

→ HEAVY LIFT CARGO AIRCRAFT

Heavy lift cargo aircraft present both challenges and solutions to modern logistics. If you need something substantial transported quickly, you should be aware that these options are available to you, as well as the parameters of each.

This document provides an overview of the various technical dimensions of heavy lift cargo aircraft, while serving as a starting point to your outsize cargo solutions.

If you have any further questions or need some help in this regard, we'd be happy to advise. Please contact us at commercial@logisticusgroup.com.



CLOCKWISE (FROM TOP LEFT)

- Boeing 747-400 → Boeing 747-8 → Antonov-AN-124-100
- Antonov AN-225 → Airbus A330-700

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AIRCRAFT CHARACTERISTICS

[SUMMARY]

AIRCRAFT NAME	BOEING 747-400F	BOEING 747-8F	ANTONOV AN-124- 100/150	ANTONOV AN-225 MRIYA	AIRBUS A330-700 BELUGA XL	SUPER GUPPY SGT
FLEET SIZE	27	78	19	1	5	4
USA LICENSED OPERATOR(S)	Atlas Air (27) UPS (13)	Atlas Air (10) UPS (9)	Volga-Dnepr (12) Antonov Airlines (7)	Antonov Airlines (OEM)	Airbus Transport International (OEM)	NASA
COMMERCIAL LEASING OPTIONS	✓	✓	✓	✓	X	X
DOOR OPENING W (ft) x H (ft)	8.0 x 8.16	8.0 x 8.16	21.0 x 14.41	22.58 x 14.41	26.57 x 24.61	25.0 x 25.0
CARGO BAY LENGTH (ft)	185	185	119.75	148.75	149.5	111.5
CARGO BAY VOLUME (ft)	18,720	24,462	35,315	38,846	78,010	39,000
MAX PAYLOAD (lb)	246,046	249,000	264,600	551,1561	16,800	48,000
RANGE @ MAX PAYLOAD (nm)	4,200	4,390	2,800	2,500	2,200	1,700
WINGSPAN (ft)	213	224	240	290	190	156
REQUIRED TAKEOFF RUNWAY (ft)	6,000	6,500	9,850	11,500	6,000	7,000

LEGISLATION TO KNOW

→ THE JONES ACT

The Jones Act prohibits foreign-flagged ships to operate at US ports, while requiring domestic port-to-port transactions be on US-flagged carriers, including aircraft. Originally enacted in the wake of WWI to stimulate the shipping industry, it stipulates:

- Only US-flagged carriers can conduct the business of port-to-port transport and unloading.
- Ownership of the ships must be at least 75% American.
- Sailors must be American citizens.
- Ships must be built in the USA.

→ CABATOGE

Cabotage principles are designed to guarantee the participation of a country's citizens in its own domestic trade. These laws foster the development of a merchant marine and give preference to local labor and industry. More importantly, they support national security and protect the domestic economy.

READ MORE → transportationinstitute.org/jones-act/.

MORE ABOUT U.S. PLANES

[747s]

→ **BOEING LARGE CARGO FREIGHTER (LCF)**



The Boeing Large Cargo Freighter (LCF), more commonly known as the Dreamlifter, hauls more cargo by volume than any airplane in the world) B C Since its first flight in September 2006, Boeing has used the Dreamlifter to haul 787 parts to its production facilities in Washington state. In converting it from 747-400 passenger airplane, more than 30,000 pounds of aluminum are removed from each airplane for the modification.

ORIGINAL AIRCRAFT NAME	BOEING 747 LARGE CARGO FREIGHTER
ORIGIN	USA
FLEET SIZE	4
MAXIMUM PAYLOAD (lbs)	250,000
DOOR DIMENSIONS (W x H ft)	23.0 x 29.0
CARGO BAY VOLUME (ft ³)	64,987
CARGO BAY LENGTH (ft)	185
LEASING	X

→ **BOEING 747-8F**



The 747-8F is one of the largest cargo aircraft in production. Since deliveries began in late 2011, 83 orders have been fulfilled world- wide, 19 of which are operated in the United States. Two commercial operators exist in the USA: Atlas Air and UPS, with respective fleet sizes of 10 and 9. The 8F is the largest commercial freighter in Boeing's fleet, offering 16% more revenue cargo volume than the second-best 747-400F.

ORIGINAL AIRCRAFT NAME	BOEING 747-8F
ORIGIN	USA
FLEET SIZE	19
MAXIMUM PAYLOAD (lbs)	249,000
DOOR DIMENSIONS (W x H ft)	8.75 x 8.16
CARGO BAY VOLUME (ft ³)	24,462
CARGO BAY LENGTH (ft)	185
LEASING	

MORE ABOUT FOREIGN PLANES
[ANTONOV SERIES]

→ **ANTONOV-124-100**



The Antonov-124-100 is a leader in the air cargo market. The combination of its cargo compartment size, flight range and uplift capability without special loading equipment make it particularly effective at carrying a wide range of oversized cargo **> 4 B F**. It includes an onboard system of cargo handling equipment, including two travelling cranes, two winches, rollgang and tiedown equipment.

ORIGINAL AIRCRAFT NAME	ANTONOV-AN-124
ORIGIN	Ukraine
FLEET SIZE	19
MAXIMUM PAYLOAD (lbs)	264,000
DOOR DIMENSIONS (W x H ft)	21.0 x 14.4 (nose)
CARGO BAY VOLUME (ft ³)	35.315
CARGO BAY LENGTH (ft)	119.75
LEASING	

→ ANTONOV AN-225



Romantically named 'Mriya' (Ukrainian: 'dream') by the Kiev-based company, **only one Antonov-225 exists, and it is the world's biggest aircraft.** It was conceived by Soviet engineers in the dying days of the Cold War and first took flight in 1988. The An-225 holds a mind-blowing 240 aviation records, including transportation of the heaviest and largest single piece of commercial cargo: the Buran spacecraft, the Soviet Union's answer to NASA's Space Shuttle.

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ORIGINAL AIRCRAFT NAME	ANTONOV AN-225
ORIGIN	UKRAINE
FLEET SIZE	1
MAXIMUM PAYLOAD (lbs)	551,000
DOOR DIMENSIONS (W x H ft)	21.0 x 14.4
CARGO BAY VOLUME (ft ³)	38,846
CARGO BAY LENGTH (ft)	148.75
LEASING	