



Aircraft Fleet Noise Comparisons

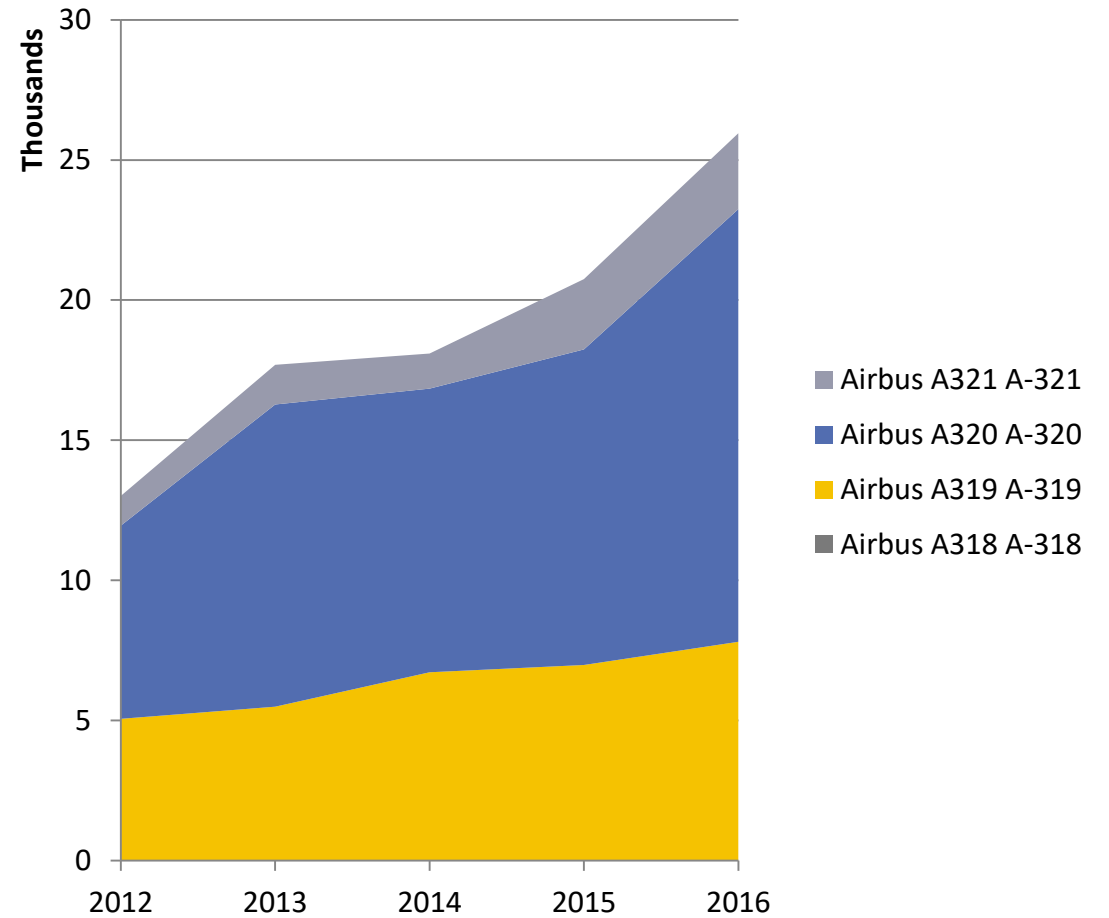
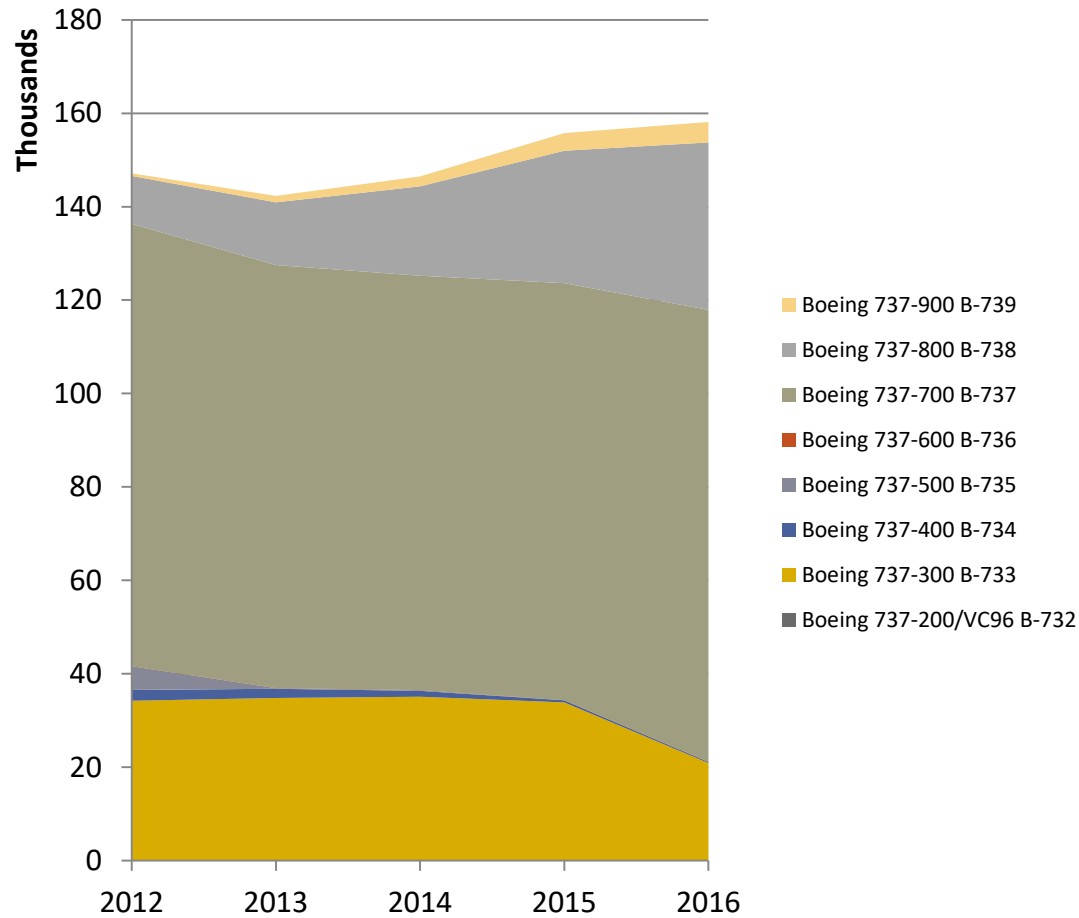
Presented to the BWI DC Metroplex Community
Roundtable

David Crandall, HMMH

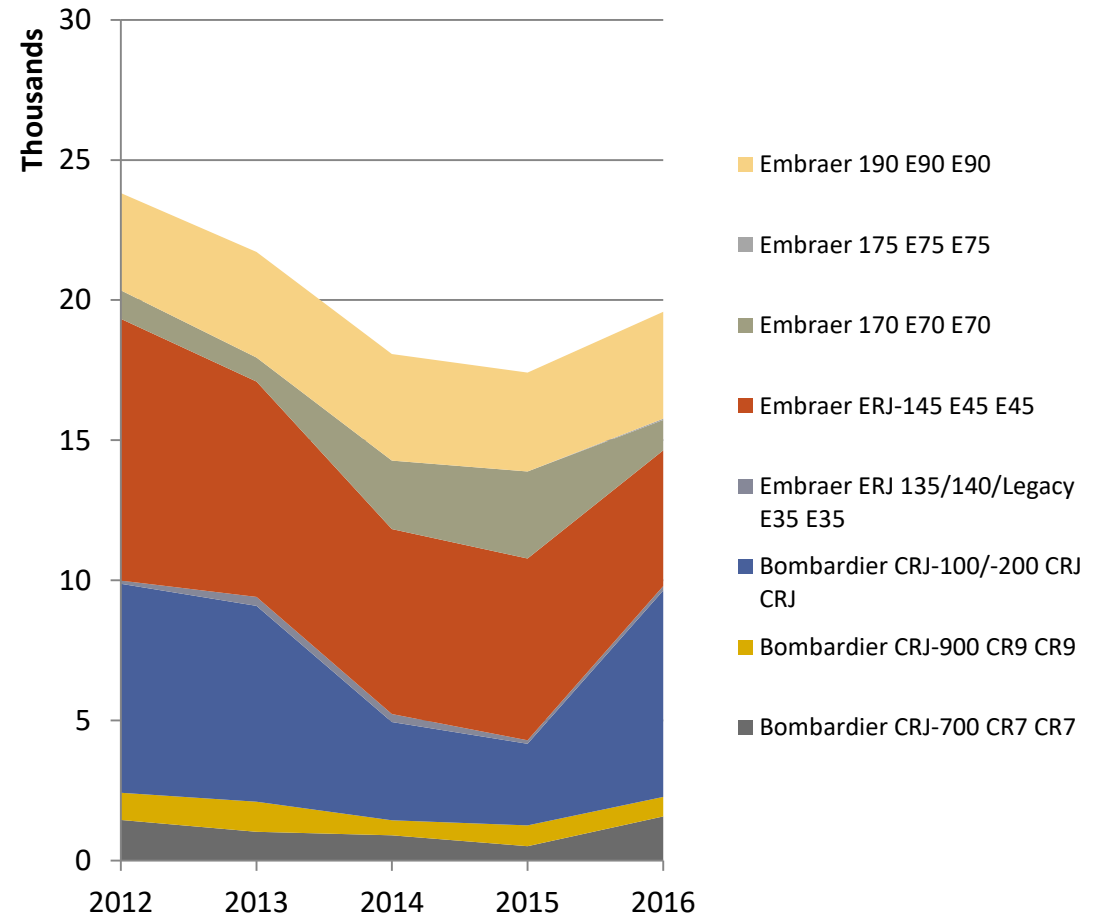
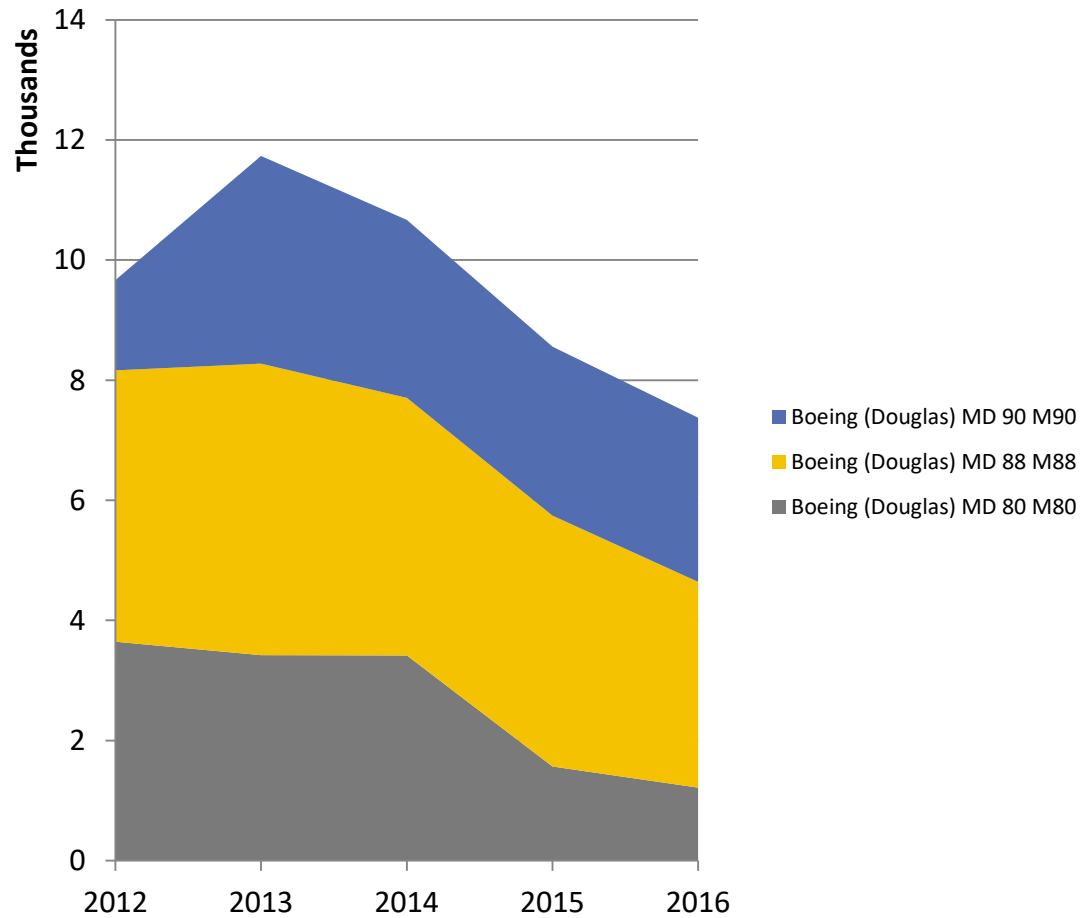
September 19, 2017



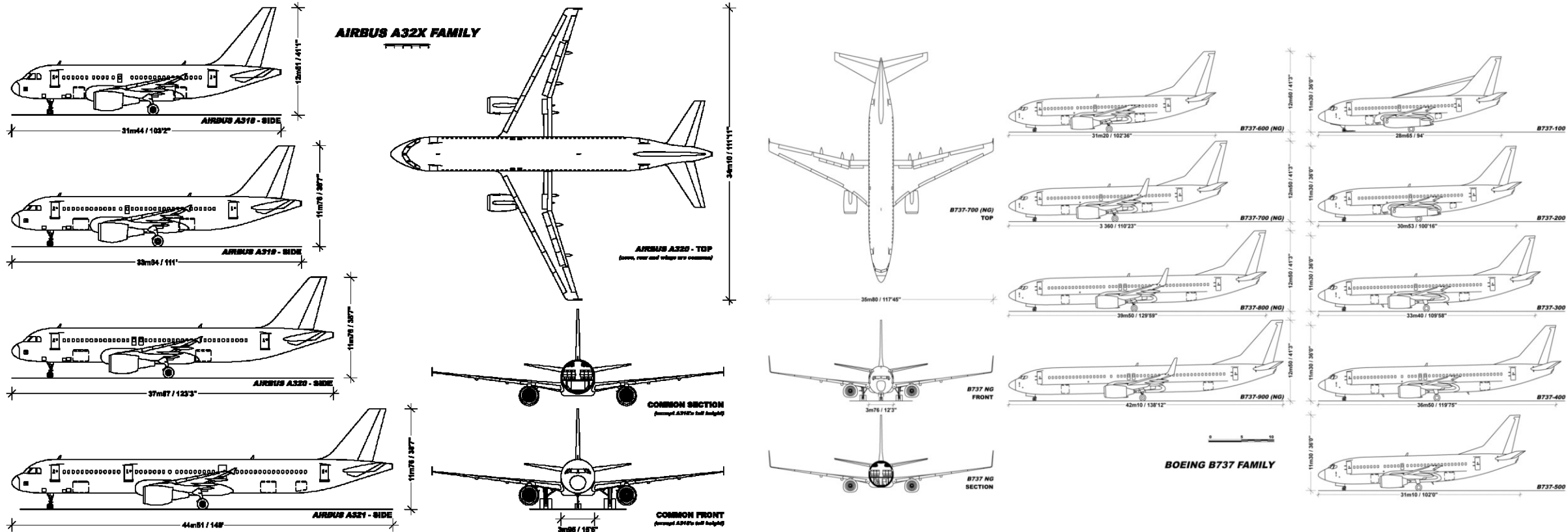
Fleet Mix Changes



Fleet Mix Changes (cont)



Changes in Aircraft Size

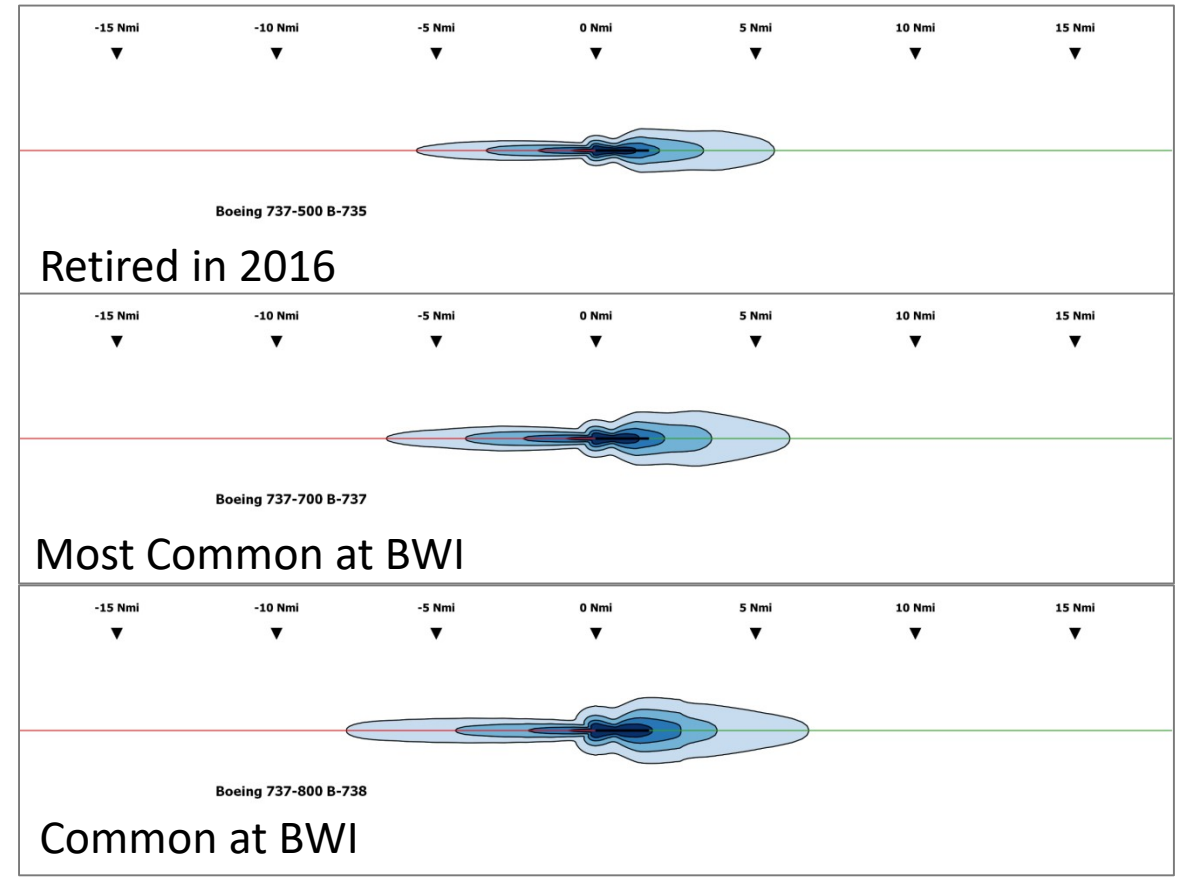
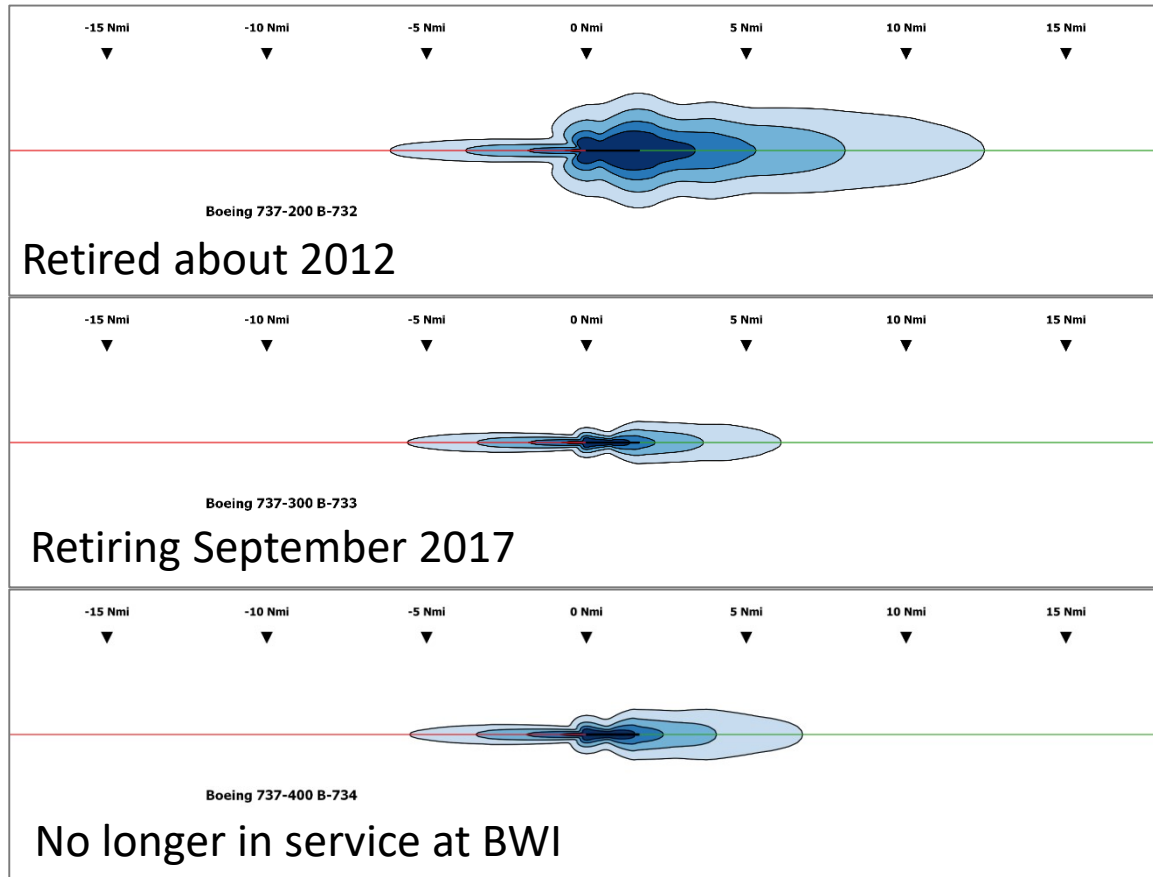


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Sound Exposure Level (SEL) Contours

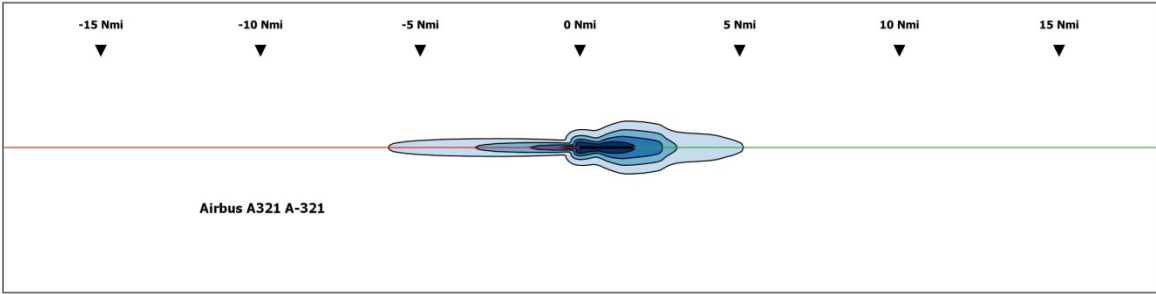
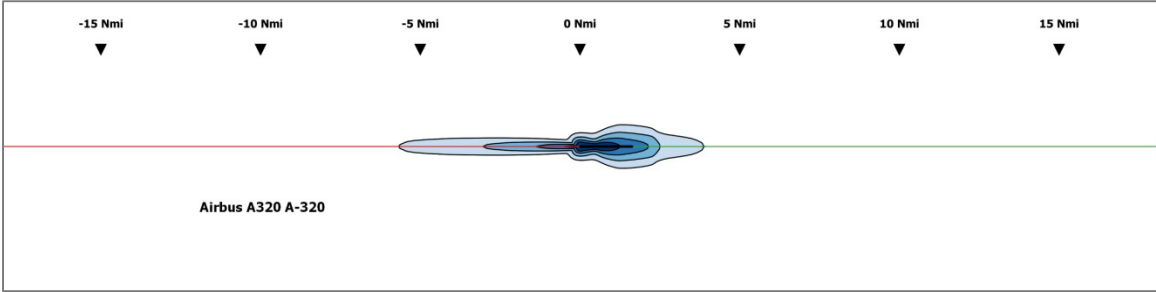
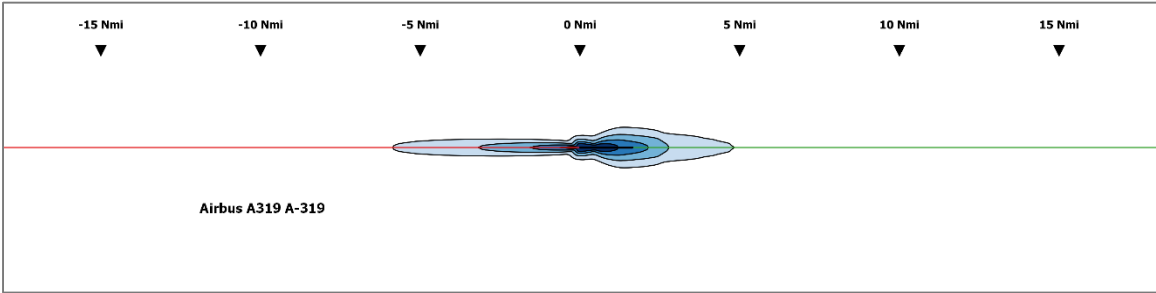
- The SEL accounts for both the level and duration of the noise and is the best measure of the “noisiness” of a single event
- The following presents SEL contours for arrival/departure cycles of select aircraft.
- In each of the figures, the aircraft is moving from left to right.
 - On the left side the aircraft is arriving to the runway, crossing the landing threshold of the runway at the “0” on the scale.
 - The aircraft then departs from the runway to the right, starting its take-off roll at “0”.

Boeing 737 Family



80 dB 85 dB 90 dB 95 dB SEL

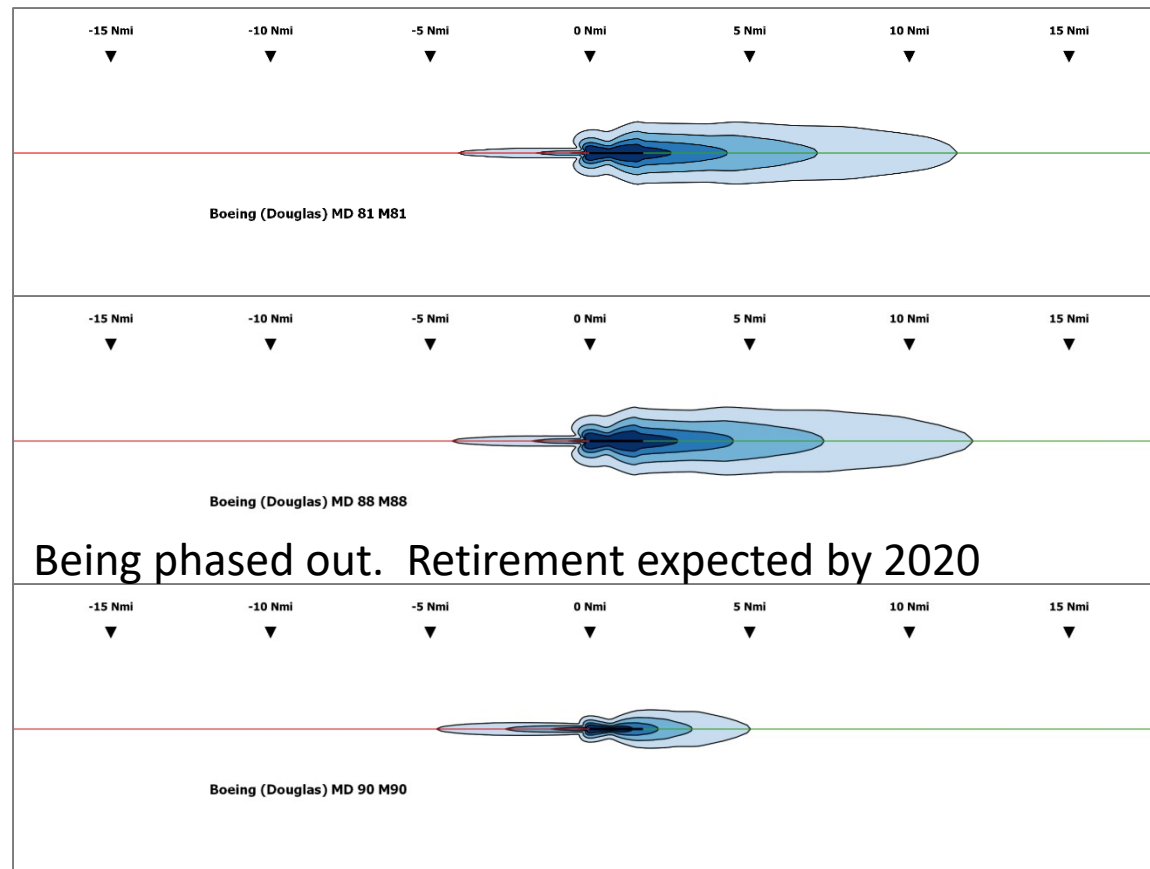
Airbus Family



80 dB 85 dB 90 dB 95 dB SEL

'be better'

Boeing (MD) Family

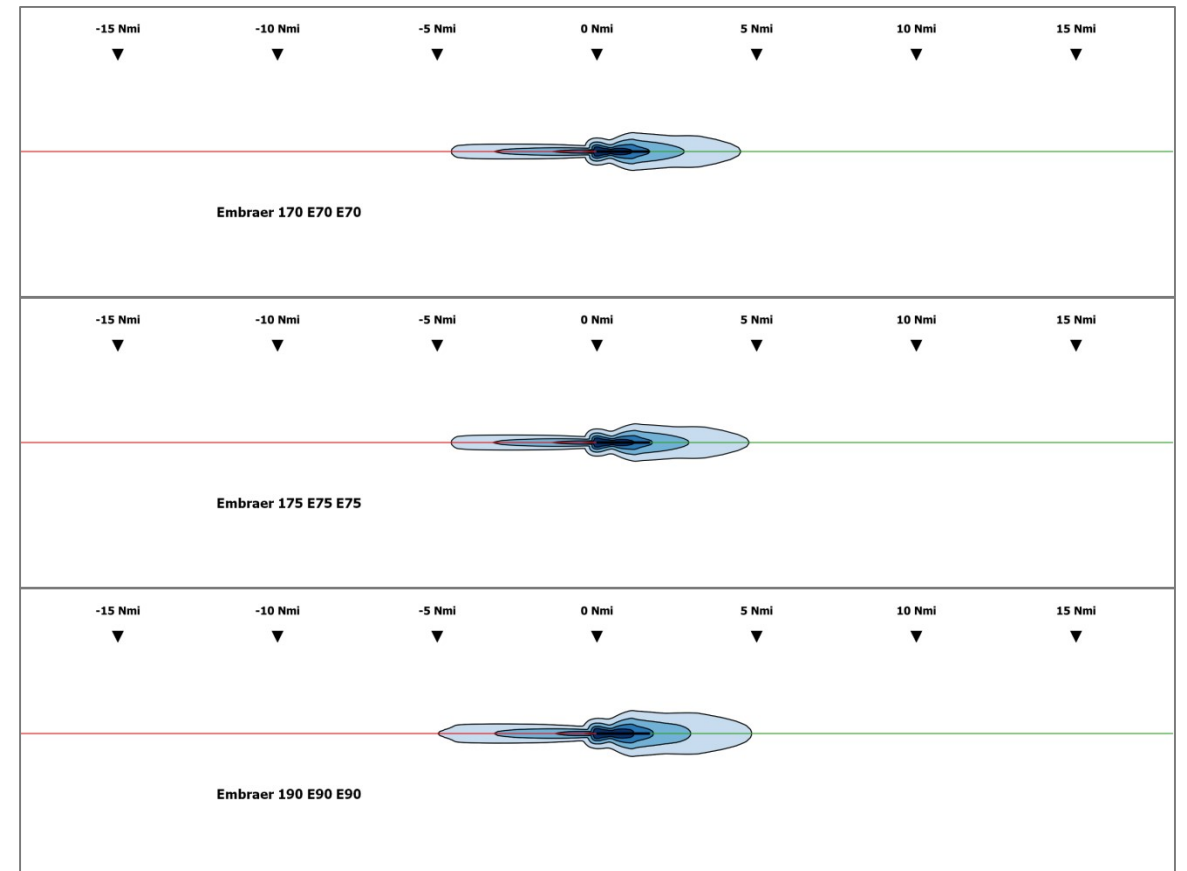
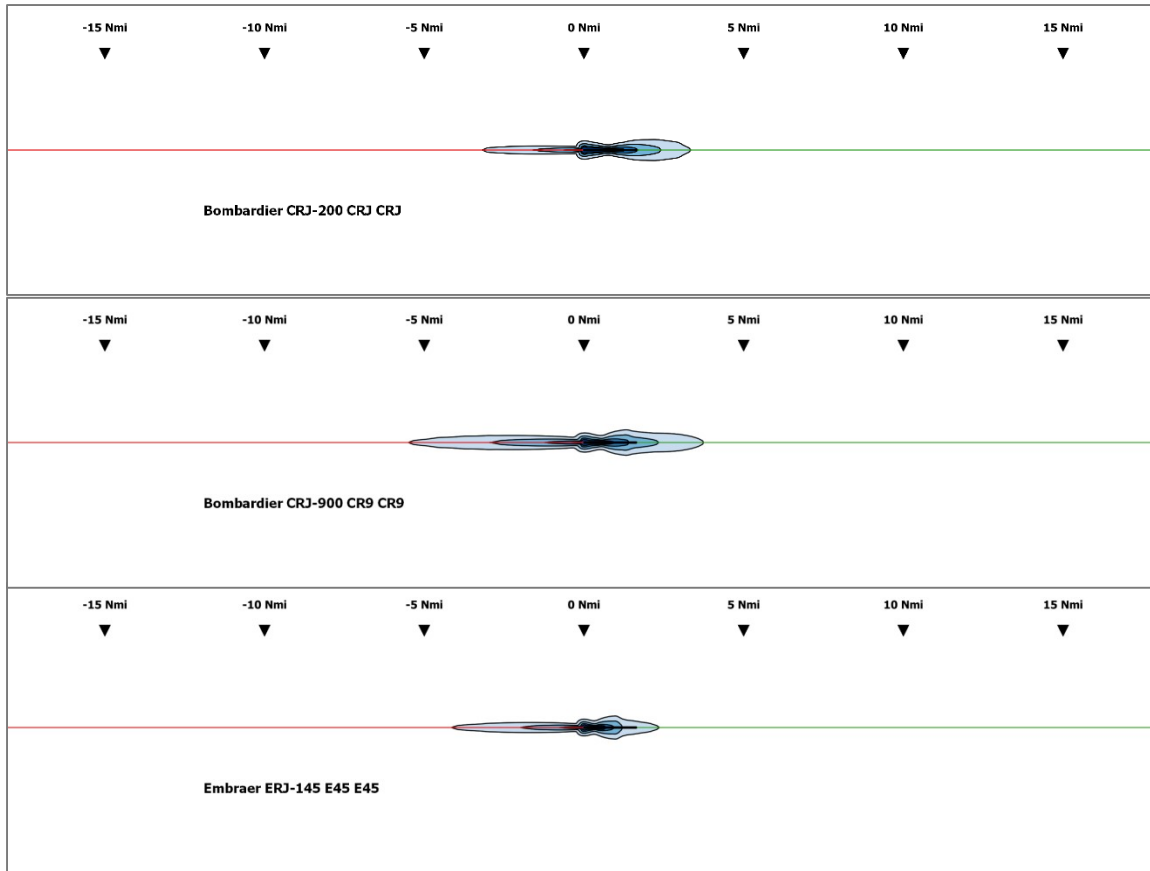


Being phased out. Retirement expected by 2020

80 dB 85 dB 90 dB 95 dB SEL

'be better'

Regional Jets



80 dB 85 dB 90 dB 95 dB SEL

'be better'