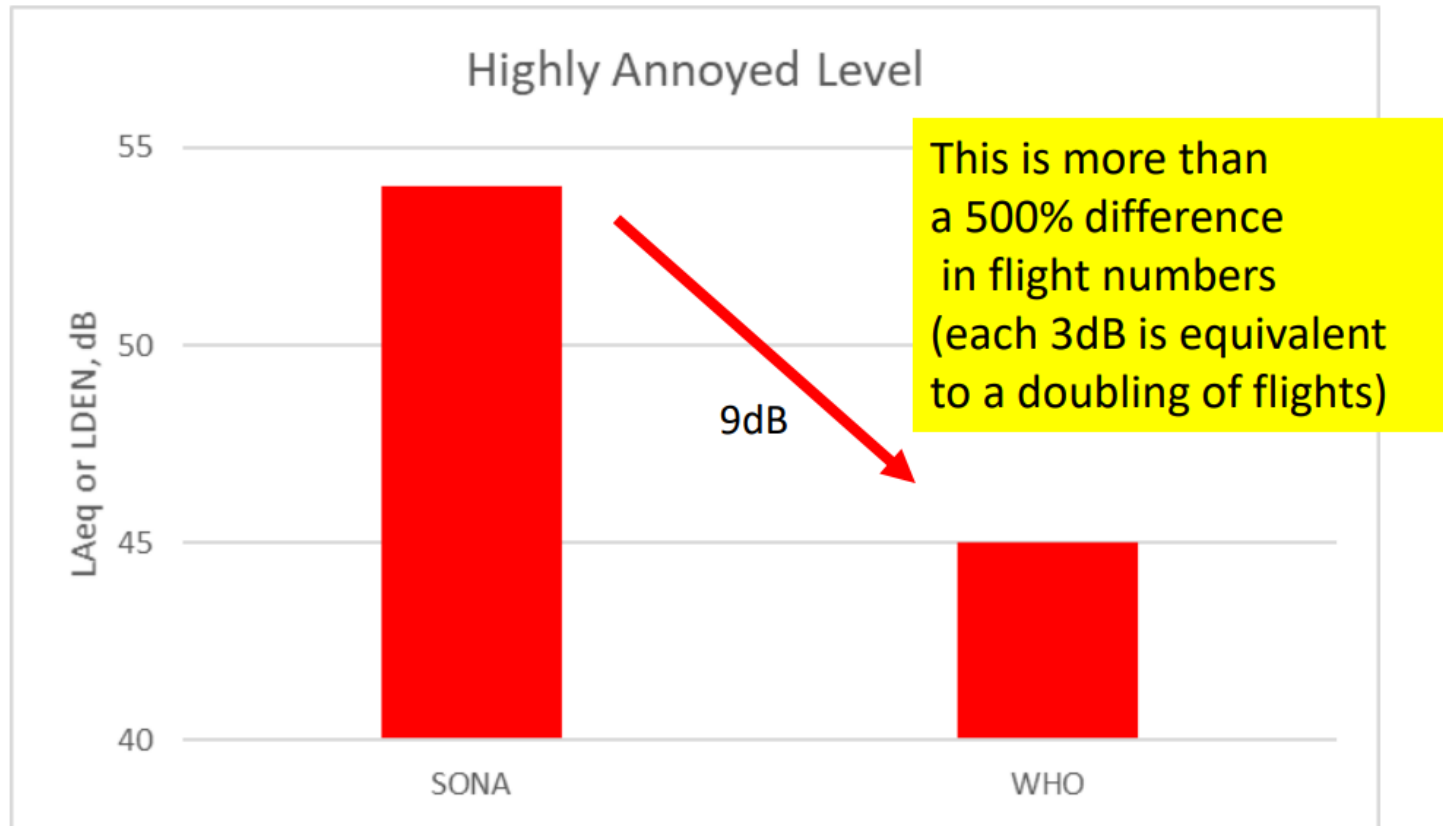
A large commercial airplane, likely an Airbus A380, is shown from a low-angle perspective, flying upwards against a clear blue sky. The aircraft is white with dark blue accents on the fuselage and engines. The registration number 'AWW-B' is visible on the upper wing.

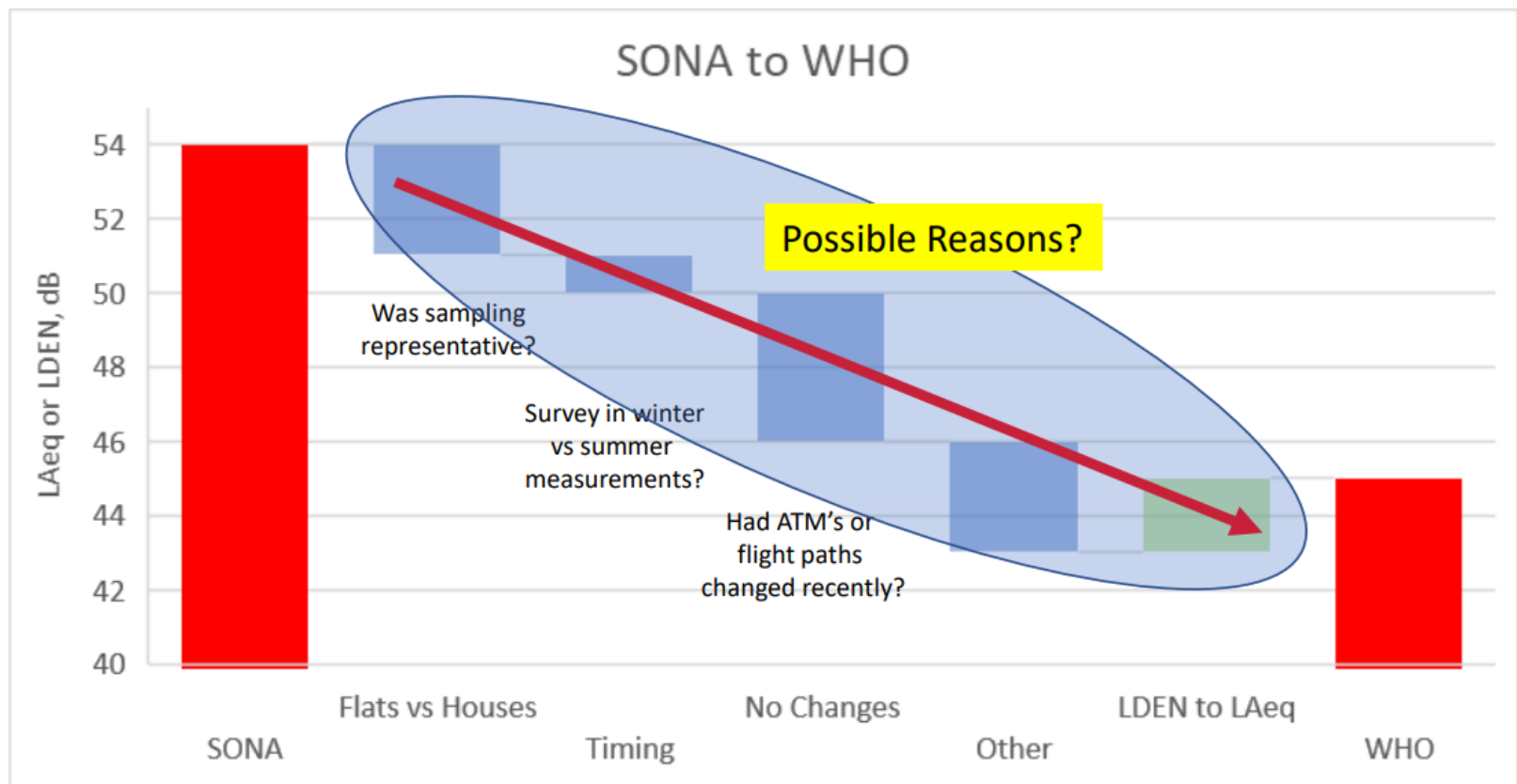
Proposed Independent Consultant Study;
Comparison of WHO 2018
noise guidelines vs SoNA
and WebTAG impacts

HCNF 21st Nov Presented by Dave Gilbert for Community
Noise Group (CNG)

WHO guidelines now strongly recommend reducing noise levels produced by aircraft to below 45 dB L_{DEN}



Proposed Project – Part 1 Independent Consultant to advise most likely reasons for differences



SoNA

<2,000 Respondents
 1 study run by CAA
 2 reviewers (one noise,
 one social science)

WHO

17,094 Participants in
 12 studies
 International Panels of Expert Reviewers
 Full WHO conflict of interest process

CNG Nov 2018

Context - The new 45dB L_{DEN} level is not a surprise - only a 3dB adjustment for Schiphol who have used 48 L_{DEN} for many years to define their noise envelope

Schiphol

Dutch Govt applies a Statutory Norm - Airport is not allowed to operate with more than 180,000 people impacted by severe noise level (48dB L_{DEN}).
In 2016 this was 138,000.



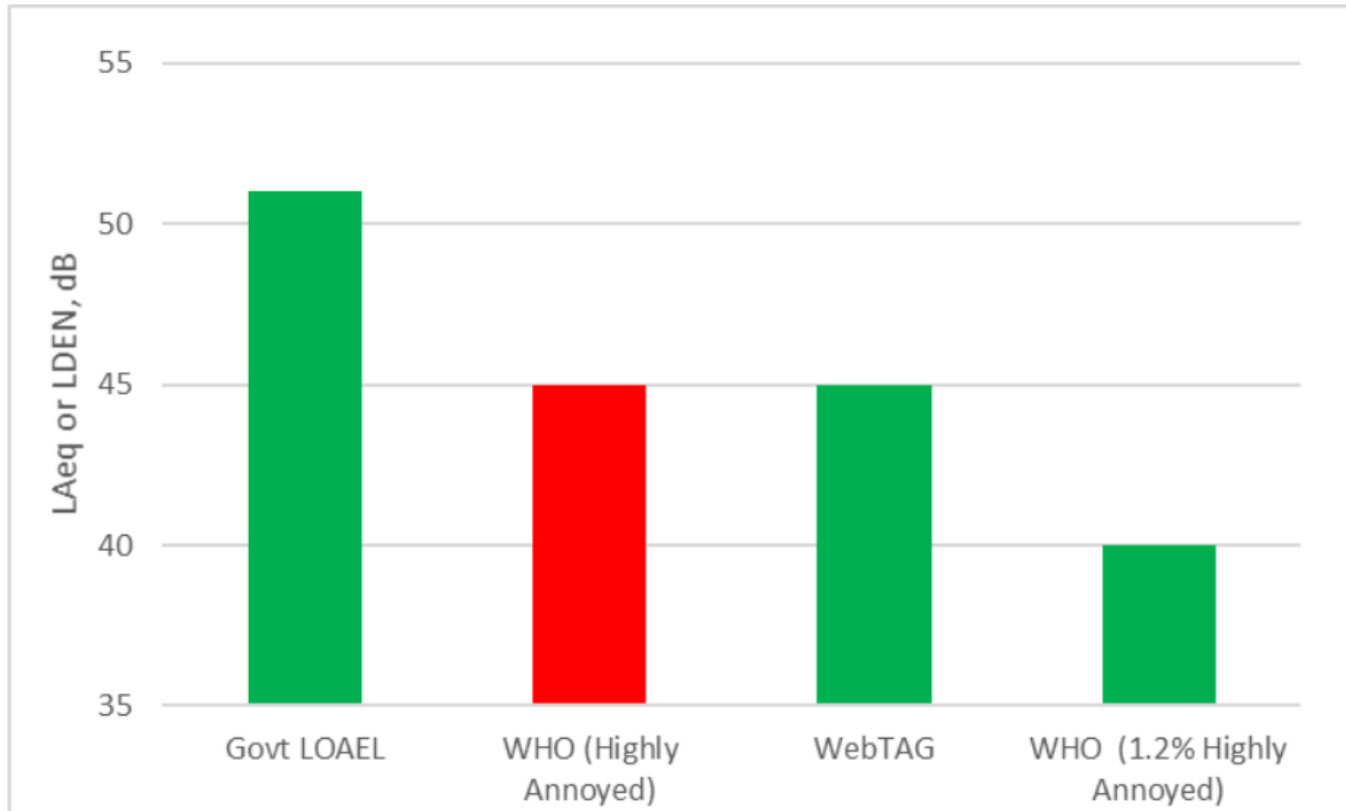
<http://www.annualreportschiphol.com/results/our-results/sustainable-safe-performance>

- Questions;
 - How many people does Heathrow impact at 45dB L_{DEN} and above today?
 - What does this decrease to in 2030 (e.g. WebTAG analysis for NPS)?
 - What does this impact look like with 3 runways?

Given the new guidelines these impacts should be known to inform policy

Lowest Observable Adverse Effect Levels (LOAEL)

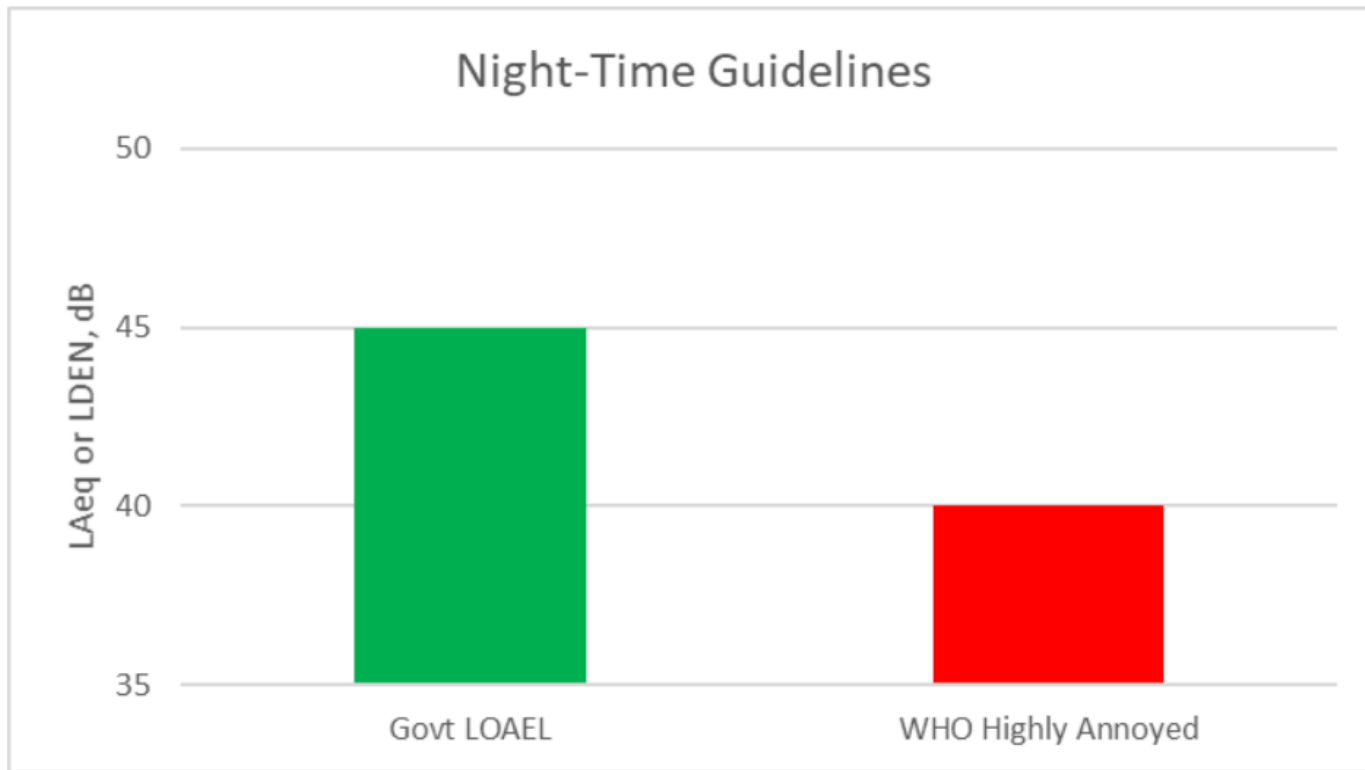
This is the level above which adverse effects on health and quality of life can be detected



Should the DfT now adjust the day-time LOAEL to 45dB or below?

This level is important as the DCO judges adverse effect on numbers impacted between SOAEL (Significant Observable Adverse Effect Level) and LOAEL

WHO guidelines now strongly recommend reducing noise levels produced by aircraft to below 40 dB L_{Aeq} between 11pm to 7am (defined as L_{night})

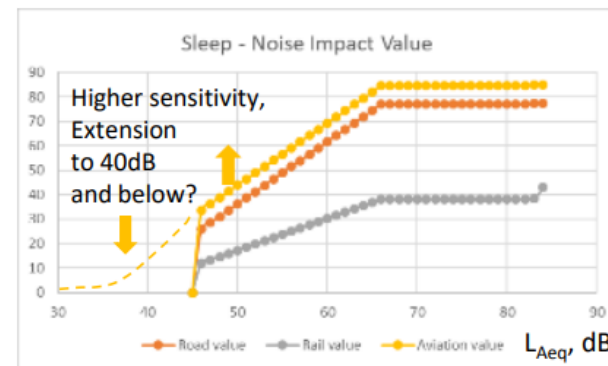
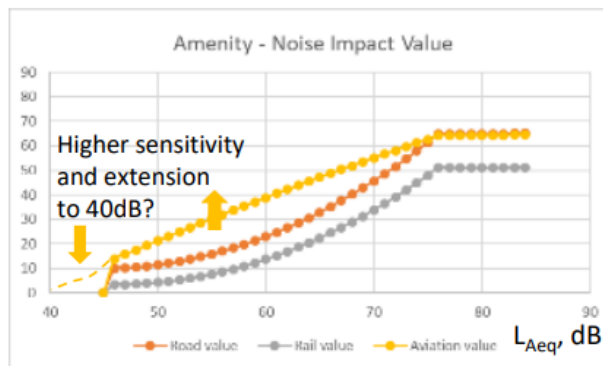


Should the DfT now adjust night-time LOAEL to 40dB or below?

Proposed Project Part 2 – WebTAG Analysis

- Review noise impact figures used in WebTAG in light of WHO guidelines
 - WebTAG calculates negative economic impact of noise by multiplying numbers impacted by a monetary 'impact value'
 - values were last set in 2014 'Environmental Noise: Valuing impacts on: sleep disturbance, annoyance, hypertension, productivity and quiet' in a report informed by: the Interdepartmental Group on Costs and Benefits Noise Subject Group (includes Defra, DfH & DfT)
- Independent consultant should;
 - Explain the origin of impact numbers used and their confidence level
 - Given the new WHO guidelines indicate what impact values may need to be updated

Examples;



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Suggested Actions

- CNG provide ToR for study
 - Part 1 WHO and SoNA; Desk based Study with feedback sessions 6 weeks
 - Part 2 WHO and WebTAG; Desk based 4 weeks
- Request DfT to confirm numbers impacted at new WHO guideline levels today and in 2030 for 2 and 3 runway scenarios
- DfT address apparently inconsistent LOAEL day & night positions (vs internal Govt position & now WHO 2018) or otherwise explain position / LOAEL definition used for Govt Policy
- In all future noise assessments, including the DCO, Heathrow annual reports & CAA/ERCD should report noise impacts to WHO guideline levels