APPRAISAL



Airbus A321-200

Amit Kumar Tyagi ISTAT Certified Appraiser CIO Acumen Aviation

amit.tyagi@acumen.aero www.acumen.aero

Photo courtesy of Davide Olivati.

he A321-200 superseded the low-production A321-100, which was unable to fly U.S. transcontinental nonstop. Airbus

launched the longer-range A321-200 in April 1995. First flight was in December 1996, with entry into service with Monarch Airlines in April 1997. The A321-200 has a range of 3,200 nautical miles in typical twoclass configuration. It offers two power plants options; the IAE V2500 is preferred with 60% market share versus 40% for CFM. According to the Acumen database, as of 31 October 2020, 1,701 had been ordered, 1,671 had been delivered and 1,646 remain in operation with 101 operators (excluding undisclosed operators). With production winding down, there was a backlog of only 30 with eight deliveries YTD. The largest three operators are American Airlines (219), Delta Air Lines (104) and China Southern Airlines (99), and it is well distributed globally. The 20 largest operators account for 1,134 of the fleet (69%), as shown in the table.

The A321-200 seats 170 to 200 passengers in typical, two-class cabin configuration and 220 passengers in a high-density layout with options that permit up to 230 seats starting with 2015 deliveries and up to 240 seats in 2018. Pilots certified to fly the A321200 can fly any other member of the A320ceo family or the A320neo family with limited training.

A321-200 competitors for much of its production life were the now out of production 757-200 and the 737-900ER. The A321-200 is in the middle of both types in terms of standard passenger capacity, MTOW and range. The A321-200 has been more successful due to lower operational cost and operational flexibility than the 757-200 with its 1,761 deliveries thus far versus 913 for the 757-200 and has also outpaced the 737-900ER, which has seen 505 deliveries. The 737-900ER remains in wide use, while the 757-200 fleet continues to be phased out of passenger service, with the A321-200 able to fly 85-90% of its routes.

A321-200 LARGEST OPERATORS									
OPERATOR	FLEET SIZE	% A321-200 FLEET							
AMERICAN AIRLINES	219	13.3%							
DELTA AIR LINES	104	6.3%							
CHINA SOUTHERN AIRLINES	99	6.0%							
CHINA EASTERN AIRLINES	77	4.7%							
TURKISH AIRLINES	67	4.1%							
JETBLUE AIRWAYS	63	3.8%							
LUFTHANSA	43	2.6%							
AIR CHINA	61	3.7%							
VIETNAM AIRLINES	51	3.1%							
VIETJET AIR	44	2.7%							
LATAM AIRLINES GROUP	43	2.6%							
SICHUAN AIRLINES	43	2.6%							
WIZZ AIR HUNGARY	41	2.5%							
AEROFLOT RUSSIAN AIRLINES	33	2.0%							
SPIRIT AIRLINES	30	1.8%							
AIR CANADA	29	1.8%							
JUNEYAO AIRLINES	27	1.6%							
EVA AIR	24	1.5%							
FRONTIER AIRLINES	21	1.3%							
AIR FRANCE	15	0.9%							
TOTAL	1,134	68.9%							

Source: Acumen Aviation

Market Outlook

A321-200 operator and geographic diversity provides liquidity. Demand was good prior to the pandemic but has been depressed subsequently. At the end of October 2020, per the Acumen database, 643 A321-200s have been grounded — 39% of the in-service fleet — while the 757-200 and 737-900ER stood at 81% and 26%, respectively. Acumen estimates more than 100 A321-200s are available for sale and, except for a few part-outs, many of these aircraft are expected to be converted to freighters by 2024.

Although the pandemic has adversely impacted passenger demand across all categories, long haul has been impacted the most significantly. As the A321-200 is used for short- and medium-haul flying, grounded A321-200s should return to the skies faster than widebody aircraft, as shorter-haul flying is expected to return to historic levels more quickly, and A321-200 demand should also benefit from its ability to fly some of the shorter-haul widebody flying until demand justifies a widebody.

Demand for dedicated freighters has increased, however, due to reduced belly space and pandemic-enhanced e-commerce growth. Airbus forecasts demand for a total of approximately 1,000 narrowbody converted freighters through 2038. Elbe Flugzeugwerke (EFW), the ST Engineering and Airbus joint venture, saw its A321 P2F (passenger to freighter) receive Supplemental Type Certificates from EASA and the FAA in February and July 2020, respectively. The A321 P2F has a structural payload of 27.9 metric tons (61,500 lbs) with a range of over 2,300 nautical miles.

The A321 P2F is the first in its size category to offer containerized loading in both the main (up to 14 full container positions) and lower deck (up to 10 container positions), which could aid in entering a narrowbody conversion market dominated by Boeing aircraft. Although there is increasing

A321-200, 757-200, 737-900ER FLEET STATUS AS OF 31 OCT 2020



A321-200, V2533-A5, 93500 Kg MTOW. Values at Half-Time Half-Life													
	CMV	BV	Future Base Values – Inflated at 1.5% per annum										
	2020	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
2020	48.1	50.6	47.8	45.1	42.5	40.0	37.6	35.4	33.2	31.2	29.0	27.0	
2019	46.0	48.5	45.7	43.1	40.5	38.0	35.8	33.6	31.6	29.4	27.4	25.4	
2018	43.7	45.6	42.9	40.4	37.9	35.7	33.5	31.5	29.3	27.3	25.3	23.5	
2017	40.3	42.5	39.9	37.5	35.3	33.2	31.1	29.0	26.9	25.1	23.2	21.5	
2016	38.0	40.1	37.6	35.4	33.3	31.2	29.0	27.0	25.1	23.3	21.5	19.9	
2015	35.9	38.2	36.0	33.8	31.7	29.5	27.5	25.6	23.7	21.9	20.3	18.7	
2014	33.6	36.2	34.0	31.9	29.7	27.6	25.7	23.8	22.0	20.4	18.8	17.3	
2013	32.3	34.4	32.3	30.0	27.9	26.0	24.1	22.2	20.6	19.0	17.5	15.9	
2012	29.7	31.6	29.4	27.4	25.5	23.6	21.8	20.2	18.6	17.2	15.6	14.2	
2011	27.6	29.4	27.3	25.3	23.4	21.7	19.9	18.4	16.7	15.2	13.7	12.8	
2010	25.1	26.9	25.0	23.1	21.4	19.7	18.1	16.5	15.0	13.5	12.8	11.9	
2009	23.6	25.3	23.4	21.7	20.0	18.4	16.8	15.2	14.0	13.0	12.4	11.7	
2008	22.0	24.2	22.4	20.7	19.0	17.3	15.7	14.2	13.0	12.4	11.6	10.9	
2007	21.0	22.9	21.1	19.4	17.7	16.0	14.5	13.1	12.4	11.7	10.9	10.1	

availability of 757-200 feedstock due to recent passenger service retirements, numbers are limited, with the 757-200 seeing its last delivery in 2005.

The A321 P2F conversion program achieved a key milestone in September 2020 with the first delivery to launch customer, Vallair. Vallair also recently signed an agreement to lease two A321 P2F with SmartLynx and an LOI with Global Crossing Airlines (GlobalX) to lease 10 A321 P2F. Per the Acumen database, the A321 P2F has 13 firm orders (NBB Leasing & Vallair) and 20 options (Vallair) with several more under discussion. In addition, Air Transport Services Group, which operates all cargo aircraft for Amazon and DHL Express, is also developing an A321-200 conversion program through a joint venture with Precision Aircraft

Solutions. Initial test flights of the A321 PCF (precision conversions freighter) have already been completed, and FAA approval is expected in early 2021.

In Acumen's opinion, long-term A321-200 Market Values are not expected to decline much due to the COVID-19 pandemic; however, nearand medium-term Market Values may remain up to 10% lower than otherwise expected, depending on aircraft age. With its large fleet and diverse operator base combined with good demand expected for cargo conversion, the "last-off-the-line" effect on A321-200 values is expected to be somewhat be mitigated. Market Values are expected to recover once passenger traffic returns to historic levels, which Acumen estimates to be by 2023. 🛕