



# 747-8F

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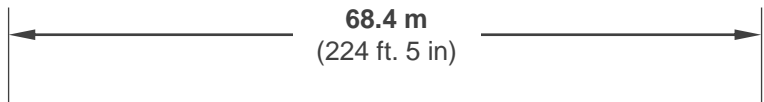
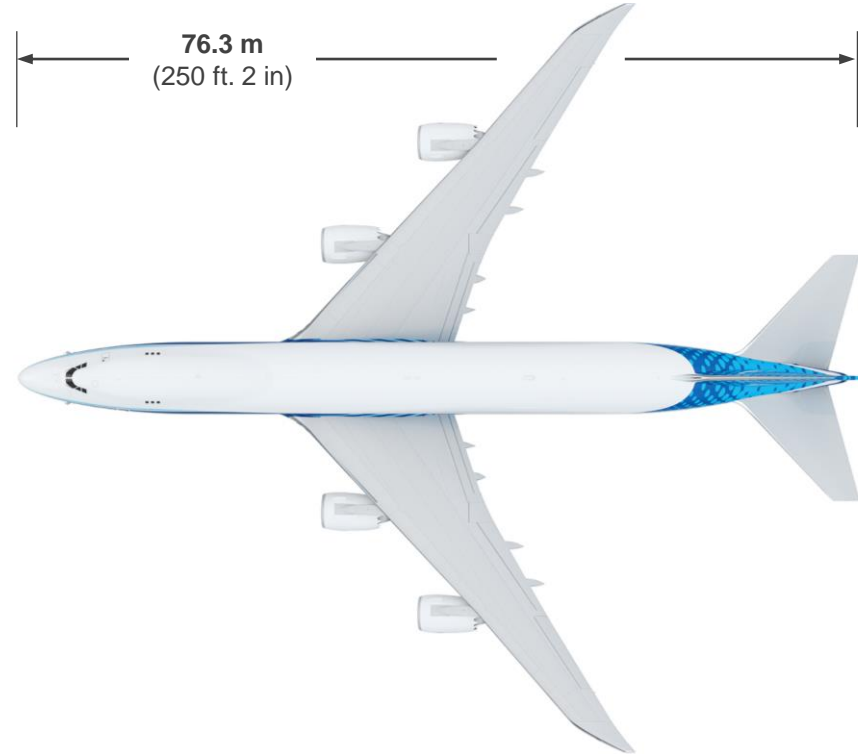
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# Boeing 747-8F

General arrangement

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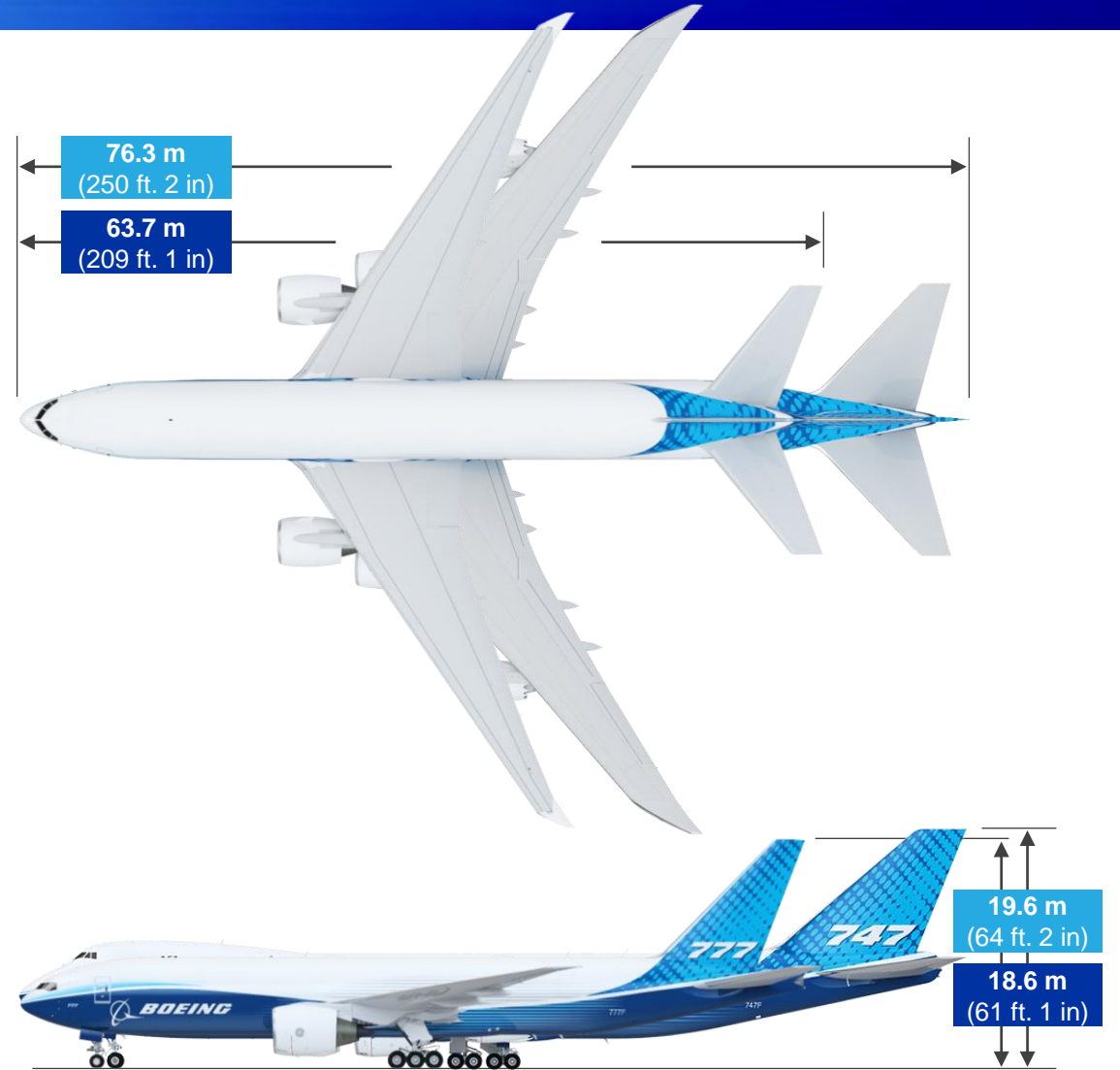
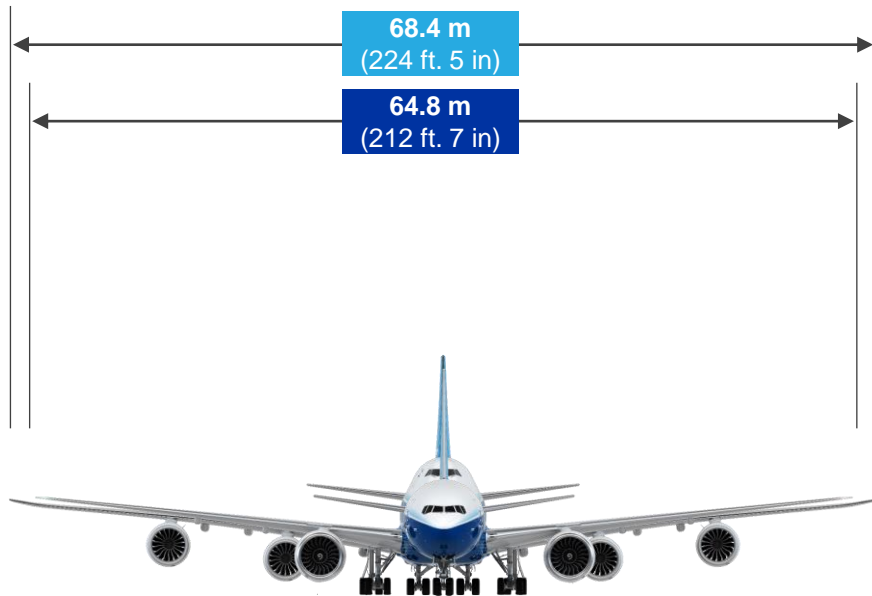


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# 747-8F and 777F size comparison

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- 747-8F
- 777F



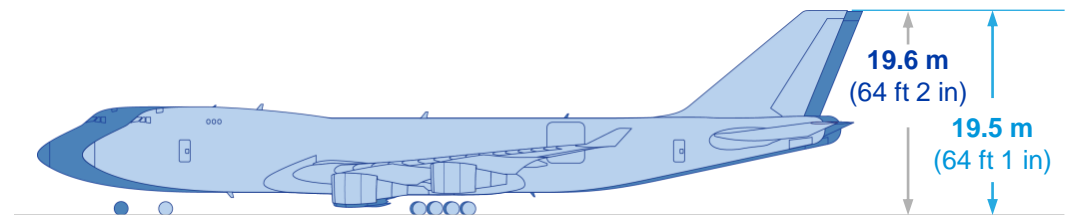
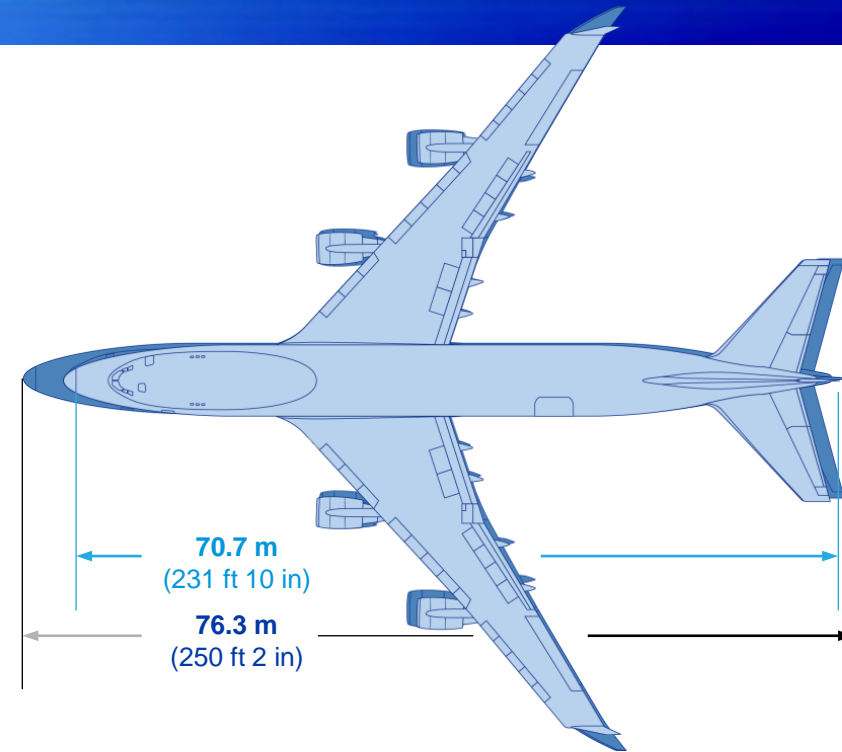
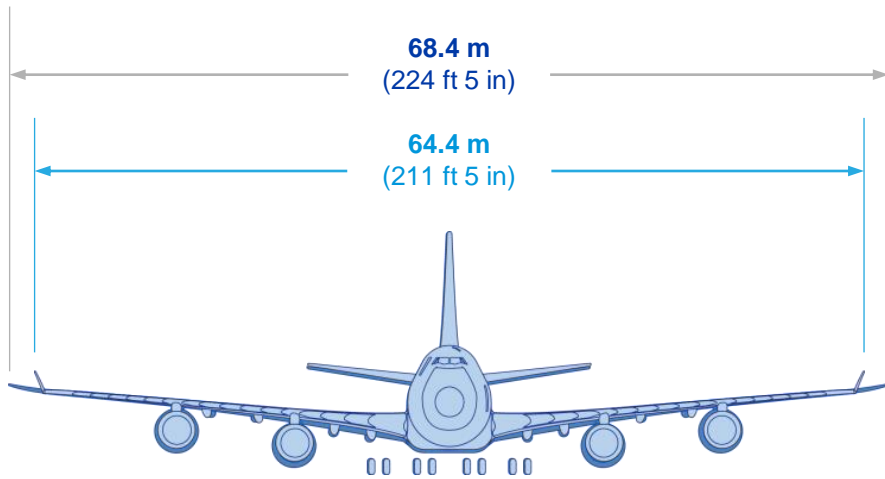
777F length dimension to H-stab; 747-8F length dimension to V-stab

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# 747-8F and 747-400F size comparison

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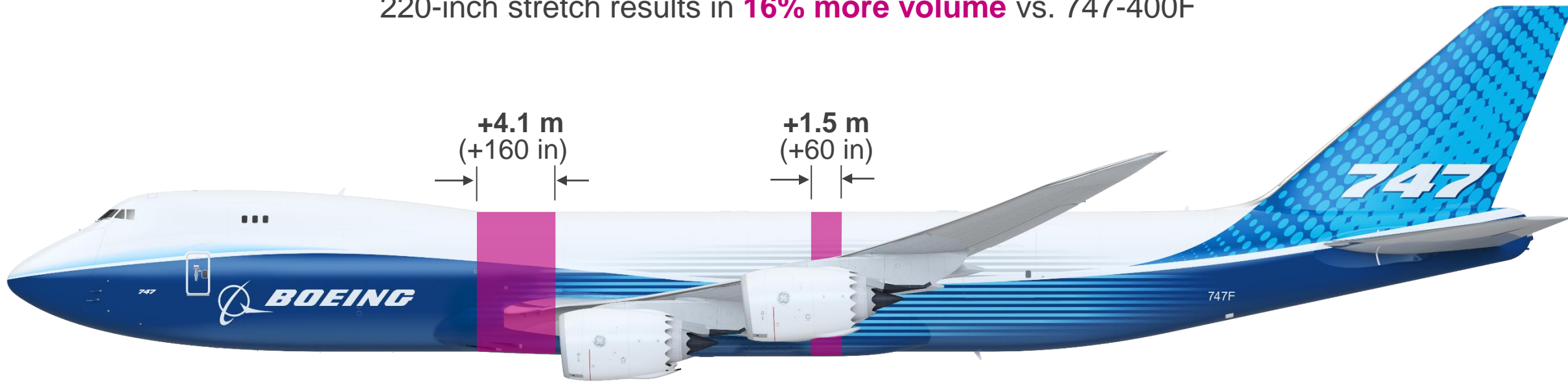


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# Stretched to accommodate additional payload

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220-inch stretch results in **16% more volume** vs. 747-400F



**4**

additional  
main deck pallets

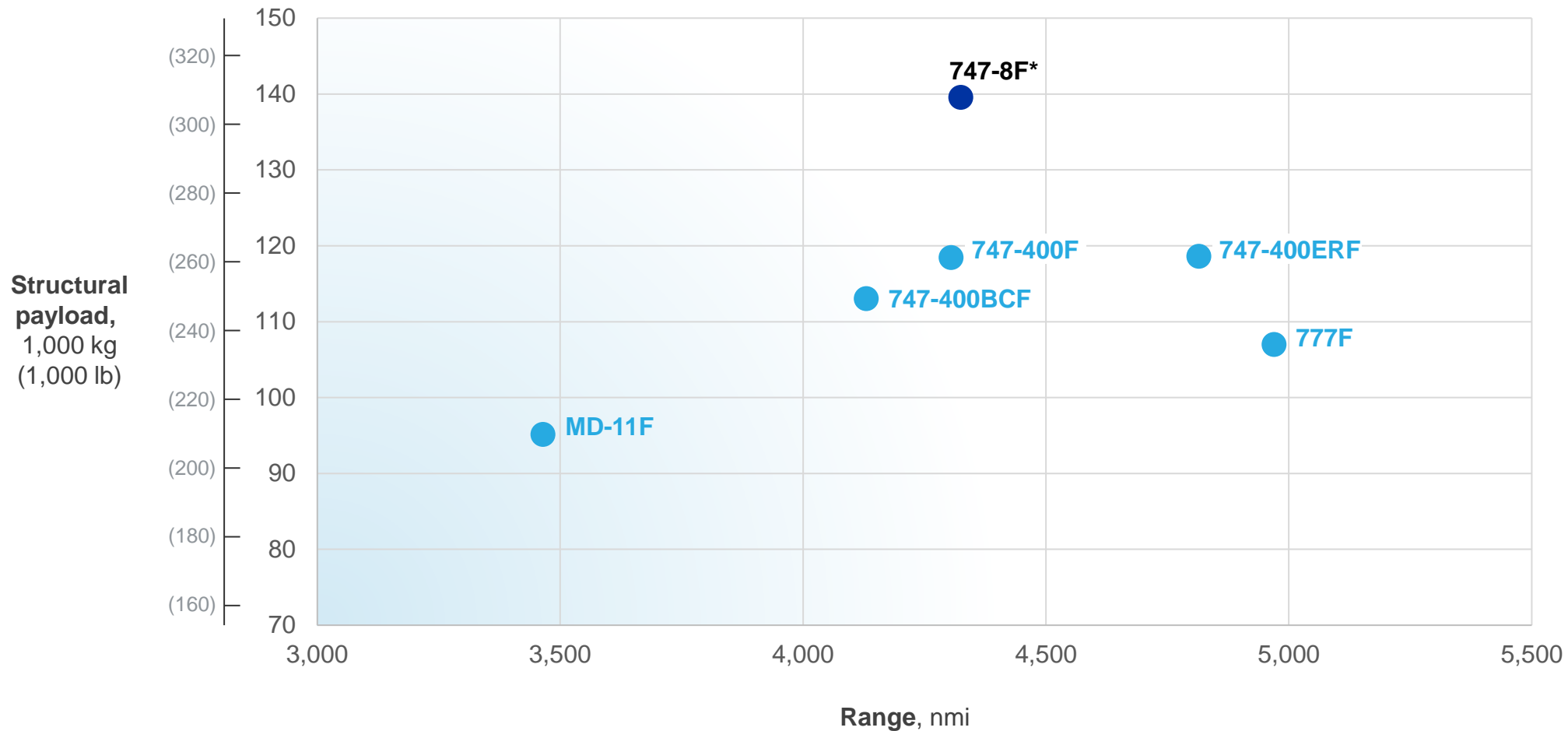
**3**

additional  
lower hold pallets

# 747-8F offers unmatched payload capability

Maximum structural payload

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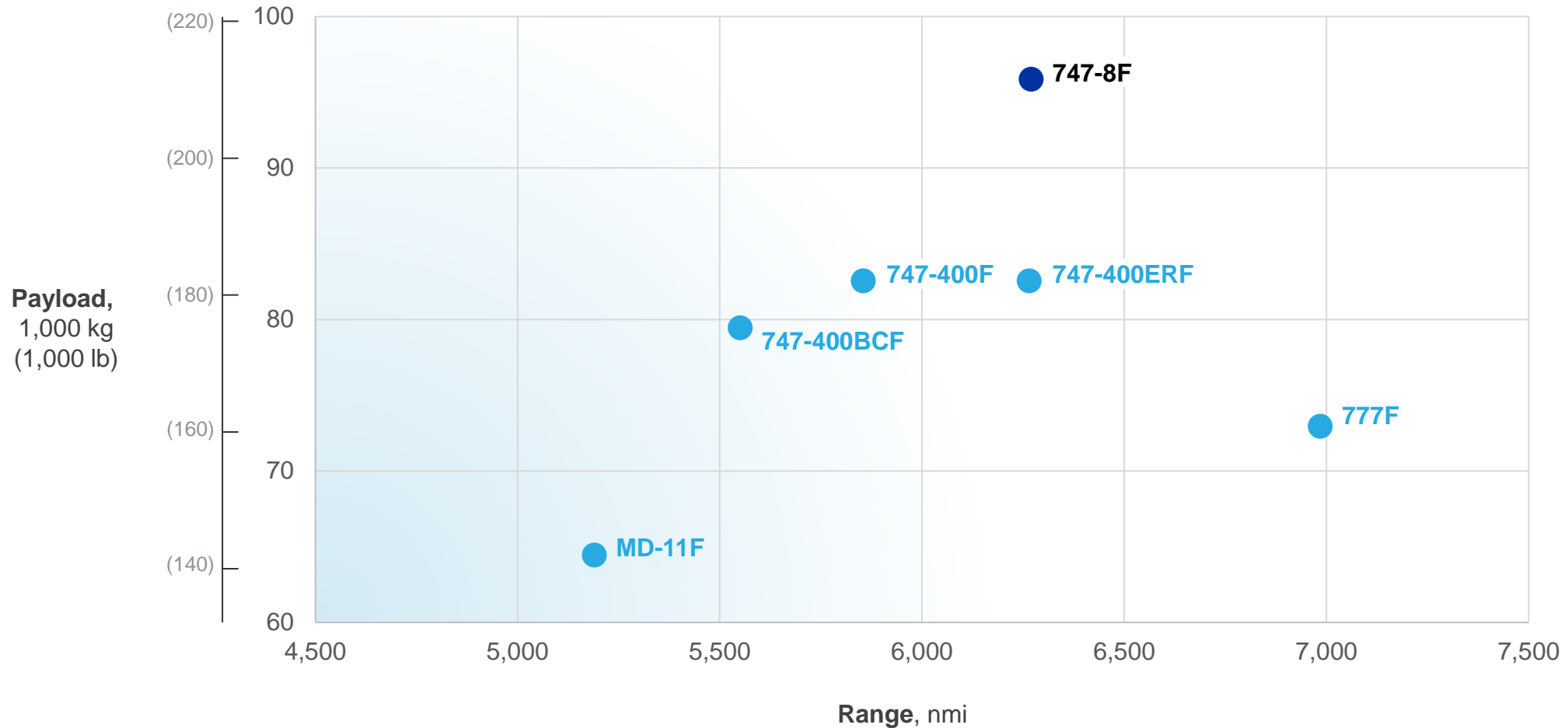
\* Reflects maximum landing weight payload  
Standard rules  
Maximum structural payload  
3% fuel factor for MD-11F, 747-400F, 747-400ERF, and 747-400BCF

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# 747-8F offers unmatched payload capability

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Volume-limited payload



Standard rules  
Volume-limited payload at 112 kg/m<sup>3</sup> (7 lb/ft<sup>3</sup>) density  
3% fuel factor for MD-11F, 747-400F, 747-400ERF, and 747-400BCF

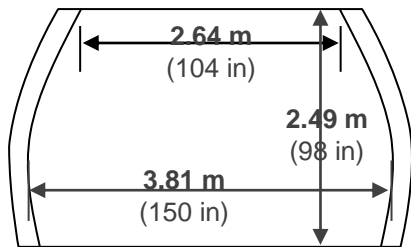
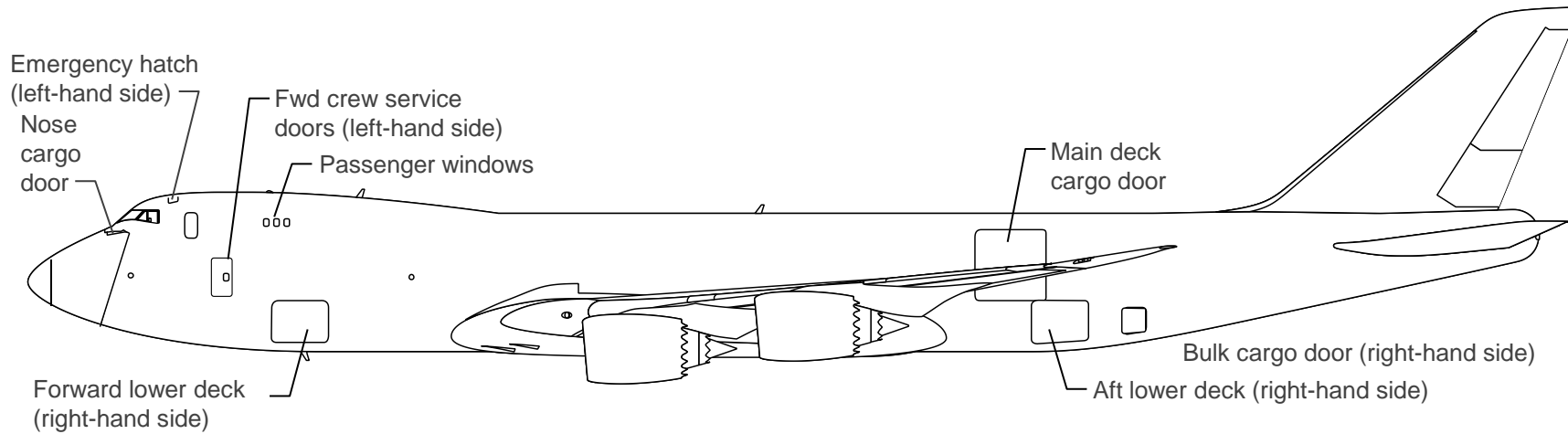
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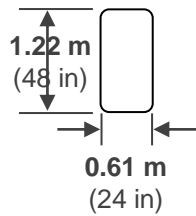
# Boeing 747-8F

## Cargo and crew doors

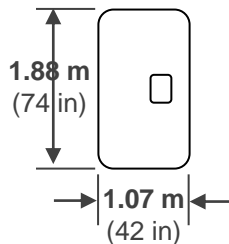
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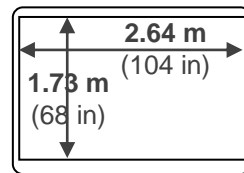
Nose cargo door



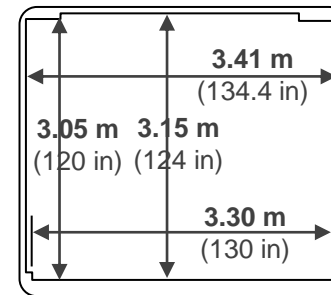
U/D entry door (STA 464)  
 Left-hand side



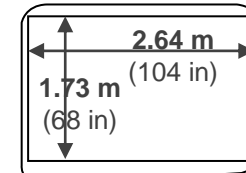
Fwd crew service door (STA 464)  
 Left-hand side



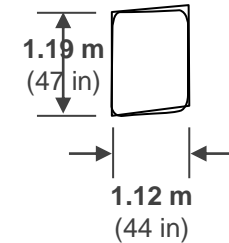
Fwd lower deck cargo door (STA 615)  
 Right-hand side



Main deck cargo door (STA 1770)  
 Left-hand side



Aft lower deck cargo door (STA 1865)  
 Right-hand side



Bulk cargo door (STA 2007)  
 Right-hand side

Clear opening dimensions

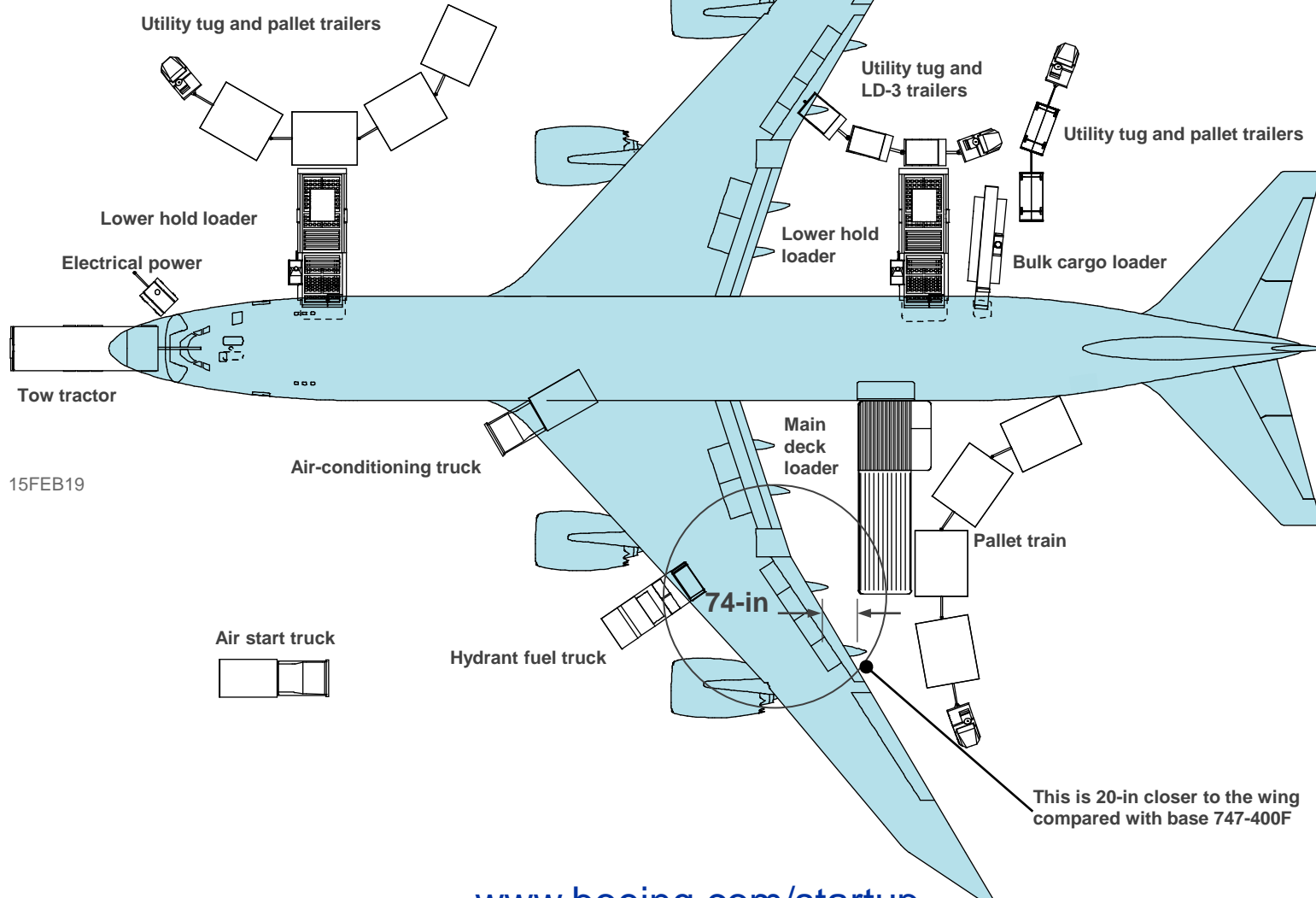
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# The 747-8F has similar ground servicing positions to the 747-400F

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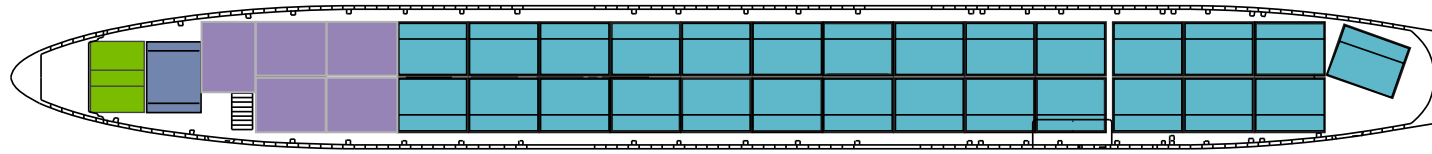


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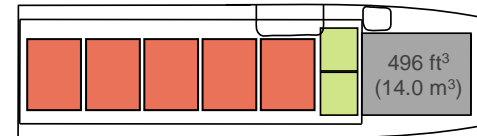
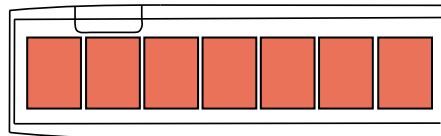
# 747-8F offers 34 main deck pallet positions

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**Main deck**  
34 positions



**Lower hold**  
12+2 positions



	ULD	Capacity ft <sup>3</sup> (m <sup>3</sup> )	Tare lb. (kg)	Deck	Cargo volume
<b>27</b>	96" x 125" x 118" pallet	750 (21.2)	300 (136.1)	Main deck	24,462 ft <sup>3</sup> (692.7 m <sup>3</sup> )
<b>5</b>	96" x 125" x 96" pallet	613 (17.4)	300 (136.1)	Main deck	
<b>1</b>	96" x 125" x 96" pallet	607 (17.2)	300 (136.1)	Main deck	
<b>1</b>	96" x 125" x 96" pallet	540 (15.3)	300 (136.1)	Main deck	
<b>12</b>	96" x 125" x 64" pallet	407 (11.5)	290 (131.5)	Lower hold	5,730* ft <sup>3</sup> (162.3* m <sup>3</sup> )
<b>2</b>	LD-1 container	175 (5.0)	200 (90.7)	Lower hold	

**Total cargo volume** 30,192 ft<sup>3</sup> (854.9 m<sup>3</sup>)

**Total tare weight** 14,080 lb (6,387 kg)

\* includes bulk cargo

# Main deck pallet arrangements

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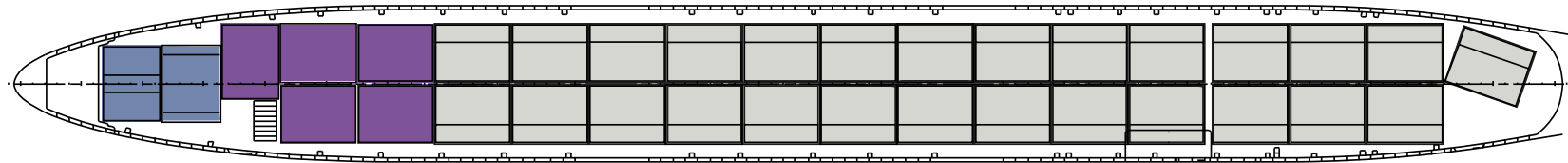
## Main deck

■ 2 96-in x 125-in x 96" contoured pallets,  $15.3 \text{ m}^3 + 17.2 \text{ m}^3$  (540 + 607 ft<sup>3</sup>) =  $32.5 \text{ m}^3$  (1,147 ft<sup>3</sup>)

■ 5 96-in x 125-in x 96" pallets,  $17.4 \text{ m}^3$  (613 ft<sup>3</sup>) =  $86.8 \text{ m}^3$  (3,065 ft<sup>3</sup>)

■ 27 96-in x 125-in contoured pallets,  $21.2 \text{ m}^3$  (750 ft<sup>3</sup>) =  $573.4 \text{ m}^3$  (20,250 ft<sup>3</sup>)

**Total**  $692.7 \text{ m}^3$  (24,462 ft<sup>3</sup>)



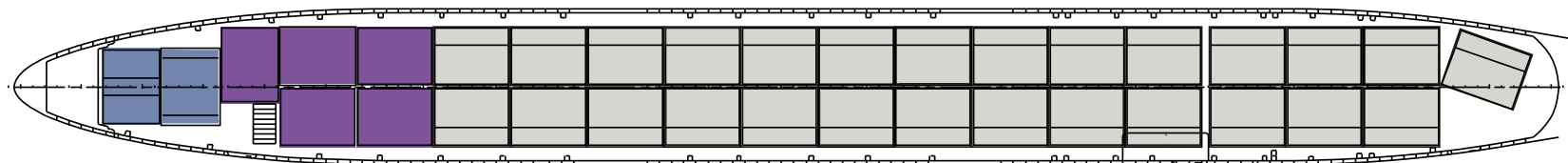
## Main deck (alternate)

■ 2 88-in x 125-in x 96" contoured pallets,  $14.0 \text{ m}^3 + 15.7 \text{ m}^3$  (493 + 554 ft<sup>3</sup>) =  $29.6 \text{ m}^3$  (1,047 ft<sup>3</sup>)

■ 5 88-in x 125-in x 96" pallets,  $15.9 \text{ m}^3$  (560 ft<sup>3</sup>) =  $79.3 \text{ m}^3$  (2,800 ft<sup>3</sup>)

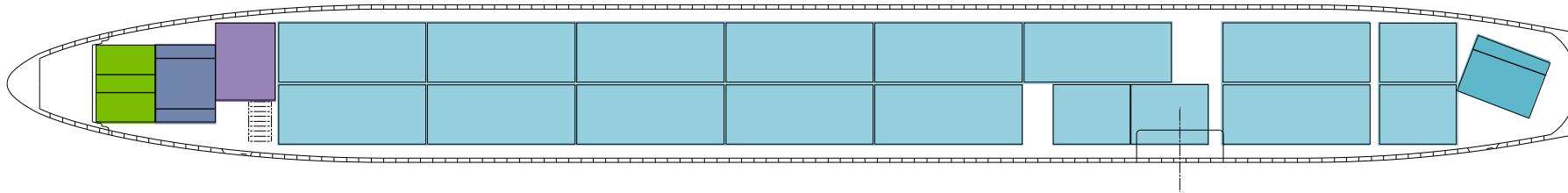
■ 27 88-in x 125-in contoured pallets,  $19.3 \text{ m}^3$  (680 ft<sup>3</sup>) =  $519.9 \text{ m}^3$  (18,360 ft<sup>3</sup>)

**Total**  $628.8 \text{ m}^3$  (22,207 ft<sup>3</sup>)

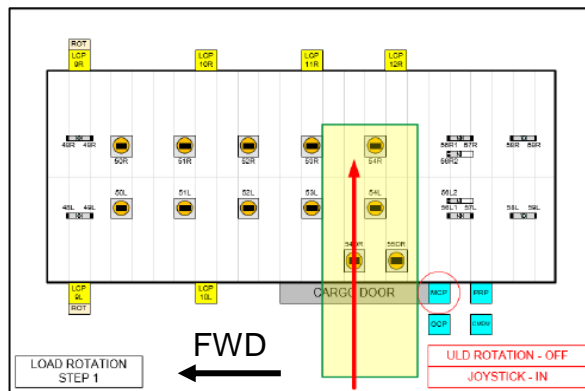


# 747-8F side cargo door accommodates loading of 20-ft (6-m) ULDs

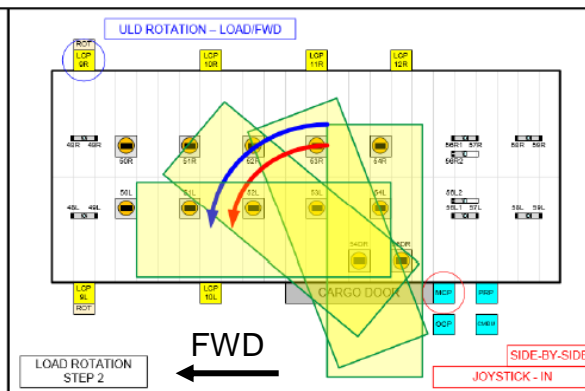
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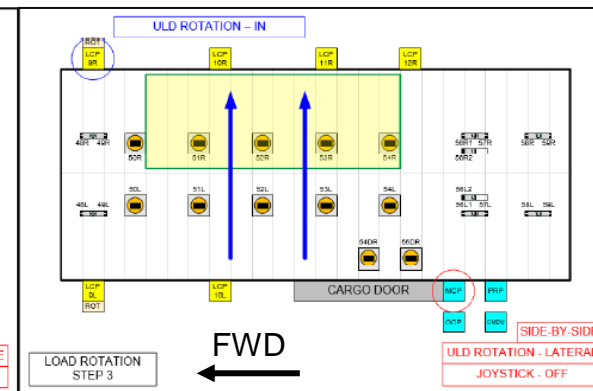
Step 1



Step 2



Step 3



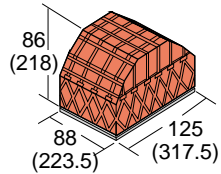
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# 747-8F main deck loading versatility

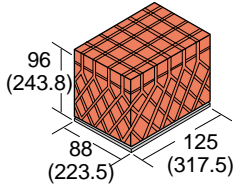
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## Either nose or side cargo door loading

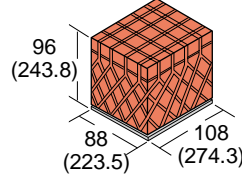
Type A\*  
12.4 m<sup>3</sup> (440 ft<sup>3</sup>)



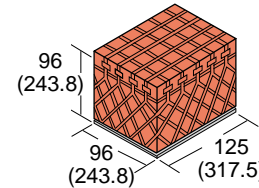
M1A  
15.8 m<sup>3</sup> (560 ft<sup>3</sup>)



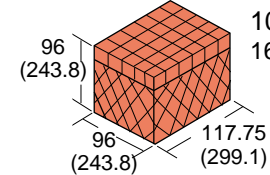
463L pallet  
13.6 m<sup>3</sup> (482 ft<sup>3</sup>)



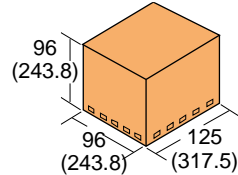
M1  
17.3 m<sup>3</sup> (613 ft<sup>3</sup>)



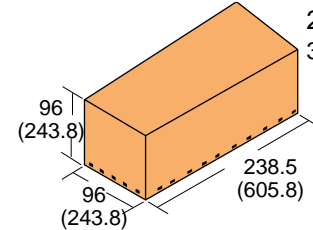
10-ft pallet  
16.5 m<sup>3</sup> (585 ft<sup>3</sup>)



10-ft container (M1)  
17.6 m<sup>3</sup> (623 ft<sup>3</sup>)

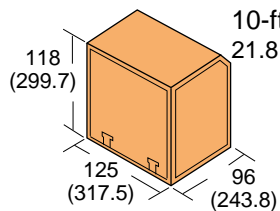


20-ft container (M2)  
33.6 m<sup>3</sup> (1,190 ft<sup>3</sup>)

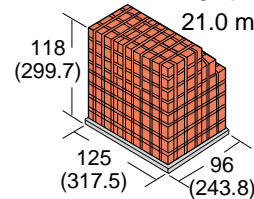


## Side cargo door loading only

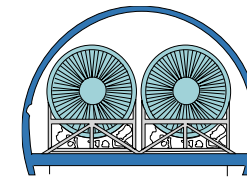
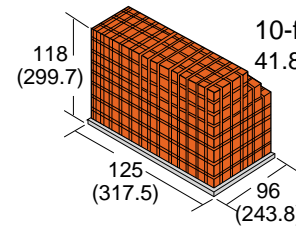
10-ft-high container (M1H)  
21.8 m<sup>3</sup> (773 ft<sup>3</sup>)



10-ft-high pallet (M1H)  
21.0 m<sup>3</sup> (745 ft<sup>3</sup>)



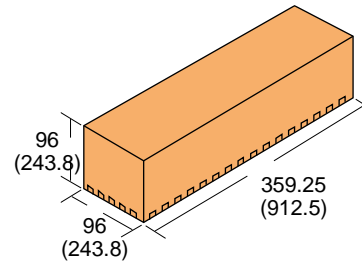
10-ft-high pallet (M6)  
41.8 m<sup>3</sup> (1,480 ft<sup>3</sup>)



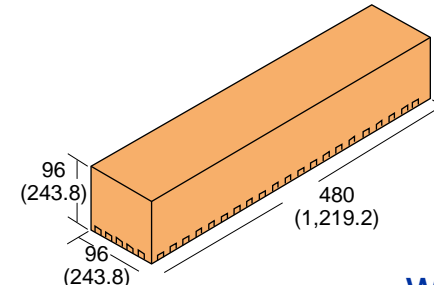
Engines

## Nose cargo door loading (-200/-400F only)

30-ft (9.1-m) long  
50.2 m<sup>3</sup> (1,775 ft<sup>3</sup>)



40-ft (12.2-m) long  
66.5 m<sup>3</sup> (2,350 ft<sup>3</sup>)



Pallet dimensions shown in inches (centimeters)  
Maximum height varies from 78 to 86 in (198 to 218 m), depending on airplane type (e.g., 707, 727, 757, DC-8)

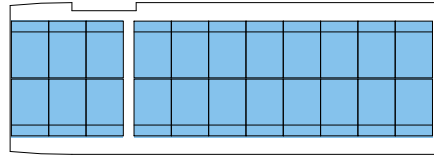
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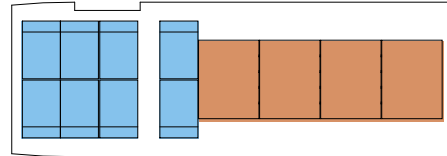
# The lower hold can carry any combination of pallets and containers

## 747-8 Freighter lower hold cargo arrangements

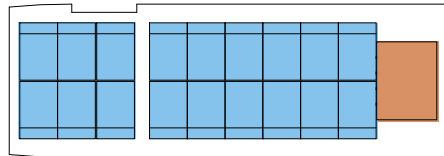
Forward



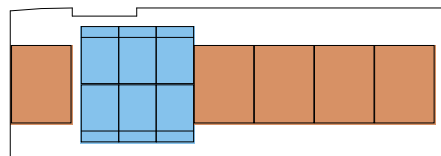
22 LD-1/-3



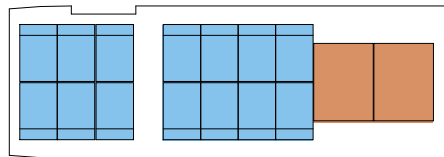
4 pallets and 8 LD-1/-3



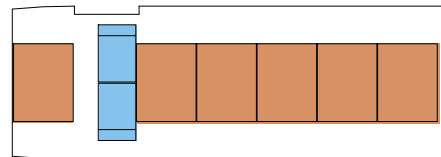
1 pallet and 18 LD-1/-3



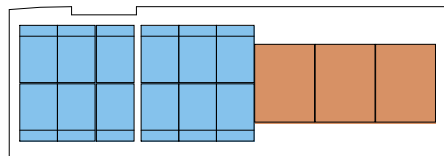
5 pallets and 6 LD-1/-3



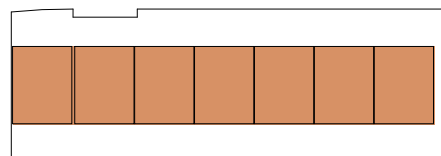
2 pallets and 14 LD-1/-3



6 pallets and 2 LD-1/-3

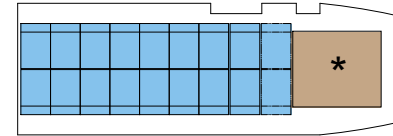


3 pallets and 12 LD-1/-3

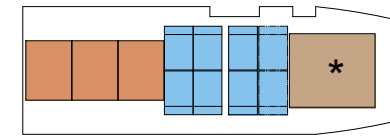


7 pallets

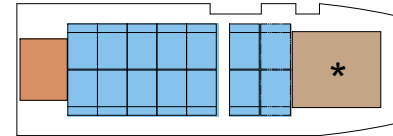
Aft



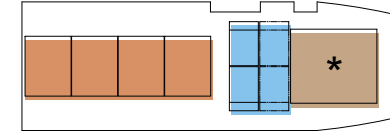
18 LD-1/-3



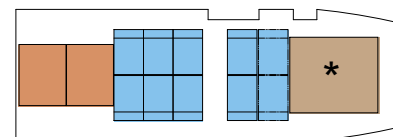
3 pallets and 8 LD-1/-3



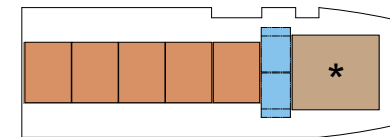
1 pallet and 14 LD-1/-3



4 pallets and 4 LD-1/-3



2 pallets and 10 LD-1/-3



5 pallets and 2 LD-1/-3

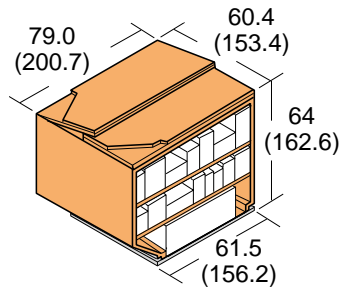
88/96 x 125-in pallet

LD-1/-3 container

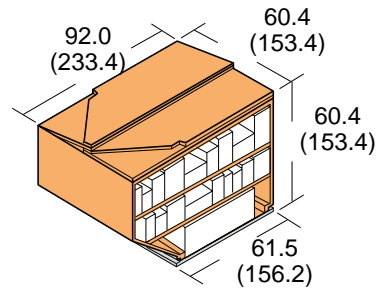
\* bulk compartment: 14.0 m<sup>3</sup> (496 ft<sup>3</sup>)  
 Most common arrangements shown; movable locks allow for many other possible arrangements  
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# 747-8 Freighter lower hold loading versatility

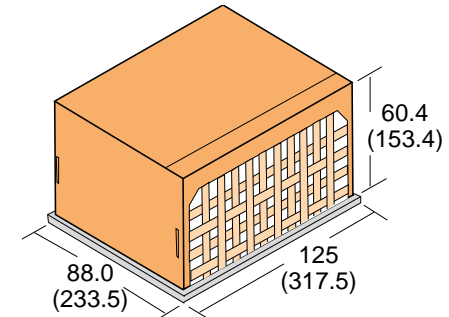
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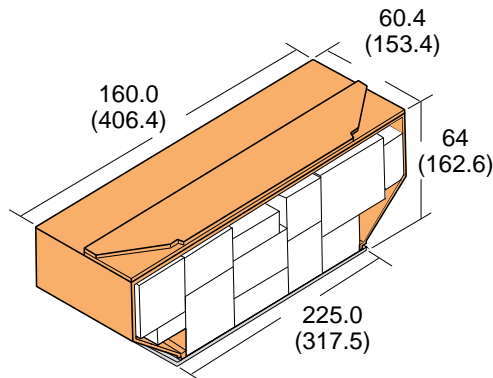
**LD-3**  
4.5 m<sup>3</sup> (159 ft<sup>3</sup>)  
1,588-kg (3,500-lb) MGW



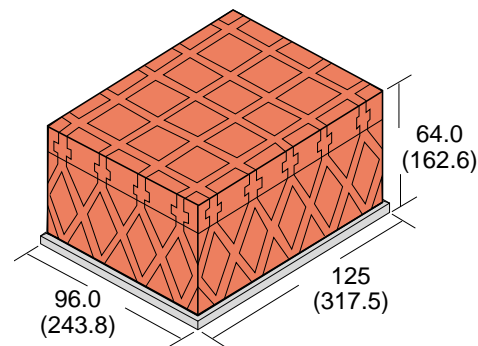
**LD-1**  
4.9 m<sup>3</sup> (175 ft<sup>3</sup>)  
1,588-kg (3,500-lb) MGW



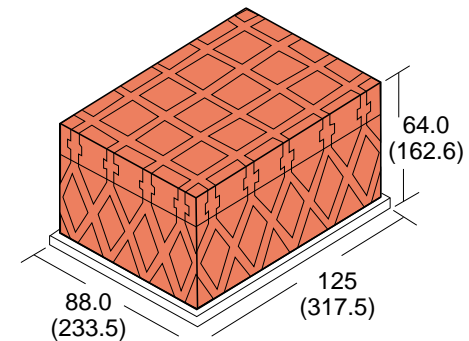
**LD-9**  
10.8 m<sup>3</sup> (381 ft<sup>3</sup>)  
4,627-kg (10,200-lb) MGW



**LD-6**  
9.1 m<sup>3</sup> (322 ft<sup>3</sup>)  
3,175-kg (7,000-lb) MGW



11.5 m<sup>3</sup> (407 ft<sup>3</sup>)  
5,035-kg (11,100-lb) MGW



10.5 m<sup>3</sup> (372 ft<sup>3</sup>)  
4,627-kg (10,200-lb) MGW

Maximum gross weights shown are based on lower hold floor running load capability (116 lb/in), subject to overall airframe structural limits  
Pallet dimensions shown in inches (centimeters)

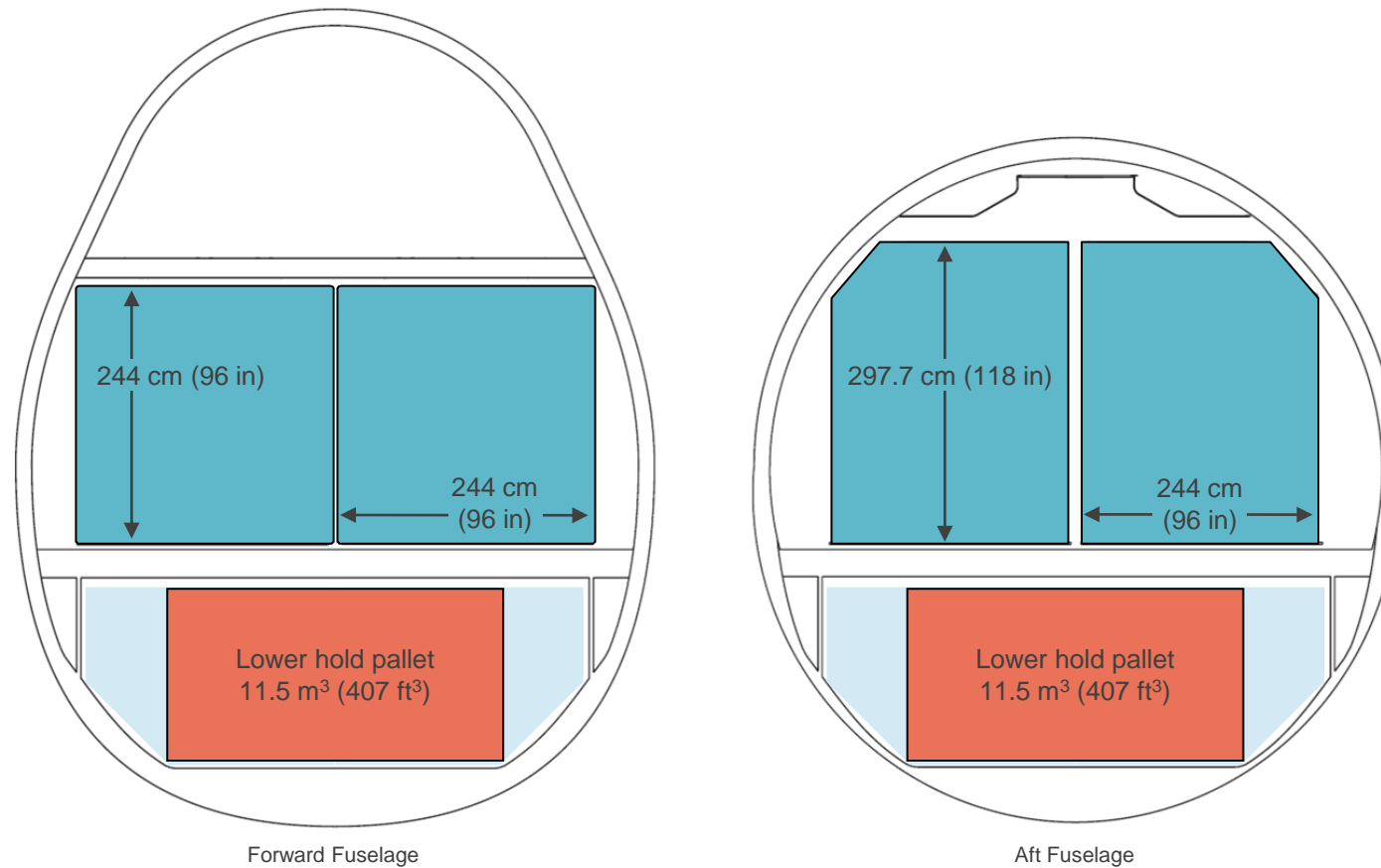
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# 747-8F and 777F both can carry 3-m (10-ft) tall pallets

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## Fuselage cross section



Note that the 747-8F main deck side cargo door is located aft of the wing  
Note: main deck clear height is variable

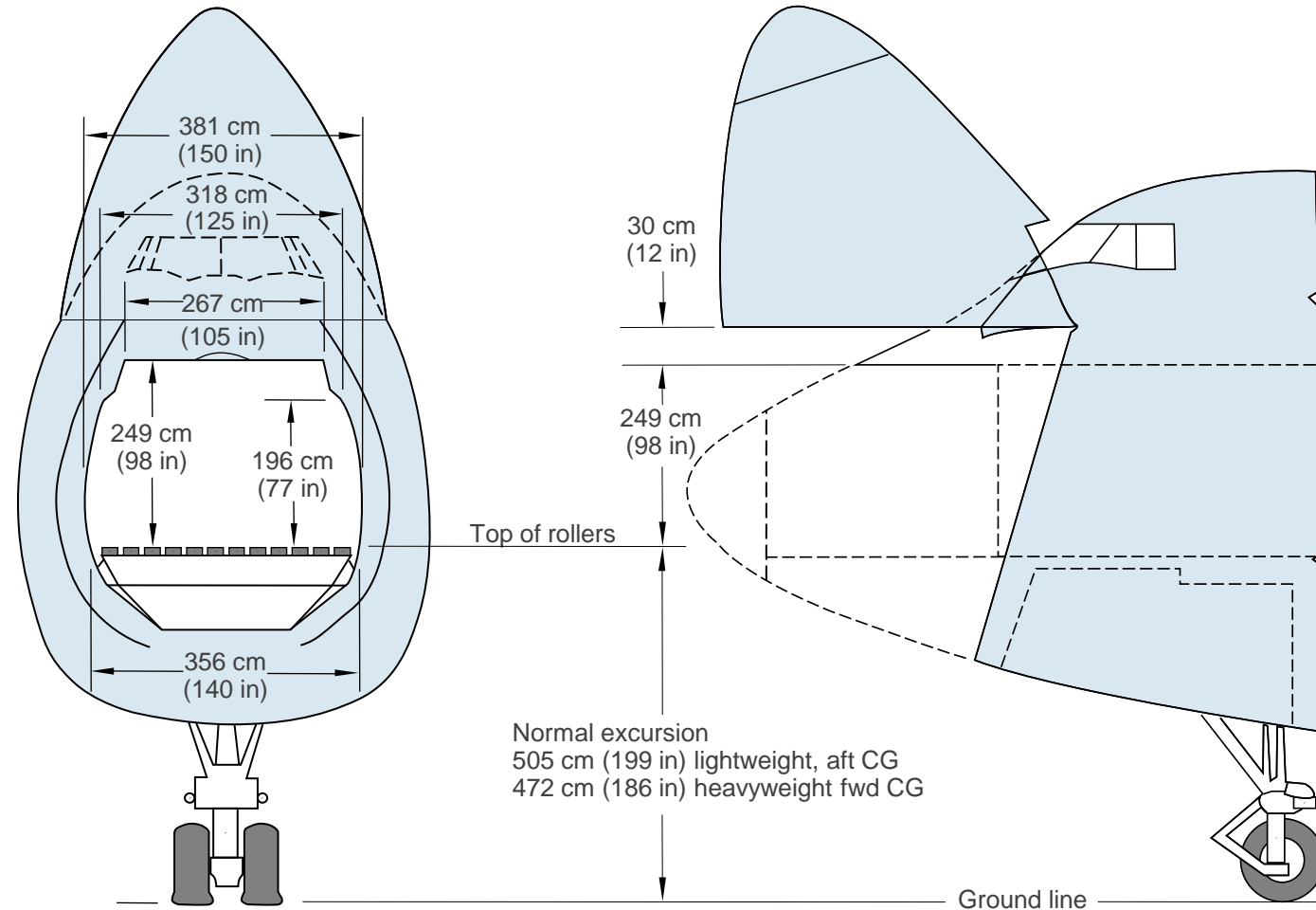
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# Boeing 747-8F

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## Nose cargo door

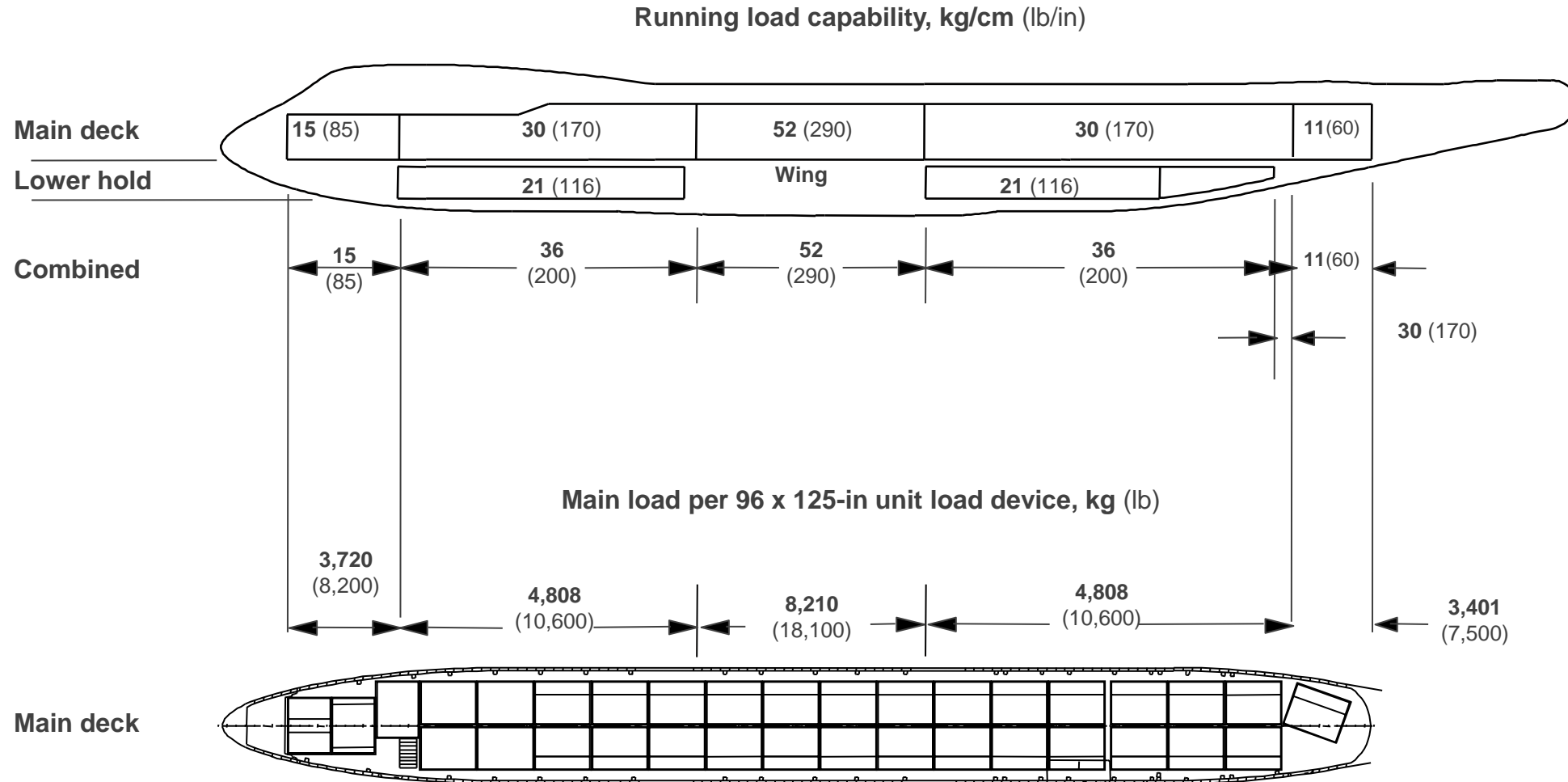


Clear opening dimensions

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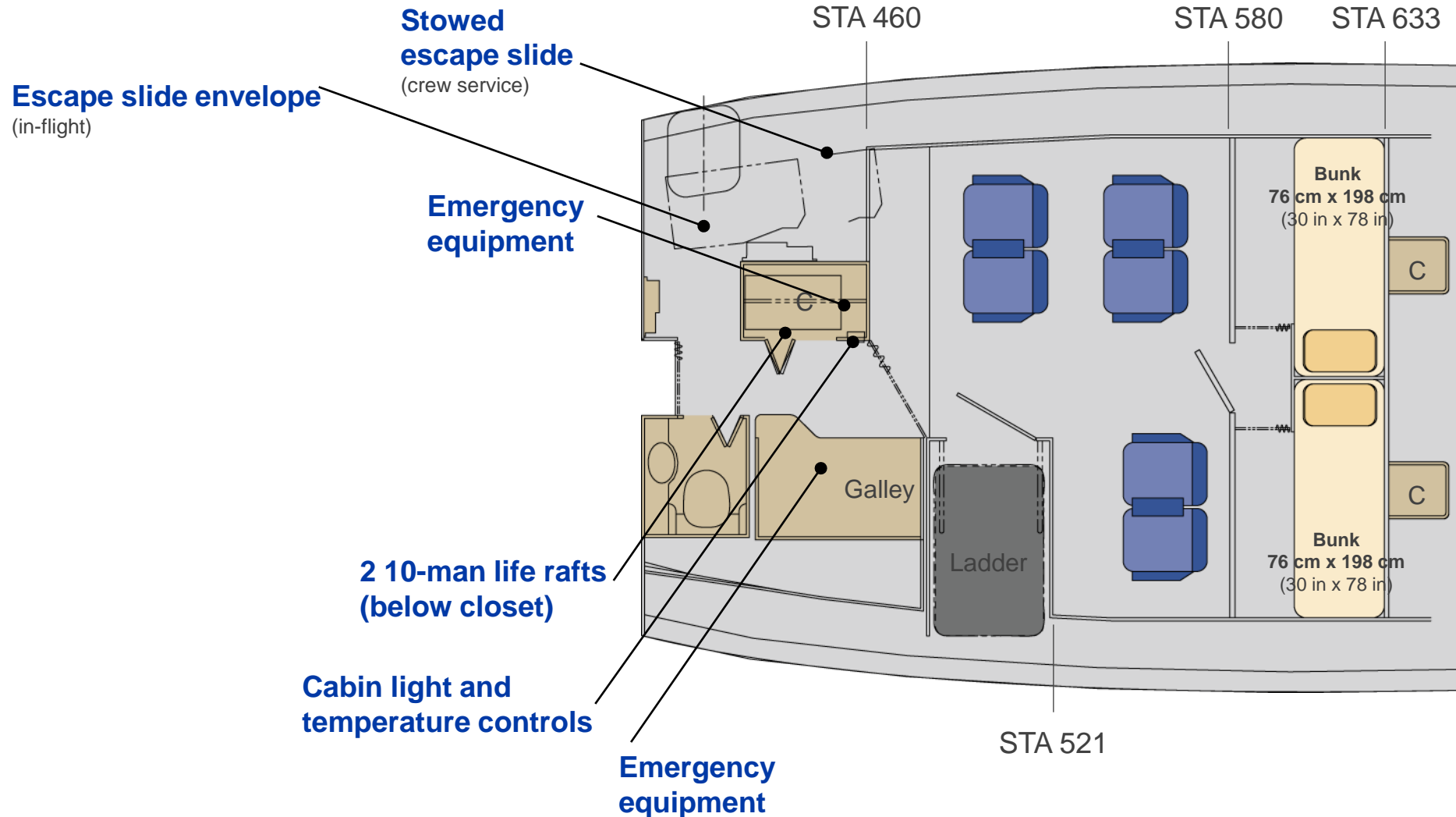
# 747-8F has the same floor running loading limits as the 747-400F



# 747-8F offers increased supernumerary area comfort

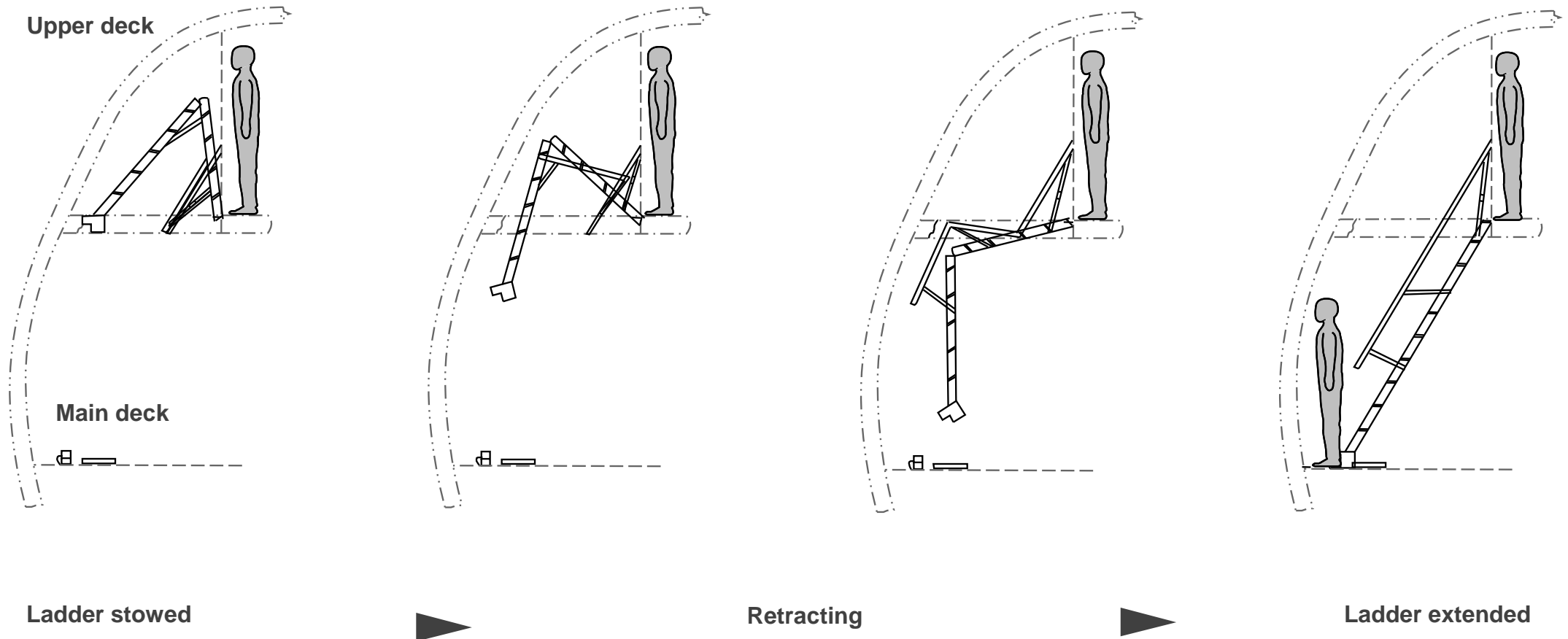
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6 crew seats and 2 bunks



# Upper deck access to main deck in flight

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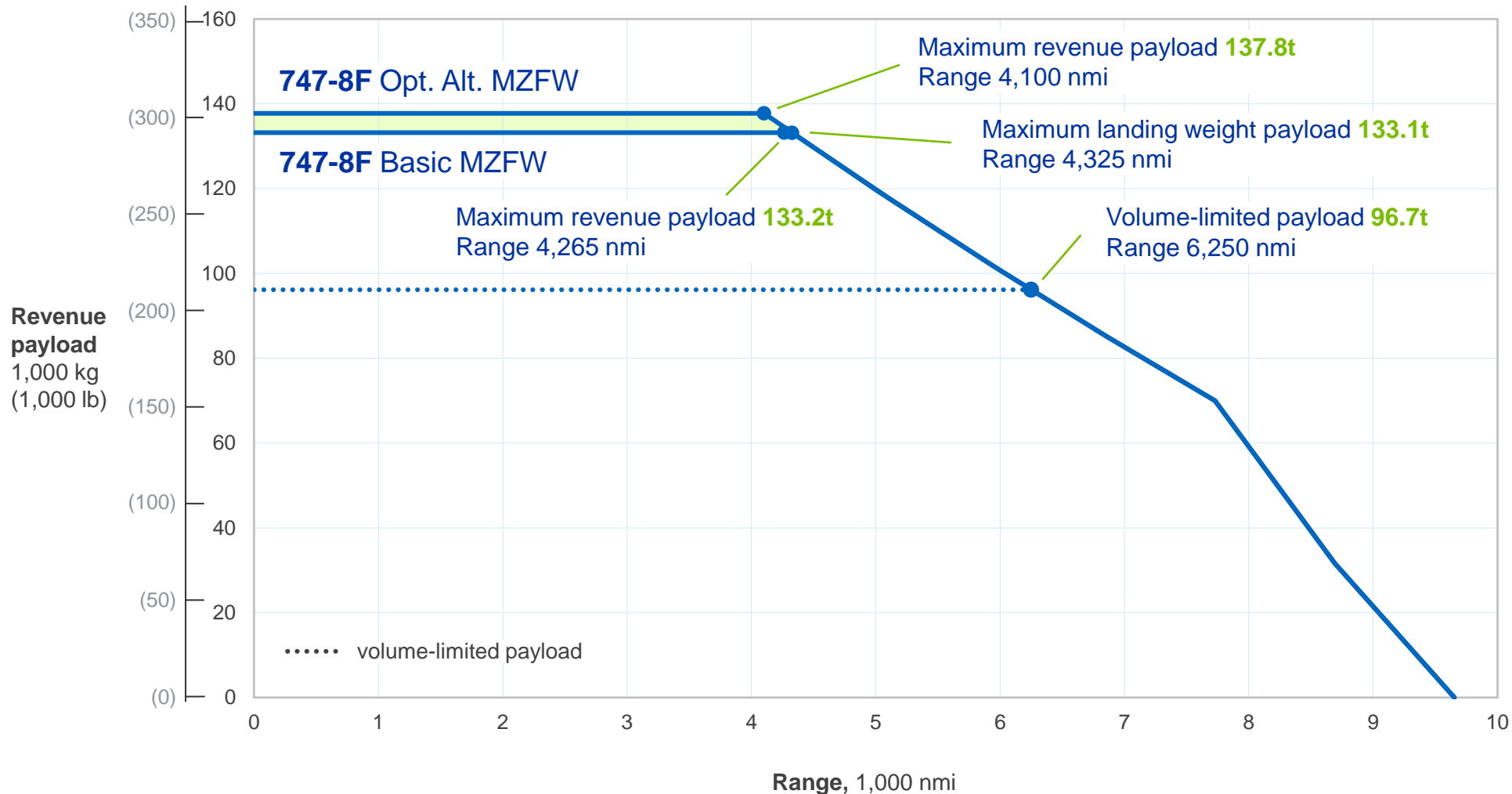


# 747-8F offers unmatched payload capability

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## 747-8F

447,700-kg MTOW  
(987,000-lb)



Standard rules  
Volume-limited payload at 112 kg/m<sup>3</sup> (7 lb/ft<sup>3</sup>) density

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# Performance summary

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		747-8F	747-8F **
<b>Engines</b>		<b>GEnx-2B67-P</b>	<b>GEnx-2B67-P</b>
<b>Boeing equivalent thrust/flat-rated temperature</b>	lb/°C	<b>66,500 / 30</b>	<b>66,500 / 30</b>
<b>Cargo arrangement</b>	MD / LD	<b>34 / 12+2</b>	<b>34 / 12+2</b>
<b>Maximum taxi weight</b>	kg (lb)	<b>449,050</b> (990,000)	<b>449,050</b> (990,000)
<b>Maximum takeoff weight</b>	kg (lb)	<b>447,700</b> (987,000)	<b>447,700</b> (987,000)
<b>Maximum landing weight</b>	kg (lb)	<b>346,100</b> (763,000)	<b>350,650</b> (773,000)
<b>Maximum zero fuel weight</b>	kg (lb)	<b>329,750</b> (727,000)	<b>334,300</b> (737,000)
<b>Operating empty weight (with tare)</b>	kg (lb)	<b>196,550</b> (433,300)	<b>196,550</b> (433,300)
<b>Operating empty weight (without tare)</b>	kg (lb)	<b>190,150</b> (419,200)	<b>190,150</b> (419,200)
<b>Fuel capacity</b>	L (U.S. gal)	<b>226,118</b> (59,734)	<b>226,118</b> (59,734)
<b>Cruise Mach</b>		<b>0.845</b>	<b>0.845</b>
<b>Maximum structural payload (incl. tare)</b>	kg (lb)	<b>139,600</b> (307,800)	<b>144,150</b> (317,800)
<b>Maximum revenue payload (excl. tare)</b>	kg (lb)	<b>133,200</b> (293,700)	<b>137,750</b> (303,700)
<b>Design range</b>	nmi (km)	<b>4,265 *</b> (7,900) *	<b>4,100</b> (7,590)
<b>Maximum landing weight payload (incl. tare)</b>	kg (lb)	<b>139,550</b> (307,600)	not applicable
<b>Design range</b>	nmi (km)	<b>4,325</b> (8,010)	
<b>Volume-limited payload (excl. tare)</b>	kg (lb)	<b>95,860</b> (211,340)	<b>95,860</b> (211,340)
<b>Design range</b>	nmi (km)	<b>6,270</b> (11,610)	<b>6,270</b> (11,610)
<b>Fuel use at maximum revenue payload (3,000 nmi)</b>	kg (lb)	<b>68,862</b> (151,816)	<b>69,838</b> (153,967)
<b>Fuel use at volume-limited payload (3,000 nmi)</b>	kg (lb)	<b>61,360</b> (135,275)	<b>61,360</b> (135,275)
<b>Total cargo volume</b>	m <sup>3</sup> (ft <sup>3</sup> )	<b>854.9</b> (30,192)	<b>854.9</b> (30,192)
Main deck cargo volume	m <sup>3</sup> (ft <sup>3</sup> )	<b>692.7</b> (24,462)	<b>692.7</b> (24,462)
Lower deck cargo volume (excl. bulk)	m <sup>3</sup> (ft <sup>3</sup> )	<b>148.2</b> (5,234)	<b>148.2</b> (5,234)
Bulk volume	m <sup>3</sup> (ft <sup>3</sup> )	<b>14.0</b> (496)	<b>14.0</b> (496)
<b>Cargo tare</b>	kg (lb)	<b>6,387</b> (14,080)	<b>6,387</b> (14,080)
<b>Fuel factor</b>		<b>0%</b>	<b>0%</b>

\* Range limited by maximum landing weight

\*\* Opt. Alt. MZFW

Standard rules

Volume-limited payload at 112 kg/m<sup>3</sup> (7 lb/ft<sup>3</sup>) density

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# 747-8F is designed to carry more payload

Maximum structural payload

## 747-8F

447,700-kg (987,000-lb) MTOW  
139,550-kg (307,600-lb) payload

## 747-400F

396,900-kg (875,000-lb) MTOW  
118,450-kg (261,100-lb) payload

**+21  
tonnes**

Standard rules  
50% annual winds, airways and traffic allowances included  
Maximum structural payload  
3% fuel factor for 747-400F  
Range capability from Hong Kong

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# 747-8F is designed to carry more payload

Volume-limited payload

## 747-8F

447,700-kg (987,000-lb) MTOW  
95,860-kg (211,340-lb) payload

## 747-400F

396,900-kg (875,000-lb) MTOW  
82,540-kg (181,970-lb) payload

**+13.3**  
tonnes

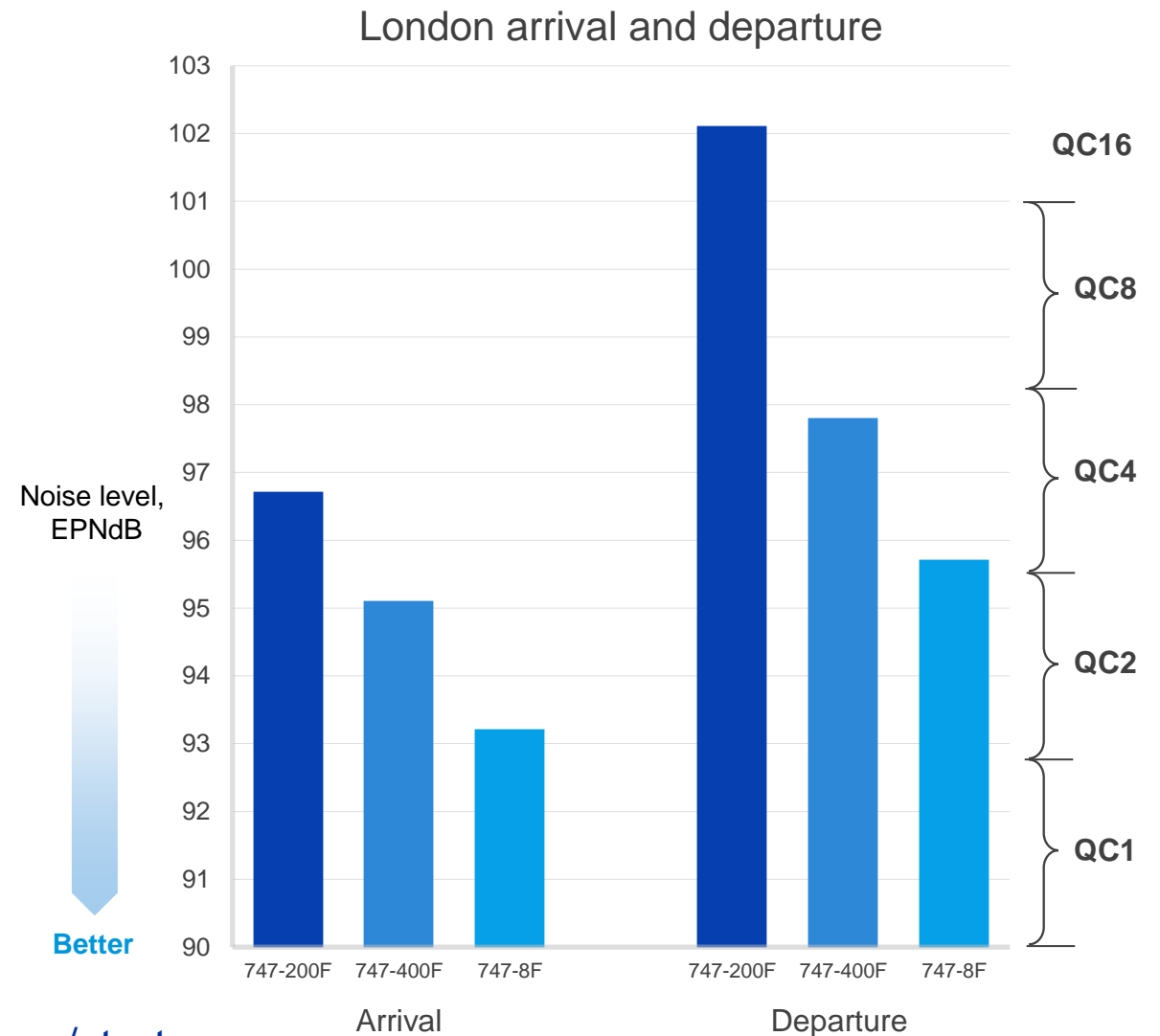
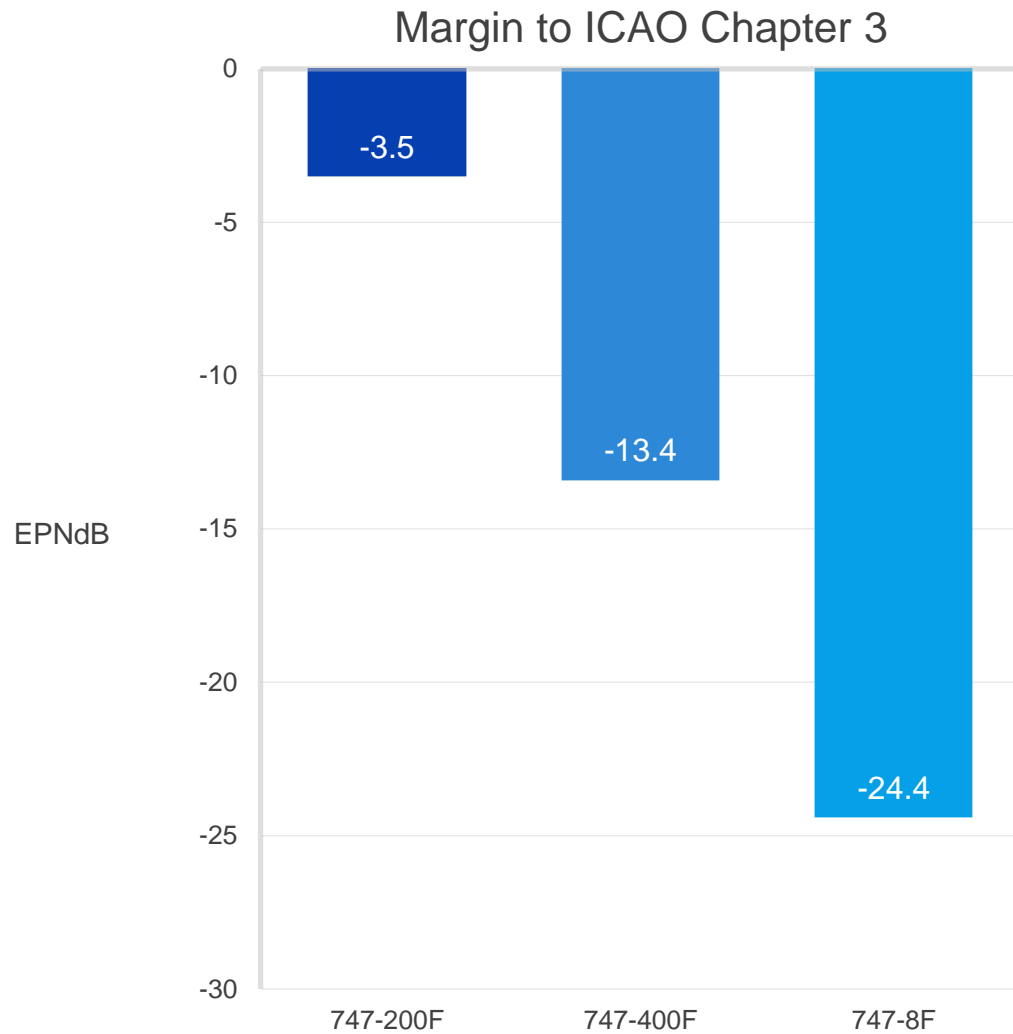
Standard rules  
50% annual winds, airways and traffic allowances included  
Volume-limited payload at 112 kg/m<sup>3</sup> (7 lb/ft<sup>3</sup>) density  
3% fuel factor for 747-400F  
Range capability from Hong Kong

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# Getting quieter with each generation

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