

CAA Response to the Airports Commission's Inner Thames Estuary study outputs

INTENTIONALLY LEFT BLANK

Introductory Remarks

- 1.1 The CAA welcomes the opportunity to respond to the Airports Commission's consultation on the Inner Thames Estuary airport study outputs
- 1.2 As the UK's specialist aviation regulator, the CAA has significant relevant expertise in areas that are key to the Airports Commission's work. In relation to the Inner Thames Estuary airport study outputs, this includes safety oversight and the economic regulation of those airports it judges to have significant market power (currently Heathrow and Gatwick airports).
- 1.3 The CAA's previous contributions to the Airports Commission and other work on aviation capacity policy can be found at <http://www.caa.co.uk/default.aspx?catid=589&pagetype=90&pageid=14751>

CHAPTER 1

Response to Inner Thames Estuary Study Outputs

1.4 In its response to the Airports Commission's March 2013 consultation on sift criteria, the CAA recommended four key decision criteria, that the Commission should have regard to when considering options and potential solutions:

- **Demand-focused:** to ensure that any capacity solution is consistent with trends in demand and geared to deliver connectivity, choice and value for consumers.
- **Financeable:** to ensure that any solution can be funded on the basis of airport charges at a level consistent with ensuring value for consumers;
- **Safe:** to ensure that any solution is designed to further improve the safety of the UK aviation system and is consistent with effective airspace management;
- **Sustainable:** to ensure that any growth in capacity is consistent with environmental objectives, including balancing the needs of consumers with those of local communities.

1.5 However, the CAA recognised that these criteria may not be exhaustive and there may be other considerations that the Airports Commission, or Government, feels are valid.

1.6 The Commission has recognised that, given the magnitude and complexity of an Inner Thames Estuary scheme, further research would be of significant value to understand better the feasibility and impacts of a new hub airport. The lack of evidence in some key areas was also recognised by a number of interested parties in their submissions to the Commission.

1.7 The Commission, therefore, has taken forward four studies to address the significant risks and challenges associated with a scheme of this magnitude and complexity.

1.8 The CAA notes that, were an Inner Thames Estuary scheme to

progress to a phase 2 assessment, then it would be subject to the appraisal framework which the Airports Commission published on 2 April 2014. Thus, the CAA is not concerned that the proposed studies do not cover all aspects of its four criteria, since it assumes that a full assessment would only be carried out at the completion of the Airports Commission's phase 2 appraisal framework.

- 1.9 The Airports Commission is particularly inviting views in relation to two specific questions as follows:
- a. Is there information in the studies which is factually inaccurate? If so, please let us know.
 - b. Is there any new information or evidence that you wish the Commission to consider before it makes its decision?
- 1.10 The following sections provide the CAA's response to these two questions for each study. Where relevant, the specific paragraph(s) in the studies are provided in bold, followed by the CAA's response.

Study 1 – Environmental / Natura 2000 impacts

- 1.11 The CAA has no correctional comments or additional evidence regarding the content of this study.

Study 2 – Operational feasibility and attitudes about moving to a new airport

- 1.12 **Section 5.2, Page 5-2: "In order to control the birdstrike risk, the International Civil Aviation Organisation (ICAO) has implemented a series of standards and recommended practices (SARPS) that require states to ensure that airports under their control manage the birdstrike risk effectively. In the UK, the Civil Aviation Authority (CAA) implements the ICAO SARPS by requiring airport license holders to manage the birdstrike risk as part of their licensing procedures CAA 2010). The CAA provides guidance on how this should be carried out in their publication CAP 772 Bird Control on Aerodromes (CAA 2008) which is currently undergoing revision."**
- 1.13 The CAA wishes to clarify that the Aerodrome design will need to comply with EU Implementing Rules and certification specifications applicable at the time of certification.

- 1.14 CAP 168 Licensing of Aerodromes; Chapter 5 Birdstrike Risk Management for Aerodromes, enacts ICAO Annex 14 SARPs and provides guidance material in support of the European Aviation Safety Agency (EASA) Aerodrome Implementing Rules for wildlife management and wildlife strike hazard reduction.
- 1.15 The EU Aerodrome Regulation (139/2014) places obligations on the aerodrome operator to control the hazard from wildlife and thereby to minimise the risk of collisions. EASA has provided Acceptable Means of Compliance to support the rules, whilst CAP772 (currently being revised) provides more detailed guidance on how the risk of a wildlife strike at, or in the vicinity of, an aerodrome may be assessed and what risk reduction measures may reasonably be taken to comply the EASA Aerodrome Rules.
- 1.16 **Section 5.5.4, P.5-10: "One of the examples cited by TfL at the new Durban airport in South Africa illustrates this point. Here, a specific hazard was identified which was a very large roost of Swallows in a nearby wetland. Rather than destroy the wetland the airport opted to install a bird radar system to detect when the swallows were present and which allows air traffic patterns to be adjusted either by delaying departures or changing departure and landing directions, to avoid them. This process works well when the timing and location of a hazard, and the steps that need to be taken to avoid it are well known. There is a clear action to be taken when the hazard is detected and its timing is broadly predictable in terms of time of year and time of day. This may not be the case at a coastal airport where combinations of season, time of day, weather and tide may result in hazards arising at unpredictable times and locations. At present air traffic controllers are proving very reluctant to accept the responsibility for interpreting the outputs from bird detection radars and then implementing ad hoc adjustments to air traffic patterns to avoid hazardous birds. This is not to say that such a system would not be useful at a new airport on the Thames Estuary, especially in informing bird controllers of the location of high risk situations, as has been described in two of the other case studies described by TfL, in Riga and Warsaw, but considerable further study is required before such a system can be reliably integrated into air**

traffic management processes.

- 1.17 The CAA notes that Durban Airport handles approximately 55,000 Air Transport Movements (ATMs) per annum and therefore the operator is more likely to be able to manage flights around bird hazards. This is unlikely to be the case for a much larger Inner Thames Estuary airport handling up to 830,000 ATMs per annum.
- 1.18 Sandy and muddy shores, especially around estuaries, support very large numbers of Gulls, Waders, and, sometimes, Wildfowl. Generally, coastal aerodromes have larger numbers of birds of more species, some of which are considered high risk species, whose activity patterns are complicated by tide state and more affected by the weather, than at inland aerodromes.
- 1.19 The EU Aerodrome Regulation (139/2014) places obligations on the aerodrome operator to control the hazard from wildlife and thereby to minimise the risk of collisions. The Aerodrome Licence Holder is therefore responsible for the development and implementation of wildlife strike risk control measures, and must implement all reasonable measures to address those features on the aerodrome that may attract birds or wildlife, control the existence of birds/wildlife on the aerodrome, and, where practicable, in the vicinity of the aerodrome (up to 13 km and in some instances beyond) to prevent bird flight lines across the aerodrome and its approach and departure routes. Although there are multiple approaches to mitigating birdstrike risk at UK aerodromes, and the CAA is willing to examine various approaches, ultimately the CAA would expect the birdstrike risk to be consistent with that of existing UK airports.
- 1.20 This is likely to involve significant mitigations to ensure the safety of aircraft in the vicinity of the new airport. This may reduce capacity and operational flexibility, particularly in the early years, when precise changes to bird populations and movements due to the construction of a new airport will be more uncertain.
- 1.21 **Section 5.6.2, Page 5-11: "Birdstrike risks that arise from land that is not owned by the airport and which may have a number of layers of legal protection because of its conservation value, may require significant intervention to modify habitat, scare away birds or remove the habitat altogether. As well as requiring the**

owner's consent, such actions may be in contravention of UK and/or EU legislation and thus impossible to achieve. The UK Air Navigation Order makes it an offence to carry out any action that imperils air safety, but this has never been tested in court in relation to birdstrike issues and it is unclear if allowing wildlife to naturally colonise land under your control would be covered by the Order. It may, therefore be impossible to require landowners to cooperate with necessary birdstrike risk management around the new airport without either enacting new legislation, or the airport taking control of potential bird attracting habitat in the local area by means such as compulsory purchase."

- 1.22 The Air Navigation Order 2009, Article 137 states that 'a person must not recklessly or negligently act in a manner likely to endanger an aircraft, or any person in an aircraft'. This has previously been applied to situations where a person positively endangers the safety of an aircraft, such as recent cases of shining lasers at pilots on approach to landing.
- 1.23 The CAA agrees that relying on an offence under Article 137 would not be desirable, as it presumes that a dangerous situation is allowed to occur and may continue until a successful prosecution. The offence would also constitute either doing nothing, or not doing enough, to mitigate risks or facilitate their mitigation, arising from a pre-existing situation.
- 1.24 When addressing the hazard posed by bird and wildlife, Aerodrome Licence Holders must ensure their actions are lawful. The principles of implementing a safeguarding process and seeking agreements with adjacent landowners has generally applied to existing airport operations.
- 1.25 The CAA agrees that difficulties could arise achieving landowner agreements in relation to a new airport in the Inner Thames Estuary, and a permanent solution would be preferable to ensure the safety of aircraft in the vicinity of the new airport. The Civil Aviation Act 1982 gives the Secretary of State powers to acquire and manage land (s41), and to obtain rights over land (s44) if required, which would provide a permanent solution.

1.26 **Section 8.3.2, Page 8-3: "Figure 25: Obstacle Limitation Surfaces**

(Source CAP 168: Licensing of Aerodromes)"

- 1.27 The CAA wishes to clarify that the Aerodrome design will need to comply with EU Implementing Rules and certification specifications applicable at the time of certification. However this is unlikely to change the assessment of Obstacle Limitation Surfaces presented.
- 1.28 In addition to Obstacle Limitation surfaces, aerodrome safeguarding should include the impact on radar and technical sites within 30km of an aerodrome. Apart from the potential to be a physical obstacle, wind generator turbines can distort radar performance.
- 1.29 The Airports Commission should consider whether there are any radar or technical sites that may need to be assessed from any existing or proposed windfarm developments within 30km of the Inner Thames Estuary sites under consideration. There may be the potential for constraints on airspace, operating procedures or future windfarm developments should an Inner Thames Estuary proposal be selected. CAP764 - CAA Policy and Guidelines on Wind Turbines, provides more detailed guidance.
- 1.30 Section 8.9, Page 8-10: "The risk of an aircraft colliding with part of the Grain LNG infrastructure cannot be calculated"**
- 1.31 The risk associated with an aircraft colliding with the Grain LNG plant could be estimated. The CAA understands that NATS has developed a crash location and frequency model for the DfT for use when developing Public Safety Zone (PSZ) policy. Public Safety Zones are produced by modelling work carried out using historic aircraft accident data from around the world, together with details of the traffic forecasts and particular aircraft mix at the airport, to determine the level of risk to people on the ground. This modelling work determines the extent of the Public Safety Zone contours. The CAA implements these on behalf of the DfT. Currently 31 out of 128 licensed airports in the UK have PSZs.
- 1.32 Section 9.2.2, Page 9-5: "Airport charges: It would be important for airlines to understand as early as possible the future airport charges at airports marked for closure, as well as the prospective charges at the Estuary airport. It is probable that this would be a balance of interest between the Government seeking**

to maximise revenue to recover the costs of the new airport, and setting charges so as to compensate for, or increase the appeal of, relocation to the Estuary airport for a transitional period. Charges may be seen as a tool to facilitate the transition process, but there would appear to be limits to this to avoid accusations of anti-competitive bias. There is a considerable risk that owners of competing airports, such as Gatwick and Stansted, but also even Schiphol, may seek to challenge charges that are below the long run capital costs of the airport."

- 1.33 The CAA agrees that there is significant scope for legal debate around public funding. The State Aids regime is designed to prevent public investment damaging competition unduly, and any proposed public funding may need to be assessed by the European Commission. We understand that such an assessment would need to be on a fairly detailed proposition, rather than a relatively vague "in principle" proposal. The need for this process may make it harder to create the forward clarity for airlines about charges that the Commission sees as valuable. As for charges that are set below cost, the CAA would share concerns that such an approach may distort long-term investment signals and therefore act against the long-term interests of users. In certain circumstances, this may be contrary to the competition prohibition on the abuse of a dominant position.
- 1.34 **Section 10.38, Page 10-5: "The Regulatory Asset Base (RAB) approach to price regulation allows the cost of future capital investment to be reflected in charging caps, and so it could be expected that expansion at either Heathrow or Gatwick would be pre-financed to a degree through airport charges."**
- 1.35 The CAA is currently looking to provide clarity on its expected approach to the economic regulation of any new capacity expansion of London airports and any associated costs that may be incurred during Q6 and subsequently. The CAA recently published a discussion paper on this issue, CAP 1195. No decisions have been made on the issue of pre-financing, and it is not a safe assumption at this stage that expansion will be supported through pre-financing in regulated airport charges. In the event that an Inner Thames Estuary airport is shortlisted by the Airports Commission, the CAA will revisit the issues raised in this document.

Study 3 – Socio-economic impacts

- 1.36 The CAA has no correctional comments or additional evidence regarding the content of this study.

Study 4 – Surface access impacts

- 1.37 The CAA's final decisions relating to Q6 at Heathrow included decisions relating to surface access costs. The CAA considered that it should apply two tests when considering whether the Crossrail contribution should be added to the RAB as follows:
- whether it would be in the interests of passengers and cargo owners; and
 - whether it would be undertaken by an airport owner operating in a competitive market. In other words, whether the investment would have a positive NPV in terms of the costs and benefits that would accrue to the airport operator if it were operating in a competitive market.
- 1.38 In relation to other surface access projects, the CAA stated that it would consider any business case in the light of its published criteria and its statutory duties. Further details are provided in CAP1168 - Economic regulation at Heathrow from April 2014: notice of the proposed licence.