

Type : B737-800BCF
Model : B737-800BCF
Family : B737-800NG

Airframe Manufacturer : Boeing
Model Launch : 2016

No of Engines : 2
Engine Type - Model :
CFM56-7B

Seat Capacity :
4
(Freighter, carries up 23 tonnes of cargo)

Weight and Payload :
79,000 Kgs
Max Design Take Off Weight (MDTOW)
23,950 Kgs
Max Payload Weight

Range Capacity :
1,995 nm / 3695km
(at 22.7 tonne payload)

Other Important Features :
ADS-B, ETOPs, SATCOM, CLS, ACT, EFB, CDSS,
ESG, Winglets

Appraiser's Opinion

B737-800BCF



Amit Tyagi

ISTAT Certified Senior Appraiser

Appraiser's Opinion

In February 2016, Boeing initiated a program to convert passenger aircraft into freighters, naming the transformed planes 737-800BCF (Boeing Converted Freighter). The program commenced with 55 conversion orders, and the inaugural converted aircraft was scheduled for delivery in late 2017. West Atlantic received the first converted aircraft from Boeing in April 2018, which was leased by GECAS. The 737-800BCF is equipped with blended winglets to enhance fuel efficiency and flight performance. The aircraft ensures lower operating costs for each payload ton compared with the standard-body freighters in the 737 series. The 737-800BCF carries up to 52,800 pounds (23.9 metric tons) of cargo, flying routes of nearly 2,000 nautical miles (3,690 kilometres) with 50,045 pounds (22.7 Metric tons) of cargo payload. The aircraft features a large cargo door, a cargo handling system and seating for up to four non-flying staff or passengers. In addition, the 737-800BCF also has a capacity for 12 pallet positions that can hold 11 pallets measuring 88in x 125in standard and one pallet measuring 88in x 62in. The freighter reduces logistics and maintenance costs as it shares many components and systems with the Next-Generation 737 passenger aircraft. The high level of commonality with the other Boeing passenger fleet further ensures easy pilot transition without delays.

Boeing does not offer new freighter aircraft in the B737-800 NG (Next Generation) series and production of B737-800NG had already been stopped in 2020. However, three different models are available in the converted freighter series for B737-800NG, namely the B737-800BSF, B737-800SF, and B737-800BDSF. The B737-800BCF stands out as the premier aircraft conversion series with the youngest average age and complete OEM support for the conversion process. The B737-800SF (Converted by AEI) is recognized for its cost-effectiveness, and its fleet is shared by both lessors and operators. As for the B737-800BDSF, only a limited number of conversions have taken place, and the majority of these aircraft are operated in North America.

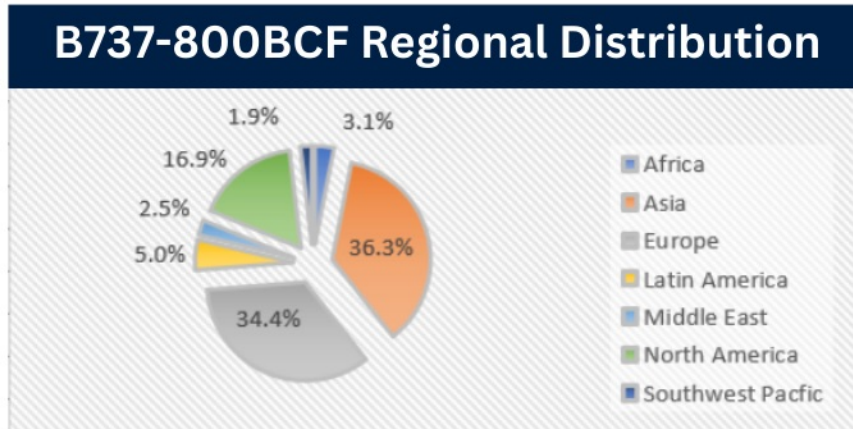
The bright side of the aviation industry amid the challenges brought about by the COVID-19 pandemic was the surge in cargo demand. This has led to a significant increase in cargo conversions, creating more opportunities for transforming aircraft into freighters. The market for cargo conversions has expanded over the last few years after the Pandemic outbreak (COVID-19) and a growing number of providers are now offering these services.

This cargo boom has also facilitated Airbus's entry into a market that was traditionally dominated by Boeing. Whilst some of the earliest 737-800s are now becoming viable for passenger-to-freighter (P2F) conversions, the Boeing 737MAX crisis has impacted availability and values. Airlines are likely to retain their NGs longer than initially anticipated to address the demand and supply challenges which were posed by the MAX crisis, and which were recently further intensified by PW Powder metal issue. As an alternative to the 737-800, the A320 is a contender in the cargo conversion market, although its conversion process is not as straightforward. On the other hand, the A321, avoiding the complexities of its smaller counterpart, emerges as a strong competitor to both the 737-800 and 757-200 P2F options. Despite having 95% of the volume of the 757-200, the A321 consumes 20% less fuel. Moreover, it shares similar operating economics with the 737-800 while offering 30% more containerized cargo volume.

Each aircraft occupies its niche, and the A321 positions itself effectively in between these options. However, with only 53 A321 freighters available, as opposed to the 160 B737-800BCFs reported by CAPA until February 2024, capturing a market presence may prove challenging for the A321 freighter where the BCF has already established a significant presence.

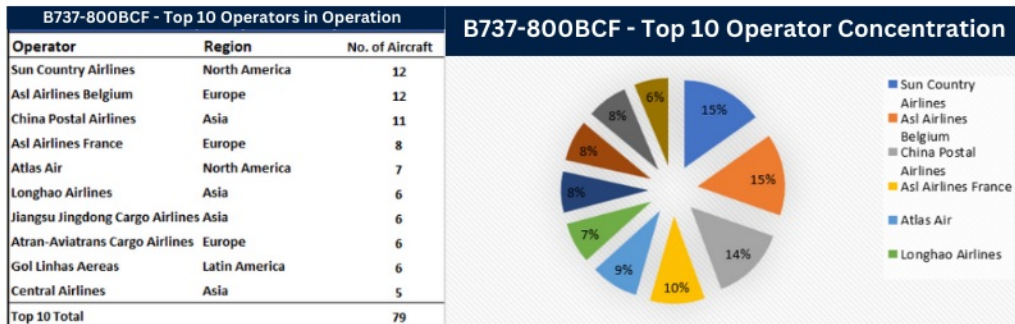
With regards to the geographical spread of the B737-800BCF, most of the fleet is concentrated in Asia (36.3%), followed by Europe (34.4%), North America (16.9%), Latin America (5.0%), Africa (3.1%), Middle East (2.5%) and Southwest Pacific (1.9%).

Appraiser's Opinion (cont..)



Source : CAPA | Feb 2024

Sun Country and ASL Airlines Belgium lead the pack with the most extensive B737-800 fleet, trailed closely by China Postal Airlines and ASL Airlines France. The accompanying graph provides a visual depiction of the top 10 operators of the B737-800F fleet.



Source : CAPA | Feb 2024

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Market Outlook

According to IATA's report in December 2023, global air cargo traffic experienced a significant year-on-year surge of 10.8%, representing the most substantial annual growth in air cargo tonne-kilometers (CTKs) witnessed over the past two years. The Global International Cargo Tonne Kilometres (CTKs) registered an 11.5% YoY increase in December, with growth observed across all major trade lanes. As a result, the year 2023 concluded just 2.2% below the international traffic level recorded in 2022.

In the latter part of 2023, the industry's Available Cargo Tonne Kilometers (ACTKs) showed consistent double-digit growth, ending the year with an 11.3% improvement from 2022 and a 2.5% increase over pre-pandemic levels. International air cargo capacity also increased by 9.6% from the previous year.

Specifically, international passenger bellies transported 220 billion ACTKs in 2023, marking a significant 36% growth from the previous year. In contrast, global dedicated freighters remained stable, handling 205 billion ACTKs of international air cargo traffic during the year, slightly lower than the figures in 2022.

In December, all major trade lanes showed positive year-on-year growth, indicating strong momentum. Looking at the overall trends in 2023, the Africa-Asia market stood out with noteworthy double-digit growth, surpassing the performance of the previous year on average. During the latter part of 2023, the Europe-Asia, Europe-Middle East, and Middle East-Asia trade lanes also experienced substantial growth, surpassing other lanes as the year concluded. This growth can be partly attributed to regional conflicts, particularly in the Red Sea, causing significant disruptions in conventional sea freight routes. Consequently, manufacturers and shippers increasingly turned to air cargo as an alternative method for transporting their goods. Nevertheless, the air cargo traffic in 2023 declined compared with the levels observed in 2022. Both Within-Asia and Within-Europe air cargo traffic witnessed an annual decrease. Despite these challenges, the positive indication of an upward trend is evident across all trade lanes.

At present, market demand for the B737-800BCF continues to remain fairly stable. Although it has been observed that monthly rent, which peaked during Pandemic (Covid-19) Period upto \$ 225,000 per month, has come down to around \$180,000 per month post pandemic. Premiums being received during the pandemic period no longer look feasible and cargo conversions are less attractive than during Covid-19 due to an increased high demand on commercial passenger operations. Although several planned conversions may still be continuing which have confirmed placements, the number of conversions will reduce due to available cargo capacity, belly cargo capacity back in operation and non-availability of feed stock at a feasible price due to high demand in passenger operation.

Value Projection

Source : fin-S Online Valuation Application - SPARTA

B737-800BCF - Acumen Values as of 1st Jan 2024

Year of build	Current market value	Current base value	Future Base Values at 0% inflation												
			2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
1999	13.3024	13.1029	12.32	11.4	10.55	9.72	8.91	8.16	7.44	6.76	6.11	5.53	-	-	-
2002	15.4668	15.7024	15.7024	14.57	13.51	12.51	11.59	10.72	9.92	9.14	8.38	7.68	7	6.36	-
2005	18.6448	18.9287	17.61	16.36	15.2	14.1	13.07	12.11	11.21	10.38	9.6	8.84	8.11	7.43	6.78
2008	22.5803	22.9242	21.37	19.91	18.54	17.24	16.03	14.88	13.81	12.8	11.86	10.98	10.16	9.4	8.66
2009	23.3945	23.7508	22.17	20.67	19.26	17.93	16.68	15.5	14.4	13.35	12.38	11.47	10.62	9.83	9.1
2010	24.7372	25.1139	23.45	21.89	20.41	19.01	17.7	16.47	15.3	14.21	13.18	12.22	11.32	10.49	9.71
2011	25.938	26.333	24.61	22.98	21.45	20	18.63	17.35	16.14	15	13.93	12.92	11.98	11.1	10.27
2012	27.217	27.6315	25.86	24.17	22.56	21.06	19.64	18.3	17.04	15.85	14.73	13.68	12.69	11.76	10.9
2013	28.8475	29.2868	27.42	25.66	23.98	22.39	20.9	19.49	18.16	16.9	15.72	14.61	13.57	12.59	11.67
2014	30.4935	30.9578	29.01	27.16	25.41	23.75	22.18	20.7	19.3	17.98	16.74	15.57	14.47	13.44	12.47
2015	31.9374	32.4237	30.43	28.52	26.7	24.98	23.35	21.8	20.35	18.97	17.68	16.46	15.31	14.23	13.21

BV and CMV^(DEFAULT)
 FBV

Asset Type: Aircraft Engine

Fleet Type: Serial Number: Enter Serial No. Aircraft Type*: B737-800BCF

Date of Manufacture*: 10-03-2010 Engine Type*: CFM56-7B2481

Max Take Off Weight*: 174163.4 Lbs Max Take Off Weight*: 79000.0000 Kgs

Modifications/Enhancements:

Maintenance Condition*
 Half Life Full Life Both

Value as Of*: 05-03-2024

Value as of: Mar 05, 2024



Half Life
Current Base Value



Half Life
Current Market Value

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