

Table 6-10 Cumulative Noise Index (CNI) (EPNdB)¹

Full CNI (Entire Commercial Jet Fleet)	Logan Airport CNI Cap – 156.5 EPNdB							
	1990	2000	2010	2017	2018	2019	Change (2018-2017)	Change (2019-2018)
	156.4	154.7	151.9	153.1	153.4	153.5	0.3	0.1
Total Passenger Jets	155.2	153.6	150.9	152.6	153.0	153.1	0.4	0.1
Total Cargo Jets	150.1	148.2	145.1	143.4	142.9	143.0	(0.5)	0.1
Total Daytime	152.5	149.5	146.8	147.5	147.6	147.7	0.1	0.1
Total Nighttime	154.4	153.1	150.3	151.7	152.1	152.2	0.4	0.1
Daytime Passenger	N/A	149.3	146.6	147.3	147.5	147.6	0.2	0.1
Nighttime Passenger	N/A	151.6	149.0	151.1	151.6	151.7	0.5	0.1
Daytime Cargo	137.1	137.5	134.5	133.9	133.6	133.4	(0.3)	(0.2)
Nighttime Cargo	149.9	147.8	144.7	142.8	142.3	142.5	(0.5)	0.2

Source: HMMH, 2020.

Notes: General aviation and non-jet aircraft are not included in the calculation.

N/A Not available.

1 Data for years prior to 2017 are available in Appendix H, *Noise Abatement*.

Table 6-11 shows the relative contribution of each airline to total CNI. The table provides the number of flight operations, the resulting CNI by airline for 2016 and 2017, and the partial CNI per operation for 2017, 2018, and 2019. The data reflect the contributions of individual aircraft noise levels and the frequency with which they occur. The table is sorted by the partial CNI per operation for 2019 and shows a mix of mostly international carriers and cargo operators at the top of this list. This is due to the higher proportion of nighttime operations among these carriers, as well as the operation of larger and/or older aircraft.

jetBlue Airways, with the largest number of operations, has the highest CNI per airline at 147.3 EPNdB in 2017, 147.9 in 2018, and 148.1 in 2019, but its partial CNI by operation is below the other major airlines, partly due to its use of newer, quieter aircraft.

The cargo airline FedEx was noted in the *2017 ESPPR* as having less than 4 percent of the operations of jetBlue Airways a total CNI per airline of 141.3 EPNdB in 2017, only 6 dB below jetBlue Airways. The partial CNI by operation for FedEx in 2017 was among the highest of all airlines due to its use of older DC-10 and MD-11 aircraft and operations at night, with those aircraft accounting for half of its nighttime operations. Since 2017, FedEx has replaced most of the operations by those older, noisier aircraft with B767s and A300s, with the effect of reducing its partial CNI by operation by 1.1 dB from 2017 to 2019 and reducing its ranking to sixth place, as opposed to being tied for second place.