

## De-Havilland Dash 8-300

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### Background

The De-Havilland Canada Dash 8-300 first flew in May 1987 and was delivered to launch operator Canadian Regional in February 1989. The -300 variant was the third iteration in the Dash 8 series developed from a 3.4m fuselage stretch and 2.4m increase in wingspan over the original -100 series. Certified by EASA and FAA to seat a maximum of 56 passengers, the type is able to transport 50 passengers and bags approximately 1,000nm. At the time, De-Havilland also offered optional dual air-conditioning packs and long-range fuel tanks, permitting an additional 1,000nm range increase but with reduced payload. Significantly an APU was also offered as an option to permitting cooling of the cabin on hot days, but this came with a payload penalty of three passengers. Rugged and reliable Pratt and Whitney PW 123 series engines were installed for all the different -300 variants, which sported MTOWs varying from 18,600 Kg (41,000 lb) to 19,500 Kg (43,000 lb). From 1996 Bombardier introduced the AVNS cabin noise reduction system and changed the model name to Dash 8-Q300.

The 20-year production run yielded 236 aircraft, resulting in an average delivery rate of one aircraft per month, which — although miniscule compared to Boeing and

Airbus metrics — is not uncommon in the regional market. Delivery volumes peaked soon after launch in 1991, with 37 aircraft but thereafter trended towards 7-10 aircraft per year until eventual program termination in 2009. Sales of the aircraft were decimated by the introduction of the 50-seat regional jet, which gained traction very quickly in the mid-1990s in light of relatively cheap fuel. The capability to operate from unprepared strips with minimal infrastructure did continue to draw orders from those operators requiring such attributes.

### Current and Future Market Outlook

Values have softened considerably since their highs of 2010-2012, when demand from government agencies such as the United Nations — through the offering of lucrative contracts — drove pricing upwards. However, the aircraft were also utilized extensively by oil producers shuttling crews and spares after the collapse of crude pricing contracted hours fell drastically, leading to an increase in aircraft availability. The strength of the U.S. dollar and the reticence of those investors who purchased five years ago to realize a loss has caused the market to stagnate. Consequently, most

market activity revolves around “power by the hour” or operating lease contracts. In addition, financing is also difficult to arrange without an onward lessee providing the security of a revenue stream.

Currently there are 190 operational aircraft, with an additional 39 in storage — an increase of 20 since June 2015. Eighteen aircraft are publicly available for sale. Lease rates, which are in the 0020 region of USD 60-80,000 per month are heavily dependent upon the technical condition and specification of an aircraft and less so on the year of build (YoB). The spread of current market values across 20 production years is extremely compressed, with an estimated variance of only USD 4-5m. The recent decision by Jazz Air, the largest Dash 8-300 operator (28), to invest considerable sums in the OEM provided extended service program (ESP) should provide some stability in the market place for at least the next 10 years. Continued demand from niche market players such as maritime patrol and border protection agencies has and will consume a handful of heavily modified aircraft. Elsewhere in Africa and Canada, the type continues to be well-supported with sufficient spares and crews available to ensure ongoing operational availability. 

AIRCRAFT TYPE	Dash 8	Future Base Values inflated at 1.5%								
SERIES	300									
ENGINE TYPE	PW123									
YoB	CMV (USD m)	BV (USD m)	2018	2020	2022	2024	2026	2028	2030	2032
2008	7.76	6.89	6.31	5.25	4.40	3.71	3.08	2.50	2.00	1.57
2006	6.96	5.60	5.10	4.27	3.60	2.99	2.43	1.94	1.52	-
2004	6.24	4.49	4.15	3.50	2.90	2.36	1.88	1.48	-	-
2002	5.60	3.70	3.39	2.81	2.29	1.83	1.44	-	-	-
2000	5.05	3.01	2.73	2.22	1.77	1.39	-	-	-	-
1998	4.58	2.40	2.16	1.72	1.35	-	-	-	-	-
1996	4.20	1.87	1.67	1.31	-	-	-	-	-	-
1994	3.90	1.44	1.27	-	-	-	-	-	-	-
1992	3.68	1.09	-	-	-	-	-	-	-	-
1990	3.55	1.02	-	-	-	-	-	-	-	-

Specification assumes MTOW 19,500 Kg (43,000 lbs) & optional APU not installed.  
 Values are produced in accordance with ISTAT definitions.