

# London Airspace Modernisation Programme 2

## Deployment 1.1 (LAMP2 D1.1)

### Airspace Change Decision

CAP 2481



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## Chapter 1

# Executive Summary

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## Objective of the Proposal

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- 1.1. This airspace change proposal (ACP) is sponsored by NATS En-route Limited (NERL) and aims to deliver specific initiatives of the CAA's Airspace Modernisation Strategy. It proposes the systemisation of the network in the South-West of the UK (southwest of England and most of Wales) by deploying new Performance Based Navigation (PBN) routes that are operated on the principal of systemisation. The key factors which have underpinned the design are to: Modernise the lower airspace in the identified geographical area by introducing a systemised ATS route structure using PBN (Performance Based Navigation), optimise alignment and connectivity of the ATS route network with each airport's airspace structures and to provide a safe and efficient interface with FRA airspace. The ACP was initially intended to be progressed as LAMP2 Deployment 1 in line with the Airspace Change Masterplan and in tandem with progression of the Future Airspace Strategy Implementation (South) (FASI-S) airport ACPs for this regional cluster (Bristol, Cardiff and Exeter). However, due to the COVID pandemic the airport ACPs were paused but following advice from ACOG it was accepted that this ACP, rebranded as LD1.1 and representing a network-only ACP could, subject to the conditions agreed by ACOG<sup>1</sup>, continue to be progressed independently of the airport ACPs.
- 1.2. The proposed design includes a systemised route structure between 7000ft and 24,500ft and is being progressed concurrently with the Free Route Airspace Deployment 2 (FRA D2) ACP. Systemisation of the ATS route network is aimed at optimising flight profiles, reducing interactions between aircraft, reducing ATC complexity and delivering an increase in network capacity. The ACP has been developed in consultation with Bristol, Cardiff, Exeter and other Airports to ensure connectivity with airport arrival and departure routes into the proposed systemised route structure. Proposed changes to holds and reporting points have been coordinated with the relevant airports. The ACP encompasses the following proposed changes:
- Introduction of 4 new RNAV 1 STARs - EGGD (BAJJA 1B/TOJAQ 1B) & EGFF (BAJJA 1C/TOJAQ 1C).
  - Revision of 14 STARs (includes conversion of 5 RNAV5 to RNAV1).
  - Revision of 2 SIDS - EGGD (new SID designators).

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<sup>1</sup> Letter from ACOG dated 02 August 2021

- Introduction of 1 new hold - EGLL (OCTIZ replaces OKESI).
- Revision of 3 existing holds - OCK, CDF, BRI nav specification changed to RNAV1/RNAV5.
- Withdrawal of 3 holds – OKESI replaced by OCTIZ, MERLY replaced by PEWBI en-route hold, PLYMO due redundancy.
- Introduction of 17 new waypoints following realignment of ATS routes.

## **Summary of the decision made**

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- 1.3. The CAA has decided to approve the implementation of all the proposed changes to airspace design as outlined at Para 1 subject to a number of approval conditions.
- 1.4. Our decision to approve the proposal was made on 28 October 2022 and published on the CAA's airspace change portal. More information on our decision and the reasons for it are set out in this document and the CAA's assessments are all published together with this document on the CAA's Airspace Change Portal.

## **Next Steps**

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- 1.5. Implementation of the revised airspace will be notified through a double (56 days) AIRAC cycle (AIRAC 3/2023) and will become effective on 23 March 2023.
- 1.6. The CAA's Post Implementation Review (PIR)<sup>2</sup> of the changes approved by the CAA in this decision is due to commence no sooner than one year after implementation of these changes. It is a condition of the CAA's approval, that the Sponsor provides the data required by the CAA throughout the year following implementation to carry out that PIR. In due course, the Sponsor will be advised of the specific data sets and analysis required, and the dates by when this information must be provided.

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<sup>2</sup> PIR is the seventh stage of the CAA's airspace change proposal process, in which the CAA reviews how the airspace change has performed, including whether anticipated impacts and benefits in the original proposal have been delivered.

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## Chapter 2

# Decision Process and Analysis

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## Chronology of Proposal Process

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### Statement of Need and Assessment Meeting

- 2.1 NERL submitted an initial Statement of Need (SoN) entitled LAMP 2 Network<sup>3</sup> on 2 November 2017. Following further consideration by the Sponsor, a revised SoN was submitted 5 February 2018.
- 2.2 An Assessment Meeting (AM) was held on 23 February 2018, at which, the Sponsor outlined the scope of the ACP. Minutes of the AM were published on the CAA Airspace Change Portal.
- 2.3 The following statement was uploaded to the CAA Airspace Change Portal on 5 March 2018. *“In considering version 2 of the Statement of Need the CAA has determined that the proposal is in scope of the airspace change process. The CAA has not provided an indicative airspace change level at this time”<sup>4</sup>.*

### Process followed to arrive at the proposal’s design principles (Stage 1, Step 1B)

- 2.4 The Sponsor developed an appropriate set of Design Principles (DPs), through targeted engagement with representative groups of community and aviation industry stakeholders, including airport and airline operators and other airspace users, neighbouring Air Navigation Service Providers (ANSPs) and the Ministry of Defence.
- 2.5 A proposed set of DPs was circulated through meetings, workshops and focus groups to initiate discussion. It was highlighted that stakeholders should provide feedback, including suggestions for additional DPs and consider levels of prioritisation. Feedback was received against the example DPs which resulted in amendment to some of the draft DPs as well as addition of others. A second round of engagement/feedback was conducted in May 2018 before the finalised list of DPs was determined. Where feedback was not taken forward the Sponsor provided an explanation as to why. Full detail of responses to the engagement was captured in the Stage 1B Design Principles document which was submitted to the CAA in July 2018.

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<sup>3</sup> LAMP 2 Network transitioned to LAMP Deployment 1.1.

<sup>4</sup> The CAA acknowledged that NERL intended to progress the ACP in a manner of a Level 2 airspace change but stated that it would not provide an indicative airspace change Level due to uncertainty of the interaction between the ACP and those of the regions’ airports.

## Define Gateway

- 2.6 A Define Gateway Assessment for LD1.1 was held on 27 July 2018. The CAA was content that the DPs had been developed through appropriate engagement with relevant stakeholders and that they took account of the criteria set out in CAP 1616, Appendix D.
- 2.7 The following statements were uploaded to the CAA Airspace Change Portal on 27 July 2018:
- *“The CAA has completed the Define Gateway Assessment for LD1.1 and is satisfied that the Sponsor has met the requirements of the Process up to this point. The CAA approves progress to the next Step”.*
  - *“The CAA accepts the process and approach used to develop the design principles and accepts that they represent a well-founded shortlist to inform the development of design options.”*

## Options development and appraisal (Stage 2, Step 2A and 2B)

- 2.8 The Sponsors’ options development was centred around the following main areas of airspace development:
- a) Increased levels of systemisation to deliver ATS network route efficiencies.
  - b) Reduce ATC interactions and complexity.
  - c) Provide an interface with Bristol, Cardiff, Exeter and other airfield arrivals and departures without altering flight trajectories below 7000 ft.
- 2.9 Meetings were held with relevant stakeholders to present and discuss the design options. Presentations were tailored to assist understanding of the various options.
- 2.10 Options, including ‘do nothing option’ were developed. Each option was evaluated against the DPs and assessed as either ‘accept’ or ‘reject’. Out of seven initial options four were taken forward from the Design Principal Evaluation to the Initial Options Appraisal. These included:
- a) Option 2 - Systemisation - PBN routes with 5nm spacing.
  - b) Option 3 - Systemised Routes with 3nm separation.
  - c) Option 4 - Systemised Routes without Free Route Airspace (FRA).
  - d) Option 6 - Systemised Routes with FRA above.
- 2.11 The Options Appraisal concluded that Options 2 and 3 were sub-optimal and therefore Options 4 and 6 were further developed and progressed to Stage 3.



## Develop and Assess Gateway

- 2.12 A Develop and Assess Gateway was held on 26 February 2021. The CAA concluded that the Sponsor had not adequately assessed all viable options against the baseline within the Initial Options Appraisal. Specifically, a clear comparison of the benefits/dis-benefits was not evident. Furthermore, indication of the relevant environmental impacts for a Level 1 ACP had not been presented. The ACP was not approved to progress to the next stage.
- 2.13 A subsequent Develop and Assess Gateway was conducted on 26 March 2021 at which the CAA concluded that the Sponsor had met the requirements of the process.
- 2.14 The following statement was uploaded to the CAA Airspace Change Portal on 31 March 2021. *“The CAA has completed the Develop and Assess Gateway Assessment for LD1.1 and is satisfied that the Sponsor has met the requirements of the Process up to this point. The CAA has determined that the confirmed level will be a scaled Level 1. The CAA approves progress to the next Step”*.

## Consult Gateway

- 2.15 Following the acceptance of ACOG’s pre-Stage 3 advice by the CAA and DfT, as co-sponsors of airspace modernisation, to split London Airspace Modernisation Programme 2 Deployment 1 into two separate proposals<sup>5</sup> the CAA reviewed the scaling level confirmed at the Develop & Assess Gateway and determined that the proposal could be progressed as a level 2a due to the ACP having no influence on the low-level route designs below 7000ft.
- 2.16 The Consultation Gateway was held on 27 August 2021. The CAA reviewed the Sponsor’s consultation and engagement strategy against the criteria laid down in CAP1616. The CAA determined that the Sponsor had provided clear and sufficient information to enable stakeholders to make informed judgements.
- 2.17 The following statement was uploaded to the CAA Airspace Change Portal on 3 September 2021. *“The CAA has completed the Consult Gateway Assessment and is satisfied that the change sponsor has met the requirements of the Process up to this point. The CAA approves progress to the next Step”*.

## Public consultation and consultation responses (Stages 3C and 3D)

- 2.18 Consultation related to this ACP commenced on 6 September 2021 and ran until 29 November 2021. The Consultation was carried out mostly online via the ‘Citizen Space’ public online consultation platform used for Airspace Change Proposals. Stakeholders were sent a notification email to inform them when the consultation was launched together with details of how to respond to the

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<sup>5</sup> ACOG Pre Stage 3 Coordination Advice (Split LAMP 2 Deployment 1) and CAA Acceptance of ACOG Pre Stage 3 Coordination Advice (Split LAMP 2 Deployment 1).

consultation via the online portal. To maximise participation, the Sponsor sent reminder emails to stakeholders five weeks after the consultation launched and towards the end of the consultation. Other consultation activities were as follows:

- A link to the consultation was provided on the NATS Customer Affairs website, one of the information transfer mechanisms between NATS and customer airlines.
- A link was provided on the NATS website, which was accessible to all.
- The Sponsor ran a series of webinars (9 in total) throughout the consultation window inviting specific stakeholders. These included a detailed presentation on the proposed changes and a Q&A to allow any specific questions to be answered directly.
- Three open sessions were run and one for each of the “actively engage” stakeholder groups.

2.19 Thirty-five responses were received during the 12-week consultation period which included responses from the following groups:

- 10 from targeted airlines,
- 3 from targeted CFSPs,
- 3 from ANSPs,
- A response from Mod,
- 13 from airports,
- 2 from NATMAC members,
- 3 from agencies/individuals not specifically targeted.

2.20 All responses were captured and categorised in a Stage 3D Collate and Review Responses document. On initial assessment by the CAA, inconsistencies in the way in which the categorisation had been conducted, were drawn to the attention of the Sponsor. The Sponsor refined their categorisation, and the CAA conducted a further review. The CAA concluded that the Sponsor had categorised the consultation responses fairly.

### **Proposal Updates and submission to the CAA (Stages 4 and 5)**

2.21 The Stage 4 final submission (version 1.0) was submitted to the CAA on 23 May 2022. The submitted documentation provided detail of design amendments resulting from the stakeholder consultation as well as an updated options appraisal (Final Options Appraisal).

- 2.22 The Sponsor was asked a number of clarification questions by the CAA during Stage 5 in accordance with CAP1616 Para 222. Stage 4 Final Submission was updated to reflect the changes resulting from these clarification questions.
- 2.23 The document check was completed on 13 June 2022.

### **Secretary of State call-in**

- 2.24 This ACP was assessed against the [Secretary of State for the Department for Transport \(DfT\) Call-in Process](#) and was found to have met Criterion D:
- Could lead to any volume of airspace classified as Class G being reclassified as Class A, C, D or E.
- 2.25 The Secretary of State Call-In Feedback window was opened on the 13 June 2022 and closed on the 11 July 2022. The CAA did not receive any feedback during this period.
- 2.26 However, due to the overall net effect of the ACP leading to a reduction in the volume of Controlled Airspace due to raising of some existing base levels of CAS the ACP was not subject to call-in by Secretary of State for the DfT.

### **CAA's assessment of the change sponsor's final options appraisal**

- 2.27 Through the mechanism of developing an initial, full and final options appraisal the Sponsor has demonstrated an appropriate level of engagement with a targeted but relevant body of stakeholders.
- 2.28 The Final Options Appraisal (FOA) fulfils the minimum requirements for a Level 2A ACP, as per CAP1616. The Sponsor provided a qualitative and quantitative/monetised assessment of the environmental impacts, i.e., CO<sub>2</sub> and fuel burn and the cost benefit analysis tables.
- 2.29 Since there are significant design efficiencies and costs/benefits for implementing the FRA D2 and LD1.1 (named colloquially as West Airspace Deployment (WAD)) at the same time, the Sponsor estimates the impacts and costs/benefits for each separate airspace change proposal and develops a combined assessment, highlighting the benefits of implementing LD1.1 in combination with FRA D2.
- 2.30 The environmental assessments show that the cumulative impact of WAD would contribute to a reduction in per flight fuel burn and CO<sub>2</sub> emissions.

### **CAA Analysis of the Material provided**

- 2.31 The CAA considered all the documentation listed on the CAA airspace change portal, for this ACP, while completing our regulatory assessment. The core

document titled “*Airspace Change Proposal Issue 1.2*” was used to determine our decision. It was assessed in conjunction with the associated supplements (some of which are not publishable in an unredacted format<sup>6</sup>, due to legitimate commercial interest being asserted by the Sponsor), clarification question responses and technical instrument flight procedure reports.

- 2.32 As a record of our analysis of this material the CAA has produced the following:
- LD1.1 Consultation Assessment
  - LD1.1 Final Options Appraisal Assessment
  - LD1.1 Environmental Assessment
  - LD1.1 Operational Assessment
  - LD1.1 Safety Review Summary Letter of Acceptance.
- 2.33 The CAA Assessments will be published on the CAA airspace change portal together with this decision document.

## **CAA assessment and decision in respect of Consultation**

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- 2.34 The Sponsor generated a reasonable response rate and made revisions to the final airspace design on account of feedback received from stakeholders. The CAA is satisfied that the fundamental principles of effective consultation, targeting the right audience, communicating in a way that suits them and giving them the tools to make informative, valuable contributions to the proposal’s development were applied by the Sponsor before, during and after the consultation. Furthermore, the Sponsor conducted this consultation in accordance with the requirements of CAP 1616, that they have demonstrated the Government’s consultation principles and that they have taken into account the contents of the Secretary of State’s Air Navigation Guidance.

## **CAA Consideration of Factors material to our decision whether to approve the change**

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### **Explanation of statutory duties**

- 2.35 When making this decision the CAA is carrying out one of its Air Navigation functions given to the CAA by the Secretary of State in their Air Navigation Directions 2017 pursuant to Section 66 Transport Act 2000. The CAA’s statutory duties when carrying out this function are laid down in Section 70 of the Transport Act 2000. An explanation of our understanding of our statutory duties as they

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<sup>6</sup> See CAP 1616 Para 71

apply to our function to make decisions on proposals for permanent changes to airspace design, and which the CAA has applied here, are set out in Appendix G to CAA's Guidance on the regulatory process for changing the notified airspace design (CAP 1616).<sup>7</sup>

## Conclusions in respect of safety

- 2.36 The CAA's primary duty is to maintain a high standard of safety in the provision of air traffic services and this takes priority over all other duties.<sup>8</sup>
- 2.37 In this respect, with due regard to safety in the provision of air traffic services, the CAA is satisfied that the proposal maintains a high standard of safety for the reasons set out in the CAA's Safety Review Summary<sup>9</sup>. By way of summary these are:
- The Sponsor has demonstrated that the proposed procedures will maintain a high standard of safety by addressing the latent risk consequential on the existing complexity of the airspace and impact on controller workload identified in the SoN.
  - CAS has been proposed to provide safe containment of the proposed flight procedures (STARs) of the necessary but minimum size required to do so. Changes to the SIDs at Stansted have been proposed so that aircraft utilising them remain contained in CAS.
  - Requested dispensation from the CAA Buffer Policy.<sup>10</sup>
  - The Sponsor has made appropriate commitments in respect of training the required air traffic controllers and support staff in order to safely implement the proposed changes and ongoing operation of those procedures.

## Conclusions in respect of our duty to secure the most efficient use of airspace and an expeditious flow of traffic

- 2.38 The CAA has a duty to secure the most efficient use of the airspace consistent with the safe operation of aircraft and the expeditious flow of air traffic.
- 2.39 The CAA considers that the most efficient use of airspace is defined as 'secures the greatest number of movements of aircraft through a specific volume of airspace over a period of time so that the best use is made of the limited resource of UK airspace'.

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<sup>7</sup> [CAP 1616](#)

<sup>8</sup> Transport Act 2000, Section 70(1).

<sup>9</sup> See CAA Safety Review Summary for ACP 2017-70 LAMP 2 D1.1 – Stage 5 Letter of Acceptance, for more detail.

<sup>10</sup> Policy Statement Special Use Airspace – Safety Buffer Policy for Airspace Design Purposes.

- 2.40 The CAA considers the expeditious flow of air traffic to involve each aircraft taking the shortest amount of time for its flight. It is concerned with individual flights.
- 2.41 In this respect the CAA is satisfied that the increased systemisation delivered through the ACP will better distribute traffic and contribute to the safe and efficient flow of traffic. The additional volumes of controlled airspace, hours of operation and airspace classification are appropriate to meet the task and are consistent with the requirements outlined in the Sponsors' SoN.

### **Conclusions in respect of taking into account the Secretary of State's guidance to the CAA on environmental objectives**

- 2.42 As one of our statutory duties when considering whether or not to approve a proposal for a permanent change to airspace design, the CAA is obliged to take account of the extant guidance provided by the Secretary of State,<sup>11</sup> namely the 2017 Guidance to the CAA on its Environmental objectives when carrying out its air navigation functions (ANG 2017)<sup>12</sup>. This includes a requirement that the CAA make an Environmental Statement that verifies all relevant environmental factors have been considered in accordance with the government policy reflected in ANG 2017.
- 2.43 In its ANG 2017, the government has set environmental objectives with respect to air navigation. These environmental objectives are “designed to minimise the environmental impact of aviation within the context of supporting a strong and sustainable aviation sector. The objectives are, to:
- Limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise;
  - Ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions; and
  - Minimise local air quality emissions and in particular ensure that the UK complies with its international obligations on air quality”.
- 2.44 In addition, “the government laid out the altitude-based priorities which should be taken into account when considering the potential environmental impact of airspace changes:
- In the airspace from the ground to below 4,000 feet the government's environmental priority is to limit and, where possible, reduce the total adverse effects on people.
  - Where options for route design from the ground to below 4,000 feet are similar in terms of the number of people affected by total adverse noise

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<sup>11</sup> Transport Act 2000, Section 70(2)(d)

<sup>12</sup> [Air navigation guidance 2017 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

effects, preference should be given to that option which is most consistent with existing published airspace arrangements.

- In the airspace at or above 4,000 feet to below 7,000 feet, the environmental priority should continue to be minimising the impact of aviation noise in a manner consistent with the government's overall policy on aviation noise, unless the CAA is satisfied that the evidence presented by the Sponsors demonstrates this would disproportionately increase CO<sub>2</sub> emissions.
- In the airspace at or above 7,000 feet, the CAA should prioritise the reduction of aircraft CO<sub>2</sub> emissions and the minimising of noise is no longer the priority.
- Where practicable, it is desirable that airspace routes below 7,000 feet should seek to avoid flying over Areas of Outstanding Natural Beauty (AONB) and National Parks; and
- All changes below 7,000 feet should take into account local circumstances in the development of the airspace design, including the actual height of the ground level being overflown, and should not be agreed to by the CAA before appropriate community engagement has been conducted by the Sponsors.

2.45 The Sponsor has asserted that the proposed airspace design is not anticipated to result in any additional adverse impacts on noise, greenhouse gas emissions (i.e.CO<sub>2</sub>e), local air quality, tranquillity or biodiversity. In this respect the CAA is satisfied that this proposal will enable a reduction in per flight and total greenhouse gas emissions. However, this conclusion is based on the assumption that this proposal does not influence estimated forecasts of future aircraft movements. The proposal was identified as necessary to maintain or enhance capacity to accommodate long-term growth in aviation although this growth is driven by the relevant airports and therefore not a direct result of this change. For this reason, the proposal assumed the same forecast volume of traffic with and without the airspace change and concluded a reduction in emissions.

### **Conclusions in respect of aircraft operators and owners**

2.46 The CAA's duty is to satisfy the requirements of operators and owners of all classes of aircraft.<sup>13</sup> The Sponsor has proposed a systemised route structure between 7000ft and 24,500ft which is being progressed concurrently with Free Route Airspace Deployment 2 (FRA D2).

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<sup>13</sup> Transport Act 2000, Section 70(2)(b).

- 2.47 Systemisation of the ATS route network is aimed at optimising flight profiles and reducing interactions between aircraft. In addition, realignment of some ATS routes will deliver fuel efficiencies and has the potential to increase capacity.
- 2.48 Proposed new CAS volumes have been offset by raising the base levels of some existing CAS with total volumes of CAS reduced by c108nm<sup>3</sup>. Proposed new CAS volumes and the selected classification provide safe access to suitably equipped GA aircraft.
- 2.49 Proposed changes have been coordinated with Bristol, Cardiff, Exeter and other airports to ensure connectivity with airport arrival and departure routes into the proposed systemised route structure.
- 2.50 The CAA is satisfied that the proposal satisfies the requirements of operators and owners of all classes of aircraft.

### **Conclusions in respect of the interests of any other person**

- 2.51 The CAA's duty is to take account of the interests of any person (other than an owner or operator of an aircraft) in relation to the use of any particular airspace or the use of airspace generally.
- 2.52 The proposed systemisation is expected to reduce complexity for Air Traffic Controllers responsible for the volumes of airspace covered by the ACP.
- 2.53 The ACP does not involve changes to aircraft profiles below 7000ft and therefore, the design is not expected to have an adverse noise impact on health and quality of life of the general public.

### **Integrated operation of ATS**

- 2.54 The CAA's duty is to facilitate the integrated operation of air traffic services provided by or on behalf of the armed forces of the Crown and other air traffic services.<sup>14</sup>
- 2.55 In this respect the CAA is satisfied that the impacts of the revised structures and new procedures associated with this ACP will not impede the operational requirements of the MoD as the Sponsor has developed a Letter of Agreement (LoA) with the MoD. It is anticipated that any other possible impacts on other relevant Air Traffic Service Providers will also be addressed by the Sponsors through LoAs.

### **Interests of national security**

- 2.56 The CAA's duty is to take account of the impact any airspace change may have upon matters of national security.<sup>15</sup>

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<sup>14</sup> Transport Act 2000, Section 70(2)(e).

<sup>15</sup> Transport Act 2000, Section 70(2)(f).



2.57 In this respect, the CAA is satisfied that the proposal has no impact on national security.

### **International obligations**

2.58 The CAA's duty is to take account of any international obligations entered into by the UK and notified by the Secretary of State.

2.59 In this respect the CAA is satisfied that the proposal has no impact on international obligations.

## Chapter 3

# CAA's Regulatory Decision

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## Decision

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- 3.1 After consideration of the impacts and benefits identified in the Sponsors' proposal as described in this document and the documents referred to in it, the CAA has decided to approve the proposed systemisation of the ATS route network for the South-West of England and most of Wales, which encompasses the introduction of new RNAV 1 STARs, revision of existing STARs, revision of SIDs, the introduction of a new hold and removal of redundant holds and the introduction of new waypoints associated with ATS route realignment. Full details of the reason for the CAA's decision can be found in the CAA documents referred to in paragraph 40 above. By way of summary only, the CAA has made this decision for the following reasons:
- 3.2 The CAA's primary duty is to maintain a high standard of safety, and this is to have priority over the application of all our other statutory duties in s70 Transport Act 2000. The CAA has concluded that an airspace change, which targets a reduction in the complexity as a result of increased systemisation within the airspace region covered by this ACP and a reduced reliance on ATC interaction, constitutes a positive contribution to meeting this duty. Furthermore, the request for dispensation from the CAA Buffer Policy for ATS routes adjacent to Special Use Airspace has been subject to extensive and rigorous hazard identification analysis by the Sponsor and MOD.
- 3.3 In making our decision the CAA has taken into account the identified anticipated positive impact in reducing carbon emissions. The ACP will reduce average per flight greenhouse gas emissions by 11 kgCO<sub>2</sub>e, which, the Sponsor has assessed will lead to an overall reduction of 5,208 tCO<sub>2</sub>e in 2033. These cumulative changes proposed within this ACP reflect a reduction in the average CO<sub>2</sub> produced per flight aligning with the altitude-based priorities. Furthermore, the design reflects a net reduction in CAS, whilst through the adoption of Performance Based Navigation principles this should increase capacity within the remaining CAS whilst reducing Air Traffic Controller workload.
- 3.4 In making our decision the CAA has also noted that it is anticipated there will be no additional adverse impact (as that is described the CAA's LD1.1 Environmental Assessment) on the noise experienced, as a consequence, of the change proposed.
- 3.5 In making our decision the CAA has also noted the impact of the proposed change on the requirements of operators and owners of all classes of aircraft. Systemisation of the ATS route network is aimed at optimising flight profiles and

reducing interactions between aircraft. In addition, realignment of some ATS routes will deliver fuel efficiencies and has the potential to increase capacity. Development of the ACP through close engagement with Bristol, Cardiff, Exeter and other aerodromes has been aimed at ensuring connectivity with airport arrival and departure routes into the proposed systemised route structure.

- 3.6 Noting our duty to take account of the interests of any person in relation to the use of airspace the CAA has taken into account the fact that the proposal is anticipated to deliver a net reduction in the volume of CAS by c108nm<sup>3</sup>. Although volumes of CAS have increased laterally in some CTAs this has been offset by the raising of base levels and resulting increased volumes of Class G airspace.

## Conditions

- 3.7 It is a condition of our decision to approve the proposal that the Sponsor meet the following conditions prior to implementation:
- i) **FBZ Dispensation:** The Change Sponsor is to provide full details including the management decision processes of the operating procedures to be employed by the UK Airspace Management Cell for determining whether a reduced buffer for HEM activities which are positively managed by ATC to 1nm is acceptable. Without this information the CAA is unable to confirm acceptance of dispensation to the SUA Safety Buffer Policy for HEM activities positively managed by ATC to be reduced to 1nm.
  - ii) **RAF Fairford:** The Sponsor should include detail of the solution which would allow faster climbing aircraft departing RAF Fairford to avoid potential level offs to be incorporated in the Letter of Agreement with RAF Brize Norton.
  - iii) **Letters of Agreement (LOAs):** Draft LoAs shall be finalised and signed before implementation. Confirmation of this action is to be provided to the CAA. Where this is not achieved extant LoAs would still apply, thereby requiring analysis of any safety or operational implications.
  - iv) **Aerodata:** The Change Sponsor is to address all remaining minor amendments to the aerodata spreadsheets to the satisfaction of the CAA prior to submission of the Change Request to AIS.

## Implementation

- 3.8 The revised airspace will become effective on 23 March 2023. Any queries are to be directed to the SARG Project Leader, by emailing [airspace.policy@caa.co.uk](mailto:airspace.policy@caa.co.uk).

## Post Implementation Review

- 3.9 In accordance with the CAA standard procedures, the implications of the change will be reviewed after one full year of operation, at which point, CAA staff will

engage with interested parties to obtain feedback and data to contribute to the analysis.

3.10 The Sponsor will be sent a letter detailing the PIR requirements.

Civil Aviation Authority

*December 2022*