



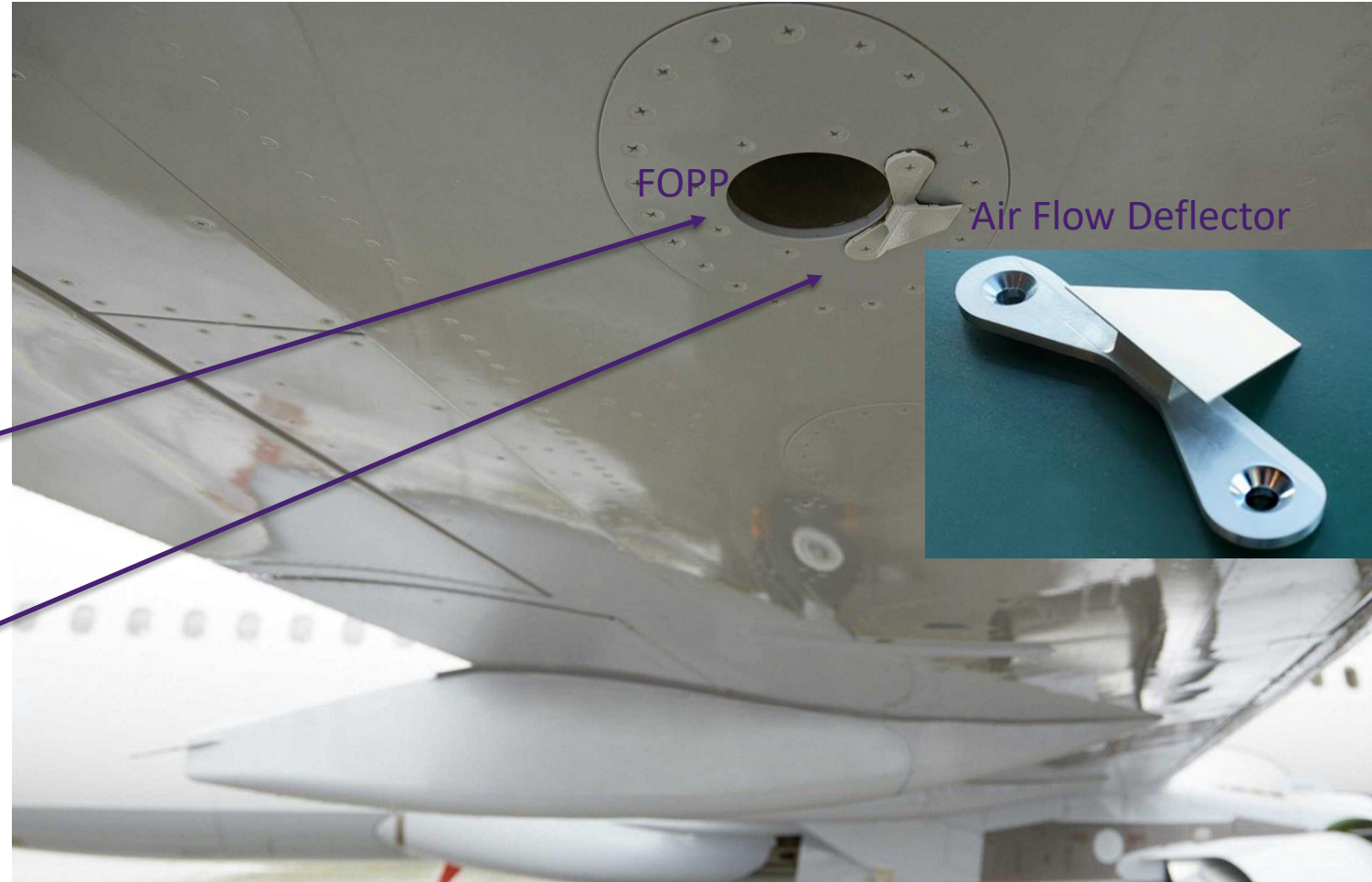
**NACF - 29 March 2023**

**A320 Family Air Flow Deflectors – Heathrow Fleet Retrofit**

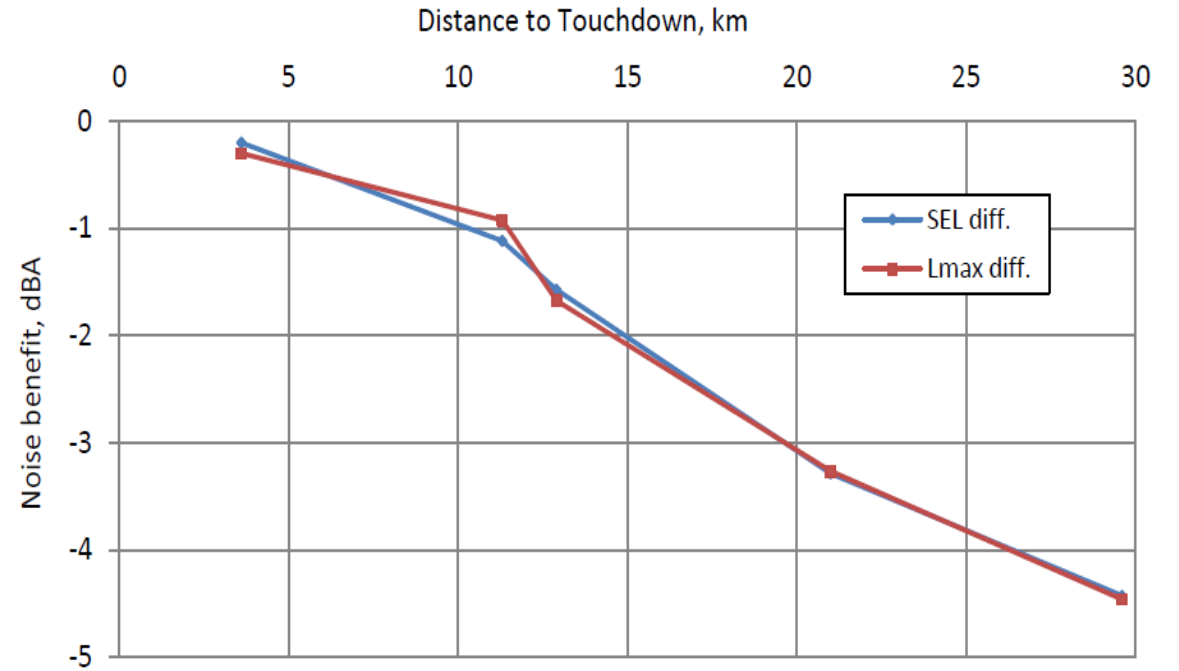
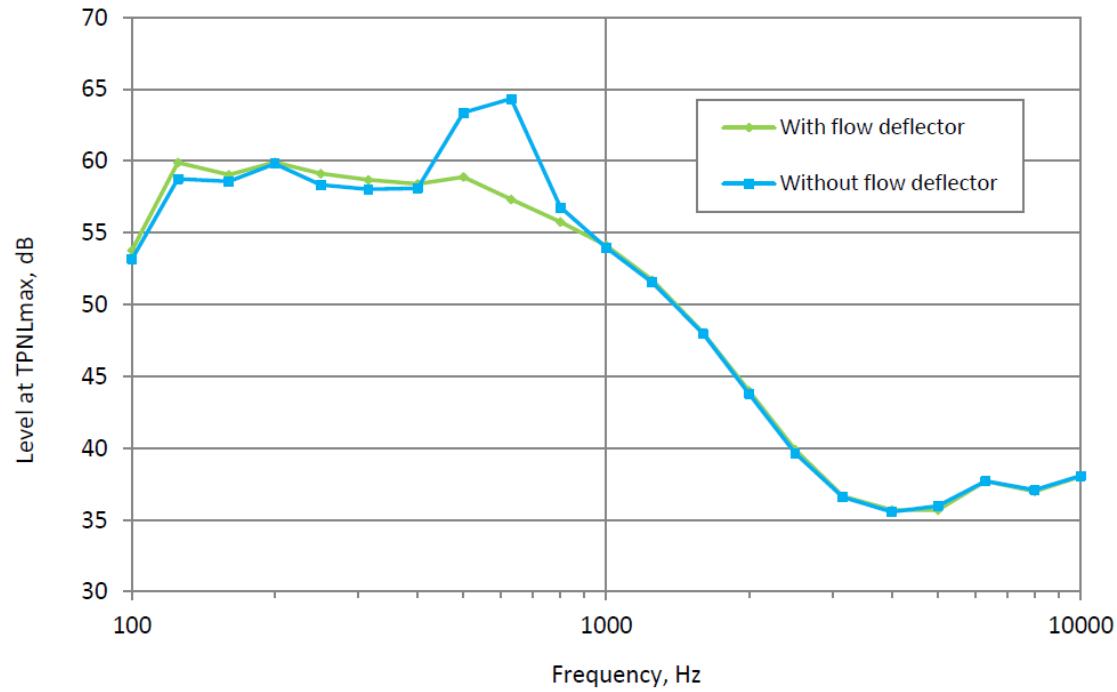
**Heathrow**

# Discussion Highlights

- A320 family of aircraft emits a tonal 'whine' on approach to and at relatively large distances from the destination airport.
- The source of the noise was found to be caused by air passing over a cavity in the underside of the wing; the Fuel over Pressure Protector (FOPP) while the aircraft is in 'clean' configuration'.
- Airbus have designed a metal device to disturb air flow over the cavity and reduce the tonal noise.



# UK CAA measurements



# AIRBUS Measurements

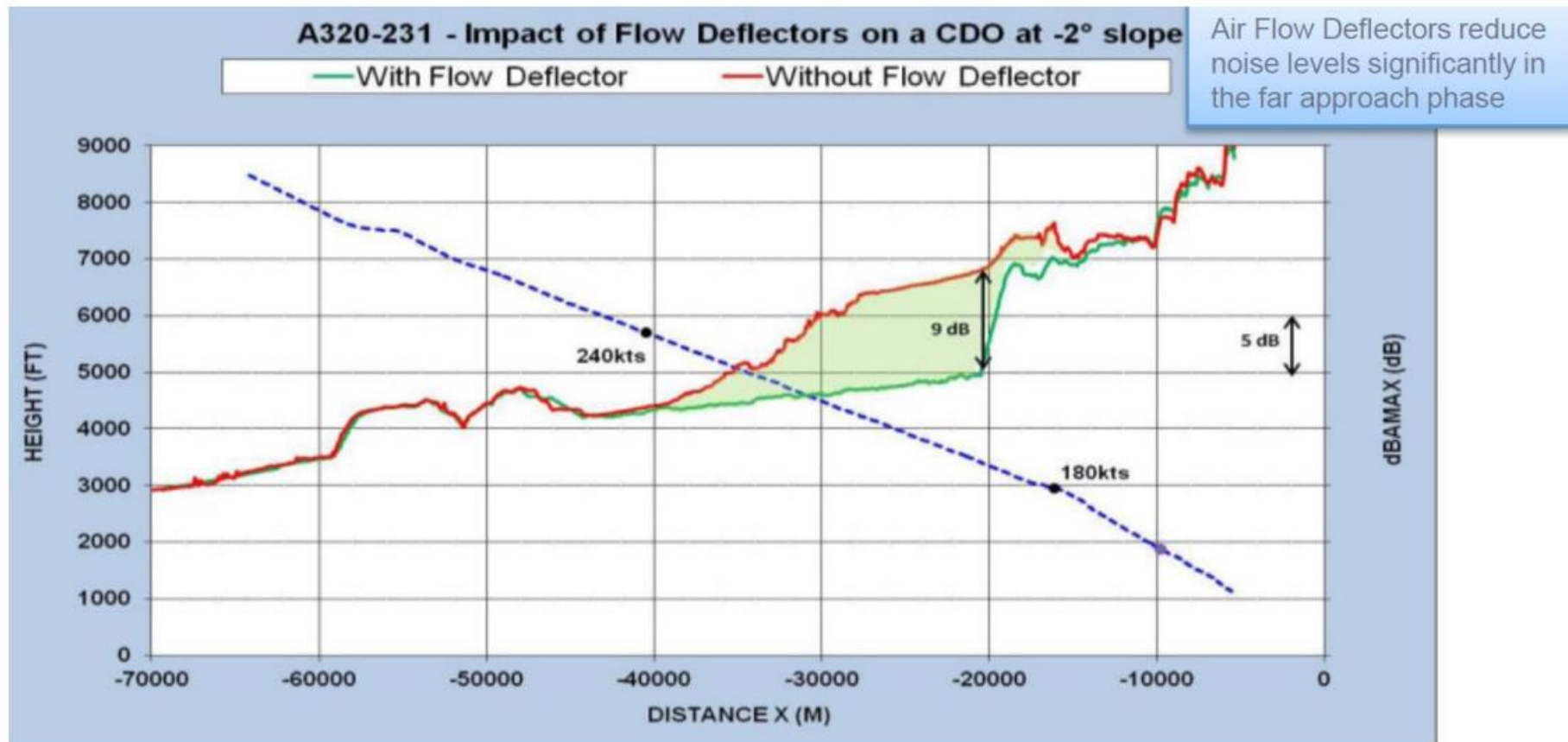
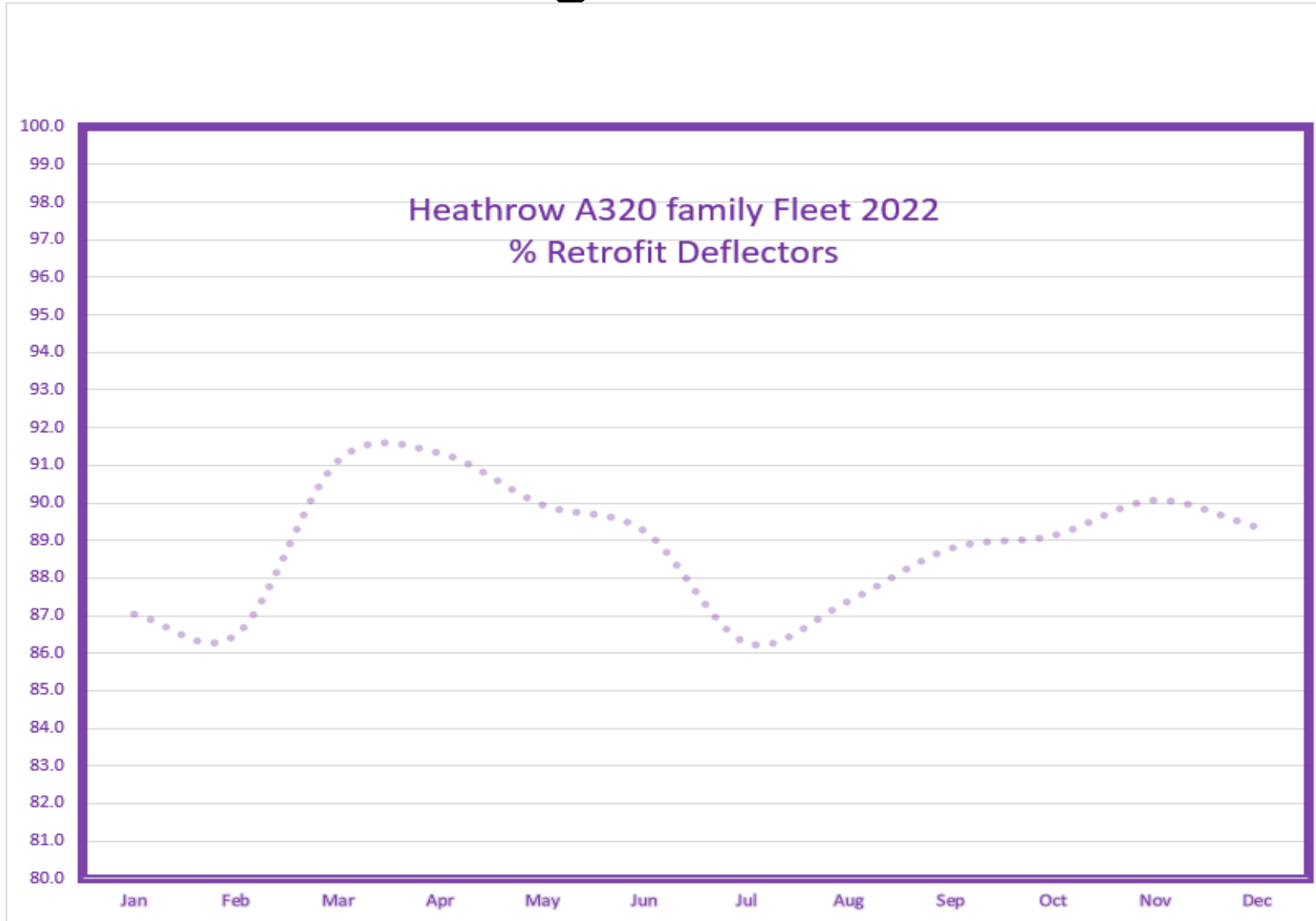


Figure 2: Airbus' suggested noise reduction from vortex generators (Source: [4])

# HEATHROW AFD Figures



% Average March 2023	% Average 2022
90.5	89.0