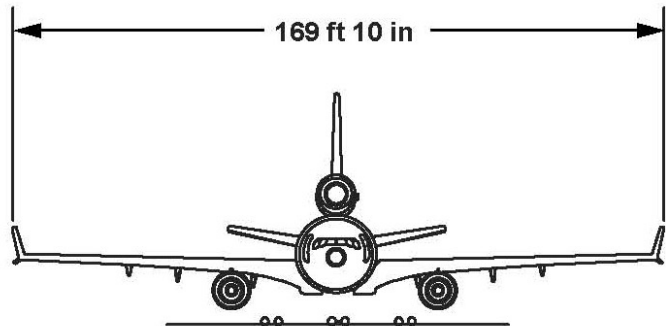
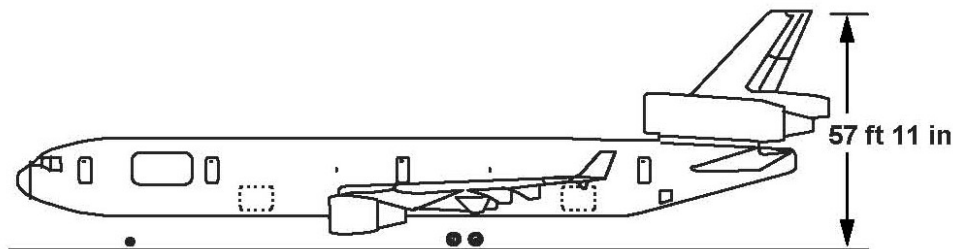
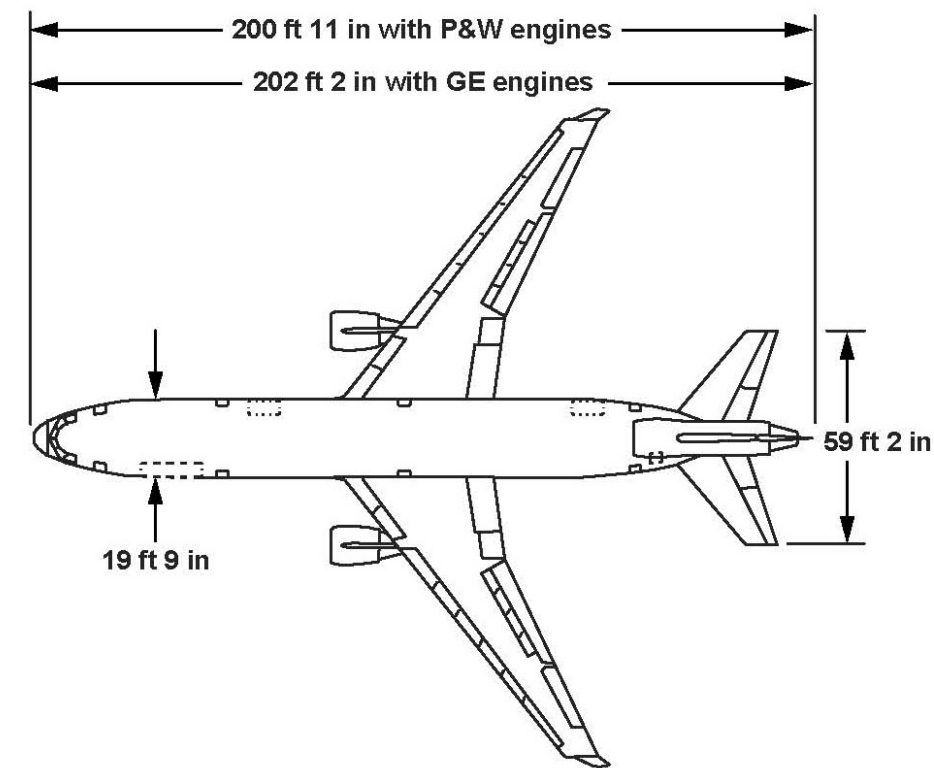


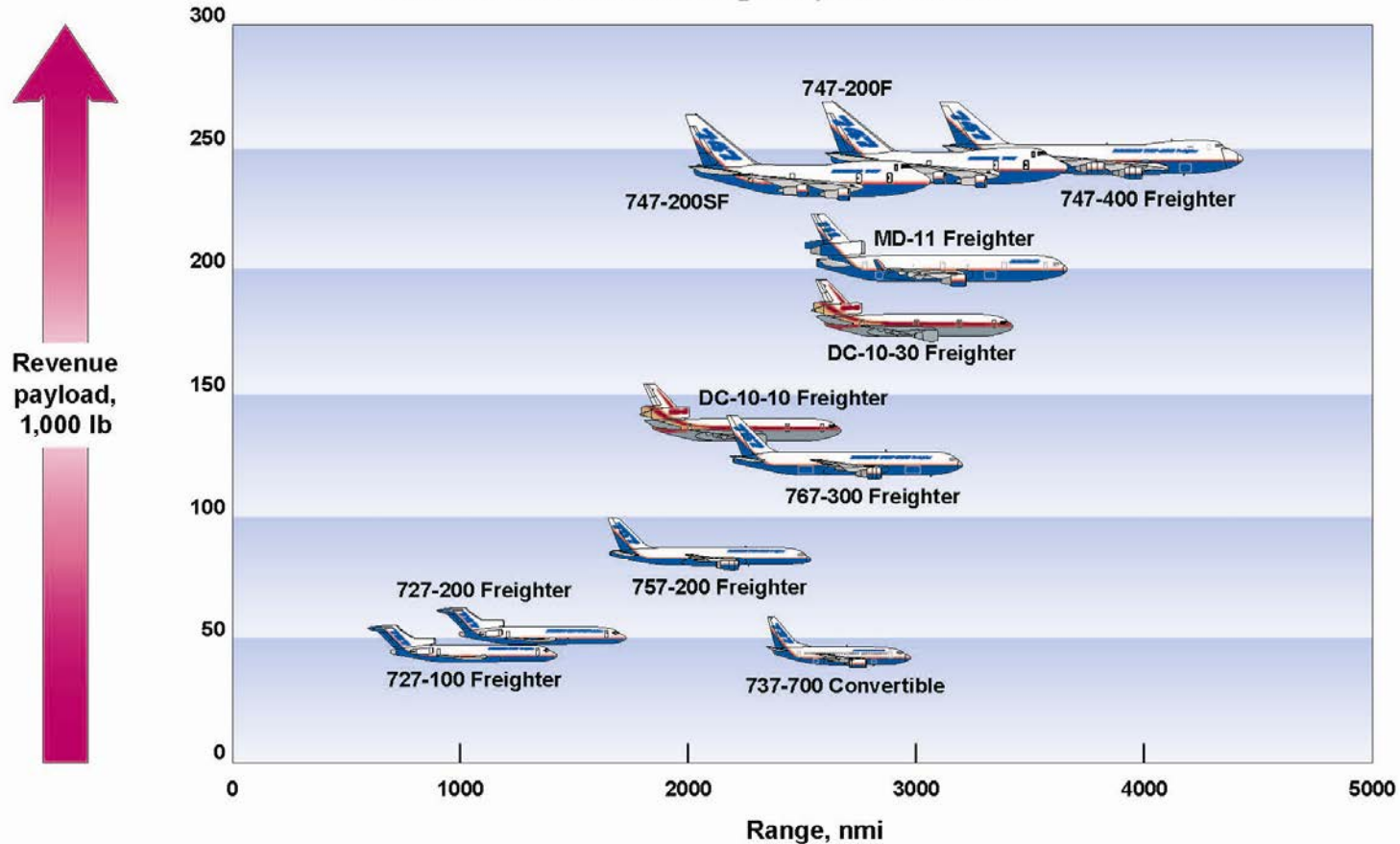
MD-11F General Arrangement

StartupBoeing



Boeing Offers a Complete Freighter Product Line

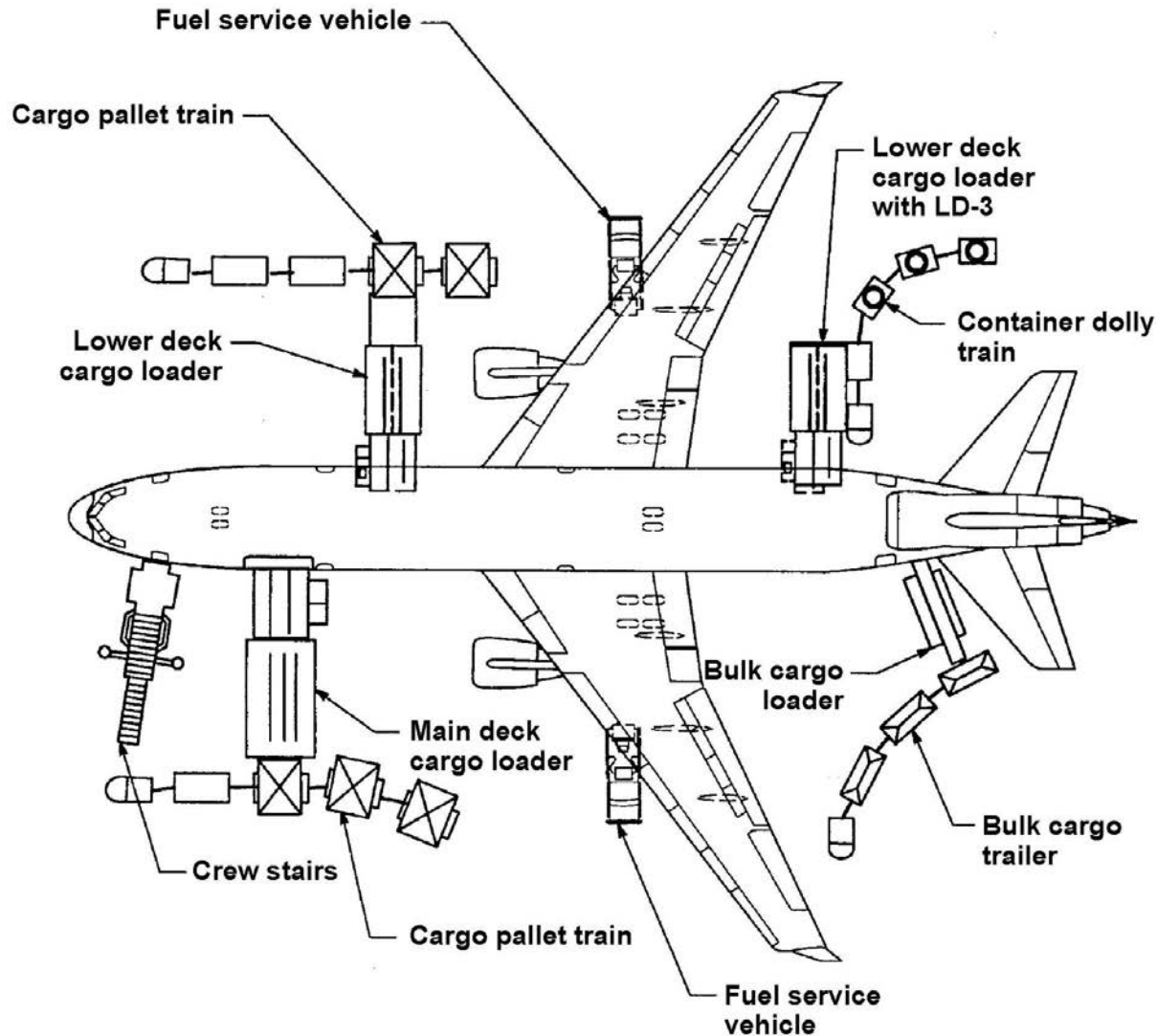
Airlines Can Match Capacity to Demand



- Typical mission rules
- Weight limited payload

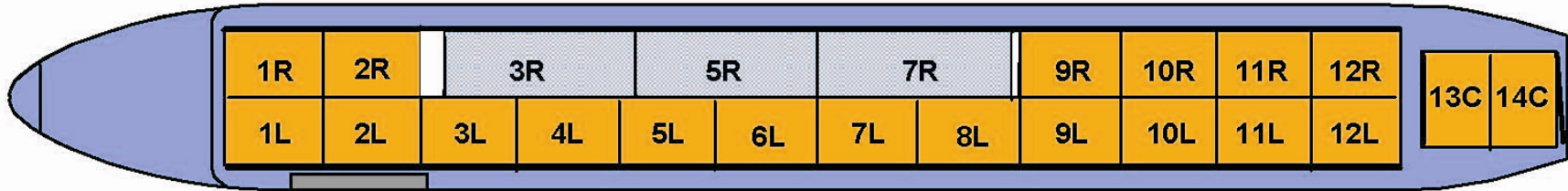
MD-11F Service Arrangement


StartupBoeing




MD-11F Main Deck Capability

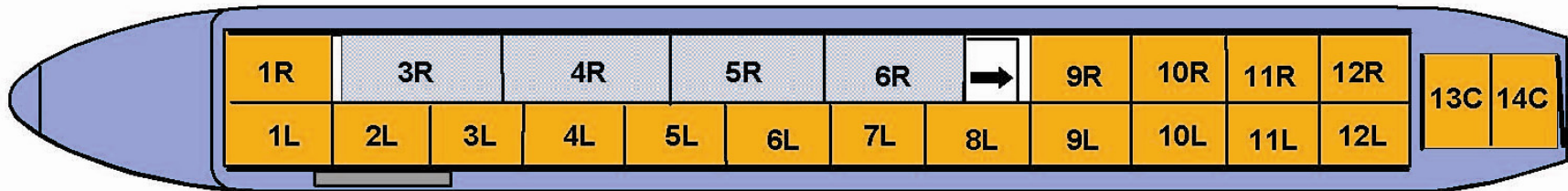
StartupBoeing





 (3) 96- by 238.5-in pallets

 (20) 88- or 96- by 125-in pallets

Capacity with 96- by 125-in pallets (5 load profiles) = 15,296 ft³ (433.2 m³)



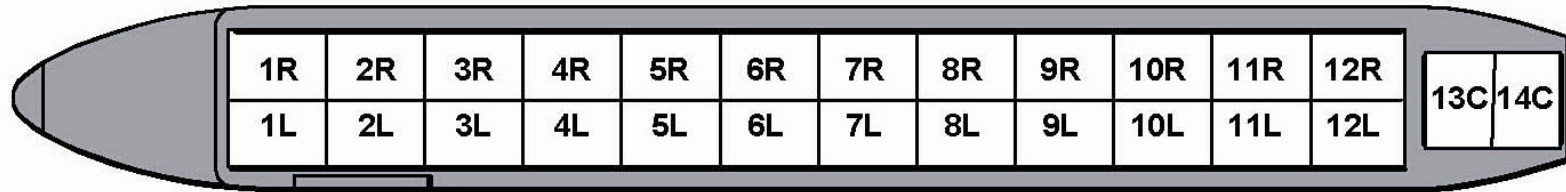
 (4) 96- by 196-in pallets

 (19) 88- or 96- by 125-in pallets

Capacity with 96- by 125-in pallets (5 load profiles) = 14,994 ft³ (424.6 m³)

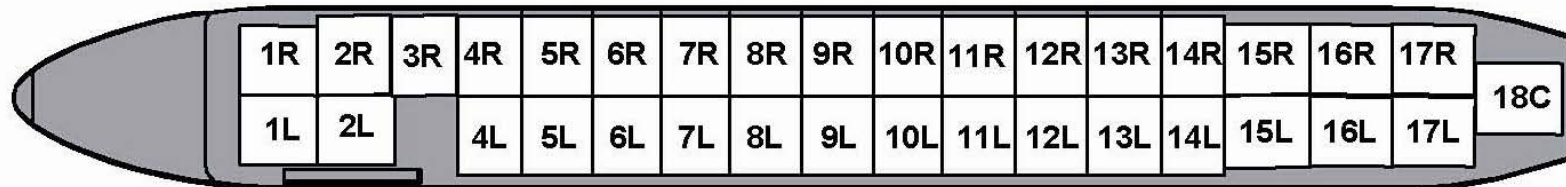
MD-11F Main Deck Capability

StartupBoeing



(26) 88- x 125-in pallets (3 load profiles) = 14,538 ft³ (411.7 m³)

(26) 96- x 125-in pallets (5 load profiles) = 15,530 ft³ (439.8 m³)

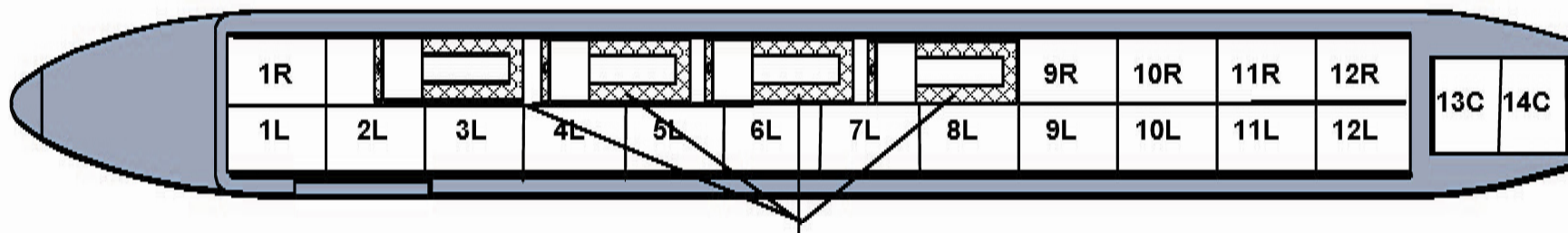


(34) 88- x 108-in pallets (3 load profiles) = 15,537 ft³ (440.0 m³)

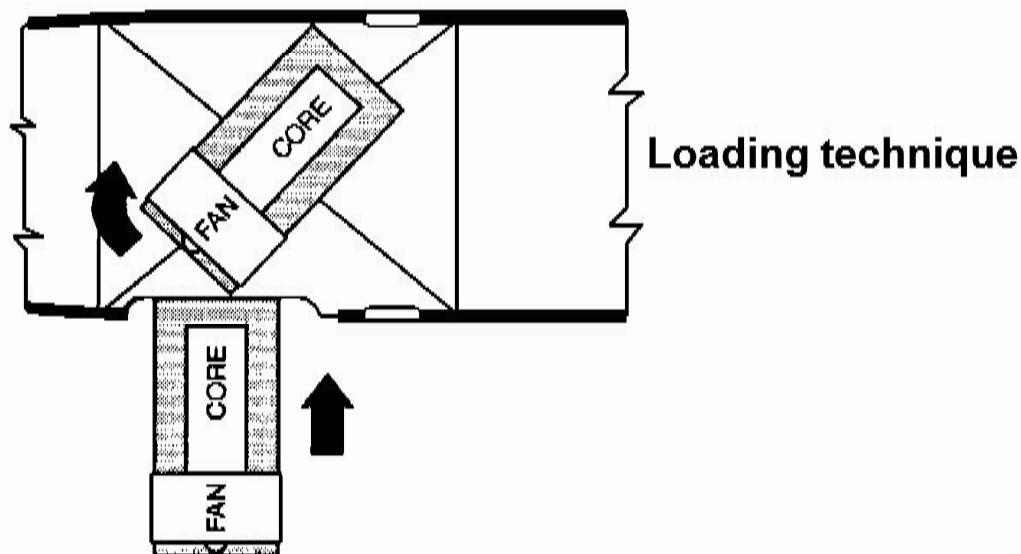
Flexibility to carry existing standard pallets

MD-11F Main Deck Engine Transport

StartupBoeing

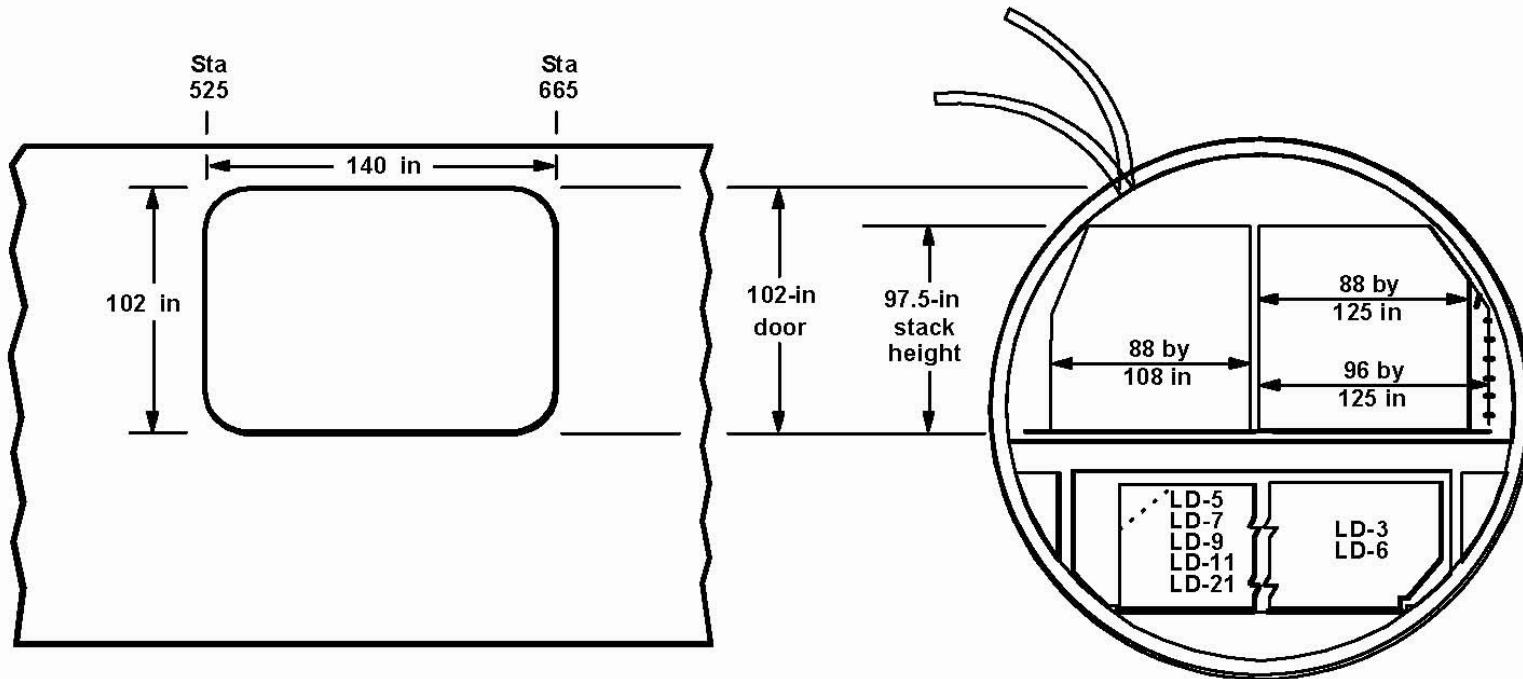


Loadable locations for engine transport device with MD-11, 767, or 747 engines



MD-11F Main Deck Cargo Door

StartupBoeing



- Normal cargo door operation employs an independent hydraulic system with pressure supplied by an electrically driven pump.
- If electrical power is not available, the cargo door can be operated with a manual hydraulic pump.

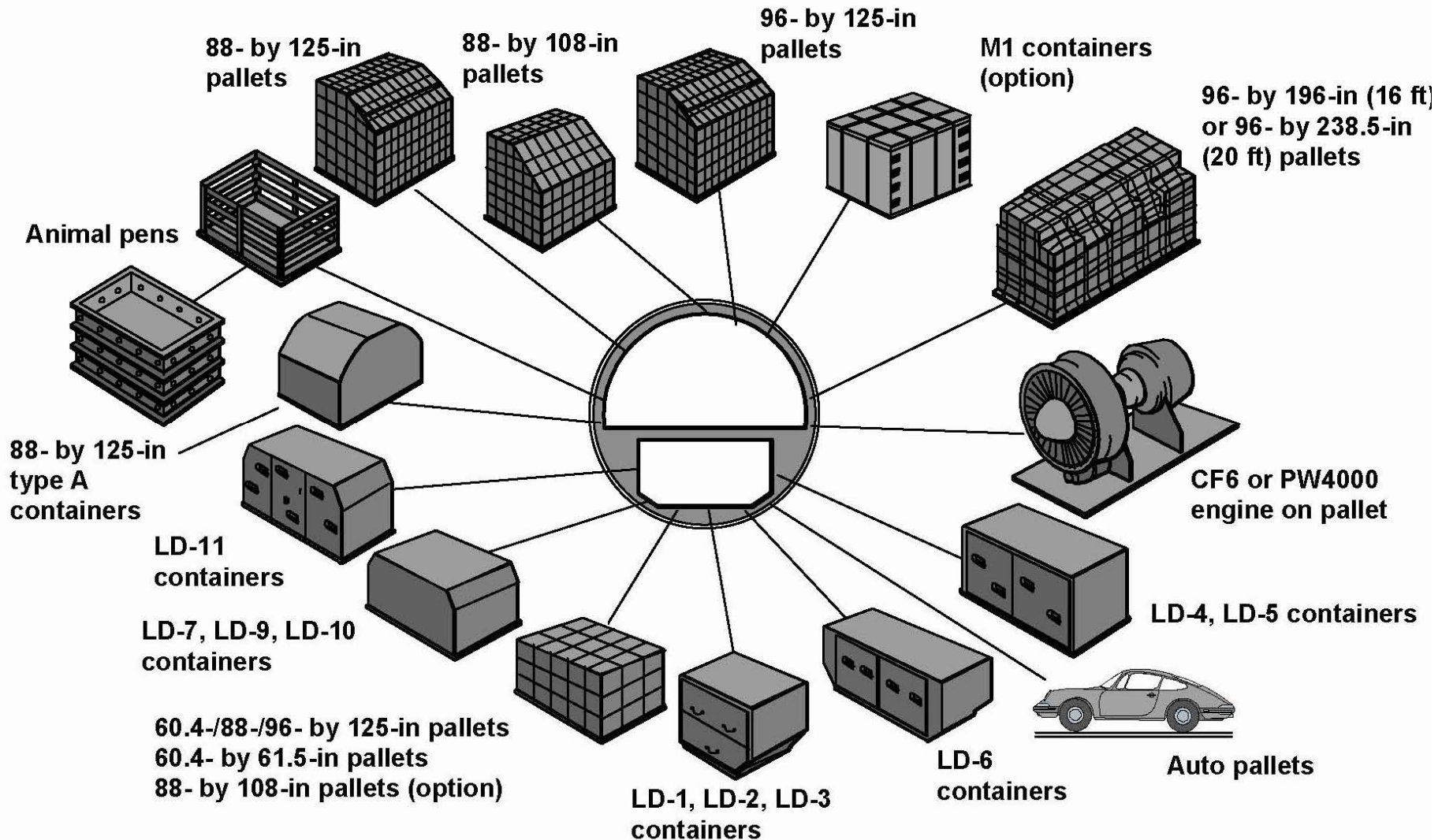
MD-11F Main Deck Compartment

StartupBoeing



MD-11F Main Deck Capability

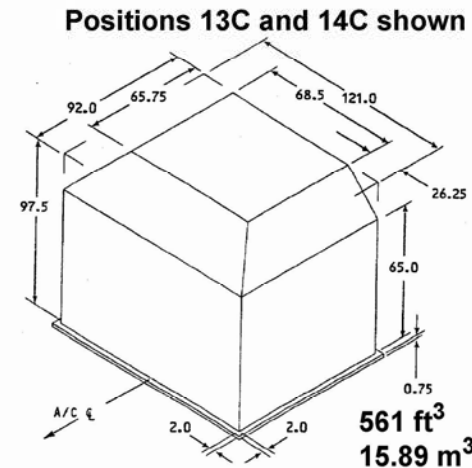
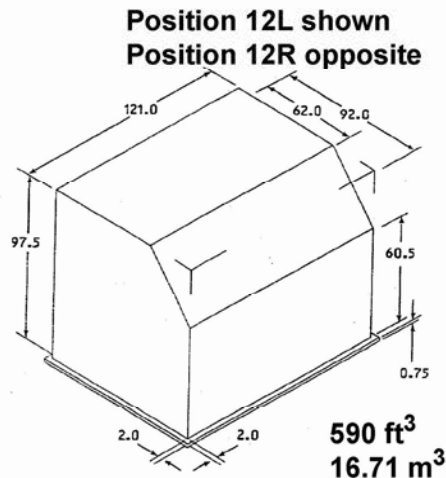
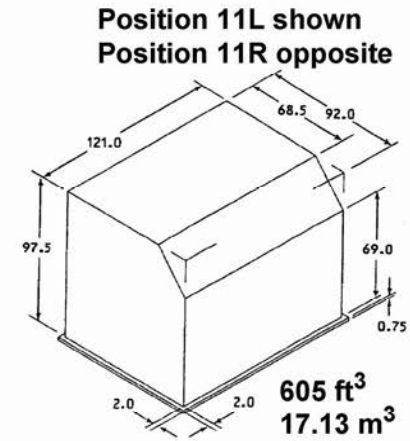
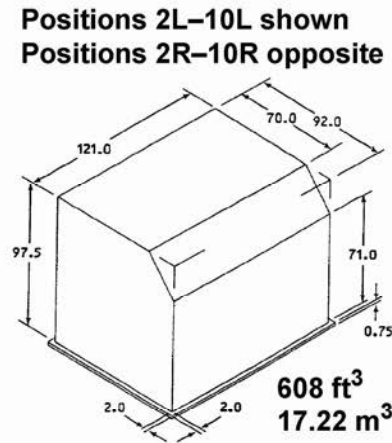
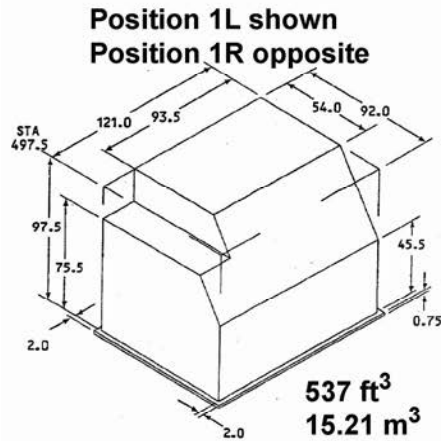
StartupBoeing



MD-11F Main Deck Capability

StartupBoeing

96- by 125-in Containers—Main Cabin



• Dimensions in inches

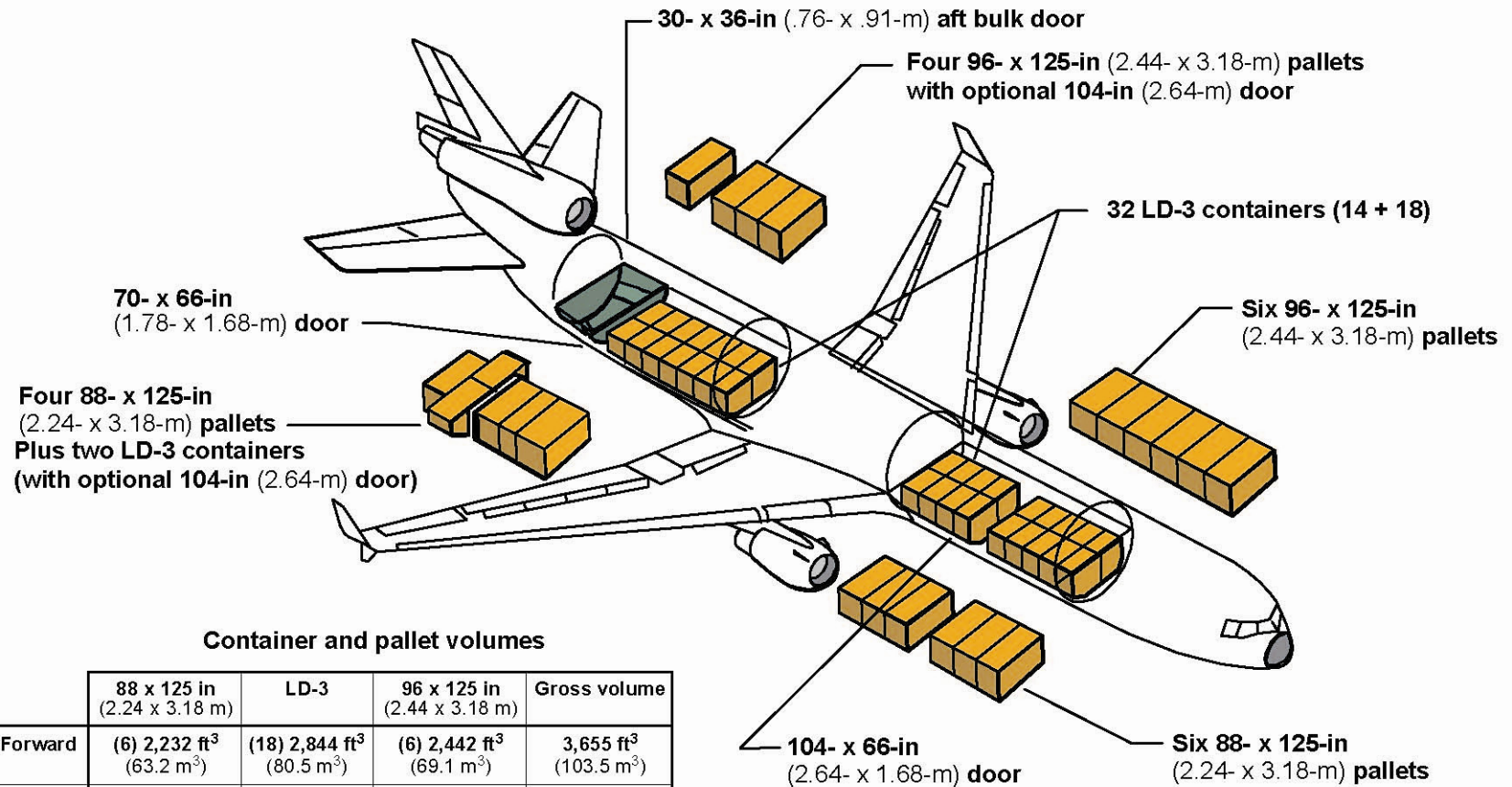
MD-11F Main Deck Engine Transport

StartupBoeing



MD-11F Lower Hold Compartments

StartupBoeing

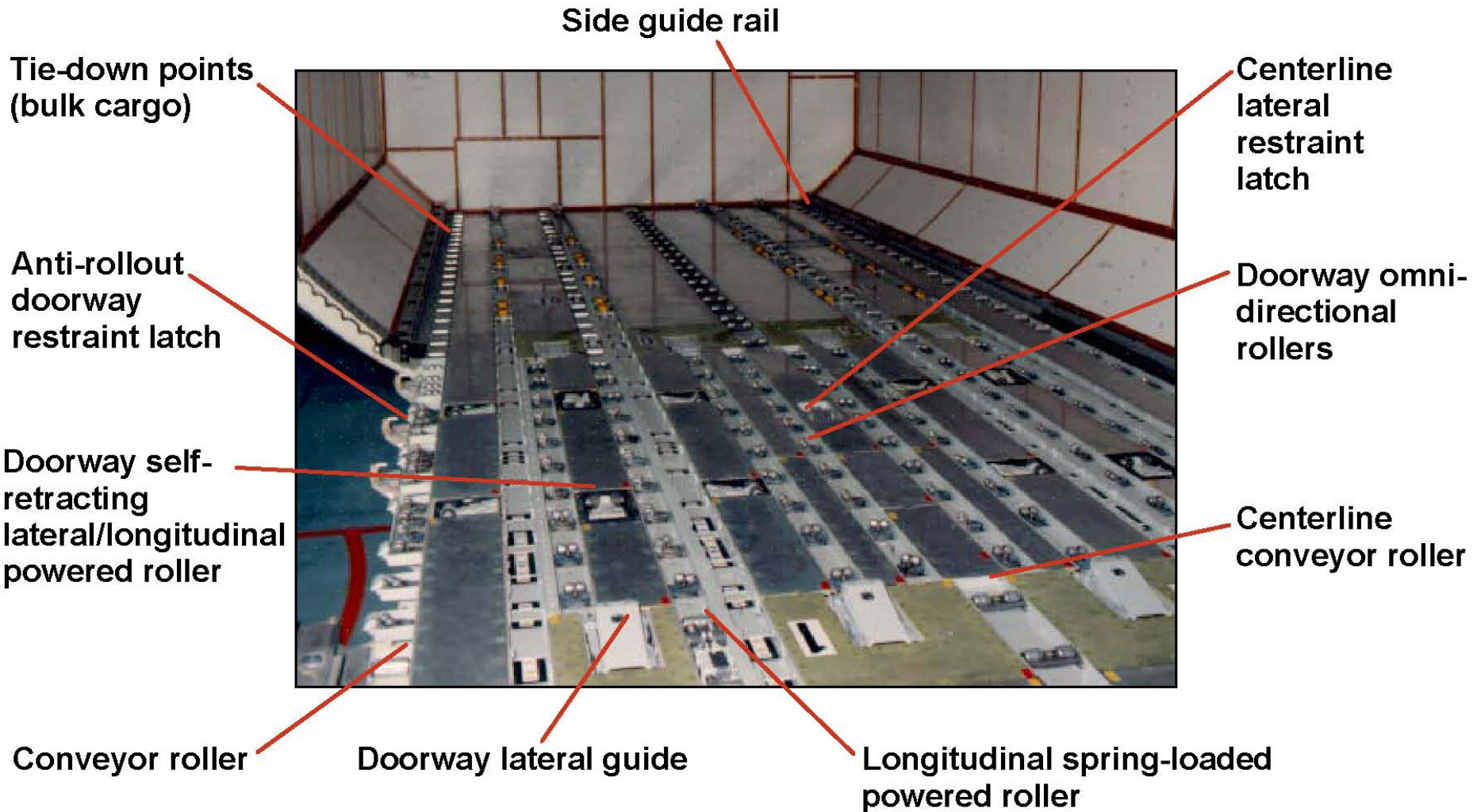


Container and pallet volumes

	88 x 125 in (2.24 x 3.18 m)	LD-3	96 x 125 in (2.44 x 3.18 m)	Gross volume
Forward	(6) 2,232 ft ³ (63.2 m ³)	(18) 2,844 ft ³ (80.5 m ³)	(6) 2,442 ft ³ (69.1 m ³)	3,655 ft ³ (103.5 m ³)
Center		(14) 2,212 ft ³ (62.6 m ³)		2,685 ft ³ (76.0 m ³)
With opt. door	(4) +2 LD-3s 1,804 ft ³ (51.1 m ³)		(4) 1,628 ft ³ (46.1 m ³)	
Aft bulk	510 ft ³ (14.4 m ³)	510 ft ³ (14.4 m ³)	510 ft ³ (14.4 m ³)	510 ft ³ (14.4 m ³)
Highest total vol	4,546 ft ³ (128.7 m ³)	5,566 ft ³ (157.6 m ³)	4,580 ft ³ (129.7 m ³)	6,850 ft ³ (194.0 m ³)

MD-11F Forward Lower Hold Compartment

StartupBoeing



MD-11F Performance Summary

StartupBoeing

General Electric Engines

		Basic	Option*
Cargo payload**	lb (kg)	190,753 (86,526)	200,309 (90,860)
Fuel capacity	U.S. gal (L)	38,615 (146,169)	
Engines		CF6-80C2D1F	
Sea-level static thrust to 86°F	lb	61,500	
Maximum taxi weight	lb (kg)	605,500 (274,655)	633,000 (287,129)
Maximum takeoff weight	lb (kg)	602,500 (273,294)	630,500 (285,995)
Maximum landing weight	lb (kg)	471,500 (213,872)	491,500 (222,944)
Maximum zero fuel weight	lb (kg)	451,300 (204,800)	461,300 (209,246)
Operating empty weight	lb (kg)	260,547 (118,184)	260,991 (118,386)
Tare weight	lb (kg)	10,700 (4,854)	10,700 (4,854)
Design range, structural limit payload	nmi (km)	3,264 (6,045)	3,592 (6,652)
Cruise Mach number		0.83	0.83
Takeoff field length, SL, 86°F/30°C, MTOW	ft (m)	9,725 (2,964)	10,800 (3,292)
Initial cruise altitude, MTOW	ft	33,300	32,200
Landing field length, MLW			
Flaps 35°	ft (m)	8,060 (2,457)	8,350 (2,545)
Flaps 50°	ft (m)	7,400 (2,255)	7,650 (2,332)
Approach speed, MLW	kn	155	158

- Typical mission rules
- OEI includes tare weight
- Optional MTOWs: 605,500 lb, 610,000 lb, 618,000 lb, 625,500 lb, and 630,500 lb
- * Highest available optional weight
- **Structural limit payload—net payload

MD-11F Performance Summary

StartupBoeing

Pratt & Whitney Engines

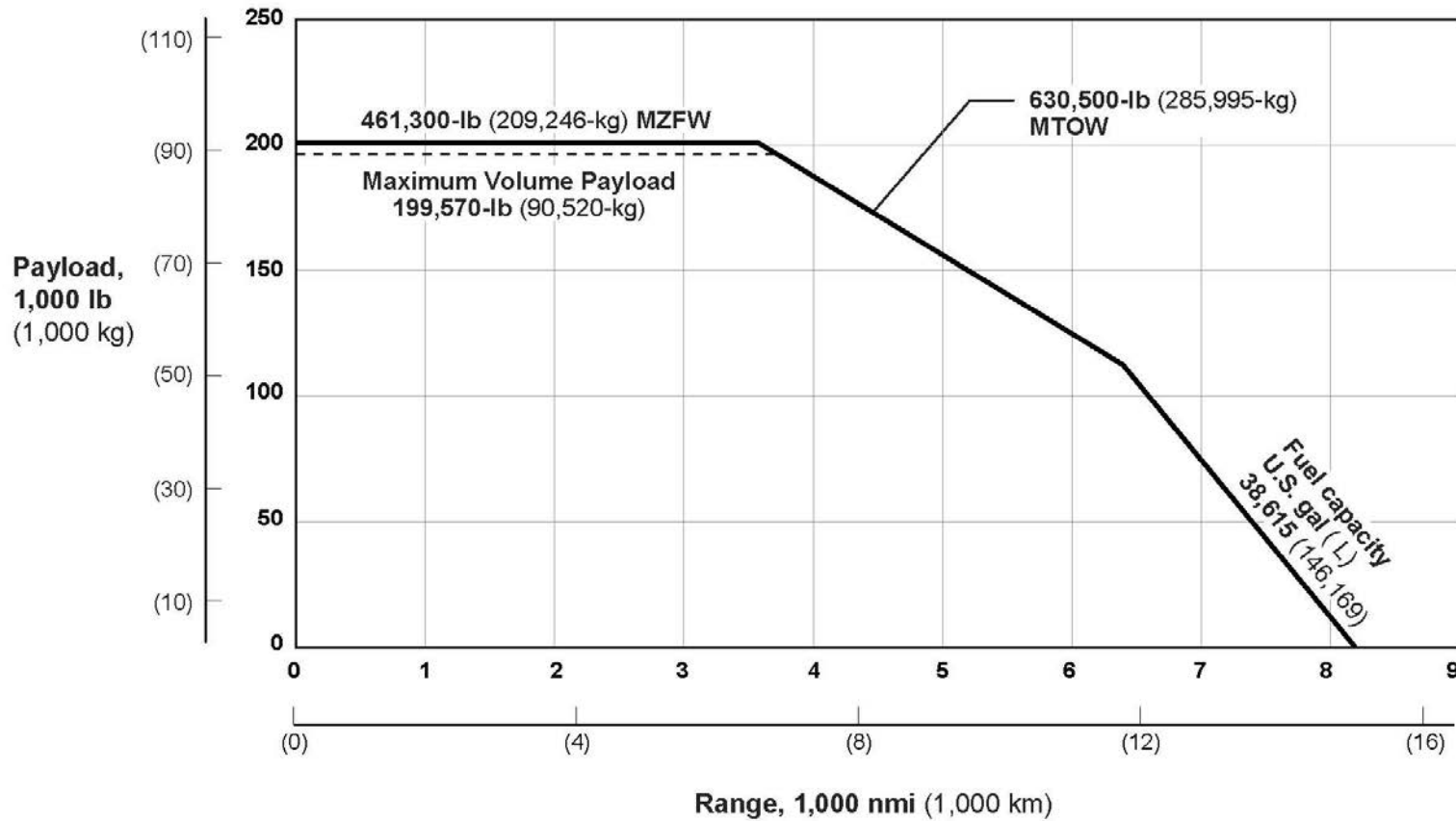
		Basic	Option*
Cargo payload**	lb (kg)	191,461 (86,847)	201,025 (91,185)
Fuel capacity	U.S. gal (L)	38,615 (146,169)	
Engines		PW4460/PW4462	
Sea-level static thrust to 86°F	lb	60,000/62,000	
Maximum taxi weight	lb (kg)	605,500 (274,655)	633,000 (287,129)
Maximum takeoff weight	lb (kg)	602,500 (273,294)	630,500 (285,995)
Maximum landing weight	lb (kg)	471,500 (213,872)	491,500 (222,944)
Maximum zero fuel weight	lb (kg)	451,300 (204,800)	461,300 (209,246)
Operating empty weight	lb (kg)	259,831 (117,859)	260,275 (118,061)
Tare weight	lb (kg)	10,700 (4,854)	10,700 (4,854)
Design range, structural limit payload	nmi (km)	3,209 (5,943)	3,533 (6,543)
Cruise Mach number		0.83	0.83
Takeoff field length, SL, 86°F/30°C, MTOW			
PW4460	ft (m)	9,800 (2,987)	10,950 (3,337)
PW4462	ft (m)	9,460 (2,883)	10,450 (3,185)
Initial cruise altitude, MTOW	ft	33,300	32,200
Landing field length, MLW			
Flaps 35°	ft (m)	8,175 (2,492)	8,460 (2,579)
Flaps 50°	ft (m)	7,500 (2,286)	7,760 (2,365)
Approach speed, MLW	kn	155	158

- Typical mission rules
- OEW includes tare weight
- Optional MTOWs: 605,500 lb, 610,000 lb, 618,000 lb, 625,500 lb, and 630,500 lb
- * Highest available optional weight
- **Structural limit payload—net payload

MD-11F Payload-Range Capability

StartupBoeing

Pratt & Whitney Engines

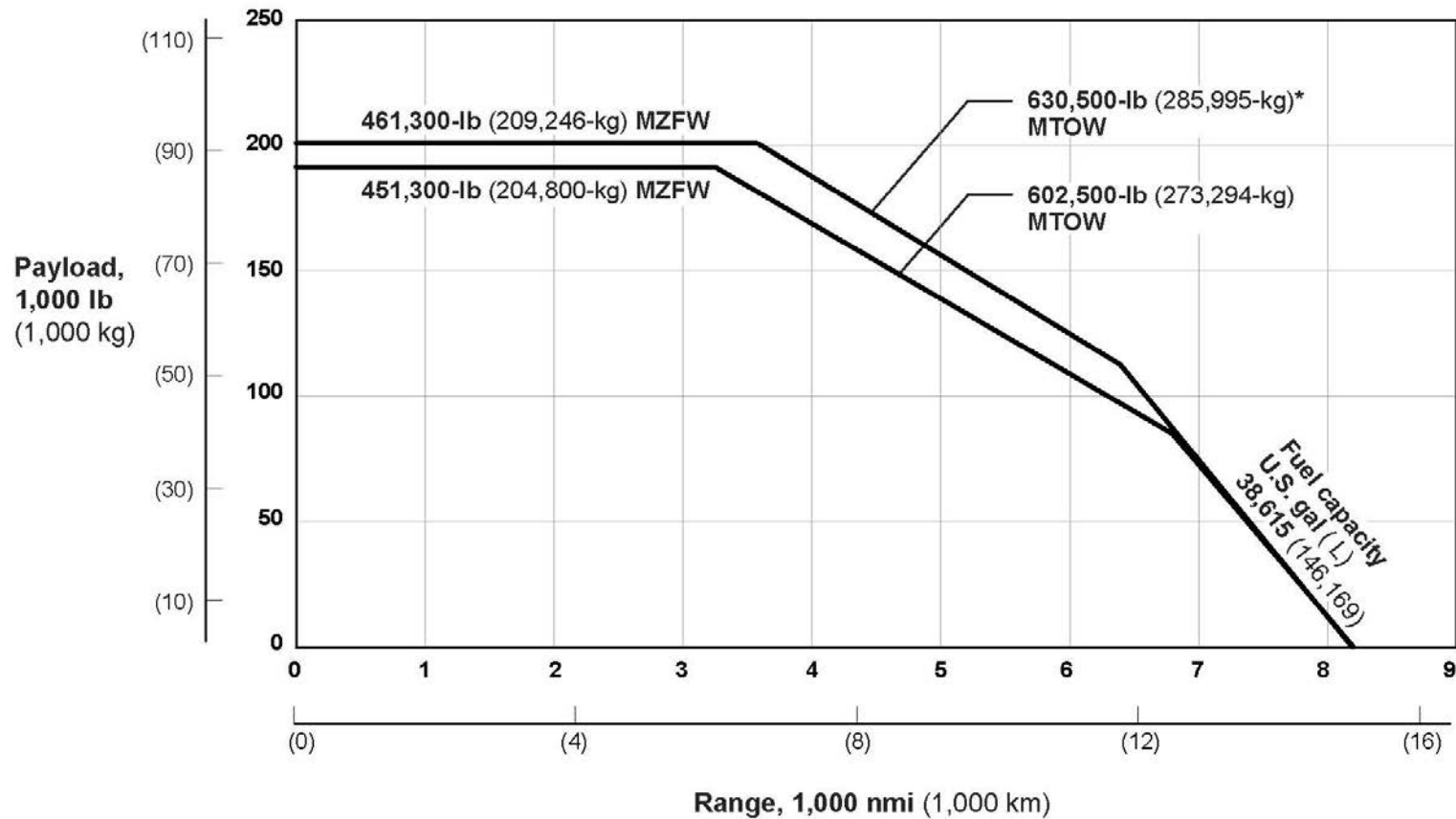


- Typical mission rules
- Tare weight included in OEW

MD-11F Payload-Range Capability

StartupBoeing

General Electric Engines



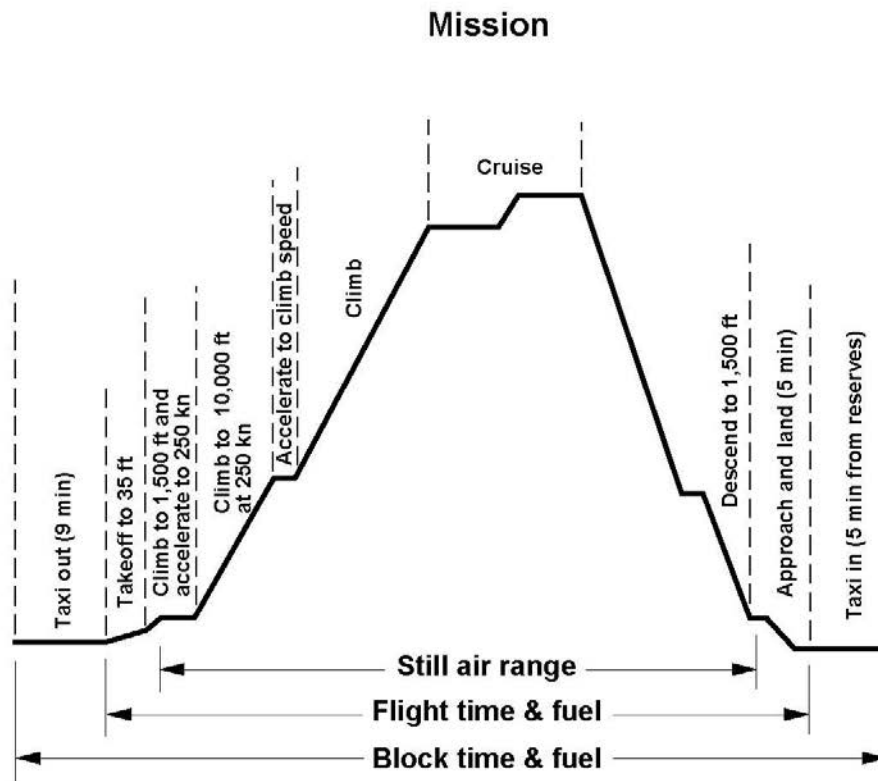
- Typical mission rules
- Tare weight included in OEW

* Highest available option MTOW

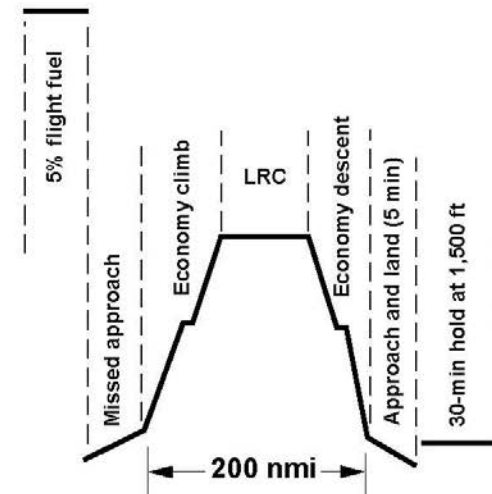
MD-11F Mission Profile

StartupBoeing

Typical Mission Rules



Reserves



- Standard day
- Fuel density 6.7 lb/U.S. gal
- Cruise at LRC
- Nominal performance

MD-11F Range Capability

StartupBoeing

GE CF6-80C2D1F Engines

MD-11F

630,500-lb (285,995-kg) MTOW*
200,309-lb (90,860-kg) cargo

MD-11F

602,500-lb (273,294-kg) MTOW
190,753-lb (86,526-kg) cargo

- Typical mission rules
- Maximum structural payload
- 85% annual winds
- Airways and traffic allowances included

* Highest available optional weight



MD-11F Range Capability

StartupBoeing

GE CF6-80C2D1F Engines

MD-11F
630,500-lb (285,995-kg) MTOW*
200,309-lb (90,860-kg) cargo

MD-11F
602,500-lb (273,294-kg) MTOW
190,753-lb (86,526-kg) cargo

- Typical mission rules
- Maximum structural payload
- 85% annual winds
- Airways and traffic allowances included

* Highest available optional weight



MD-11F Range Capability

StartupBoeing

GE CF6-80C2D1F Engines

MD-11F
630,500-lb (285,995-kg) **MTOW***
200,309-lb (90,860-kg) **cargo**

MD-11F
602,500-lb (273,294-kg) **MTOW**
190,753-lb (86,526-kg) **cargo**

- Typical mission rules
- Maximum structural payload
- 85% annual winds
- Airways and traffic allowances included

* Highest available optional weight



MD-11F Range Capability

StartupBoeing

GE CF6-80C2D1F Engines

MD-11F
630,500-lb (285,995-kg) MTOW*
200,309-lb (90,860-kg) cargo

MD-11F
602,500-lb (273,294-kg) MTOW
190,753-lb (86,526-kg) cargo

- Typical mission rules
- Maximum structural payload
- 85% annual winds
- Airways and traffic allowances included

* Highest available optional weight



MD-11 Flight Deck

StartupBoeing

