

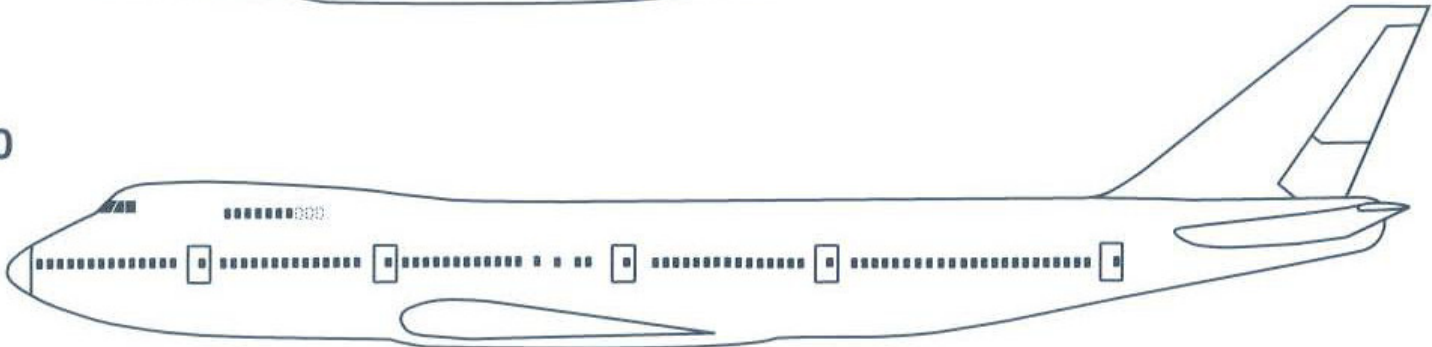
747 Size Comparison

StartupBoeing

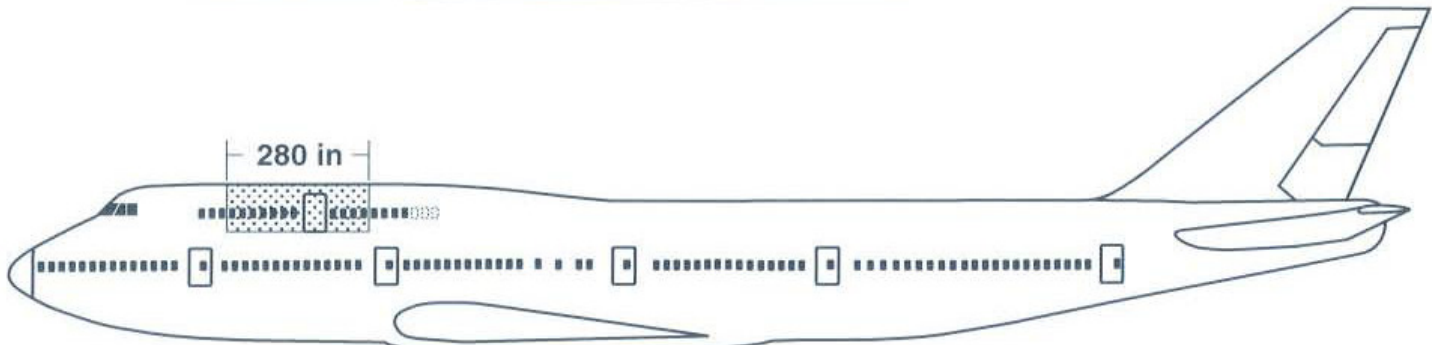
-SP



-100/-200

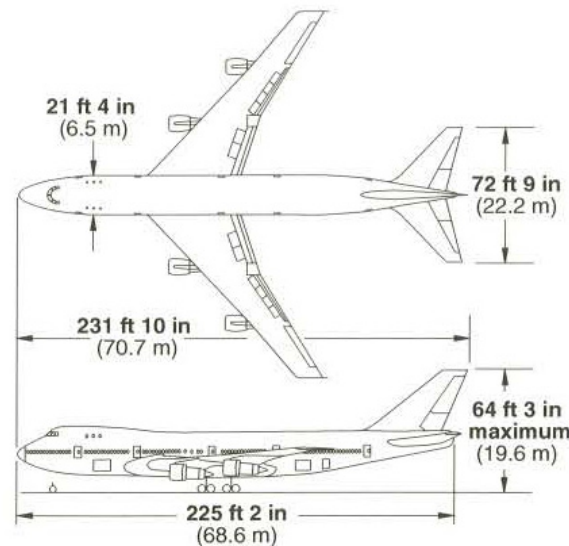
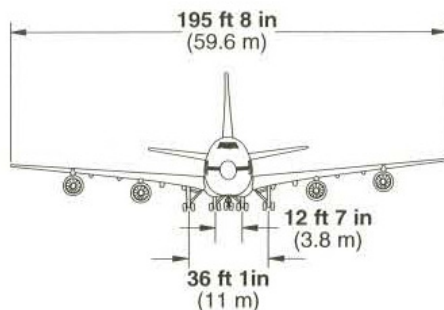


-300



747-100 Characteristics

StartupBoeing

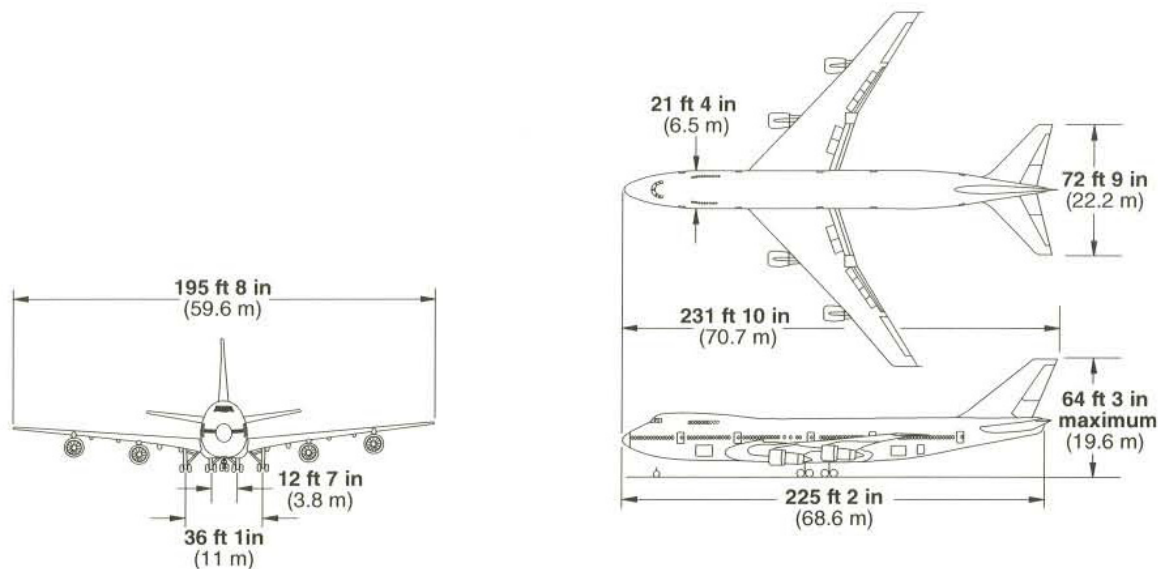


Max takeoff weight	lb	710,000 or 712,000 or 733,000 or 735,000			
Max landing weight	lb	564,000 or 585,000*			
Max zero fuel weight	lb	526,500 or 545,000*			
Fuel capacity	U.S. gal	47,210 or 48,445			
Lower hold cargo	ft ³	30 LD-1 containers	5,190	or	5 pallets + 14 LD-1s
		Bulk	1,000		Bulk
		Total	6,190		Total
					4,497
					1,000
					5,497

* Conversion to all-cargo model

747-200B Characteristics

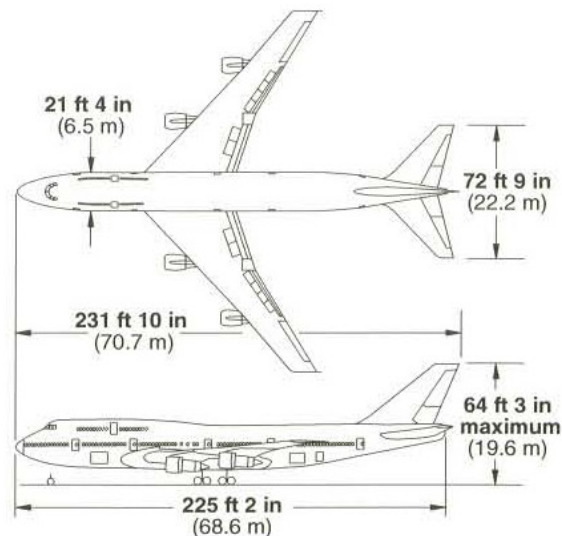
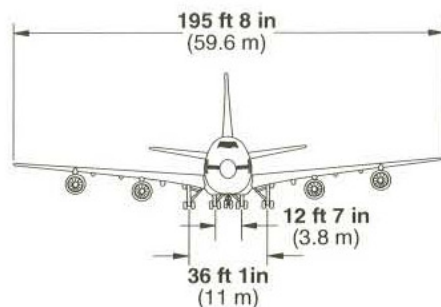
StartupBoeing



Max takeoff weight	lb	775,000 or 785,000 or 800,000 or 820,000 or 833,000			
Max landing weight	lb	564,000 or 585,000 or 630,000			
Max zero fuel weight	lb	526,500			
Fuel capacity	U.S. gal	52,409 or 53,985			
P&W and R-R engines		52,035 or 53,611			
Lower hold cargo	ft ³	30 LD-1 containers	5,190	5 pallets + 14 LD-1s	4,497
		Bulk	1,000	Bulk	1,000
		Total	6,190	Total	5,497

747-300 Characteristics

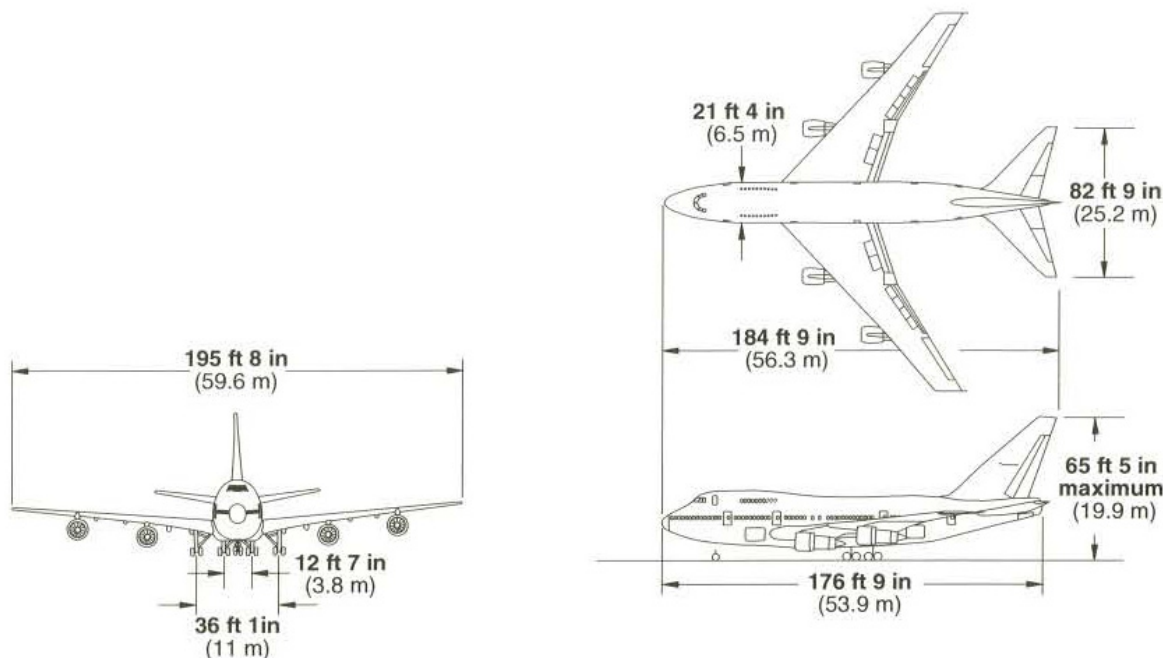
StartupBoeing



		SR option	
Max takeoff weight	lb	710,000 or 735,000 or 750,000	520,000 600,000 775,000 or 785,000 or 800,000 or 820,000 or 833,000
Max landing weight	lb	574,000 or 585,000	505,000 525,000 574,000 or 585,000 or 630,000
Max zero fuel weight	lb	535,000	475,000 485,000 535,000
Fuel capacity	U.S. gal		
P&W and R-R engines		48,445	48,445 52,409 or 53,985
GE engines		48,071	48,071 52,035 or 53,611
Lower hold cargo	ft ³	30 LD-1 containers	5,190 or 5 pallets + 14 LD-1s 4,497
		Bulk	1,000 Bulk 1,000
		Total	6,190 Total 5,497

747SP Characteristics

StartupBoeing

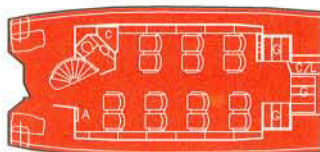


Max takeoff weight	lb	630,000 or 660,000		670,000 or 690,000 or 696,000 or 700,000		
Max landing weight	lb	450,000 or 465,000		450,000 or 465,000		
Max zero fuel weight	lb	410,000 or 425,000		410,000 or 425,000		
Fuel capacity	U.S. gal	48,783		50,359		
Lower hold cargo	ft ³	20 LD-1 containers	3,460	or	3 pallets + 10 LD-1s	2,975
		Bulk	400		Bulk	400
		Total	3,860		Total	3,375

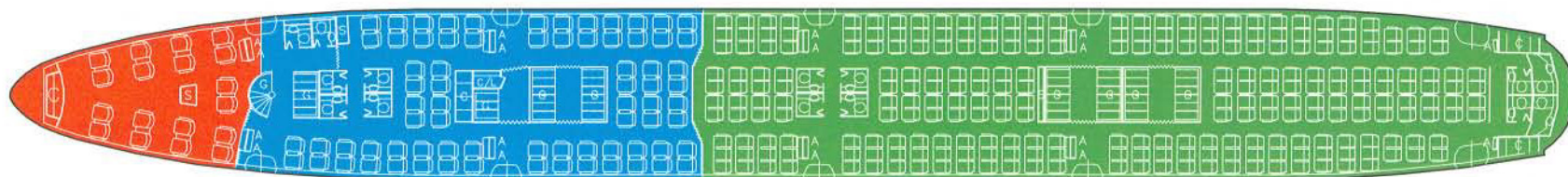
747-100/-200B Typical Interior Arrangement

StartupBoeing

Three-Class Arrangement



14 first
62-in seat pitch



18 first
62-in seat pitch

74 business
38-in seat pitch

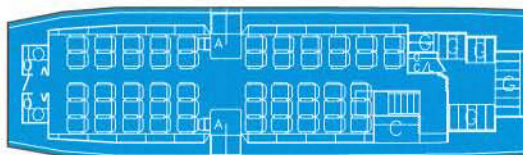
260 economy
34-in seat pitch

366 passengers

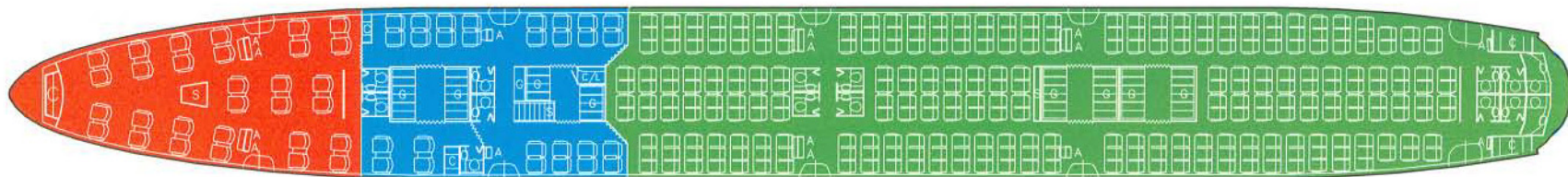
747-300 Typical Interior Arrangement

StartupBoeing

Three-Class Arrangement



52 business
38-in seat pitch



34 first
62-in seat pitch

24 business
38-in seat pitch

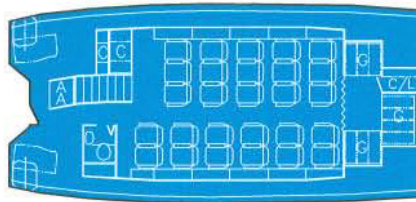
290 economy
34-in seat pitch

400 passengers

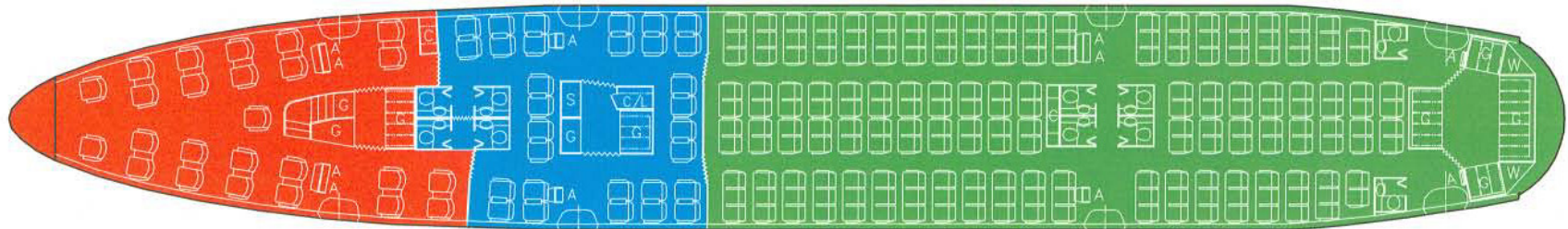
747SP Typical Interior Arrangement

StartupBoeing

Three-Class Arrangement



27 business
38-in seat pitch



25 first
57-in seat pitch

57 business
38-in seat pitch

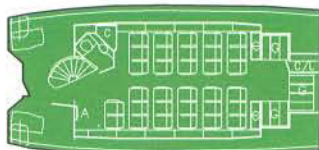
194 economy
34-in seat pitch

276 passengers

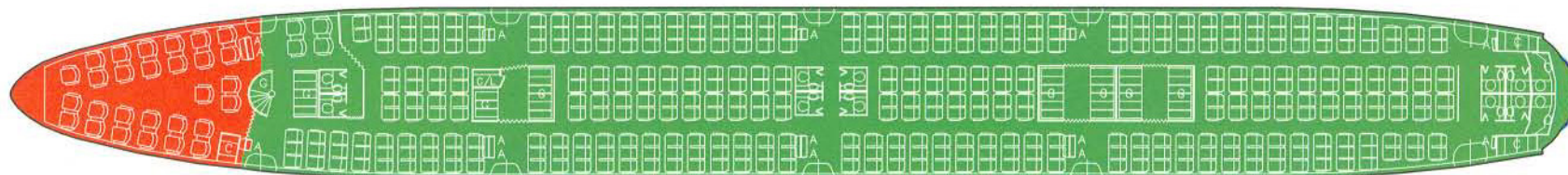
747-100/-200B Typical Interior Arrangement

StartupBoeing

Two-Class Arrangement



32 economy
34-in seat pitch



32 first
40-in seat pitch

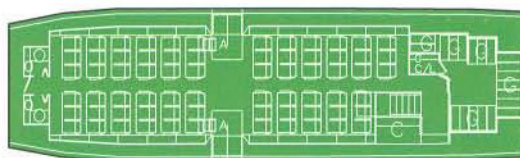
388 economy
34-in seat pitch

452 passengers

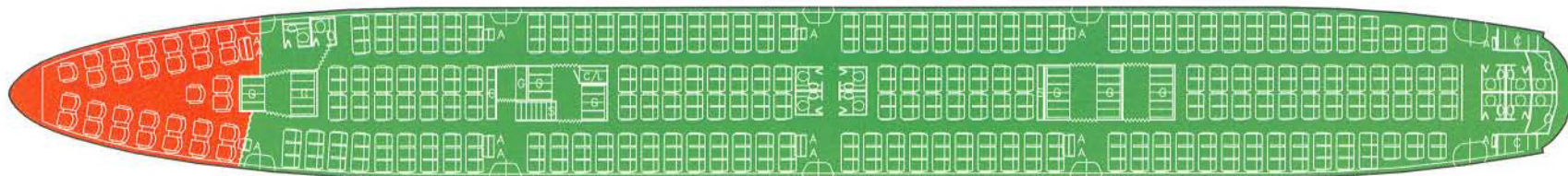
747-300 Typical Interior Arrangement

StartupBoeing

Two-Class Arrangement



69 economy
34-in seat pitch



30 first
40-in seat pitch

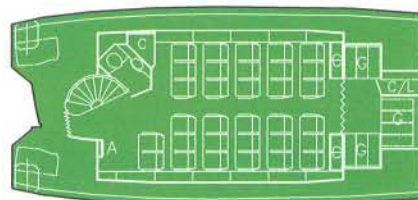
397 economy
34-in seat pitch

496 passengers

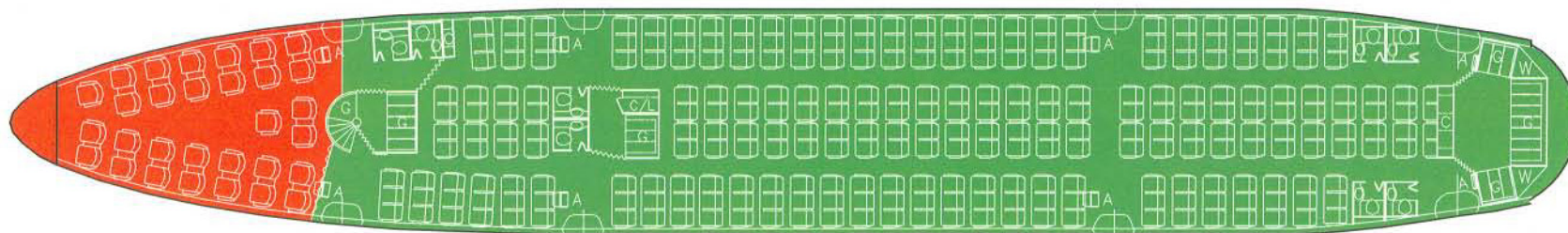
747SP Typical Interior Arrangement

StartupBoeing

Two-Class Arrangement



32 economy
34-in seat pitch



30 first
40-in seat pitch

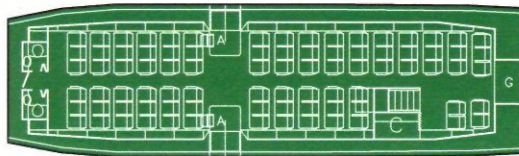
313 economy
34-in seat pitch

343 passengers

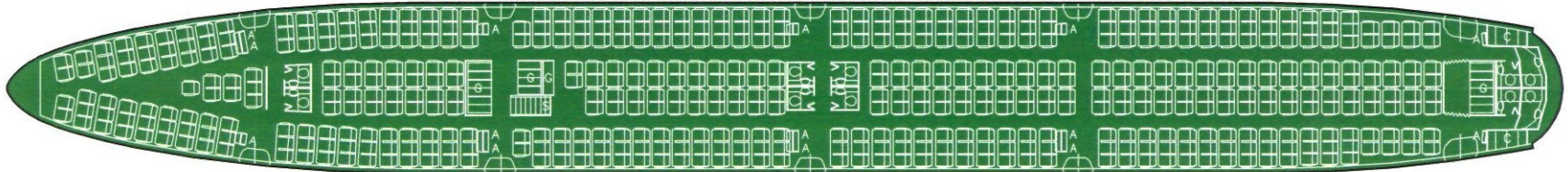
747-300 SR Typical Interior Arrangement

StartupBoeing

One-Class Arrangement



85 economy
31-in seat pitch



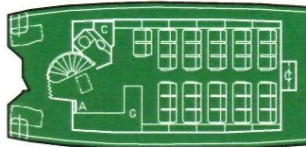
539 economy
31-in seat pitch

624 passengers

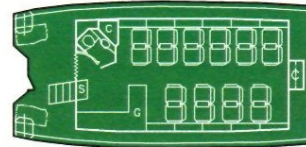
747-200 Convertible Typical Interior Arrangement

StartupBoeing

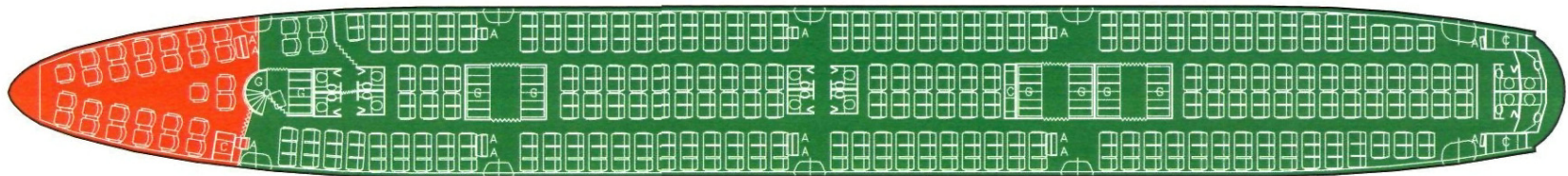
Two Class Arrangements



32 economy
34-in seat pitch



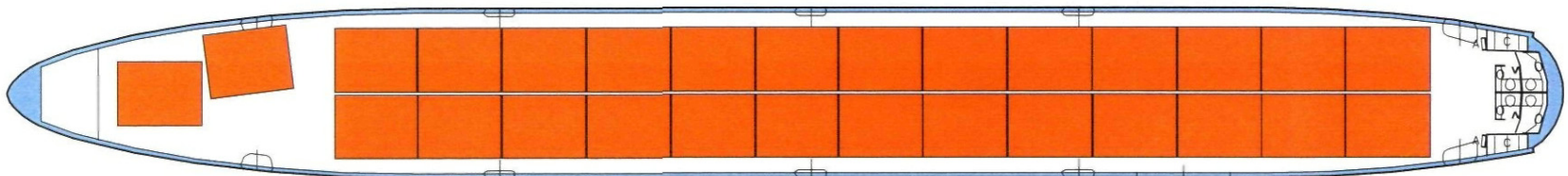
**19 maximum with
zone A cargo**



28 first
40-in seat pitch

452 passengers

424 economy
34-in seat pitch

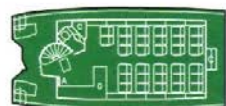


19 passengers + 28 pallets

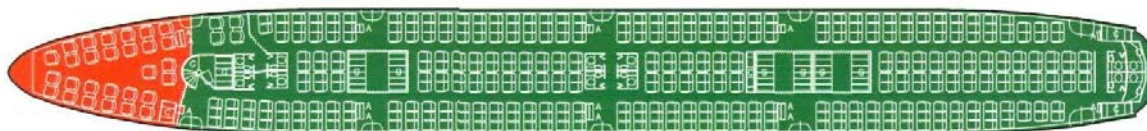
747-200 Convertible Typical Interior Arrangement

StartupBoeing

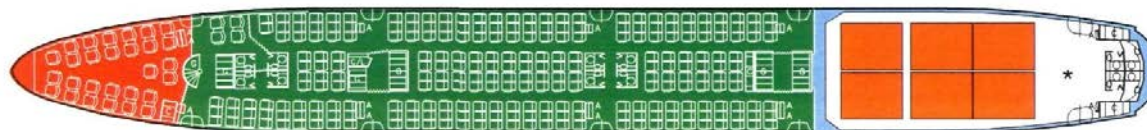
Arrangements With Side Cargo Door Option



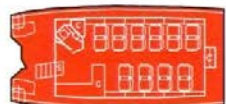
32 economy



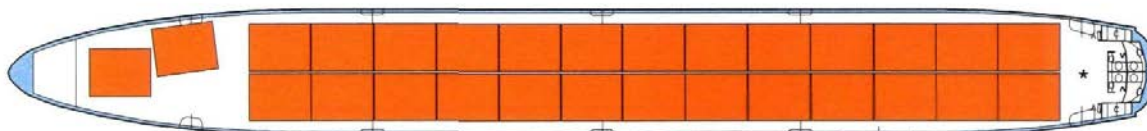
452 passengers



316 passengers + 6 pallets



19 maximum with
zone A cargo



19 passengers + 28 pallets

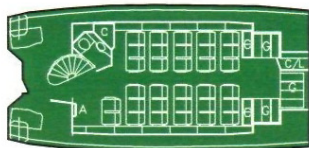
Seat Pitch 40, 34 inches

* Optional additional pallet position
available with lavatories removed

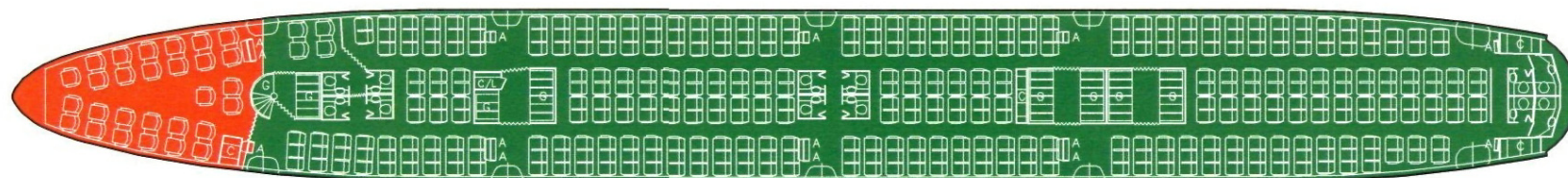
747-200 Combi Typical Interior Arrangement

StartupBoeing

Two-Class Arrangement



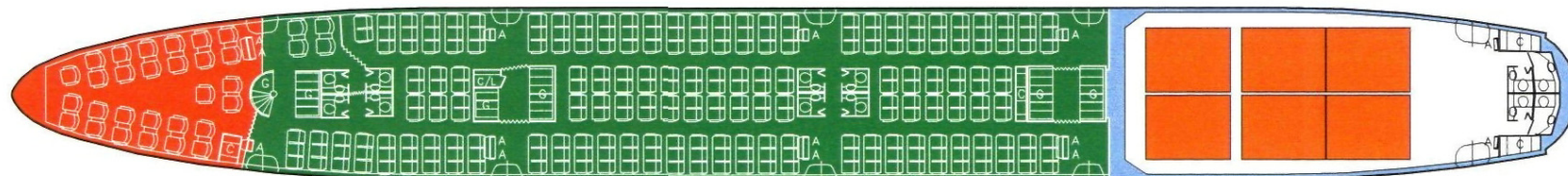
32 economy
34-in seat pitch



28 first
40-in seat pitch

452 passengers

424 economy
34-in seat pitch



28 first
40-in seat pitch

288 economy
34-in seat pitch

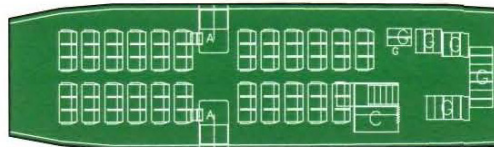
6 pallets

316 passengers

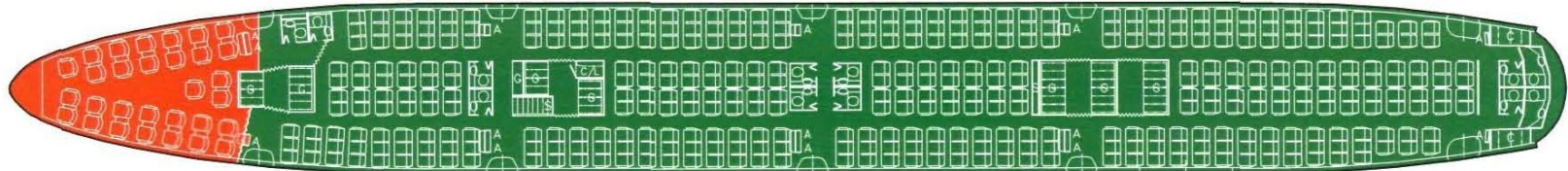
747-300 Combi Typical Interior Arrangement

StartupBoeing

Two-Class Arrangements



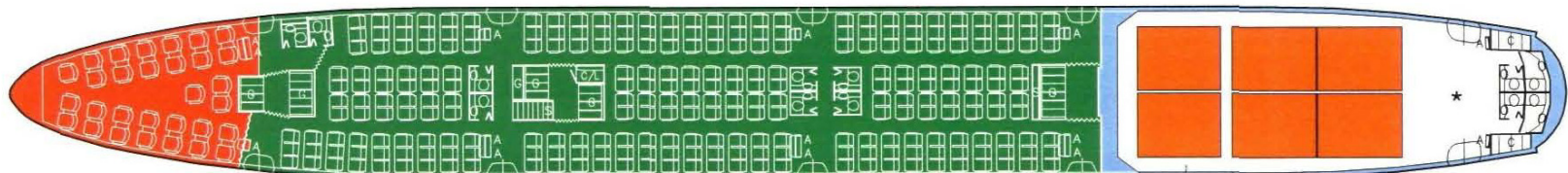
69 economy
34-in seat pitch



30 first
40-in seat pitch

466 economy
34-in seat pitch

496 passengers



30 first
40-in seat pitch

330 economy
34-in seat pitch

6 pallets

360 passengers

- Optional seventh pallet position available (with aft lavatory and galley complex removed)

747-300 Upper Deck

StartupBoeing



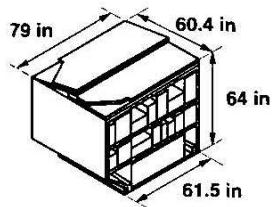
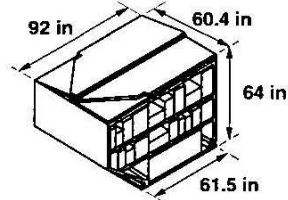
747 Lower Hold Capability

StartupBoeing

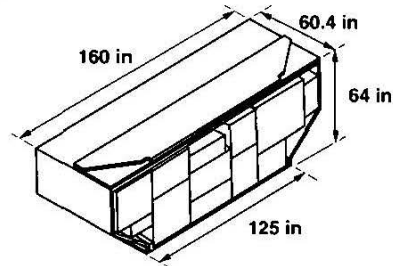
Containers and Pallets

Basic

3,500 lb MGW
175 ft³
(LD-1)

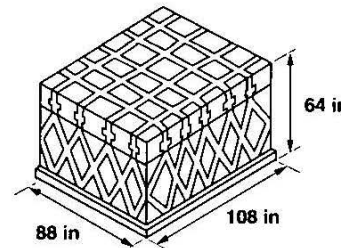


3,500 lb MGW
159 ft³
(LD-3)

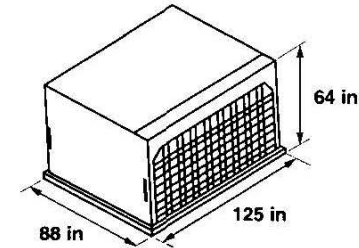


7,000 lb MGW*
322 ft³
(LD-6)

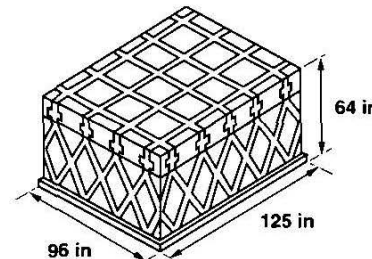
Optional (Additional hardware required)



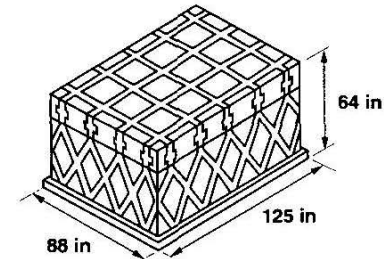
10,200 lb MGW*
320 ft³ (military)
327 ft³ (commercial)



10,200 lb MGW*
381 ft³
(LD-9)



11,100 lb MGW*
407 ft³



10,200 lb MGW*
372 ft³

* Maximum gross weights (MGW) shown are based on lower hold running load capability (116 lb/in), subject to overall airframe structural limits

747 Performance Summary

StartupBoeing

All Passenger Configuration

		747-SP	747-100	747-200B	747-300
Engines		JT9D-7J	JT9D-7A	JT9D-7R4G2	JT9D-7R4G2
Passengers	(FC/BC/EC)	276 (25/57/194)	366 (32/74/260)	366 (32/74/260)	400 (34/76/290)
Cargo	pallets/containers	3/10	5/14	5/14	5/14
SLST to FR temperature	lb/°F	50,000/86	46,960/80	54,750/86	54,750/86
Max takeoff weight	lb	700,000	735,000	833,000	833,000
Max landing weight	lb	450,000	564,000	564,000	574,000
Max zero fuel weight	lb	410,000	526,500	526,500	535,000
Operating empty weight	lb	337,100	379,500	375,100	384,000
Fuel capacity	U.S. gal	50,359	48,445	53,985	53,985
Design range	nmi	5,830	4,620	6,560	6,330
Takeoff field length	ft	9,250	10,650	10,900	10,900
Initial cruise altitude — MTOW	ft	36,300	34,000	32,300	32,300
Landing field length — MLW	ft	5,250	6,170	6,150	6,250
Approach speed — MLW	kn	137	141	141	143
Block fuel					
1,000-nmi mission	lb	44,300	51,400	46,200	47,800
2,000-nmi mission	lb	84,300	98,700	87,600	91,100
3,000-nmi mission	lb	127,400	149,700	132,800	138,200

- Typical mission rules
- Three-class interiors
- Passengers at 210 lb each
- 747-SP and 747-100, in-service performance levels
- 747-200B and 747-300, nominal performance levels

747-9AP-089*

747 Performance Summary

StartupBoeing

Mixed Passenger and Freight Configuration

		747-200 Convertible	747-200 Combi	747-300 Combi
Engines		JT9D-7F	JT9D-7R4G2	JT9D-7R4G2
Passengers	FC/EC	316	316	360
Cargo	pallets/containers	32/284+6 pal	32/284+6 pal	30/330+6 pal
SLST to FR temperature	lb/°F	5/14	5/14	5/14
		48,000/80	54,750/86	54,750/86
Max takeoff weight	lb	800,000	833,000	833,000
Max landing weight	lb	630,000	564,000	574,000
Max zero fuel weight	lb	590,000	526,500	535,000
Operating empty weight	lb	392,100	384,300	392,900
Fuel capacity	U.S. gal	52,409	52,409	52,409
Design range	nmi	4,595	5,680	5,225
Takeoff field length	ft	14,050	10,900	10,900
Initial cruise altitude — MTOW	ft	32,700	32,300	32,300
Landing field length — MLW	ft	6,850	6,200	6,300
Approach speed — MLW	kn	152	141	143
Block fuel	lb			
1,000-nmi mission		55,800	50,500	52,500
2,000-nmi mission		106,700	96,700	100,600
3,000-nmi mission		162,000	146,500	152,700

- Typical mission rules
- Two-class interiors
- In-service performance levels
- Passengers at 200 lb each

747 Performance Summary

StartupBoeing

All-Passenger Configuration

		747-200 Convertible	747-200 Combi	747-300 Combi
Engines		JT9D-7F	JT9D-7R4G2	JT9D-7R4G2
Passengers	FC/EC	452 (32/420)	452 (32/420)	496 (30/466)
Cargo	pallets/containers	5/14	5/14	5/14
SLST to FR temperature	lb/°F	48,000/80	54,750/86	54,750/86
Max takeoff weight	lb	800,000	833,000	833,000
Max landing weight	lb	630,000	564,000	574,000
Max zero fuel weight	lb	590,000	526,500	535,000
Operating empty weight	lb	397,425	389,900	398,200
Fuel capacity	U.S. gal	52,409	52,409	52,409
Design range	nmi	4,875	5,975	5,515
Takeoff field length	ft	14,050	10,900	10,900
Initial cruise altitude — MTOW	ft	32,700	32,300	32,300
Landing field length — MLW	ft	6,850	6,200	6,300
Approach speed — MLW	kn	152	141	143
Block fuel				
1,000-nmi mission	lb	54,500	49,400	51,300
2,000-nmi mission	lb	104,100	94,500	98,400
3,000-nmi mission	lb	158,200	143,200	149,200

- Typical mission rules
- Two-class interiors
- In-service performance levels
- Passengers at 200 lb each

747-100 Series Engines

StartupBoeing

Engine mode	Thrust rating ideal SLST, lb	Temperature °F (°C)	-100	-100B	-100SF	Combi	-100SR
Pratt & Whitney							
JT9D-3A (dry)	43,500	80 (27)	•	—	—	—	—
-3A (wet)	45,000	80 (27)	•	—	—	—	—
-7 (dry)	46,300	80 (27)	•	—	—	—	—
-7 (wet)	47,900	80 (27)	•	—	—	—	—
-7AH	46,960	80 (27)	•	—	•	—	—
-7A (dry)	46,960	80 (27)	•	—	•	•	•
-7A (wet)	48,570	86 (30)	•	—	•	—	—
-7F	48,000	80 (27)	—	•	—	—	—
-7J	50,000	86 (30)	—	—	•	—	—
General Electric							
CF6-45A2	46,500	97 (36)	—	—	—	—	•
Rolls-Royce							
RB211-524C2	51,600	84 (29)	—	•	—	—	—

Note: • signifies in-service engine
 - signifies offered engine

747-200 Series Engines

StartupBoeing

Engine mode	Thrust rating ideal SLST, lb	Temperature °F (°C)	-100	-100B	-100SF	Combi	-100SR
Pratt & Whitney							
JT9D-7 (dry)	46,300	80 (27)	—	—	—	—	—
-7 (wet)	47,900	80 (27)	•	—	•	—	—
-7AH	46,960	80 (27)	•	—	—	—	—
-7A (dry)	49,960	80 (27)	•	•	•	—	—
-7A (wet)	48,570	86 (30)	•	•	—	—	•
-7F (dry)	48,000	80 (27)	•	•	•	•	•
-7F (wet)	50,000	86 (30)	•	•	—	—	•
-7J	50,000	86 (30)	—	—	—	—	•
-7OA	53,000	86 (30)	—	•	—	—	•
-7Q	53,000	86 (30)	•	•	—		•
-7R4G2	54,750						
General Electric							
CF6-50E	52,500	78 (26)	—	—	—	—	•
-50E1	51,600	86 (30)	•	—	—	—	—
-50E2	52,500	86 (30)	•	•	•	•	•
Rolls-Royce							
RB211-524B2	50,100	84 (29)	•	•	—	—	—
-524C2	51,600	84 (29)	•	•	—	—	—
-524D4	53,110	86 (30)	•	—	—	—	•

Note: • signifies in-service engine
 - signifies offered engine

747-300 Series Engines

StartupBoeing

Engine model	Thrust rating ideal SLST, lb	Temperature °F (°C)	-300	-300 Combi	-300SR
Pratt & Whitney					
JT9D-7 (dry)	46,300	80 (27)	—	—	—
-7 (wet)	47,900	80 (27)	—	—	—
-7AH	46,960	80 (27)	—	—	—
-7A (dry)	46,960	80 (27)	—	—	—
-7A (wet)	48,570	86 (30)	—	—	—
-7F (dry)	48,000	80 (27)	—	—	—
-7F (wet)	50,000	86 (30)	—	—	—
-7J	50,000	86 (30)	—	—	—
-7OA	53,000	86 (30)	—	—	—
-7Q	53,000	86 (30)	—	—	—
-7R4G2	54,750	86 (30)	•	•	•
General Electric					
CF6-50E	52,500	78 (26)	—	—	—
-50E1	52,500	86 (30)	—	—	—
-50E2	52,500	86 (30)	•	•	—
-80C2B1	56,900	90 (32)	•	—	—
Rolls-Royce					
RB211-524B2	50,100	84 (29)	—	—	—
-524C2	51,600	84 (29)	•	—	—
-524D4	53,110	86 (30)	•	—	—

Note: • signifies in-service engine
 — signifies offered engine

747-9PP-011*
 9-6-5-LM

747SP Engines

StartupBoeing

Engine model	Thrust rating ideal SLST, lb	Temperature °F (°C)	747SP
Pratt & Whitney			
JT9D-7 (dry)	46,300	80 (27)	—
-7 (wet)	47,900	80 (27)	—
-7AH	46,960	80 (27)	—
-7A (dry)	46,960	80 (27)	•
-7A (wet)	48,570	86 (30)	—
-7F (dry)	48,000	80 (27)	•
-7F (wet)	50,000	86 (30)	•
-7J	50,000	86 (30)	•
-7OA	53,000	86 (30)	—
-7Q	53,000	86 (30)	—
-7R4G2	54,750	86 (30)	—
General Electric			
CF6-50E	52,500	78 (26)	—
-50E1	52,500	86 (30)	—
-50E2	52,500	86 (30)	—
-80C2B1	56,900	90 (32)	—
Rolls-Royce			
RB211-524B2	50,100	84 (29)	•
-524C2	51,600	84 (29)	•
-524D4	53,110	86 (30)	—

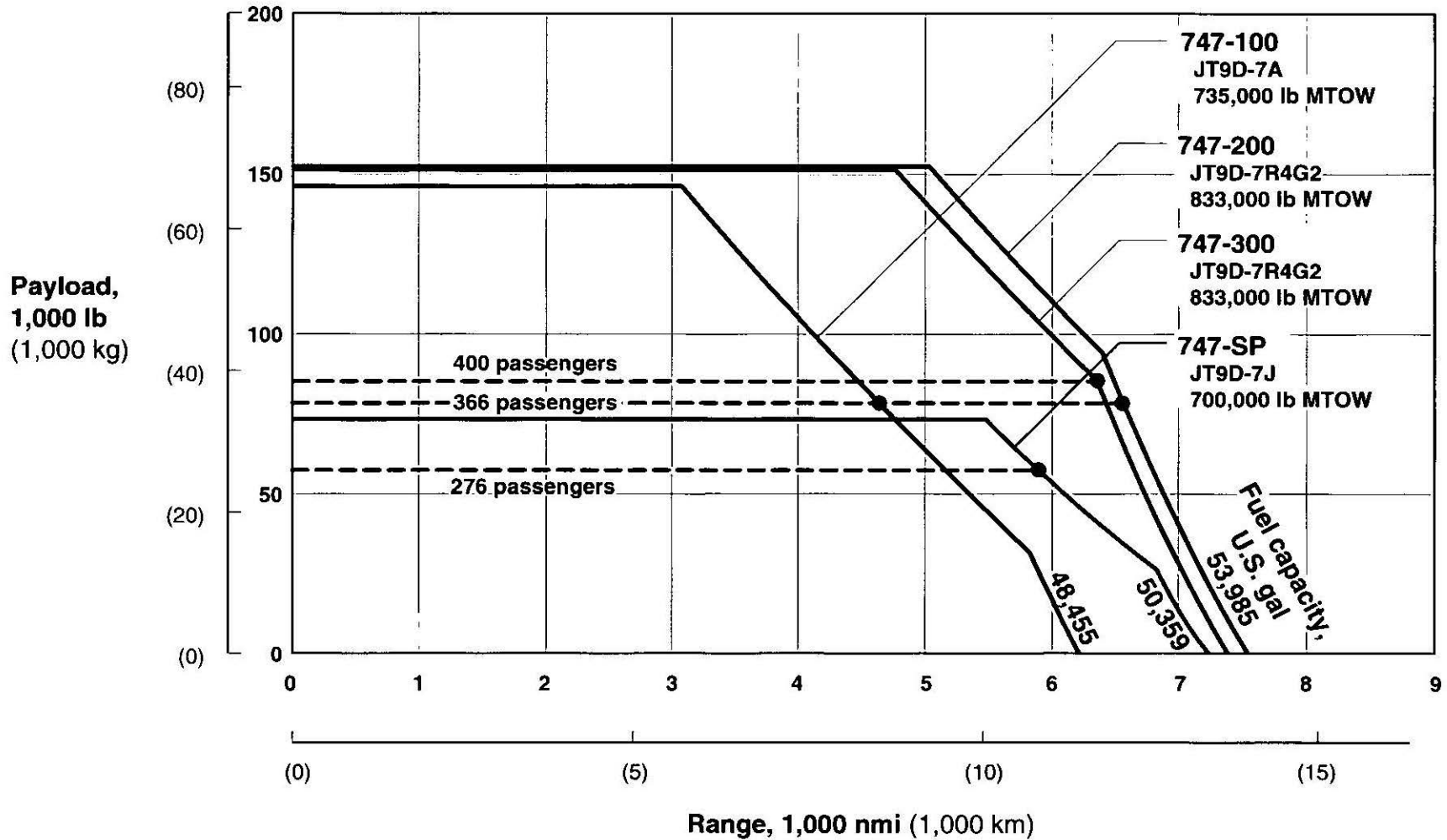
Note: • signifies in-service engine

— signifies offered engine

Copyright © 2007 Boeing. All rights reserved.

747 Payload-Range Capability

StartupBoeing

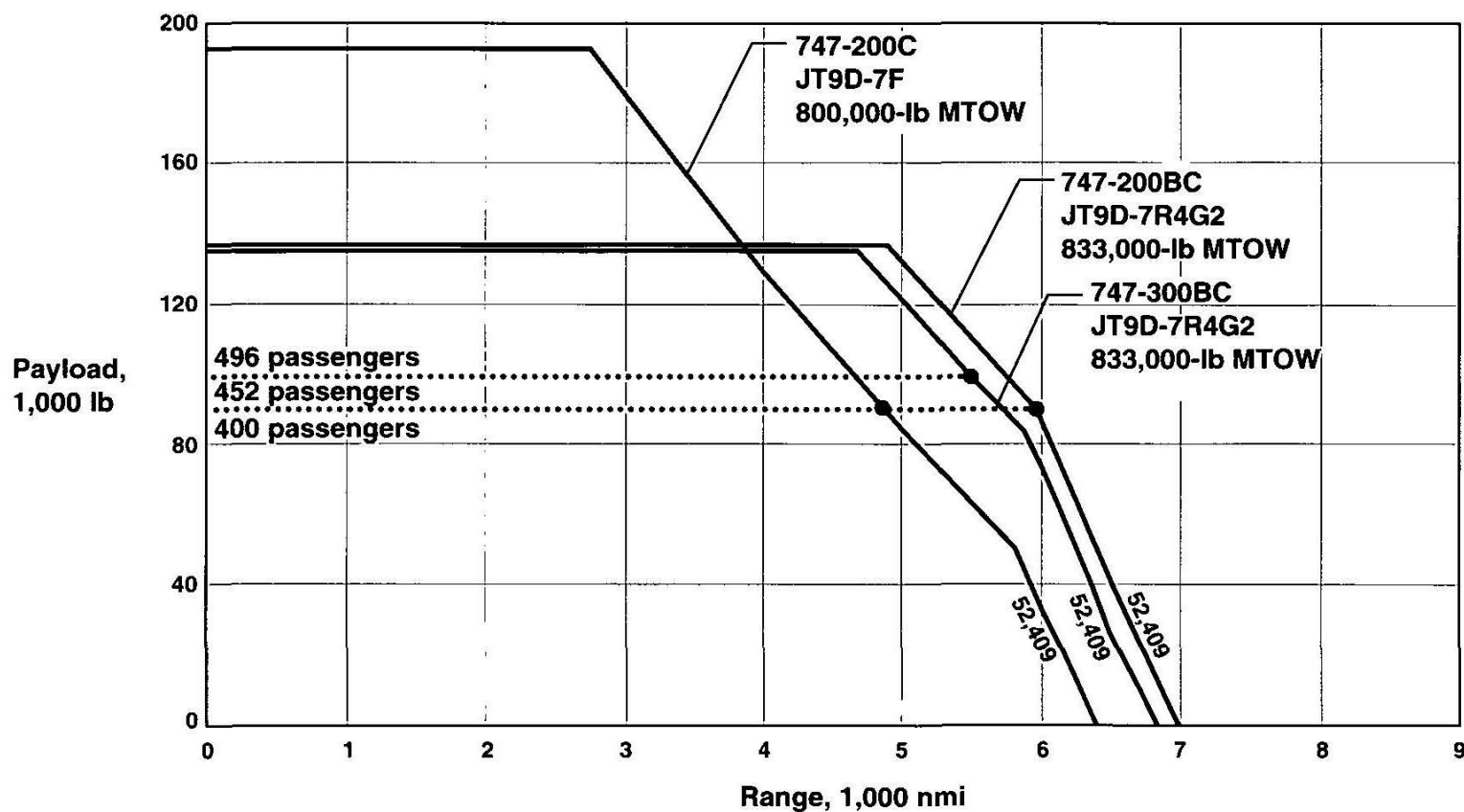


- Typical mission rules
- Three-class interiors

747 Payload-Range Capability

StartupBoeing

All-Passenger Configuration

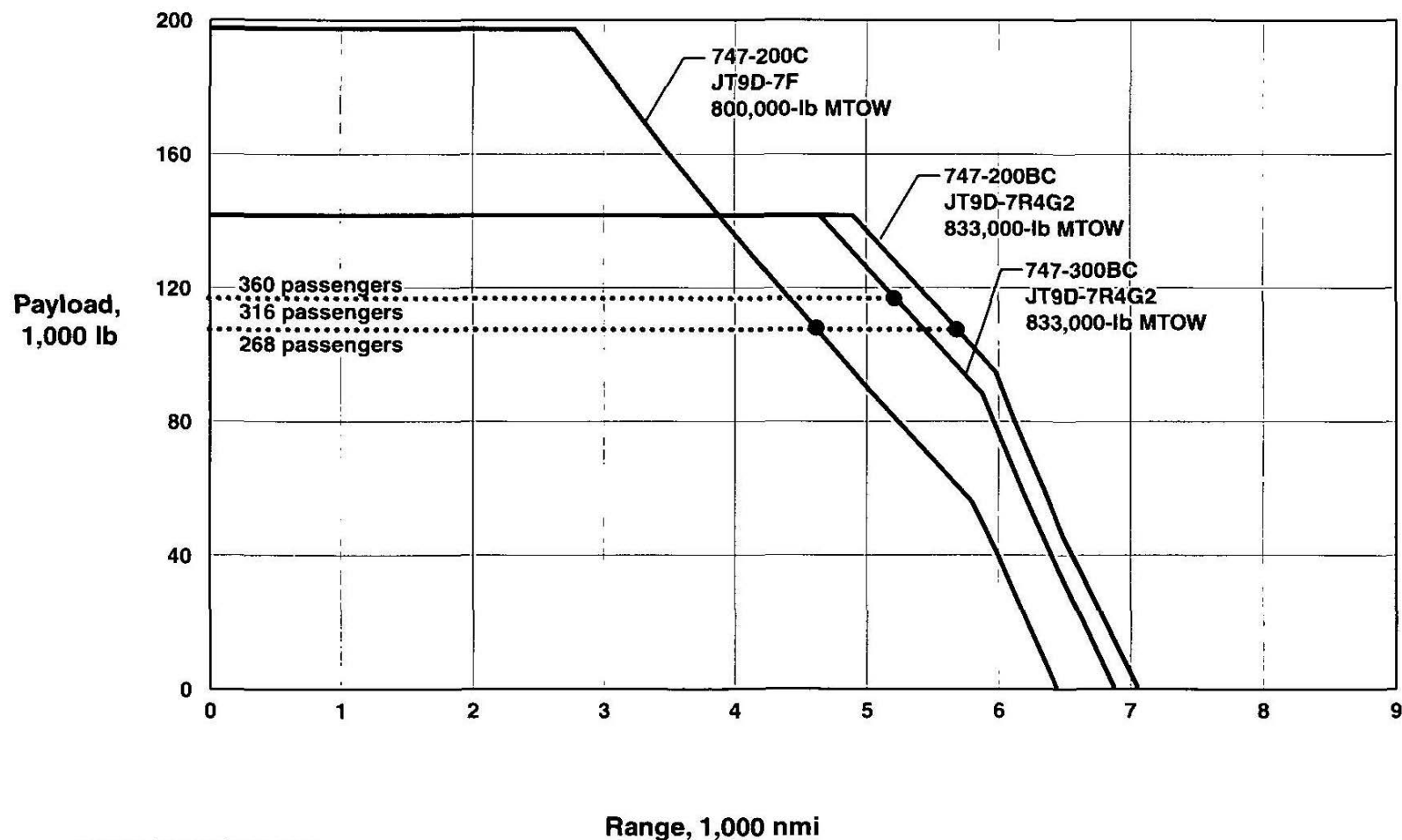


- Typical mission rules
- Two-class interiors

747 Payload-Range Capability

StartupBoeing

Mixed Passenger and Freight Configuration

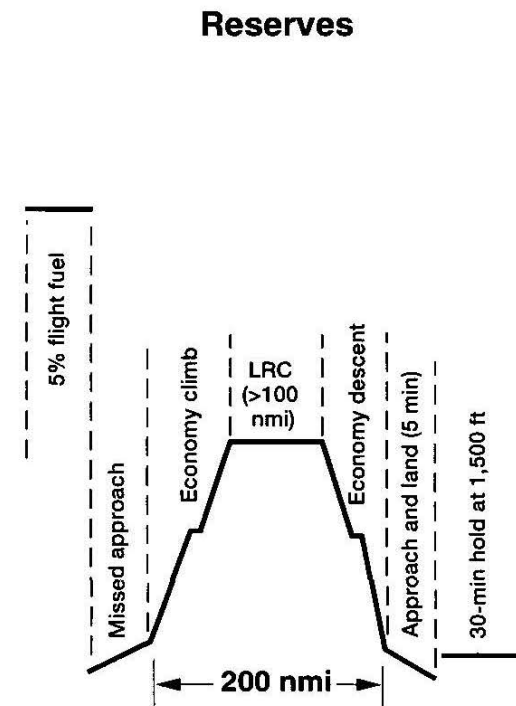
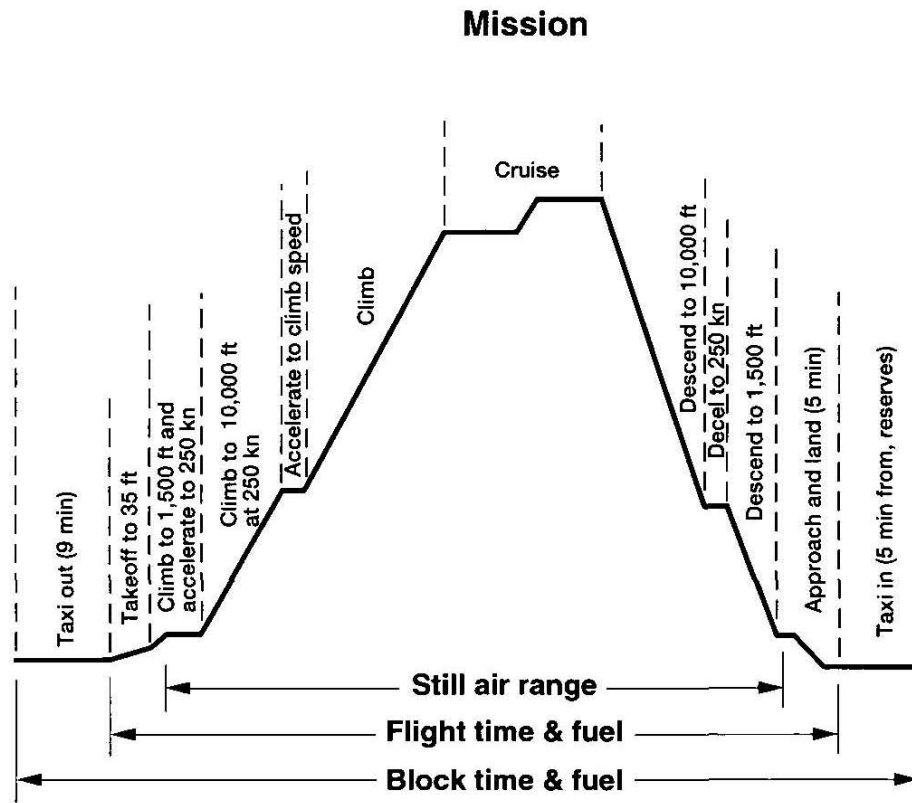


- Typical international rules
- Two-class interiors

747 Mission Profile

StartupBoeing

Evaluation Rules

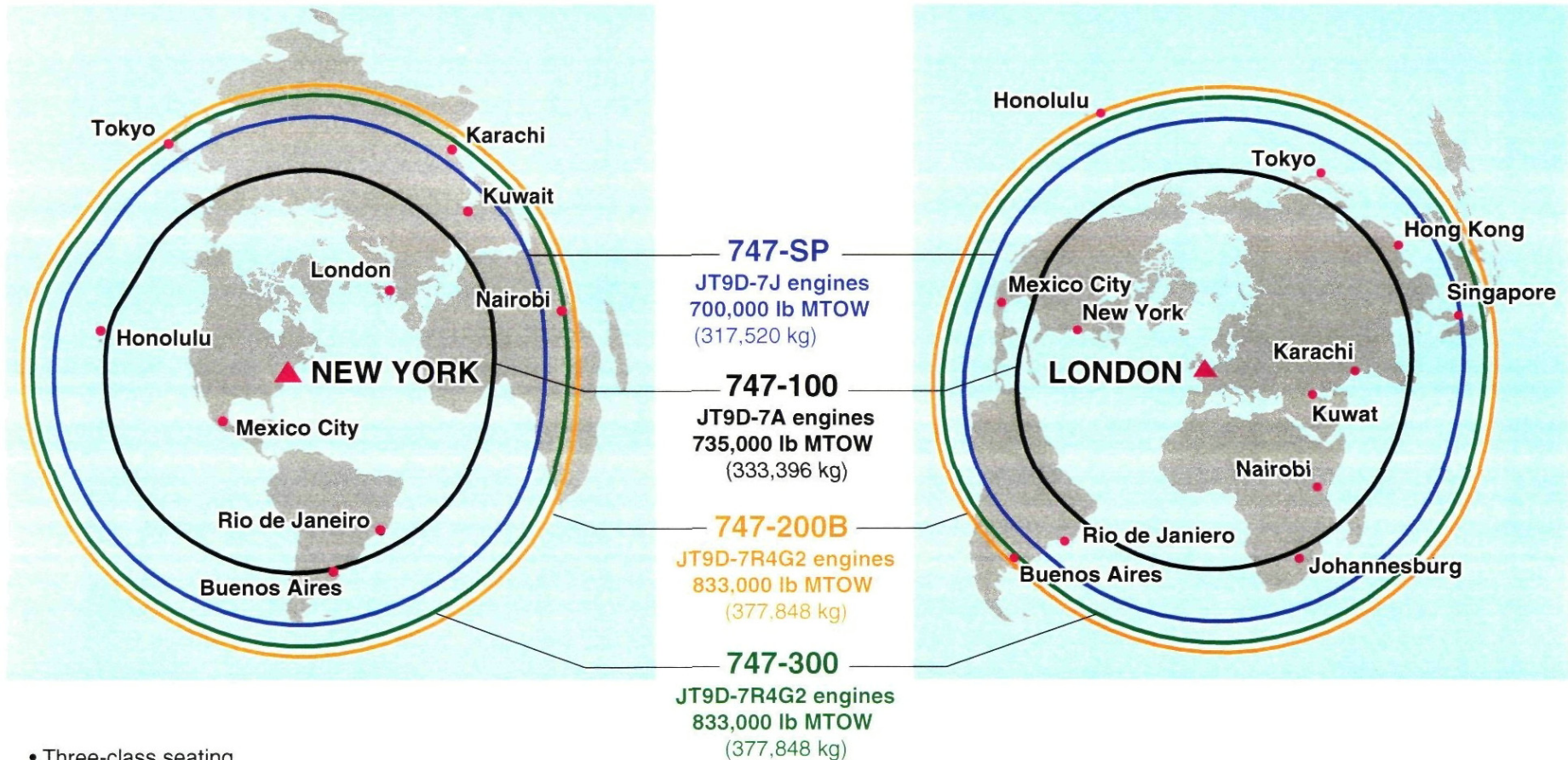


- Typical mission rules
- 200 nmi alternate
- Standard day
- 3% used airplane fuel factor
- Passengers at 210 lb (95 kg) (passenger + baggage)
- Fuel density 6.75 lb/U.S. gallon

747 Range Capability

StartupBoeing

Full Passenger Payload

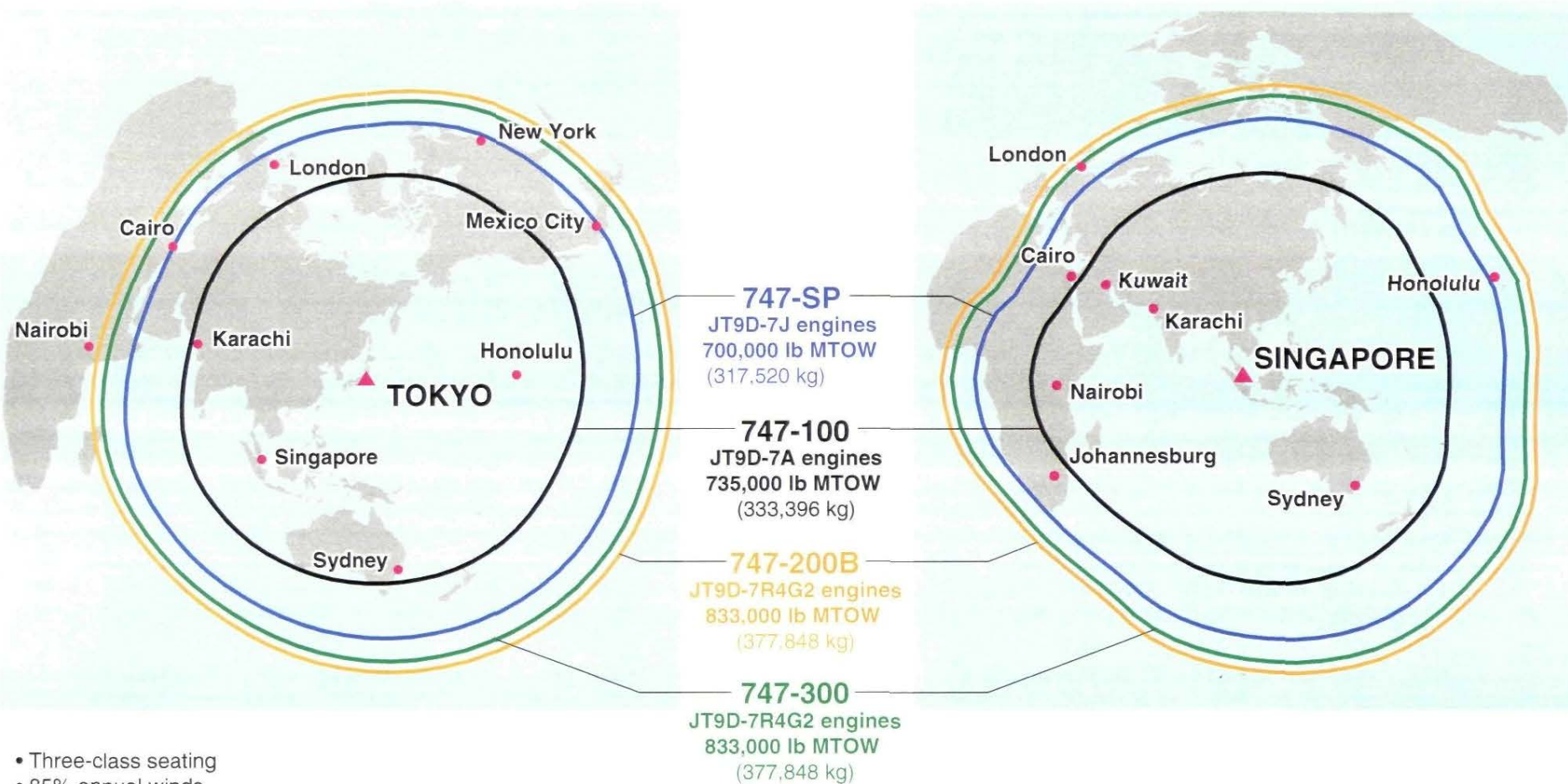


- Three-class seating
- 85% annual winds
- unrestricted direct routing

747 Range Capability

StartupBoeing

Full Passenger Payload

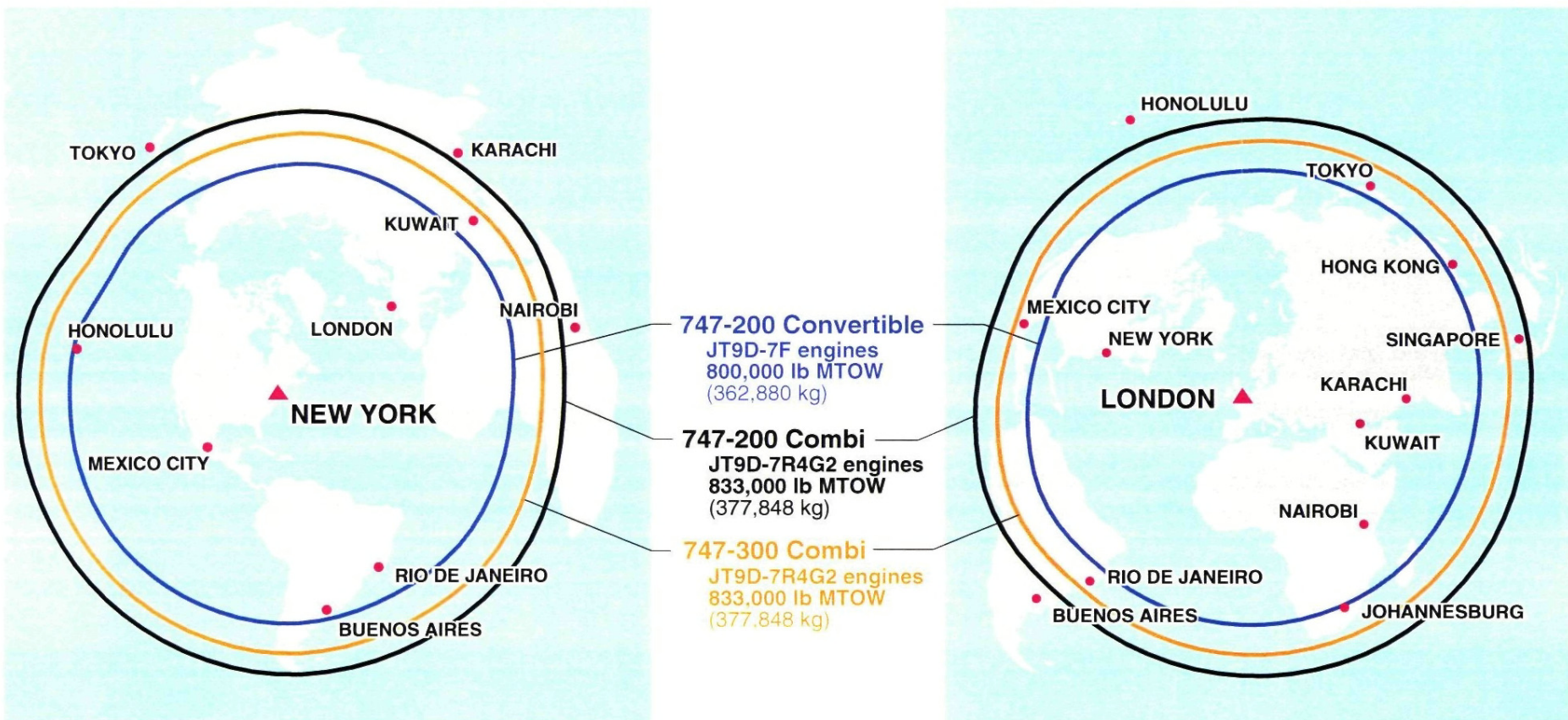


- Three-class seating
- 85% annual winds
- unrestricted direct routing

747 Range Capability

StartupBoeing

All-Passenger Configuration



- Two-class seating
- 85% annual winds
- Unrestricted direct routing

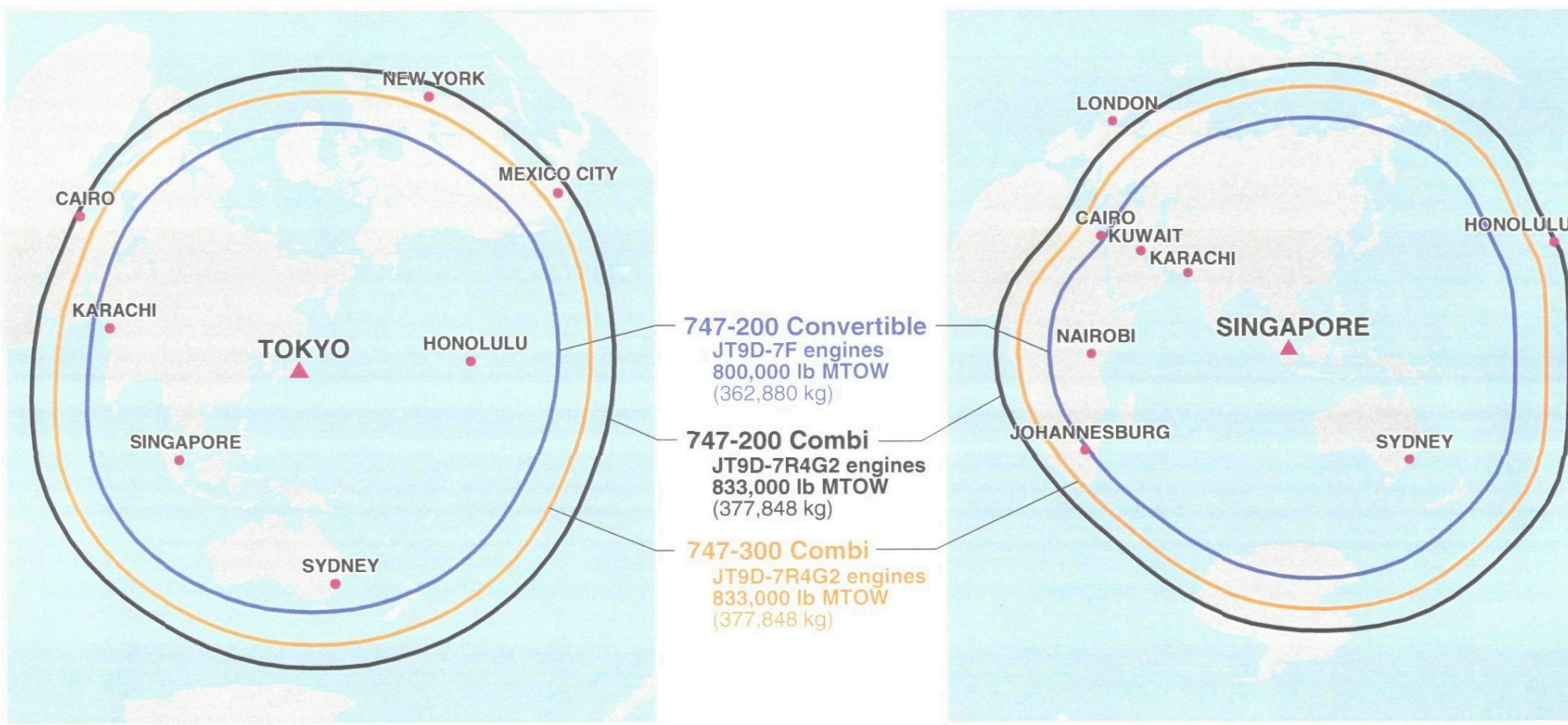
Copyright © 2007 Boeing. All rights reserved.

5/30/2007

747 Range Capability

StartupBoeing

All-Passenger Configuration

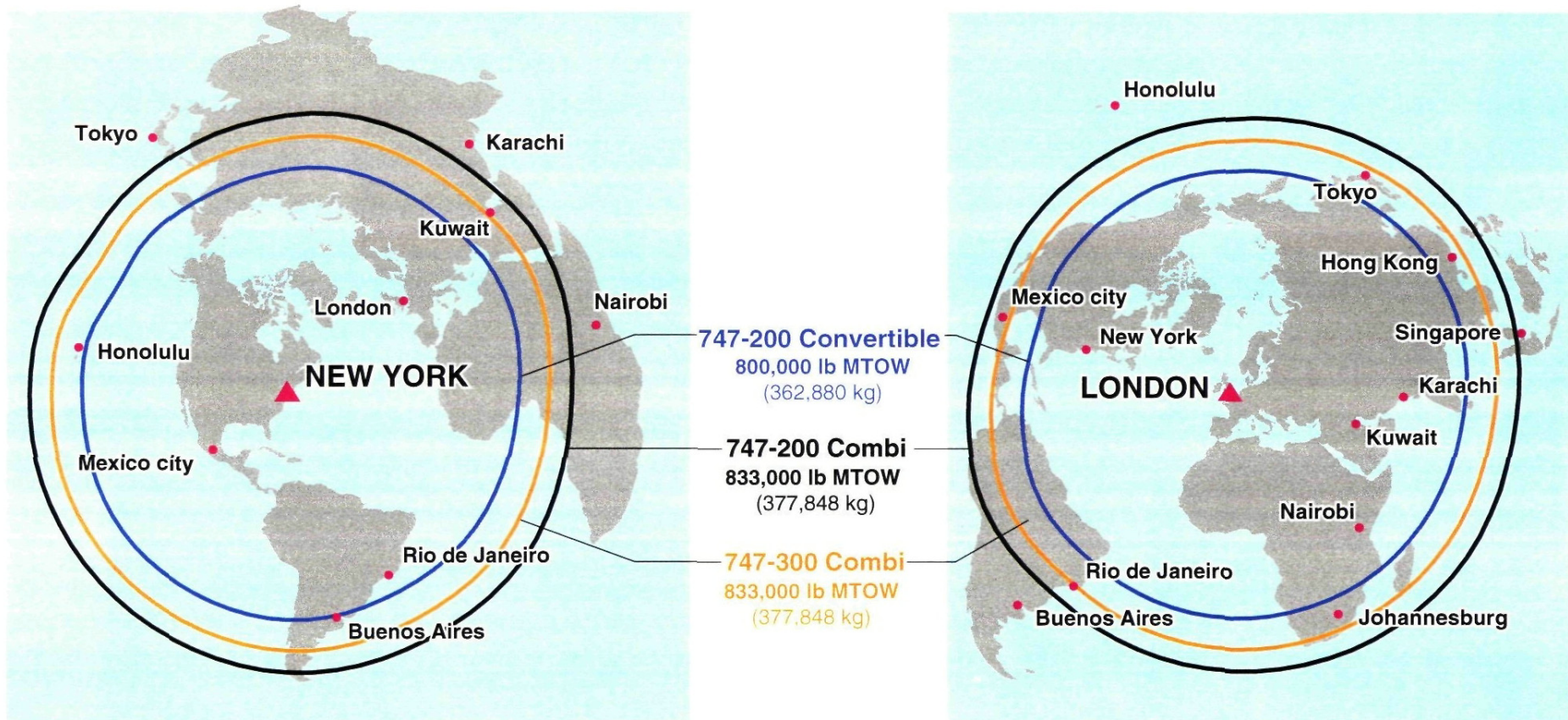


- Two-class seating
- 85% annual winds
- Unrestricted direct routing

747 Range Capability

StartupBoeing

Mixed Passenger and Freight Configuration



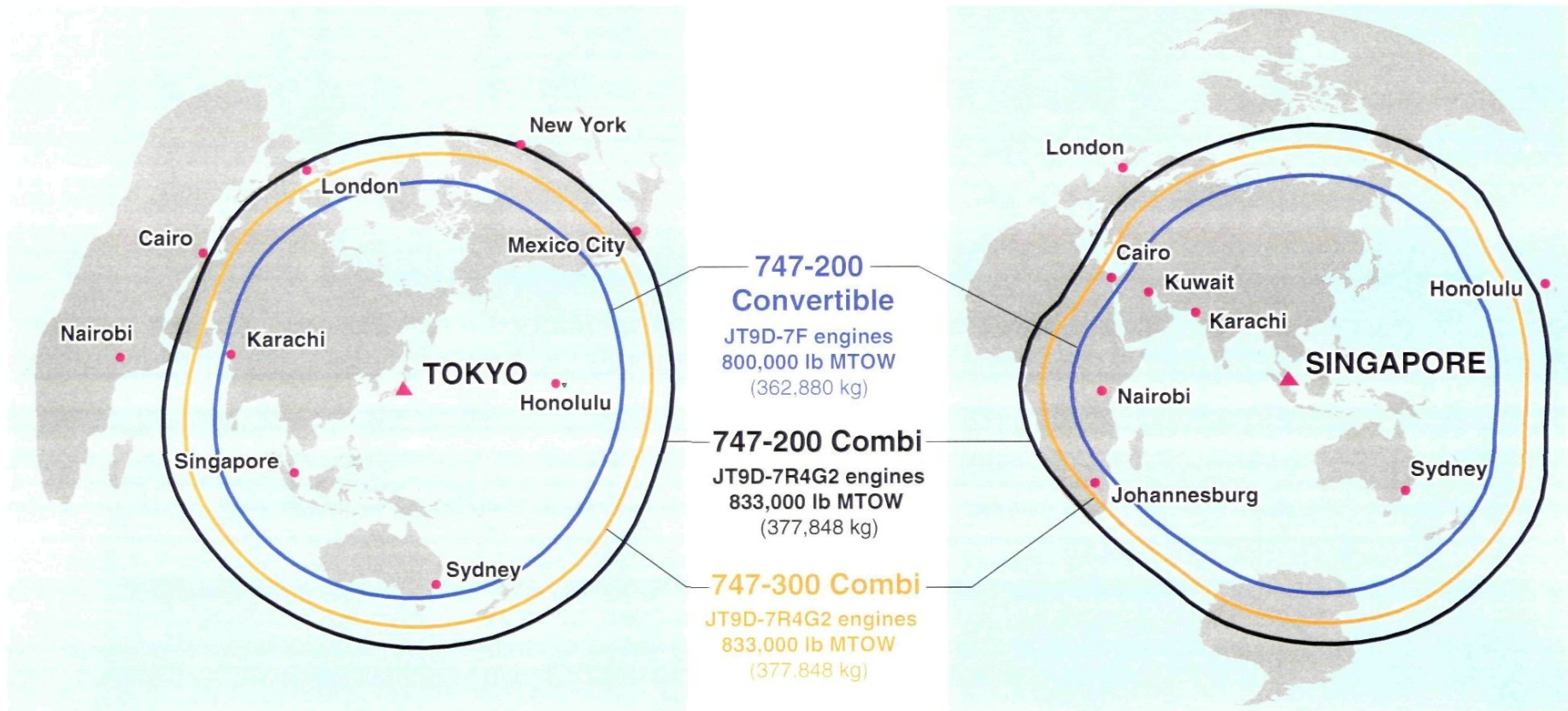
- Two-class seating
- 85% annual winds
- Unrestricted direct routing

Copyright © 2007 Boeing. All rights reserved.

747 Range Capability

StartupBoeing

Mixed Passenger and Freight Configuration



- Two-class seating
- 85% annual winds
- Unrestricted direct routing