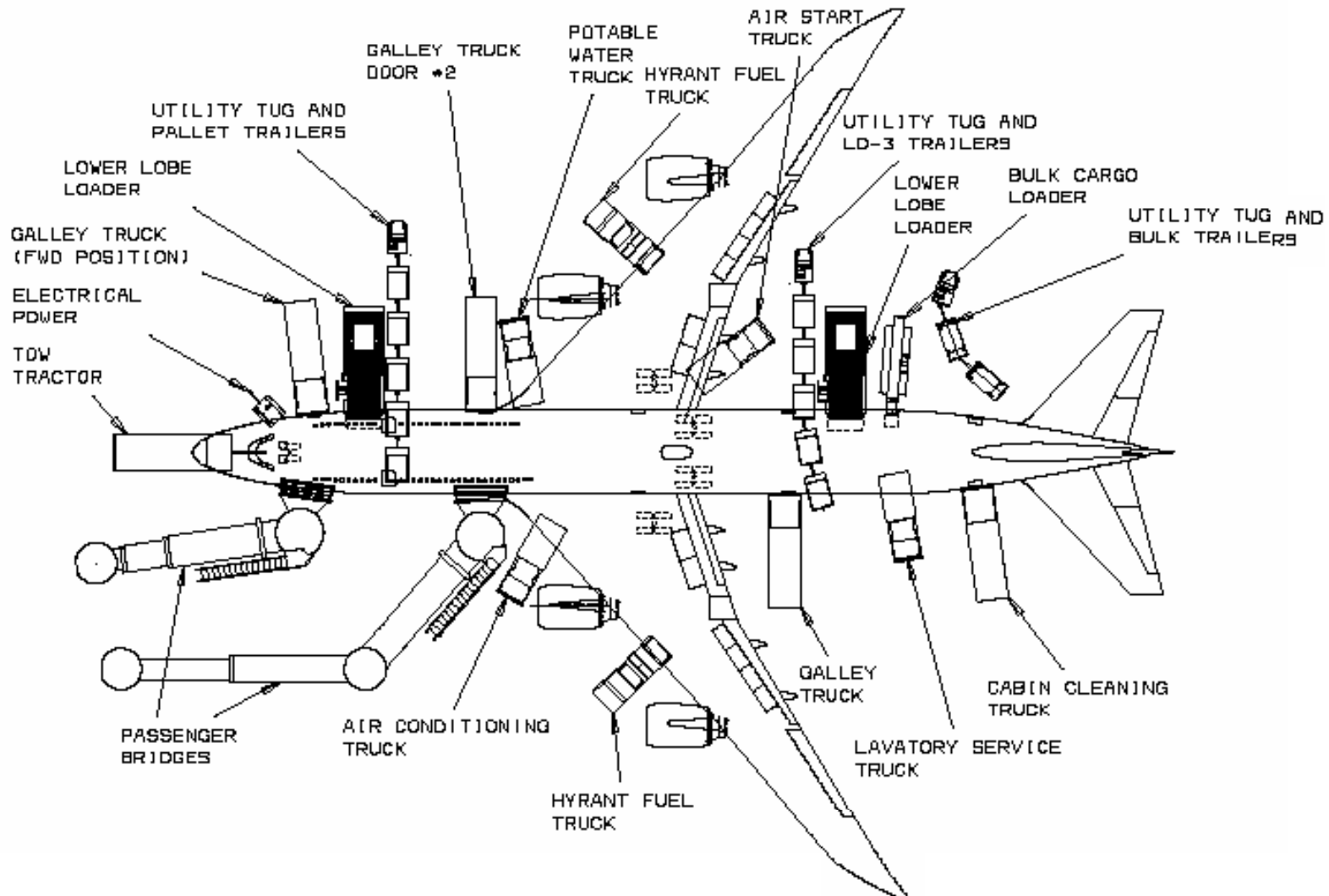
747-8 Freighter

- Sea Level
- Standard Day
- Flaps 30



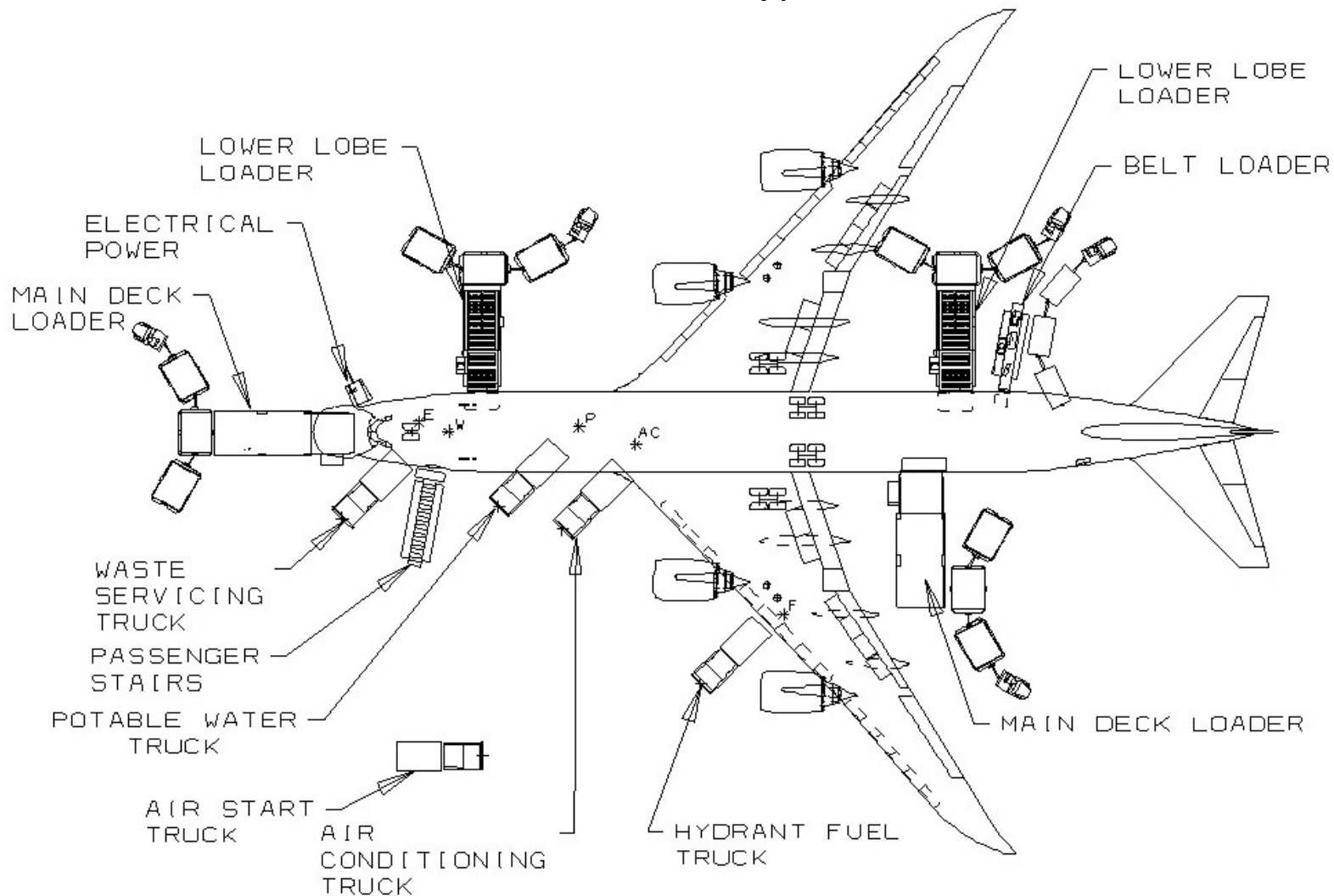
Ground Servicing

747-8 Intercontinental

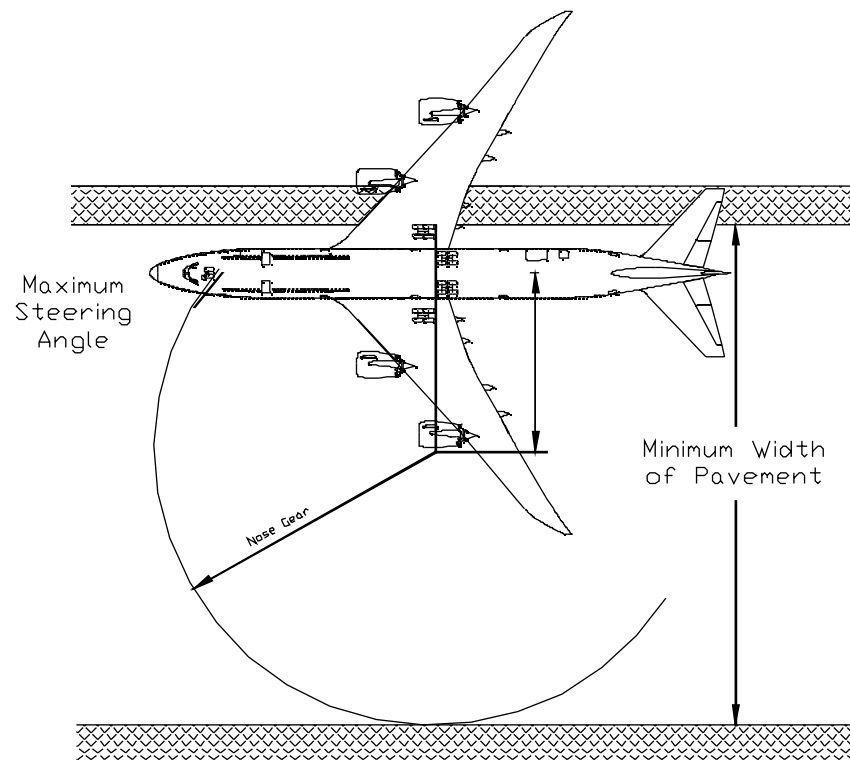


Ground Servicing

747-8 Freighter



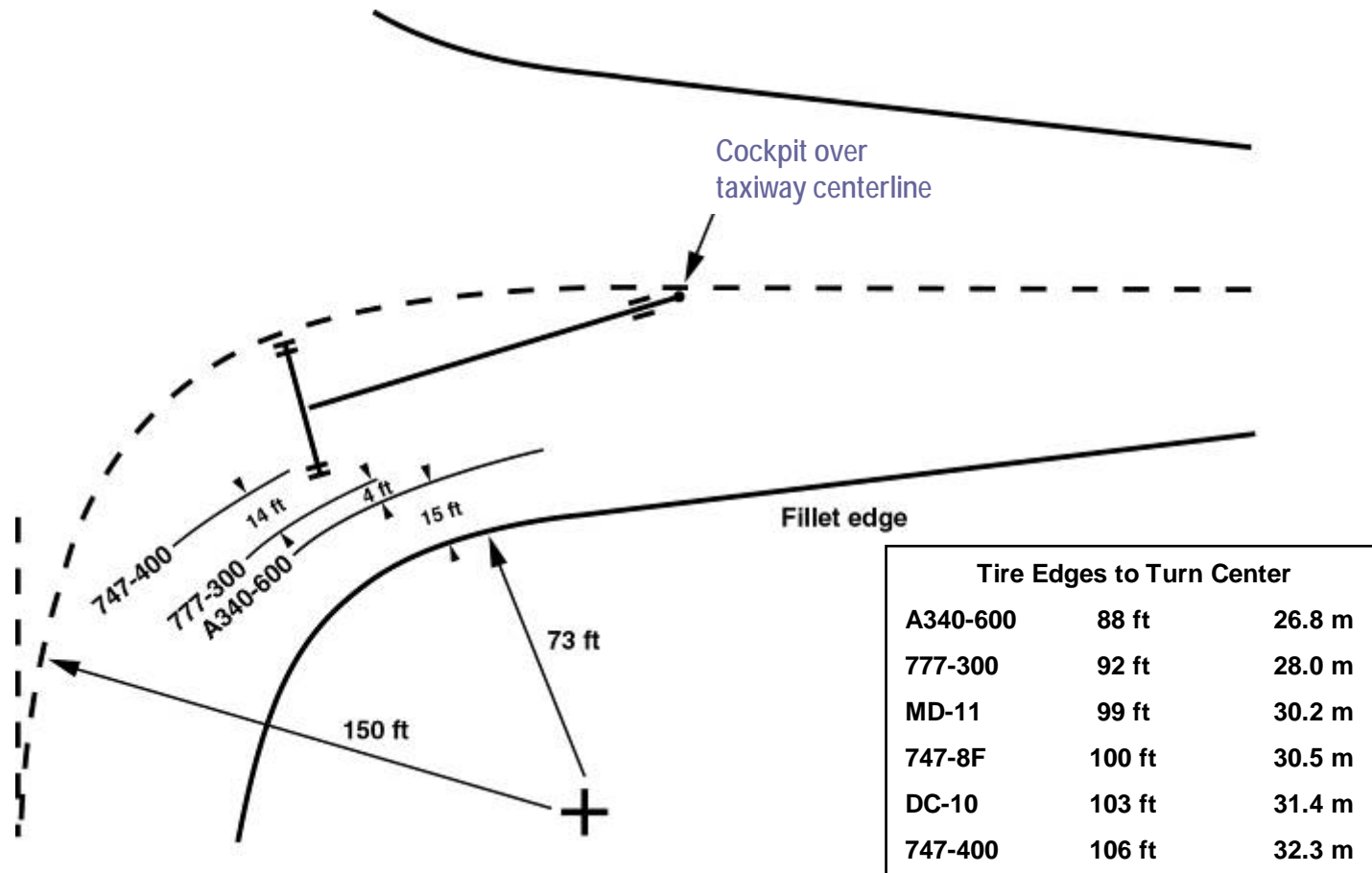
Minimum Width of Pavement for 180° Turn



| | 747-400F | 747-8F | 777-300ER |
|--|----------------|---------------|----------------|
| ICAO Code | E | F | E |
| Maximum steering angle, no differential braking | 47 m 154 ft | 52 m 172ft | 57 m 185 ft |

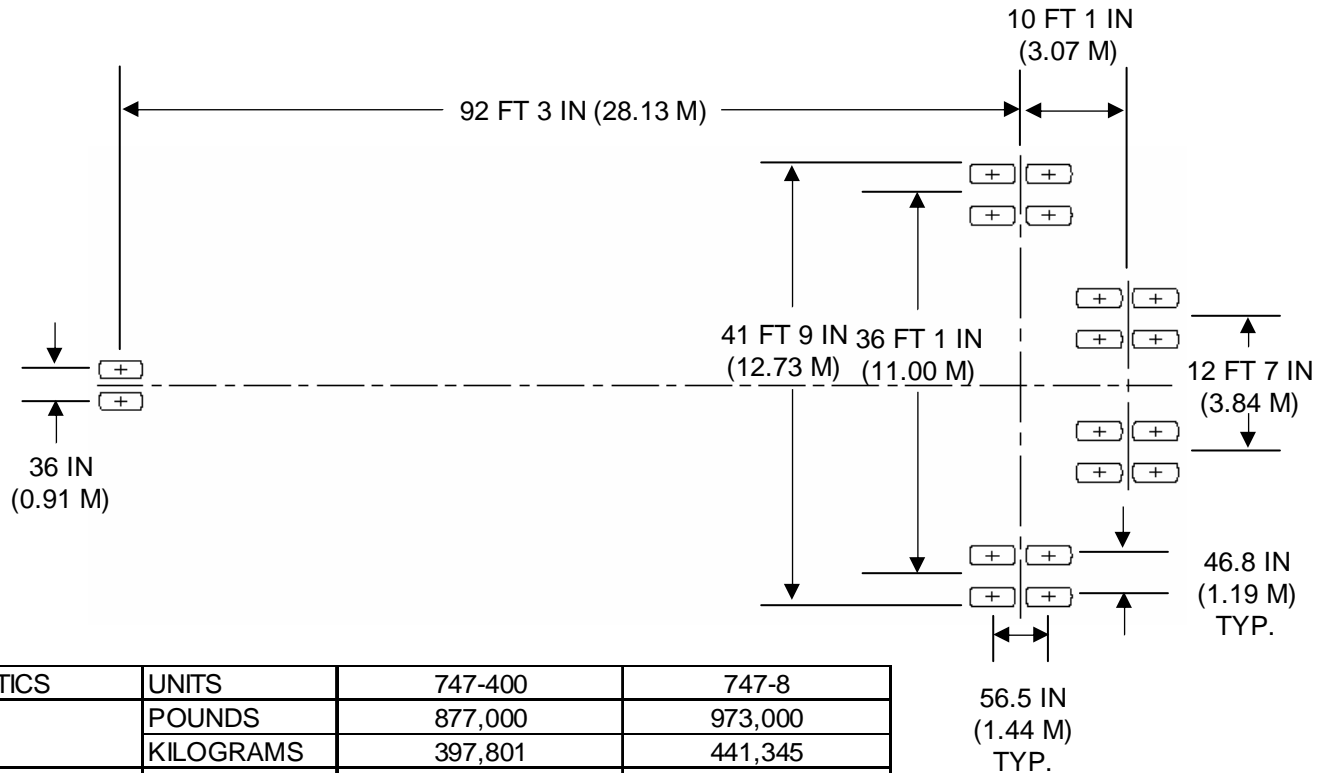
U-turn width required can be reduced by using differential braking and / or asymmetrical thrust.

747-8 Fillet Requirement



Landing Gear Footprint

747-8



| CHARACTERISTICS | UNITS | 747-400 | 747-8 |
|-------------------------|--------------------|---------------------|---------------|
| MAX DESIGN TAXI WEIGHT | POUNDS | 877,000 | 973,000 |
| | KILOGRAMS | 397,801 | 441,345 |
| NOSE GEAR TIRE SIZE | IN. | 49x17, 32 PR * | 50x20R22/34PR |
| NOSE GEAR TIRE PRESSURE | PSI | 200 * | 190 |
| | KG/CM ² | 14.06 * | 13.36 |
| MAIN GEAR TIRE SIZE | IN. | H49x19.0 - 22 32 PR | 52x21R22/36PR |
| MAIN GEAR TIRE PRESSURE | PSI | 200 | 220 |
| | KG/CM ² | 14.06 | 15.47 |

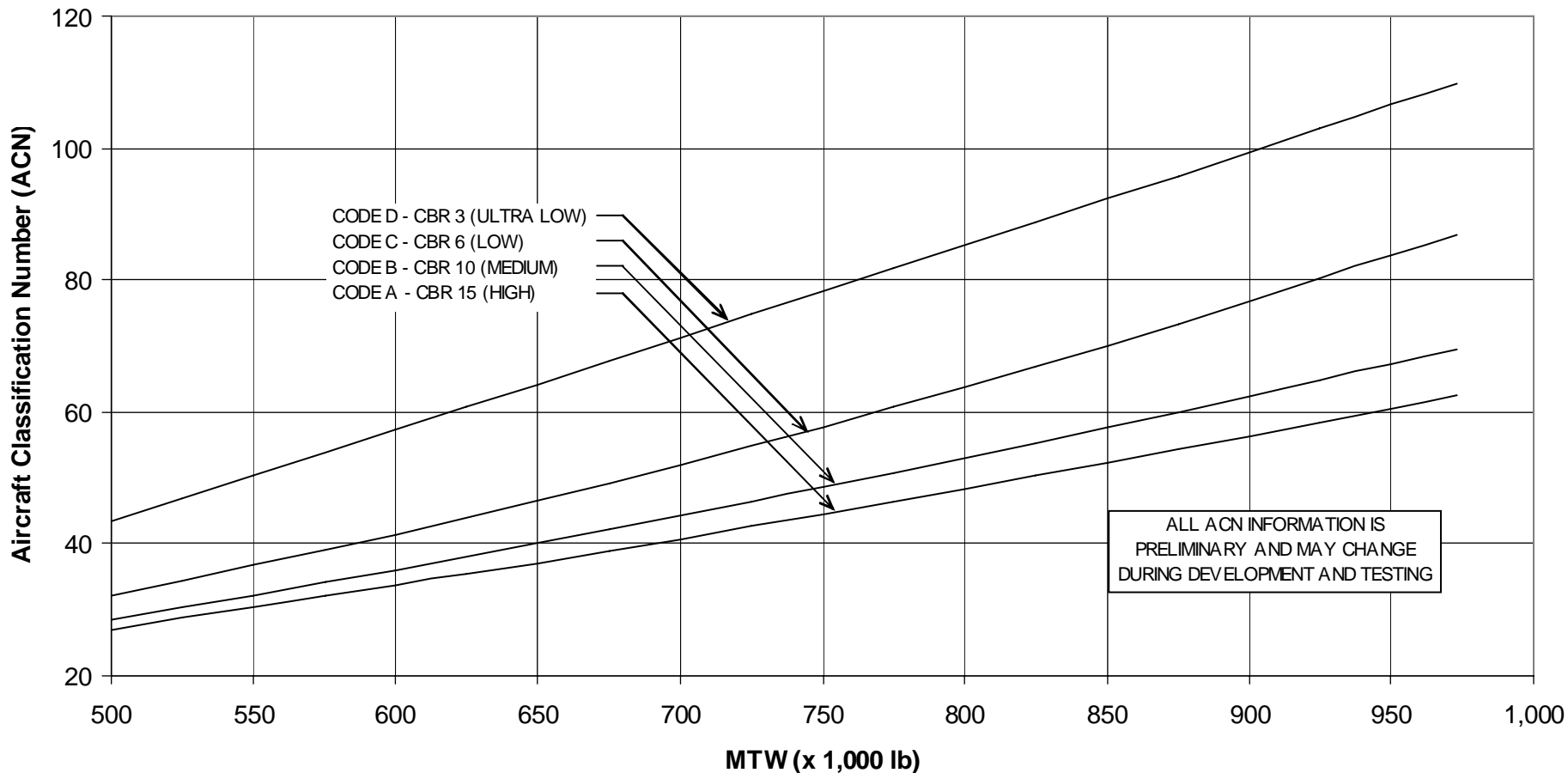
* OPTION: 49X19.0-20, 32PR OR 34PR AT 185 PSI (13.01 KG/CM²) OR H49X19.0-22, 32PR AT 175 PSI (12.30 KG/CM²)

PRELIMINARY

Aircraft Classification Number (ACN)

Flexible Pavement

747-8 Intercontinental and Freighter

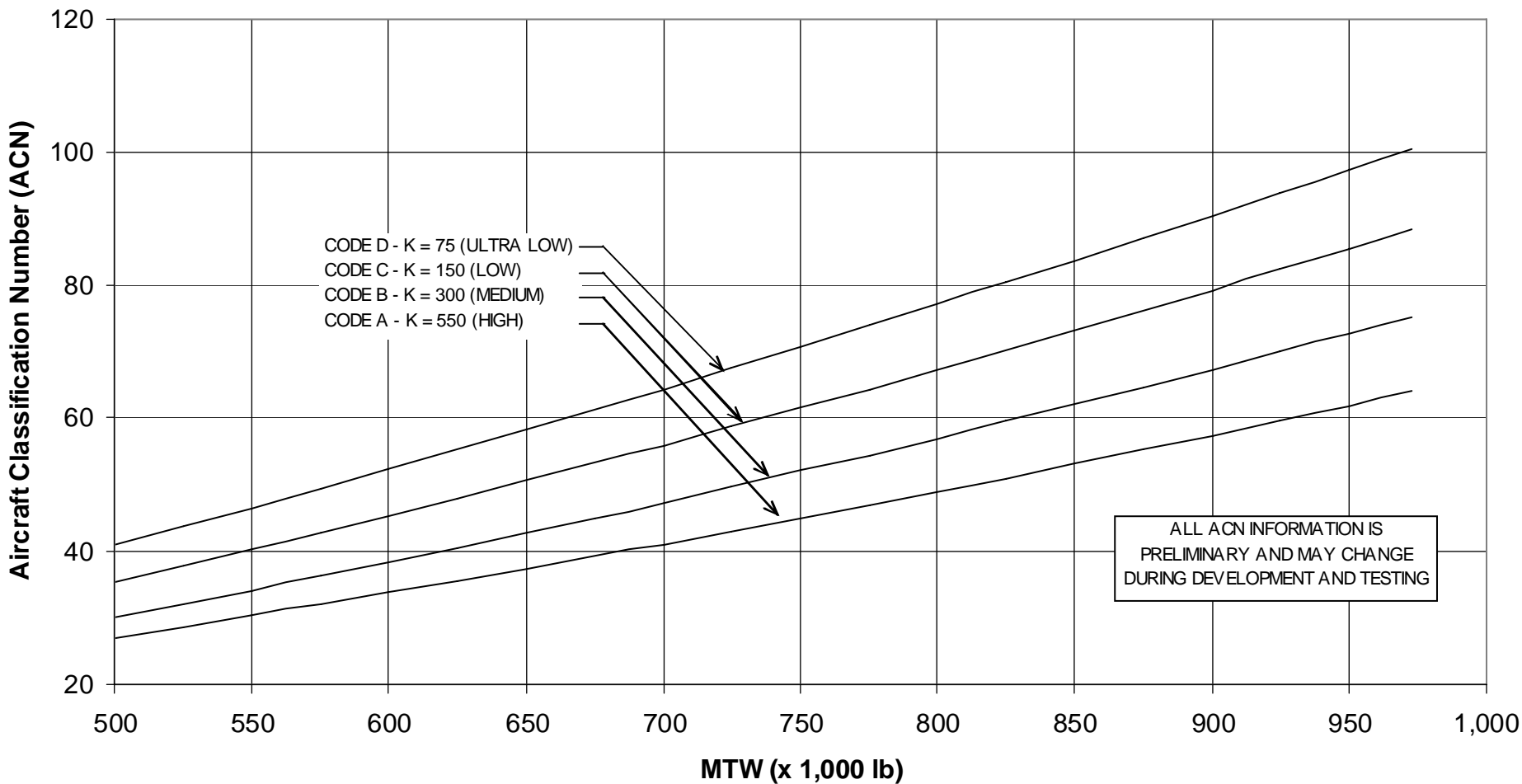


Flexible pavement ACN's are based on the approval of the ICAO Aerodrome Panel / December 2006

PRELIMINARY

Aircraft Classification Number (ACN) Rigid Pavement

747-8 Intercontinental and Freighter



PRELIMINARY

Noise Footprint

747-8 Intercontinental and Freighter

Noise area reduced by more than 30% over the 747-400

