

## **Response to Economic Regulation CAP 3286 – August 2026**

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I have built a detailed understanding of aviation noise and its financial impacts over the last 10 years: I was asked to be on the Noise Advisory Board for the Independent Commission on Civil Aircraft Noise (ICCAN) project to develop the latest UK wide noise attitudes survey, I am a member of the Heathrow Community Noise Forum representing the Teddington Action Group, but also support other community groups understand technical noise issues and have engaged with Heathrow on their airspace redesign over several years. In my career with a large corporate I have held roles in Technology Management and moved onto Strategic Planning and Performance Management positions and have a MBA degree.

This response addresses Chapter 5 of CAP 3286 and the invitation at paragraph 5.2 to comment on the proposed next steps and on whether there are additional pieces of analysis the CAA should be undertaking. None of this submission needs to be treated as confidential.

### **Summary**

Significant changes in the evidence base have taken place since the CAA consulted on the six evaluation criteria in May 2026: i) The CAA and DfT have published ANAS and ANNE noise studies which show significant change to the old Policy base, ii) the DfT have published its HENPS analysis and, iii) Problems in regulation of privatised industries have become more apparent. While CAP 3286 was published in July retaining the evaluation framework from May unchanged.

The new information means the CAA should:

- Add a seventh evaluation criterion covering the licensee's ability to reduce, control and mitigate adverse environmental effects, reflecting the duty at section 1(3) of the Civil Aviation Act 2012
- Quantify and allocate the cost of noise mitigation obligations under the exposure thresholds indicated by ANAS and ANNE, and state who bears that cost under each shortlisted model.
- Develop a consumer stop-go test for any model: a gateway condition under which expansion capital enters the regulatory asset base only if the scheme still passes a cost-benefit assessment on latest construction costs, updated demand and environmental costs which the New Economics Foundation raised at paragraph 3.4.
- Publish the analysis of risk allocation between users and non-users of the new infrastructure, which the New Economics Foundation raised at paragraph 3.4 and which paragraphs 3.5 and 3.6 do not address.
- Publish a low-demand stress test, which the New Economics Foundation raised at paragraph 3.4, setting out the consumer consequences under each shortlisted model if traffic materially undershoots the Current Trends forecast. For example due to geopolitical events or higher climate mitigation costs.

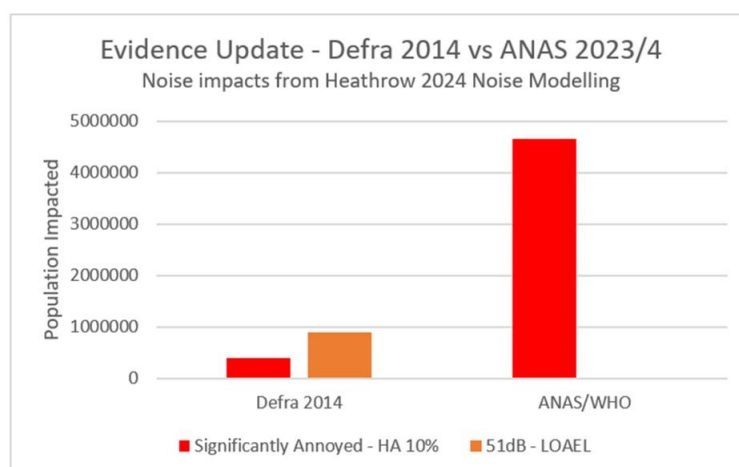
- Introduce stronger mechanisms to reduce the ability of owners to extract cash without delivering agreed investment assets, improved service performance and reduced environment impacts

## What has changed? 1. Noise Studies

The noise attitudes survey ANAS has been finally published after many delays. It shows a huge change to what is the present UK noise policy base to levels that WHO ENG 2018 advice was indicating several years ago. The results make it clear that the evidence base underlying SoNA 2014 is obsolete, which is unsurprising given that it aligned with studies averaging around 40 years old. ANAS was one of the largest studies undertaken with 45k responses and corroborates the WHO's 2018 findings (based on 12 studies covering 17k responses). The recent these studies now present a strong evidence base for annoyance and UK noise policy needs to catch up. It is not credible that these new levels are not adopted by the Government through the IGCB(N) when it reviews the data. The night noise impacts survey (ANNE) similarly means UK policy thresholds need updating.

Even using the existing policy thresholds the negative impacts of Heathrow's Noise are of still order £0.5bn pa (using a DfT TAG approach). While the DfT sponsored studies ANAS & ANNE indicate the negative Noise impact of Heathrow is now much, much bigger of order £2-2.5bn pa (see Appendix A). These increased impacts are because the HENPS Noise Annex now shows that a huge 4.65m people now lie in the significantly affected contour versus 0.4m based on existing policy. This is a 10 fold difference. The mitigation obligation the CAA needs to address is set by the larger of these figures based on the new evidence.

## Implications – Aviation Noise has much higher financial impacts than thought



Today's Impact using TAG approach per year – £0.5bn pa (Using Defra/SoNA 2014)

New UK ANAS Evidence (in line with WHO 2018) & ANNE – £2bn pa

**Actual impact based on latest Evidence around £2bn pa (over 60yrs £120bn cash or £50-60bn NPV)**

The CAA reviews and factors community mitigation spending into Heathrow's long-term price control periods to ensure necessary community spending is ring-fenced before the

maximum allowable yield per passenger is then calculated. The impact of increased mitigation spending needs to be sized and considered by the CAA to confirm the licensee has the ability to reduce, control and mitigate adverse environmental effects within the different regulatory models for any scenario. Future mitigation costs will be significantly increased at Heathrow.

The new noise impact evidence was not available in May 2026 when the initial evaluation criteria were consulted on.

## **What has changed? 2. HENPS has been published and the possible range of Capital Expenditures have been evaluated by the CAA**

The HENPS review shows a very weak case strategically for expansion at Heathrow compared to claimed economic impacts from Heathrow sponsored studies by Frontier economics and Heathrow's claims about 'connectivity'.

Key points to note are;

- HENPS shows the lack of need for any expansion in the London airport system before 2050, even if the demand forecasts are robust given geopolitical and climate instability and that technology developments can deliver promised mitigation routes economically
- the new demand forecast analysis shows that even without an expansion at Heathrow, UK long-haul connectivity increases, modelling is predicting a 121k increase in long haul ATMs from 2024 (243k) to 2045 (364k) i.e. 50%, so trade routes can be developed at other airports as well as continuing to develop at Heathrow (as lower profitability short haul routes are moved elsewhere by airlines).
- Business travel is reducing after Covid with video conferencing - so a reason to justify Heathrow flying over London has gone
- HENPS economic modelling analysis (also by Frontier and paid for by the DfT) shows 90% less growth than suggested by Heathrow's own studies (now 0.05% GDP growth and only by 2055 and which is likely to be within any modelling accuracy) and what growth there is, is in the South East and would require public spending for more transport infrastructure in the South East. (Heathrow Expansion Appraisal Report June 2026 p55&56 Table 11-1: UK GDP effects relative to baseline, all scenarios and Table 11-2: GDP effects relative to baseline, all scenarios, all regions, in 2056 relative to baseline)
- Overall NPV's are highly negative and range from -£24.2bn to -£62.5b (Heathrow Expansion Appraisal Report June 2026 p46 Table 8-1: Current Trends 'No pass through' and with 'Cost pass through' economic case) and do not yet account for the increased noise impacts shown by ANAS & ANNE.

Overall it has to be questioned whether the Government, the SoS or MPs would now support a scheme given this more worked and better understanding. Even if the scheme progresses given the construction and financing risks and the resulting potential cost implications for consumers, the CAA reasonably need to build in a consumer stop-go test to each model. For example consumer charges would not exceed present levels as these are

already the highest in Europe. At present none of the models determines whether an expansion should proceed.

The case for a consumer stop-go is strengthened by the scale of the cost estimate. Steer's assessment, cited at footnote 2 of CAP 3286, puts the scheme cost for the Heathrow Airport Limited proposal at £33bn to £52bn in 2024 prices, excluding the replacement of existing terminals. A range of £19bn on a single programme, with no gateway condition attached, could place the entire variance on consumers, while risks should be taken by the developer. A gateway test is also easier to apply where a lower-risk alternative exists, and one does: Retaining the current air transport movement limit while adding of the order 15 to 25 million passengers a year through larger and fuller aircraft and expanded terminal capacity delivers several benefits without the construction and financing risk of a third runway.

### **What has changed? 3. Performance of regulated privatised industries**

Regulation of privatised companies in the UK is failing. The water companies being the prime example with poor service, large debts and interest payments reducing corporation tax, while owners have extracted cash. Heathrow owners have also built up large debts, taken large dividends and pay much lower corporation tax than when BAA was privatised. Even with these large debts, terminals need replacing like terminal 3. Its actions suggest it would do the same with any future project such as a 3rd runway investment or a 2R+ terminal expansion scenario with the same ATMs.

The way the regulator is being asked to act has not been effective given the large debt held by Heathrow companies. The regulator is being asked to make sure that each licensee is able to finance its licensed activities normally assessed by a credit agencies ratings **but** to promote economy and efficiency on the part of licensees which generally reduces the investment rating. Much lower returns must be expected from privatised monopolies or near monopolies given the business demand risk is much lower and the UK offers a very stable environment. Regulatory models should include tighter settlements which include **Dividend caps** where regulation would tie dividend payouts directly to operational performance, consumer service levels or environmental impacts and investment targets rather than profit alone. Tighter **financial ring fencing** should be introduced between operating and holding companies and **liquidity buffers** introduced. Given the large debt build up regulatory changes should be made by the CAA in any model. These are not novel asks. Paragraph 5.6 already commits the CAA to identifying and analysing precedents for risk sharing in energy, water, rail and telecoms. Ofwat's regime following the 2024 price review provides direct precedent for each of the three mechanisms above: dividend policy tied to delivery and performance, strengthened ring-fencing between operating and holding companies, and minimum liquidity requirements.

## Appendix A – Calculation of Economic Disbenefits from Heathrows Noise Impacts following a DfT TAG modelling approach based on 2024 population figures.

Population figures for day and night time impacts are reported in Heathrow Airport 2024 Summer and Noise Action Plan Contour CAA/ERCD Report 2501 (page 14, Table 3 and page 17 Table 7). HENPS noise annex reports at 51dB and 43dB LAeqs levels on Page 17 Table 7.1 and Page 31 Table 5.3 for daytime annoyance at Page 22 Table 4.3 and page 34 Table 5.5 for night time sleep disturbance. These figures are combined to calculate populations in 3dB noise bands.

Negative impacts are then calculated as per DfT TAG approach combining % HA in each band with a disability weighting and a health value for daytime impacts;

### Valuing Negative Annoyance Impacts at Heathrow = Pop Exposed x %HA x Disability Weight x Health Value

- Disability Weight Defra 2014 assumed 0.02 (as WHO) & Health Value £60kpa
- Comparing Defra 2014, WHO 2018 and latest ANAS results

| Band, dB LAeq                            | Pop in band, k | %HA - Defra 2014 | DW   | Health Value, £k | Value, £m  | Band  | %HA - WHO       | Value, £m | Band  | %HA - ANAS      | Value, £m |      |
|------------------------------------------|----------------|------------------|------|------------------|------------|-------|-----------------|-----------|-------|-----------------|-----------|------|
| 39-42                                    | 3390           | 0.2              | 0.02 | 60               | 6          | 39-42 | 5               | 214       | 39-42 | 8               | 325       |      |
| 42-45                                    | 2301           | 2                | 0.02 | 60               | 42         | 42-45 | 10              | 282       | 42-45 | 11              | 304       |      |
| 45-48                                    | 1479           | 4                | 0.02 | 60               | 63         | 45-48 | 15              | 271       | 45-48 | 14              | 248       |      |
| 48-51                                    | 832            | 5                | 0.02 | 60               | 53         | 48-51 | 19              | 187       | 48-51 | 18              | 180       |      |
| 51-54                                    | 487            | 10               | 0.02 | 60               | 56         | 51-54 | 26              | 151       | 51-54 | 24              | 140       |      |
| 54-57                                    | 200            | 14               | 0.02 | 60               | 33         | 54-57 | 31              | 75        | 54-57 | 30              | 72        |      |
| 57-60                                    | 106            | 18               | 0.02 | 60               | 23         | 57-60 | 37              | 47        | 57-60 | 38              | 48        |      |
| 60-63                                    | 53             | 24               | 0.02 | 60               | 15         | 60-63 | 43              | 27        | 60-63 | 44              | 28        |      |
| 63-66                                    | 29             | 29               | 0.02 | 60               | 10         | 63-66 | 48              | 17        | 63-66 | 54              | 19        |      |
| 66-69                                    | 8              | 36               | 0.02 | 60               | 3          | 66-69 | 54              | 5         | 66-69 | 60              | 5         |      |
| 69-72                                    | 1              | 43               | 0.02 | 60               | 1          | 69-72 | 61              | 1         | 69-72 | 66              | 1         |      |
| Total Noise Impact from Annoyance, £m pa |                |                  |      |                  | LOAEL 51dB | 142   | New LOAEL ~40dB |           | 1277  | New LOAEL ~40dB |           | 1371 |
| Cost per passenger (based on 85m pa)     |                |                  |      |                  |            | 2     |                 |           | 15    |                 |           | 16   |

Present Guidelines calculate Impact to 51dB LOAEL  
Implied present impact is ~£140m pa

New evidence suggests higher sensitivity and LOAEL of 40dB LOAEL -  
Implied present impact is ~£1370m pa

Noise impacts from sleep disturbance, and other health impacts like hypertension still need to be added in

A similar approach is taken for night time sleep disturbance:

## Valuing Negative Sleep Disturbance Impacts at Heathrow

$$= \text{Pop Exposed} \times \% \text{HSD} \times \text{Disability Weight} \times \text{Health Value}$$

- Disability Weight Defra 2014 assumed 0.07 (as WHO) & Health Value £60kpa

| Band, dB LAeq                                    | Pop in band, k | %HSD - Defra 2014 | DW   | Health Value, £k | Pop HSD | Value, £m | %HSD - WHO | Pop HSD | Value, £m | %HSD - ANNE | Pop HSD | Value, £m |
|--------------------------------------------------|----------------|-------------------|------|------------------|---------|-----------|------------|---------|-----------|-------------|---------|-----------|
| 39-42                                            | 600            | 4                 | 0.07 | 60               | 22425   | 94        | 12         | 69782   | 293       | 6           | 36000   | 151       |
| 42-45                                            | 435            | 5                 | 0.07 | 60               | 20028   | 84        | 14         | 60169   | 253       | 10          | 43500   | 183       |
| 45-48                                            | 287            | 6                 | 0.07 | 60               | 16450   | 69        | 16         | 46990   | 197       | 16          | 45872   | 193       |
| 48-51                                            | 239            | 7                 | 0.07 | 60               | 17045   | 72        | 19         | 46099   | 194       | 20          | 47760   | 201       |
| 51-54                                            | 97             | 9                 | 0.07 | 60               | 8549    | 36        | 23         | 21921   | 92        | 22          | 21362   | 90        |
| 54-57                                            | 67             | 11                | 0.07 | 60               | 7173    | 30        | 26         | 17503   | 74        | 24          | 16032   | 67        |
| 57-60                                            | 33             | 13                | 0.07 | 60               | 4257    | 18        | 30         | 9931    | 42        | 25          | 8225    | 35        |
| 60-63                                            | 15             | 15                | 0.07 | 60               | 2311    | 10        | 35         | 5179    | 22        | 27          | 4050    | 17        |
| 63-66                                            | 2              | 18                | 0.07 | 60               | 381     | 2         | 39         | 824     | 3         | 29          | 609     | 3         |
| 66-69                                            | 1              | 21                | 0.07 | 60               | 116     | 0         | 44         | 244     | 1         | 31          | 171     | 1         |
| Total Noise Impact from Sleep Disturbance, £m pa |                |                   |      |                  |         | 236       |            |         |           |             |         |           |
| Cost per passenger (85m), £                      |                |                   |      |                  |         | 3         |            |         |           |             |         |           |
| Cost per night passenger (~10%), £               |                |                   |      |                  |         | 30        |            |         |           |             |         |           |

Present Guidelines calculate Impact to 45dB LOAEL  
Implying present impact is ~£236m pa

New evidence suggests higher sensitivity and LOAEL of 40dB LOAEL -  
Implying present impact is ~£940m pa

Noise impacts from annoyance, and other health impacts like hypertension still need to be added in

These can then be combined to get the total negative noise impacts based on a DfT TAG approach. Other health impacts (such as dementia, strokes and heart attacks) are estimated as they are a smaller portion of the total impacts and start at higher noise levels while daytime annoyance and sleep disturbance are often the precursors to these health issues:

### Estimate of Negative Financial Impacts of Heathrow Noise per annum

Based on 2024 population figures and DfT TAG approach using new evidence from ANAS & ANNE studies, £k pa

| Source                                                                           | Defra 2014 | WHO 2018     | ANAS/ANNE 2023/4 |
|----------------------------------------------------------------------------------|------------|--------------|------------------|
| Annoyance                                                                        | 142        | 1277         | 1371             |
| Sleep Disturbance                                                                | 236        | 1170         | 939              |
| Other Health Impacts (Estimate)<br>incl dementia,<br>strokes and heart<br>attack | 150        | 150          | 150              |
| <b>Total</b>                                                                     | <b>528</b> | <b>2,597</b> | <b>2,460</b>     |

Note pa figures not NPV

Present policy view of the negative noise impacts around £0.5bn pa

Actual impact based on latest Evidence over £2bn pa (over 60yrs £120bn cash or £50-60bn NPV\*)

\*flat line calc