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ENVIRONMENT



ICAO Environmental
Symposium 2019

DESTINATION GREEN: THE NEXT CHAPTER

Session 1: Two decades of Balanced Approach on aircraft noise

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ACI World





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ICAO Resolution A33-7

Policies and programmes based on a “balanced approach” to aircraft noise management

Encourages States to:

- a) promote and support studies, research and technology programmes aimed at **reducing noise a source** or by other means;
- b) apply **land-use planning** and management policies to limit the encroachment of incompatible development into noise-sensitive areas and mitigation measures for areas affected by noise
- c) apply **noise abatement operational procedures**, to the extent possible without affecting safety; and
- d) do not apply **operating restrictions** as a first resort but only after consideration of the benefits to be gained from other elements of the balanced approach.



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Expansion of the “balanced approach” to aircraft noise management

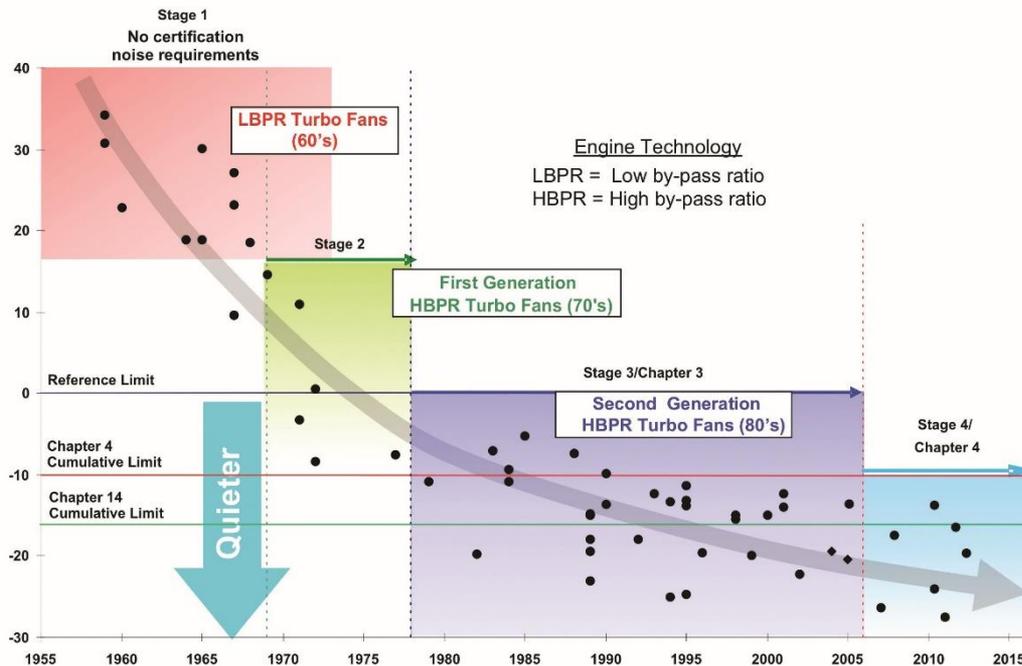
In 2007 the Balanced Approach Guidance was expanded to include:

- People issues: information on communication strategies, enhanced information for public access
- Airport Case studies: Amsterdam Airport Schiphol Netherlands; Auckland Airport New Zealand; John Wayne Airport USA ; London Airports United Kingdom; Narita Airport Japan; Seattle-Tacoma Airport USA; Sydney Airport Australia; Tuscon Airport USA; Vancouver Airport Canada, Vienna Airport Austria, and Zurich Airport Switzerland



Progress on Aircraft Noise

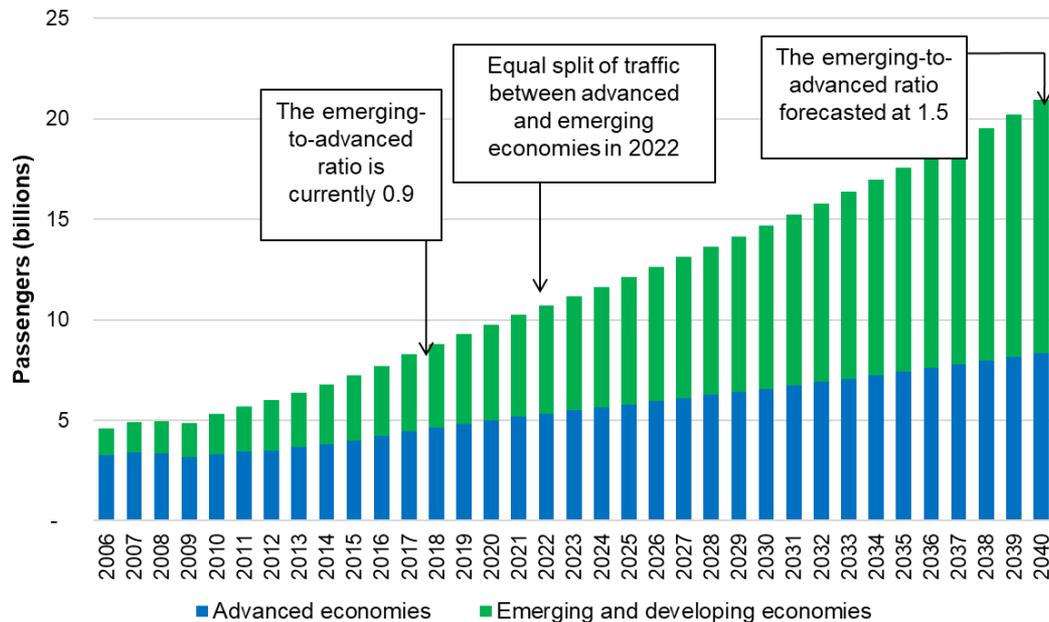
Aircraft Certification Noise Relative to
FAA Part 36 Stage 3 / ICAO Chapter 3



Source: Boeing



Forecasted passenger traffic (2006-2040)





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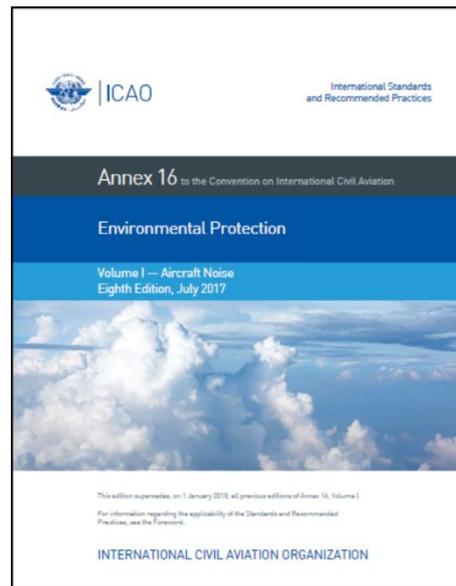
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ICAO Annex 16, Environmental Protection Vol. 1: Aircraft Noise



Source: ICAO



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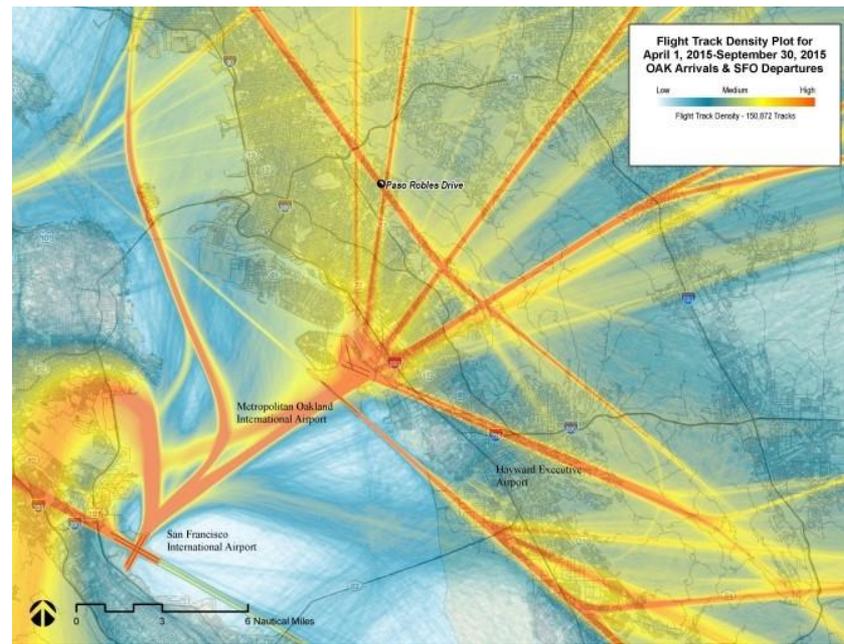
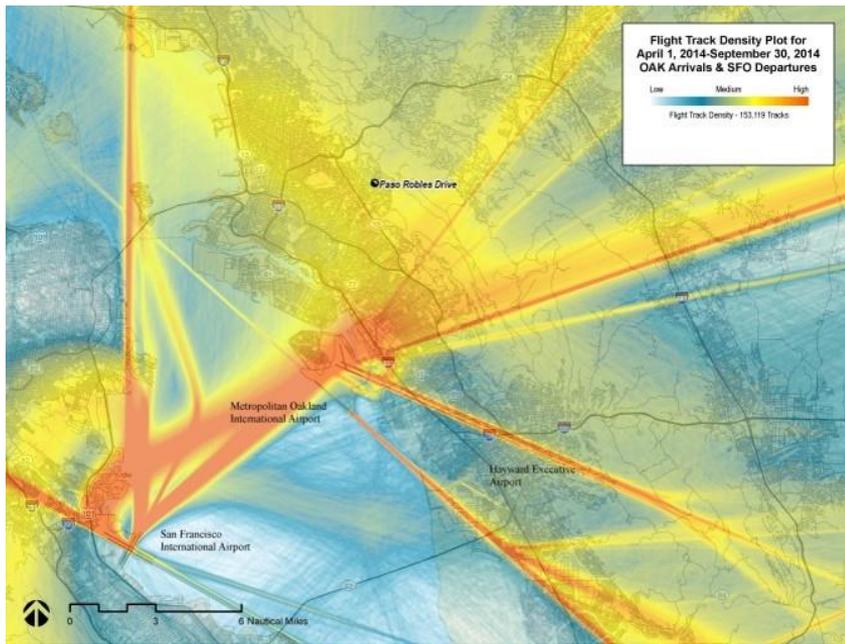
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New challenges





Performance-Based Navigation





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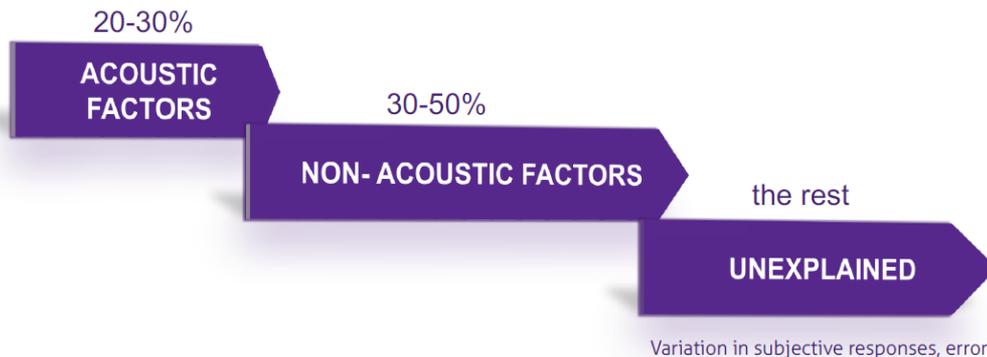


Supersonic aircraft





Non-acoustic factors



Variance based on multiple regression analysis – simple graphical representation is not possible here!
0% indicates that the model explains none of the variability of the response data around its mean.
100% indicates that the model explains all the variability of the response data around its mean.

Source: EU COSMA, HYENA, NORAH, ENNAH, Babisch (2014), Kroesen (2008), Schreckenber (2007), Flindell (2007), Gusk (1999), etc.....

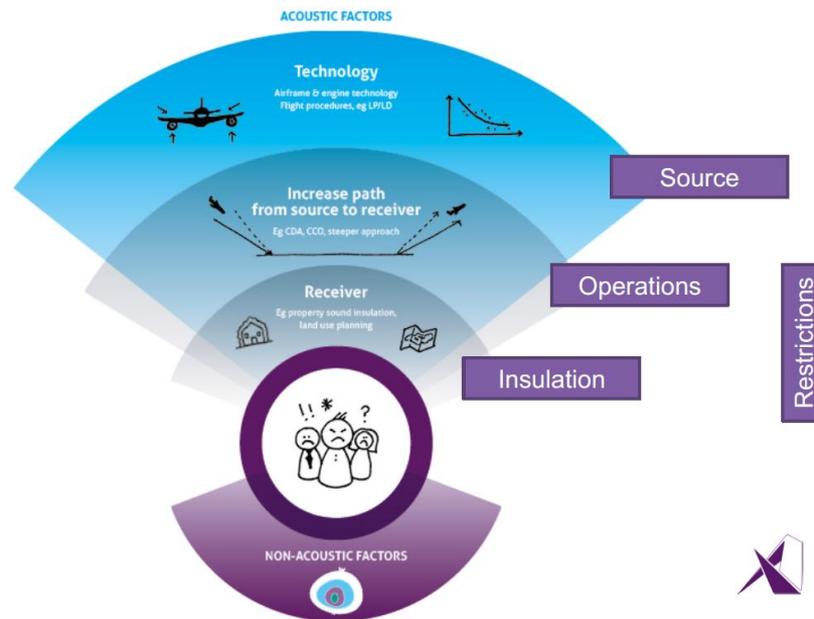




Increased community engagement

Aircraft noise strategy has focused on noise reduction around the principles of ICAO balanced approach

3 areas:





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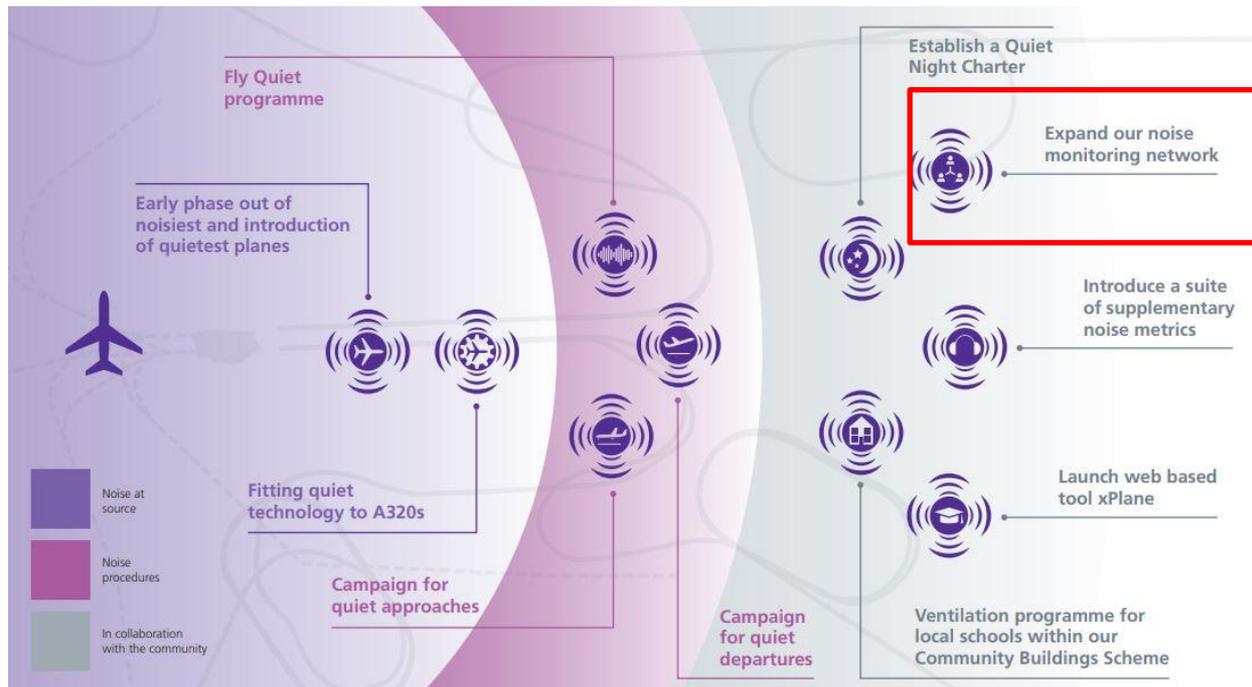
London Heathrow 2.0



Source: London Heathrow Airport



Ten practical steps to a quieter Heathrow





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(SAM) Office
Lima

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Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU