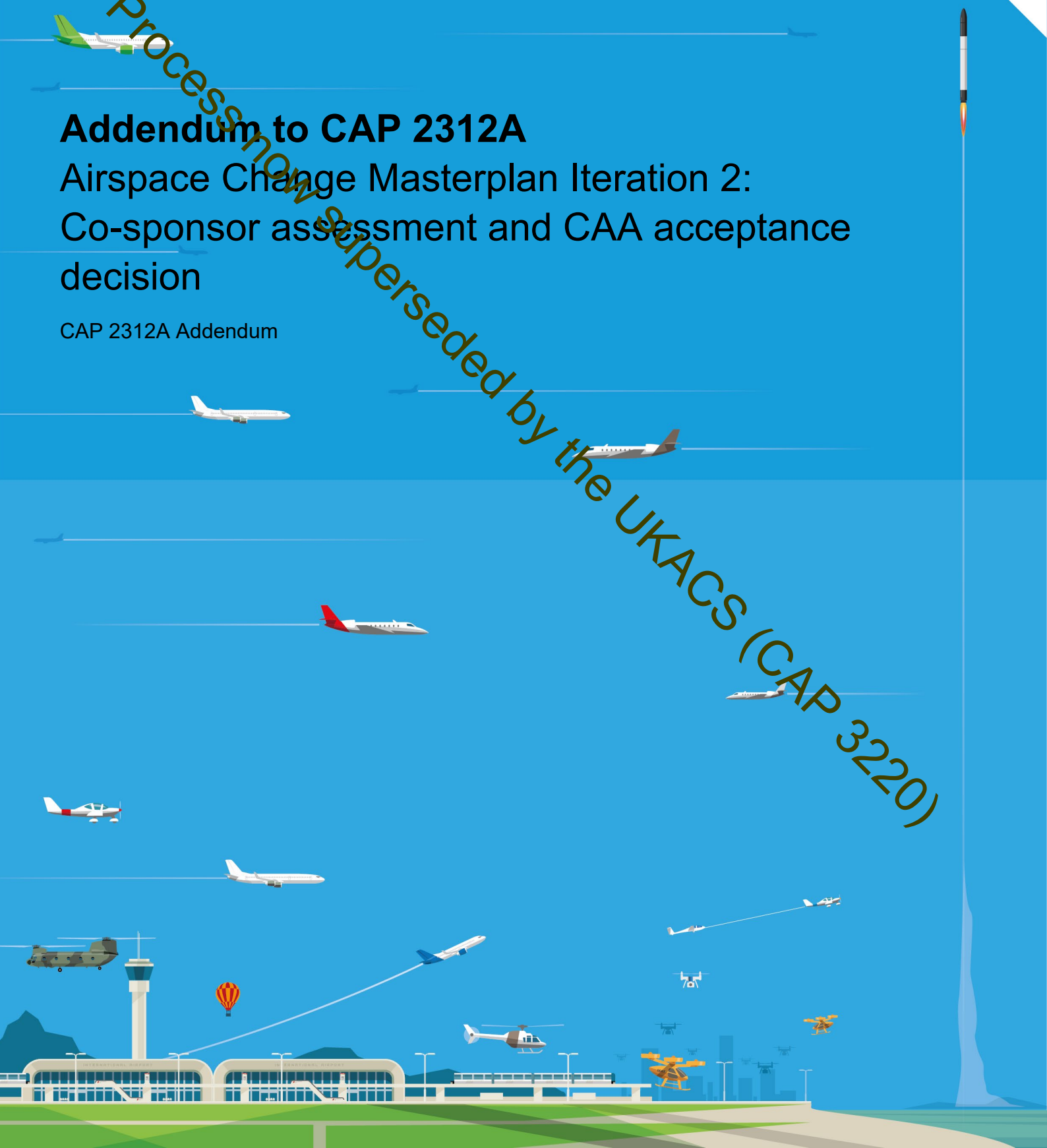
UK Civil Aviation Authority



# Addendum to CAP 2312A

## Airspace Change Masterplan Iteration 2: Co-sponsor assessment and CAA acceptance decision

CAP 2312A Addendum



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# Preface

**Addendum to CAP 2312A (Airspace Change Masterplan Iteration 2: Co-sponsor assessment and CAA acceptance decision)**



## Managing interdependencies through the clustering approach (October 2022)

The CAA and Department for Transport (as co-sponsors of airspace modernisation) recognise that some flexibility may be needed in order to progress the modernisation programme most efficiently and unlock the early benefits of airspace modernisation in certain regions. We also recognise that the implementation of a significant number of airspace changes at the same time may not be possible due to a number of regulatory and operational constraints. For these reasons, in Iteration 2 of the masterplan, ACOG proposed dividing the masterplan into separate regional 'clusters' with different timelines, each cluster comprising a set of interdependent ACPs.

While the co-sponsors were prepared to accept in principle the proposed clustering approach to the development of the masterplan, ACOG were asked to demonstrate to the satisfaction of the co-sponsors that potential interdependencies between clusters can be identified and managed appropriately before an Iteration 3 of the masterplan can be submitted to the co-sponsors for assessment.

In our assessment and acceptance of Iteration 2 (CAP 2312A) we requested that ACOG provide further detail showing how they have identified potential interdependencies and characterised their significance, as well as a formal proposal regarding how these will be managed given the misalignment of timelines between regional clusters. This was to ensure that changes proposed in one regional cluster do not constrain or cause issues for adjacent regional clusters that may follow later.

ACOG have now provided further detail (see **Appendix A**) which sets out that the significance of interdependencies are above 7,000ft, and will be managed by NERL. This will be achieved by including the scope of any transitionary changes in the adjacent network level ACPs (above 7,000ft) which would follow later. However, should a bespoke airspace change proposal be required to manage interdependencies, NERL will identify and initiate this in a timely manner. The co-sponsors are satisfied with this approach and our response to ACOG is included below.

- **Appendix A:** ACOG's paper to the CAA on the 'cluster' approach
- **Appendix B:** CAA response to ACOG's paper on the 'cluster' approach

## Integration of a new Farnborough ACP into the airspace change masterplan (October 2022)

Since Iteration 2 of the masterplan was assessed by the co-sponsors and accepted by the CAA, ACOG were approached by Farnborough Airport who had been considering initiating an airspace change proposal (ACP). ACOG have provided advice to the co-sponsors that, should an ACP be initiated, it should form part of the masterplan given its location and potential interdependencies with other ACPs in the London TMA cluster.

The co-sponsors have accepted this advice, which is provided below along with our response.

- **Appendix C:** ACOG's advice to the CAA on the integration of a new Farnborough ACP
- **Appendix D:** CAA response to ACOG's advice on the integration of a new Farnborough ACP

Farnborough Airport have now initiated an ACP and this can be found on the CAA's Airspace Change Portal. The ACP will now form part of the masterplan being developed by ACOG.

## Withdrawal of Aberdeen Airport from the airspace change masterplan (September 2023)

Since Iteration 2 of the masterplan was assessed by the co-sponsors and accepted by the CAA, ACOG have provided advice that Aberdeen Airport's airspace change proposal (ACP-2019-82) no longer requires co-ordination with other relevant masterplan ACPs, and can therefore proceed independently through the CAP1616 airspace change process.

The co-sponsors have accepted this advice, which is provided below along with our response.

- **Appendix E:** ACOG's advice on the proposed withdrawal of Aberdeen Airport from the masterplan
- **Appendix F:** CAA response to ACOG's advice on the proposed withdrawal of Aberdeen Airport from the airspace change masterplan

Aberdeen Airport will now be able to progress through the CAP 1616 process independently. Further information on this proposal can be found on the CAA's Airspace Change Portal.

## Withdrawal of Cardiff Airport from the airspace change masterplan and the associated airspace change proposal (January 2024)

Since Iteration 2 of the masterplan was assessed by the co-sponsors and accepted by the CAA, ACOG have provided advice that Cardiff Airport no longer has the necessary funding to continue developing their airspace change proposal (ACP-2019-41). The co-sponsors considered ACOG's advice and following discussion with Cardiff, have concluded that the most appropriate and proportionate course of action, in this particular case, would be for Cardiff to withdraw from the coordinated masterplan.

ACOG's advice and our response are included below.

- **Appendix G:** ACOG's advice on the proposed withdrawal of Cardiff Airport from the masterplan
- **Appendix H:** CAA response to ACOG's advice on the proposed withdrawal of Cardiff Airport from the airspace change masterplan

The history of Cardiff's airspace change proposal (to be withdrawn) can be found on the CAA's Airspace Change Portal.

## Withdrawal of Exeter Airport from the airspace change masterplan (April 2025)

Since Iteration 2 of the masterplan was assessed by the co-sponsors and accepted by the CAA, ACOG have provided advice that Exeter Airport's ACP (ACP-2018-47) no longer requires co-ordination with other relevant masterplan ACPs, and can therefore proceed independently through the CAP1616 airspace change process.

The co-sponsors have accepted this advice, which is provided below along with our response.

- **Appendix I:** ACOG's advice on the proposed withdrawal of Exeter Airport from the masterplan
- **Appendix J:** CAA response to ACOG's advice on the proposed withdrawal of Exeter Airport from the airspace change masterplan

Exeter Airport will now be able to progress through the CAP 1616 process independently. Further information on this proposal can be found on the CAA's Airspace Change Portal.

## Withdrawal of Manston Airport from the airspace change masterplan (April 2025)

Since Iteration 2 of the masterplan was assessed by the co-sponsors and accepted by the CAA, ACOG have provided advice that Manston Airport's airspace change proposal (ACP-2018-75) no longer requires co-ordination with other relevant masterplan ACPs, and can therefore proceed independently through the CAP1616 airspace change process.

The co-sponsors have accepted this advice, which is provided below along with our response.

- **Appendix K:** ACOG's advice on the proposed withdrawal of Manston Airport from the masterplan
- **Appendix L:** CAA response to ACOG's advice on the proposed withdrawal of Manston Airport from the airspace change masterplan

The co-sponsors would like to emphasise that should Manston or NERL wish to make further changes to the airspace in the future, this would fall under the remit of the proposed UK Airspace Design Service (UKADS) which has recently been the subject of a public consultation.[1]

The history of Manston's airspace change proposal can be found on the CAA's Airspace Change Portal.



[1] https://www.caa.co.uk/CAP3029/

**APPENDIX A**

# ACOG's paper to the CAA on the 'cluster' approach

See next page.

**Airspace Change Organising Group**

# How the potential interdependencies between airspace change clusters can be identified and managed appropriately

Version 1.3 September 2022



## Background

1. As part of the development of Iteration 2 of the masterplan, which was accepted by the DfT and CAA as co-sponsors of airspace modernisation in January 2022, ACOG grouped the constituent Airspace Change Proposals (ACPs) into four regional clusters – Scotland, Northern England, the West and London & the Southeast. For each cluster, a NERL-led network ACP (above 7000ft.) will share interdependencies with several airport-led lower altitude airspace changes (below 7000ft) which are served by the terminal airspace above and must be developed in collaboration to optimise the overall airspace system.
2. The size and nature of the interdependencies between ACPs vary significantly by cluster. For example, the interdependencies between the airspace changes sponsored by Glasgow, Edinburgh, Aberdeen and NERL in the Scottish cluster are fewer and simpler than those between Heathrow, Gatwick, Stansted, Luton, London City, NERL and several other smaller ACPs in the London and Southeast cluster. The timelines for developing ACPs are generally shorter in the simpler clusters. The programme planned out in the masterplan (Iteration 2) is organised so that the simpler clusters can be deployed sooner, unlocking early benefits from airspace modernisation in specific regions of the UK.
3. Without a clustered approach to the development of the masterplan, all ACPs would need to be developed and deployed in the same timeframes, moving at the pace of the largest/slowest. ACOG would need to wait for the slowest moving ACP to generate the information required to develop Iteration 3 of the masterplan. This would delay large parts of the programme as only after the co-sponsors have accepted this iteration can ACP sponsors move to a Stage 3 gateway assessment.
4. As part of the co-sponsor assessment and CAA acceptance decision document related to Iteration 2 of the masterplan (CAP2312A), the co-sponsors accepted the proposed clustering approach to the development and deployment of interdependent ACPs. As part of the masterplan acceptance process, ACOG must demonstrate to the satisfaction of the co-sponsors that the potential interdependencies between the clusters can be identified and managed at a system-wide level. The goal is to ensure that changes proposed in one regional cluster do not constrain the options for airspace modernisation in the regional clusters that follow later, ensuring the optimisation of the system-wide design.

## The potential for interdependencies between clusters

5. Section 3.2 of the masterplan Iteration 2 identifies the areas of overlap between the interdependent airport-led ACPs (below 7000ft) and examines the potential for design conflicts to arise. The methodology for identifying interdependencies in Iteration 2 is relatively simplistic, reflecting the maturity of the information available from the constituent ACPs at the time the document was developed. Although simplistic, the methodology is sufficient to demonstrate that there are no interdependencies between the airport-led ACPs (below 7000ft) in different clusters. For example, the design choices made to upgrade the airspace below 7000ft. surrounding Bristol airport share interdependencies with those for Cardiff airport in the same regional cluster, but have no impact on the options for any airport-led ACPs in London, Northern England or Scotland.

6. Iteration 2 of the masterplan identified that the geographical dimensions of some of the NERL-led network ACPs in the regional clusters overlap with others. ACOG outlined that changes may be required in one cluster (above 7000ft.), to facilitate changes in another to ensure that the network is optimised at a system-wide level. It may also be possible for an interdependency to exist between an airport-led ACP (below 7000ft) in another cluster and a NERL-led network ACP that is planned to precede it. There was limited understanding of the options for the NERL-led network ACPs during the development of masterplan Iteration 2 because the proposals were still in their formative stages, having recently restarted following the Covid-19 pandemic.

7. ACOG's understanding of the size and nature of the interdependencies between clusters at a network level will develop during the production of Iteration 3 as the NERL-led ACPs progress. The level of detail available about airspace design options for the network upgrades in Scotland, Northern England and the West will be relatively mature in the early versions of Iteration 3. The network ACPs in the London and Southeast cluster are much larger and more complex, with longer timelines, meaning the interdependencies with the other clusters will not be fully understood until the later versions of Iteration 3.

8. The integration of design options will only occur once ACP sponsors have conducted a Full Options Appraisal and refined their design options (Step 3A of the CAP1616 process). At this point in the process it will be possible to understand the overall system-wide proposal for upgrading the network airspace above 7000ft. and examine the precise nature of any interdependencies between the clusters. Based on the current ACP development timelines ACOG expects to build this level of detail into the masterplan in Q4 2023.

## Approach to identifying and managing network interdependencies between clusters

9. The clustered approach means that the individual network ACPs will be developed and deployed in an iterative sequence, rather than all together. The first tranche of network changes will need to integrate efficiently with the existing airspace system. This is because when a cluster is deployed, changes will need to be compatible with the existing network airspace (outside the scope of the cluster). As later tranches are deployed and the existing system evolves, some aspects of the earlier ACPs may need to change again (above 7000ft. only) to optimise the performance of the network overall. To ensure the UK network remains efficient as the sequence of network upgrades is deployed and to manage potential interdependencies as the process of modernising airspace continues, NERL will include the network airspace to ensure optimised connectivity between clusters within the scope of the subsequent cluster ACP. For example, any changes required to ensure the optimisation between the cluster containing changes to the Manchester TMA and the cluster containing changes to the London TMA (which is currently due to be modernised in a later timeframe) would be contained within one of the NERL-led London Airspace Modernisation Programme (LAMP) deployment ACPs. In the unlikely event that this is not possible, NERL could commence a bespoke ACP with a specific Statement of Need to modify aspects of the network to ensure the overall system-wide design is optimised.

10. The network ACPs are CAP1616 Level 2 proposals that have no effect on the distribution of aircraft noise below 7000ft. Engagement and consultation with stakeholders for Level 2 ACPs is typically limited to aviation stakeholders, who are familiar with participating in the sequential evolution of the network design in pursuit of optimisation. For example, NERL has recent experience (through the Swanwick Airspace Improvement Project - SAIP) of making sequential airspace upgrades above 7000ft through iterative steps with some aspects of the earlier ACPs deploying changes that then change again to maintain the efficiency of the overall system and deliver long-term optimisation.

11. There remains a risk that airspace changes deployed at a network level in one cluster may interact with some of the network design options above 7000ft in a subsequent cluster. It is possible (although unlikely) that the management of these interactions leads to constraints on the design options of specific airport-led ACPs below 7000ft. ACOG will manage this risk carefully as part of the ACP interdependency analysis conducted to support successive versions of the masterplan Iteration 3.

12. The NERL-led network ACPs required for airspace modernisation are managed as a single programme of change which is currently outlined in NERL's NR23 business plan that was published in February 2022. The NERL internal governance arrangements established to oversee the programme are intended to ensure alignment across the network ACPs to optimise the overall system-wide design and deliver the expected benefits of modernisation. The governance arrangements include regular technical airspace design reviews that include the network ACPs and associated Queue and Capacity management projects that test the constituent changes are coherent, consistent and deliverable.

## Summary

13. NERL has committed that the interdependencies between regional clusters will be managed as part of the network ACPs to ensure the airspace remains efficient as the individual upgrades are deployed and the performance of the overall system is optimised in the long-run. This commitment will be achieved through the current network ACPs included in NERL's NR23 airspace programme. Iteration 2 of the masterplan, accepted by airspace modernisation co-sponsors demonstrates that there are no airport to airport interdependencies (below 7000ft) between regional clusters. Although it is acknowledged that design interdependencies may be likely between clusters at a network level, NERL have the appropriate governance and processes in place to mitigate any risk of the overall design for the UK becoming sub-optimal. It is ACOG's view that this risk is extremely low and as a result, the 'clustered' approach outlined in Iteration 2 of the masterplan should be progressed. The alternative is that all ACP sponsors are forced to wait for airports to progress with airspace change in the slowest moving cluster. This would lead to a considerable delay to airspace modernisation.

| | |
|---|---|
| **Sponsor Rep:**<br>[redacted] Manager Airspace Delivery – NERL<br>[redacted] | **Date: 5th September 2022** |
| **ACOG Rep:**<br>[redacted] Head of Masterplan Delivery<br>[redacted] | **Date: 5th September 2022** |

**APPENDIX B**

# CAA response to ACOG's paper on the 'cluster' approach

See next page.

**By Email**

[redacted]
Head of Masterplan Delivery
Airspace Change Organising Group
4000 Parkway, Whiteley
Fareham, Hampshire, PO15 7FL

23 September 2022



Dear [redacted]

**Airspace Change Masterplan – Interdependencies between clusters**

Thank you for ACOG's advice, received on 7th September, regarding how the potential interdependencies between airspace change clusters can be identified and managed appropriately.

As part of the co-sponsor assessment and CAA acceptance decision document related to Iteration 2 of the masterplan (CAP2312a), ACOG were required to demonstrate how potential interdependencies between the clusters can be identified and managed at a system-wide level. This was to ensure that changes proposed in one regional cluster would not constrain the options for airspace modernisation in the regional clusters that would follow later.

We have discussed this with the DfT, as co-sponsors of airspace modernisation, and have agreed that the information presented is sufficient to allow ACOG to continue with its proposed cluster approach when developing iteration 3 of the masterplan. As interdependencies between clusters are only likely to occur above 7,000ft it is understood that NERL will include the scope of any interdependencies in the relevant cluster. However, as noted in paragraph 9, should a bespoke airspace change proposal be required to manage interdependencies, the co-sponsors would expect NERL to identify and initiate this in a timely manner.

We will publish ACOG's advice and our response in due course.

Best Regards

S Lindsey

Stuart Lindsey

Head of Airspace Modernisation

**APPENDIX C**

# ACOG's advice to the CAA on the integration of a new Farnborough ACP

See next page.

**Airspace Change Organising Group**

# ACOG Advice to the CAA on the inclusion of the 2022 Farnborough Airport Airspace Change Proposal into the UK Airspace Change Masterplan

Version 1.0, September 2022



## Introduction

Farnborough Airport submitted a Statement of Need (SoN) in June 2022 to commence an Airspace Change Proposal (ACP) to optimise the arrival and departure routes that serve the operation between the ground and 7000ft. Farnborough intends for the ACP to be developed in line with the wider upgrades to the London Terminal (LTMA) airspace that are being progressed as part of the UK Airspace Change Masterplan (the masterplan). This paper sets out ACOG's advice to the Department for Transport and Civil Aviation Authority, in their role as co-sponsors of airspace modernisation, regarding the inclusion of the Farnborough ACP in the masterplan.

## ACOG Advice

ACOG considers the Farnborough ACP to be strategically important in the context of the UK Airspace Modernisation Strategy (AMS) objective to deliver quicker, quieter, cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace. The existing structure of the LTMA airspace creates constraints on the performance of the Farnborough operation and its integration with the wider route network. An ACP to address these constraints as part of the masterplan to fundamentally redesign the LTMA airspace is expected to create the capacity for efficient growth in the Farnborough operation and progressively improve environmental performance by reducing aircraft track miles and increasing the volume of continuous climb and descent operations (CCO and CDO). The inclusion of the Farnborough ACP in the masterplan will support the system-wide modernisation of the LTMA airspace by optimising the route interactions that Farnborough traffic shares with flights to and from the other interdependent airports. The Farnborough ACP also offers strategically important opportunities to further enhance the integration of commercial traffic with General Aviation operations by ensuring safe and ready access to the airspace.

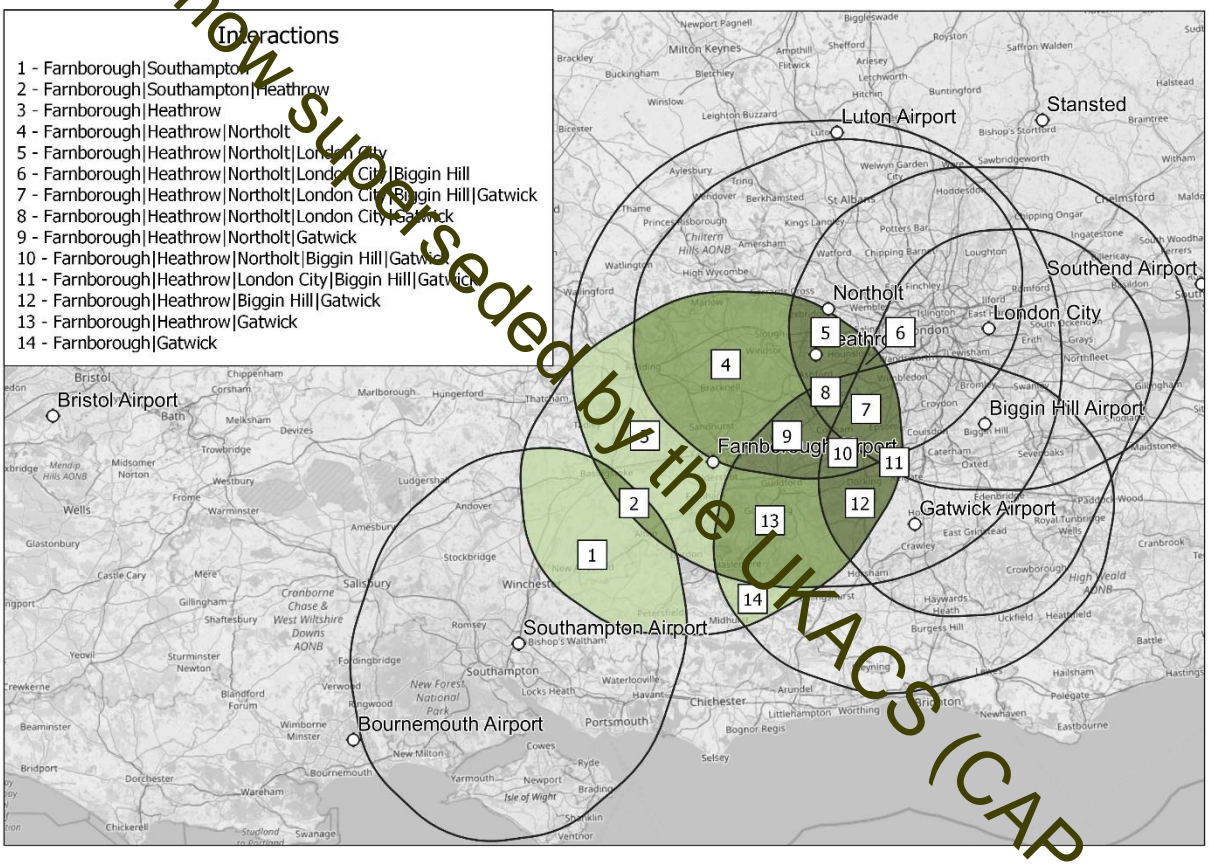
In February 2020, Farnborough Airport implemented a CAA-approved ACP into the existing LTMA airspace that included the introduction of Performance-based Navigation (PBN) routes and accompanying Controlled Airspace. Since the ACP was implemented, Farnborough has remained closely engaged in the development of the masterplan to understand the opportunities, impacts and interdependencies associated with system-wide airspace modernisation in the LTMA.

## Potential airspace design interdependencies - Farnborough

Iteration 2 of the masterplan was accepted by the co-sponsors of airspace modernisation in January 2022. As part of the development of the masterplan, ACOG is required to show the potential airspace design interdependencies between the constituent ACPs and demonstrate that solutions are available to address the design conflicts that may arise. The interdependency analysis was based on the information available from the constituent ACPs at the time the Masterplan Iteration 2 was produced (Q3/Q4 2021) and did not include any data from Farnborough Airport because the new ACP had yet to be initiated.

Farnborough Airport engaged with ACOG during the development of Iteration 2 to discuss commencing a new ACP and highlighted the importance of alignment and integration with the existing LTMA proposals. ACOG envisaged that it would be necessary for a new Farnborough ACP to be coordinated with several interdependent airports and NERL. Following the submission of the SoN for the new ACP, ACOG updated the interdependency analysis conducted for Masterplan Iteration 2 to incorporate Farnborough. The updated analysis demonstrates that at this stage of the process, Farnborough Airport has potential design interdependencies in 14 specific areas of LTMA airspace below 7000ft. and, therefore, must coordinate the development of its new proposal with six of the existing LTMA ACPs (Heathrow, Gatwick, London City, Southampton, RAF Northolt and Biggin Hill). In addition, Farnborough will need to ensure ongoing coordination with the NERL-led LAMP network ACPs above 7000ft.

Chart 1 illustrates the sections of airspace below 7000ft. that are potentially in scope for the new Farnborough ACP and the areas where design interdependencies may arise with other LTMA airport-led proposals.






**Integration of ACP development timelines**

ACOG has assessed the expected timeline for developing the new Farnborough ACP based on several planning assumptions and constraints used to create the current plans for delivering the LTMA clusters. This analysis shows that, due to the interdependency with the Heathrow and Gatwick ACPs in particular and the likely scale and complexity of integrating design options across the LTMA cluster, Farnborough can ‘catch up’ with the other proposals and align their development timeline with the interdependent ACPs ahead of the public consultation stage. As a result, there will be no delay to the overall airspace modernisation delivery timelines in the LTMA cluster by including the Farnborough ACP in the Programme.

ACOG recommends that the Farnborough ACP be treated consistently with the other constituent masterplan ACPs. As a result, the following regulatory processes should apply to ensure alignment with the broader Programme.

- **Step 1B: Airspace Design Principles**
  The following AMS Design Principle should be adopted as part of the Farnborough ACP in Stage 1.

  *Subject to the overriding design principle of maintaining a high standard of safety, the highest priority principle of this airspace change that cannot be discounted is that it accords with the CAA's published Airspace Modernisation Strategy (CAP 1711) and any current or future plans associated with it.*

- **Assessment of whether constituent ACPs align with the AMS and Iteration 2 of the masterplan**

  CAA Airspace Regulation has a requirement to assure that the Stage 2 Develop & Assess Gateway submissions for airspace changes under the masterplan programme are aligned with Iteration 2 of the masterplan. The seven indicators that have been defined and against which CAA Airspace Regulation will review the Stage 2 Develop & Assess Gateway submissions have been shared with Farnborough Airport.

As part of ACOG's iterative approach to developing the masterplan, ACOG will update and further refine the interdependency analysis for the LTMA cluster of ACPs during the development of Iteration 3. This analysis will incorporate additional information drawn from the development of the Farnborough Airport ACP, providing further clarity on the size and nature of the interdependencies with other proposals, the likelihood of design conflicts and the potential solutions.

**APPENDIX D**

# CAA response to ACOG's advice on the integration of a new Farnborough ACP

See next page.

**By Email**

[redacted]
Head of Masterplan Delivery
Airspace Change Organising Group
4000 Parkway, Whiteley
Fareham, Hampshire, PO15 7FL

23 September 2022



Dear [redacted]

**Airspace Change Masterplan – Farnborough Airport**

Thank you for ACOG's advice, received on 13th September, regarding the inclusion of a Farnborough airport airspace change proposal (ACP) in the masterplan development process.

We have discussed this with the DfT, as co-sponsors of airspace modernisation, and have agreed that the argument presented is logical and that including Farnborough will better enable them to realise benefits, particularly around the potential to climb higher, sooner (potentially releasing Controlled Airspace) as Gatwick and Heathrow procedures are modernised. Given the location of Farnborough and the potential interdependencies with other ACPs, this is more likely to occur as part of a coordinated masterplan.

The CAA Airspace Regulation Team will need to consider Farnborough's Statement of Need in this context. Should a Farnborough airport ACP be subsequently initiated it would need to be treated consistently with the other constituent masterplan ACPs. Farnborough would therefore be required to include a Design Principle in Stage 1 of the CAP1616 process as follows:

*Subject to the overriding design principle of maintaining a high standard of safety, the highest priority principle of this airspace change that cannot be discounted is that it accords with the CAA's published Airspace Modernisation Strategy (CAP 1711) and any current or future plans associated with it.*

As with other constituent ACPs, the CAA Airspace Regulation Team will also assess whether the proposal aligns with the AMS and the masterplan at future CAP1616 gateway assessments.

We will publish ACOG's advice and our response in due course.

Best Regards

Stuart Lindsey

Head of Airspace Modernisation

**APPENDIX E**

# ACOG's advice on the proposed withdrawal of Aberdeen Airport from the masterplan

See next page.

**Airspace Change Organising Group**

# ACOG Advice to the Co-sponsors (CAA and DfT) on the proposed withdrawal of Aberdeen Airport from the UK Airspace Modernisation Masterplan.

## Proposal

ACOG propose that Aberdeen airport withdraw from the Masterplan and develop their airspace change plans, which will contribute to the Airspace Modernisation Strategy (AMS), directly through the CAP1616 process. Aberdeen's lack of interactions with Edinburgh and Glasgow does not require oversight and coordination through the Masterplan. We believe withdrawal removes any potential risk of delay caused by progressing in step with other ScTMA airports and enables Aberdeen to continue at its own pace, enabling benefits for air passengers and the environment to be delivered without hindrance from external factors. The reasoning behind this proposal is set out below.

## Background

The Scottish Masterplan is currently composed of 3 airports: Edinburgh, Glasgow and Aberdeen.

Aberdeen airport is located approximately 95 miles to the north-east of Edinburgh airport in an area of relatively low traffic volumes and with modest airspace complexity.

Aberdeen's inclusion within the cluster was originally determined by NERL to facilitate coordination of airspace changes needed to upgrade the network in the low to medium level airspace, including NERL led network ACP's and airport led lower altitude ACPs where collaboration between individual airports to produce optimum route design options within shared airspace was thought to be needed.

Since their appointment to the Masterplan, a number of changes have occurred whereby Aberdeen no longer satisfies the requirements for inclusion within the programme coordinated through the Masterplan and further, that their continued participation may be adding undue complexity and potential delay in delivering benefit towards the strategic goals of the AMS. With the consent of all parties involved, we are minded to propose their withdrawal from the Masterplan for the following reasons;

- **Network Coordination**

  In 2021, NERL sponsored ACP-2021-020 proposing alterations to Airway P18 that would require changes below 7000ft, necessitating coordination with Aberdeen Airport and hence prompting their inclusion in the Masterplan. NERL subsequently withdrew their ACP due to increased costs and risks associated with the requirement to undertake a Level 1 consultation on a lightly used conditional route delivering small-scale improvement, removing a key requirement for inclusion in the Masterplan. It is understood no network changes are needed to facilitate Aberdeen's ACP and no interactions with Glasgow and Edinburgh proposals.

- **Airspace Route Interdependencies**

  Aberdeen airport is located 95 miles N of Edinburgh airport, 125 miles NE of Glasgow Airport and is physically isolated from these or any other airports of appreciable size. Traffic volumes are low with a high proportion consisting of East / West overwater flights to N Sea oil rigs. Current and anticipated operations at Aberdeen require no interaction between the approach and departure routes of either Edinburgh or Glasgow, removing this requirement for inclusion in the Masterplan.

- **Strategic Importance**

  An ACP can be considered of strategic importance if it will make a significant contribution towards achieving the vision of the Airspace Modernisation Strategy. Aberdeen's ACP-2019-

82 (currently the sole ACP they are progressing) will introduce PBN procedures with associated adjustment to holds and remove reliance on ground-based navaids. Although this is likely to contribute towards AMS goals, ACOG assert that this can be achieved by following the CAP1616 process and will still deliver benefit outside the Masterplan.

ACOG have discussed the changed circumstances with NERL and Aberdeen Airport management and both parties support the proposal. We therefore recommend Aberdeen withdraw from the Masterplan programme and progress their ACP through the normal CAP1616 process.

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|---|---|
| [redacted] ACOG Airspace Change Technical Analyst | 3 May 2023 |

**APPENDIX F**

# CAA response to ACOG's advice on the proposed withdrawal of Aberdeen Airport from the masterplan

See next page.

**By Email**

[redacted]
Head of Masterplan Delivery
Airspace Change Organising Group
4000 Parkway, Whiteley,
Fareham, Hampshire PO15 7FL

8th September 2023



Dear [redacted]

**RE: ACOG Advice to the Co-sponsors (CAA and DfT) on the proposed withdrawal of Aberdeen Airport from the UK Airspace Modernisation Masterplan**

Thank you for ACOG's advice, received 3rd May 2023, on the proposed withdrawal of Aberdeen's FASI Airspace Change Proposal (ACP-2019-82) from the airspace change masterplan.

We understand from the advice that since Aberdeen's proposal was initiated, changes that NERL had proposed to the network (above 7,000 ft) that would have required coordination with Aberdeen are no longer being progressed. This means there are no interdependencies with other ACPs in the Scottish cluster. The scope of the remaining ACP is therefore, in ACOG's view, not of strategic importance to airspace modernisation in the UK, but it continues to make a valuable contribution to the realisation of the Airspace Modernisation Strategy (AMS). The co-sponsors have considered this advice and have **accepted** the rationale for removing Aberdeen from the coordinated masterplanning process.

Given the uncertainties around the timing of Iteration 3, we will publish ACOG's advice and our response in an updated addendum to Iteration 2 of the masterplan (CAP2312A Addendum). For the purposes of CAP1616 gateway and resource planning, we accept from here on that the Aberdeen ACP will now follow an independent timeline. This means that submission of materials for the Stage 3 gateway will **not** be conditional on Iteration 3 of the masterplan being assessed and accepted. Any further timeline change requests should be communicated between the sponsor (Aberdeen) and CAA Airspace Regulation.

We also note that Aberdeen have agreed to provide regular updates to the Department for Transport on their ongoing progress so that the benefits achieved from them modernising their airspace can be captured and communicated as part of the wider programme.

Kind regards,

Stuart Lindsey

Head of Airspace Modernisation

**APPENDIX G**

# ACOG's advice on the proposed withdrawal of Cardiff Airport from the masterplan

See next page.

**Airspace Change Organising Group**

# ACOG Advice to the Co-sponsors (CAA and DfT) on the participation of Cardiff Airport in the UK Airspace Change Masterplan

V0.1 January 2024



## The issue

In February 2023, Cardiff informed ACOG that they were not in a position to continue development of their ACP. As one of the three airports making up the West Terminal Airspace Cluster of the Masterplan Programme ("the Programme"), along with Bristol and Exeter, this raised the question of Cardiff's future participation in the Masterplan Programme; how Cardiff's potential withdrawal might impact Bristol and Exeter's ACP now and in the future; whether there is a wider network impact beyond Bristol and Exeter; and the materiality of those impacts.

This paper is a summary of ACOG's advice to the CAA and DfT (the "Co-Sponsors") on the options for Cardiff and its future participation in the Programme. The paper has been written to exclude any confidentially sensitive information.

## Option 1 - Cardiff is grant-funded to continue its ACP.

Grant funding Cardiff's ACP would be inconsistent with the "user-pays" principle applied across the Programme, and has therefore not been considered further.

## Option 2 - Cardiff is compelled to continue its ACP.

Under this option, Cardiff would be required to continue in the Programme through the use of the Government's powers to direct progression of an ACP (Part 1, Section 2 of the Air Traffic Management and Unmanned Aircraft Act 2021).

## Option 3a - Cardiff withdraws from the Masterplan programme.

Cardiff's withdrawal potentially affects the following four areas;

### a. Route Design Interdependencies

Cardiff shares a degree of airspace design interdependency with Bristol. Analysis carried out by NERL and Bristol has shown a level of interaction and that Bristol's options would be constrained by the withdrawal of Cardiff's ACP. However, an impact assessment has identified such constraint is likely to be marginal and can be managed tactically.

There is minor potential for extant Cardiff departures to the south to interact with potential new Exeter departure routes to the north. However, vertical separation is likely to be maintained in the majority of cases, resulting in no interactions below 7,000 ft. For the purposes of this paper, Exeter can be excluded from further impact assessment.

### b. Regulatory impact on CAP 1616 if Bristol continues without Cardiff.

NERL and Bristol have both carried out an assessment of the impact of Cardiff exiting from the Programme on their current ACPs. ACOG recommend that Bristol engage with the CAA's Airspace Regulation team to get the views of the regulator on the level of revision, if any, that may be required should Cardiff exit from the Programme..

### c. Cardiff's RNAV obligations

Cardiff has been granted an Area Navigation (RNAV) substitution exemption by the CAA which has allowed them to decommission their ground-based navigational VHF Omnidirectional Range (VOR) beacon and rely on the flight management system's RNAV function. ACOG understands part of the rationale for granting this exemption was that Cardiff would bring forward permanent Performance Based Navigation (PBN) routings through their ACP that would deliver longer-term compliance with the Airspace Modernisation Strategy. Following the withdrawal of Cardiff's ACP, it would be reasonable to expect Cardiff to present a clear contingency plan to ensure compliance within their current exemption period.

### d. AMS Considerations

Should the current airspace arrangements within the Cardiff operation remain unchanged, then the Bristol Airport ACP options would likely be constrained by the extant Cardiff route structure and the absolute realisation of benefits compromised to a degree.

## Option 3b - Cardiff withdraw but a subset of their ACP relating to deconfliction with Bristol is taken up by another sponsor.

In this option, Cardiff exit the Programme and no longer sponsor their ACP change. However, in order to deconflict the operations of Cardiff and Bristol, a sub-set of Cardiff's ACP ("the Cardiff Sub-set") is taken forward by Bristol using the principle that anyone can sponsor an ACP change.

It is assumed here that Bristol would need to fund the additional costs involved with taking forward the Cardiff Sub-set (route and option design, public and stakeholder consultation, including Cardiff, integration with Bristol, etc.), but other funding options could be considered. One consideration is the degree to which Bristol would be able to rely on the stage 1 and 2 work already completed by Cardiff in developing the Cardiff Sub-set. This would have to be considered further.

## Technical analysis

ACOG conducted high level technical analysis to support the Options shown above. This looked into the degree of route interdependency between Cardiff and Bristol and the relative benefits of the different future options. The analysis was carried out using a Route Separation Workshop (RSW) to assess the likely degree of interdependence and traffic distribution analysis looking at the volume and distribution of respective traffic flows.

## Preliminary conclusions

On the basis of current information available, ACOG conclude the following:

- Bristol, Exeter and NERL are keen that any decision on the future of Cardiff should be made without further lengthy delay in order to enable them to proceed with their respective ACPs.
- Due to the nature of the interdependencies between Bristol and Cardiff (and to a lesser extent Exeter), keeping Cardiff in the programme (Options 1 or 2) would deliver the greatest benefits for the Programme in terms of the optimisation and systemisation of the West Terminal Airspace Cluster.
- Accepting the withdrawal of Cardiff (Option 3a) will allow Bristol and Exeter to take forward their ACP's, unlocking improvements in the West Terminal Airspace cluster. It is therefore prudent they are able to continue to develop their ACPs as part of the Programme.

- ACOG's technical analysis suggested that there would be some reduction in benefits from the withdrawal of Cardiff, but these would be relatively modest, such that Options 1 and 2 may be considered disproportionate.

| | |
|---|---|
| [redacted] Head of Masterplan Delivery, ACOG | Date: 03/01/24 |

**APPENDIX H**

# CAA response to ACOG's advice on the proposed withdrawal of Cardiff Airport from the masterplan

See next page.

**By Email**

20th October 2023

[redacted]
Head of Masterplan Delivery
Airspace Change Organising Group
4000 Parkway, Whiteley,
Fareham, Hampshire PO15 7FL

Dear [redacted]

**RE: ACOG Advice to the Co-sponsors (CAA and DfT) on the participation of Cardiff Airport in the UK Airspace Change Masterplan**

Thank you for ACOG's advice, received in February and March 2023, regarding the funding issues surrounding Cardiff's FASI Airspace Change Proposal (ACP-2019-41), which is currently included in the scope of the airspace change masterplan. The co-sponsors have explored whether funding could be made available from alternative sources. We have also discussed the issues and consequences extensively with the relevant sponsors and stakeholders over recent months.

In light of the continued lack of available funding for Cardiff's ACP, the co-sponsors have considered the ongoing strategic importance of Cardiff remaining in, versus withdrawing from, the masterplan programme. Whilst it would be preferrable for Cardiff to remain in the masterplan programme, the Secretary of State is not minded, at this juncture, to use the direction-making powers under Part 1 of the Air Traffic Management and Unmanned Aircraft Act 2021 ("the Act"). Furthermore, whilst there are interactions between Cardiff and Bristol Airport's ACPs, Bristol Airport believe that there is still the opportunity to progress their ACP without Cardiff in order to achieve the majority of previously defined objectives at both a local airport level and as part of the wider Airspace Modernisation Strategy (AMS).

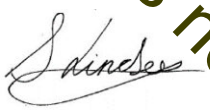
Following discussion with Cardiff, the co-sponsors have therefore concluded that the most appropriate and proportionate course of action, in this particular case, would be for Cardiff to withdraw from the coordinated masterplan. This would allow modernisation in this region to progress without further delay.

For the avoidance of doubt this does not mean that for other sponsors within the FASI programme, the Government will not use powers available to it within the Act. The extent to which the ACP would assist in the delivery of the CAA's AMS, the complexity of the ACP and the cost of progressing it, as well as other relevant factors, will all be taken into consideration on a case-by-case basis.

We will, in due course, publish ACOG's advice and our response in an updated addendum to Iteration 2 of the masterplan (CAP 2312A Addendum). For the purposes of CAP1616 gateways and resource planning, the CAA will assume that Cardiff ACP (ACP-2019-41) will be withdrawn. However, this will need to be confirmed by Cardiff Airport to the CAA account manager and on the CAA's Airspace Change Portal. This will ensure that relevant stakeholders are aware that Cardiff are no longer in a position to proceed. The co-sponsors have discussed with Cardiff Airport that they will need to address the removal of the Brecon DVOR on Cardiff operations in the future.



Kind regards,



**Stuart Lindsey**
**Head of Airspace Modernisation**

Continued (2 of 2 pages)

**APPENDIX I**

# ACOG's advice on the proposed withdrawal of Exeter Airport from the masterplan

See next page.

Airspace Change Organising Group

# ACOG Advice to the CAA / DfT (Issue 2)

**Subject:**

Options for Continuation of the Exeter Airport's ACP in the AMS



## Summary


- **This ACOG paper recommends and provides justification for removal of the Exeter Airport ACP from the AMS programme** rather than setting up Exeter Airport and NERL as a separate subcluster/deployment.
- Previous papers have concluded that the Exeter Airport and Bristol Airport ACPs of the WTMA cluster should be split.
- Exeter Airport's ACP is not significant at a national level, and was initiated to address a local safety issue which continues to be the main focus and justification.
- Exeter Airport's ACP being subsumed into the AMS programme was as a result of interdependencies with Cardiff, rather than strategic significance in its own right.
- There is no justification for Exeter Airport remaining within the programme because:
  - the removal of Cardiff breaks the link with the strategic benefits in the Bristol area
  - the changes required by NERL to accommodate the Exeter Airport ACP are not significant, and can be undertaken with NERL as a stakeholder to the Exeter Airport ACP, as per a normal (non-AMS) Airport led ACP, rather than as an AMS partner.
- NERL would not need to split LD1.2 ACP, its scope would be reduced.
- This benefits Exeter Airport who can progress with their ACP without coordination (note that the Aberdeen ACP splitting off, and running ahead of, the ScTMA FASI programme provides the model for Exeter Airport as a separate – non-AMS – ACP).


## Strategic importance of the Exeter ACP

- To be of strategic importance it is assumed that an ACP must either:
  1. Directly provide benefits that register at a national level; or
  2. Enable the changes in other ACPs that register at a national level
- Regarding point 1; this is largely dictated by the scale of the operation in terms of movements. In isolation, Exeter Airport's potential benefits from their ACP are not of a scale to be considered strategically important (in 2023 movement numbers were <1% of UK totals, of which c. 0.6% were local and aero-club flights; passenger numbers at Exeter Airport are <0.2% of UK totals).
- Regarding point 2; this is primarily determined by proximity to neighbouring airports which have a significant scale of operation.
- Exeter Airport operations were originally assessed to be part of the AMS 'West' cluster including Cardiff and Bristol Airports. Their inclusion was a marginal decision based on minor interactions between Cardiff Airport and Exeter Airport below 7,000ft over the Bristol Channel. There is no interaction of significance between Exeter Airport and Bristol.
- Cardiff has since ceased their ACP and left the AMS, and there are no interactions.
- Point 2 can also be affected by the scale of changes proposed.
- Exeter Airport's Statement of Need (SoN) highlighted the need for controlled airspace (CAS) to provide a known environment for their traffic flows, which currently have to pass through Class G before joining the ATC routes system.

- Subsequent work in Stage 1 has highlighted *potential* benefits of adding SIDs and transitions to their proposal and these were included in the recent failed Stage 2 submission. However, ongoing engagement has indicated that the additional controlled airspace required to protect SIDs and transitions would have a disproportionate impact on military and GA, and is likely be strongly opposed.
- As a result, there is no longer a rationale for Exeter Airport to be progressed as part of the West Cluster. The ACP is essentially a standard, stand-alone ACP.
- Considering the continuation of the NERL ACP for WTMA which currently includes the interface for Exeter Airport:
    - NERL's operation delivers traffic to, and receives traffic from, the Exeter Airport operation. The Exeter Airport ACP is not seeking any significant change to how/where their flights join/leave the current ATC route network.
    - NERL do not have aspirations to redesign the ATS interface with Exeter Airport
    - The scope of the Exeter Airport ACP does not require significant changes to the NERL operation (i.e. it involves minimal training) and so their deployment in isolation is not considered a 'major' programme for NERL. As such it should be possible to slot in alongside an appropriate AMS deployment – it does not need separate consideration in the AMS programme.



## Strategic importance of the Bristol Airport and NERL ACPs

- The removal of both Exeter Airport and Cardiff from the West cluster will reduce the benefits available. However, as these airports are significantly smaller than Bristol Airport in terms of movements, the bulk of the benefits will still be achieved.
- Bristol Airport plan significant growth which will need airspace change to be accommodated without undue delay and environmental inefficiency.
- NERL have highlighted that their element of the West cluster is considered a major deployment that which will benefit from being coordinated through the AMS programme.
- For the above reasons Bristol Airport and NERL support the continuation of the West cluster as part of the AMS, regardless of how Exeter Airport's ACP progresses.

## ACOG Conclusion & Recommendation

- Following the removal of the Cardiff Airport ACP from the West Cluster, Exeter Airport's ACP no longer meets the criteria for a strategically important ACP, as there are no interdependencies with Bristol Airport and no interdependencies with NERL that could not be addressed through a standard ACP process.
- ACOG consider that the West Cluster would continue to meet the strategically important criterion after the change because Exeter's traffic levels (and therefore associated benefits) contribute only a small proportion of the regional total.
- Therefore, it is recommended that the Exeter ACP is removed from the AMS programme.

| Prepared by | Title | Date |
|---|---|---|
| [redacted] | Masterplan Integration Manager, ACOG | 26/11/2024 |

**APPENDIX J**

# CAA response to ACOG's advice on the proposed withdrawal of Exeter Airport from the masterplan

See next page.

**By Email**

14th February 2025

[redacted]
Head of Masterplan Delivery
Airspace Change Organising Group
4000 Parkway, Whiteley,
Fareham, Hampshire PO15 7FL

Dear [redacted]

**RE: ACOG Advice to the Co-sponsors (CAA and DfT) on the participation of Exeter Airport in the UK Airspace Change Masterplan**

Thank you for ACOG's advice, received in November 2024, regarding Exeter Airport's FASI Airspace Change Proposal (ACP-2018-47). which is currently included in the scope of the airspace change masterplan.

We understand from the advice that Exeter's proposal was initiated to address a local issue, and originally there were some relatively minor interdependencies with Cardiff Airport's ACP. Cardiff have now withdrawn their ACP which means there are no interdependencies with other airports in the West cluster. The scope of Exeter's ACP is therefore, in ACOG's view, not of strategic importance to airspace modernisation in the UK, but it continues to make a valuable contribution to the realisation of the Airspace Modernisation Strategy (AMS). The co-sponsors have considered this advice and have **accepted** the rationale for removing Exeter from the coordinated masterplanning process.

Following Exeter's planned engagement and CAP1616 Stage 3 gateway submission, we will in due course publish ACOG's advice and our response in an updated addendum to Iteration 2 of the masterplan (CAP2312A Addendum). For the purposes of CAP1616 gateway and resource planning, we accept that from here on the Exeter ACP will now follow an independent timeline. This means that submission of materials for the Stage 3 gateway will not be conditional on Iteration 3 of the masterplan being assessed and accepted. Any further timeline change requests should be communicated between the sponsor (Exeter) and CAA Airspace Regulation.

Kind regards,

**Stuart Lindsey**
**Head of Airspace Modernisation**

**Civil Aviation Authority**
Head Office, Aviation House, Beehive Ring Road, Crawley, West Sussex, RH6 0YR
London Office: CAA, 5th Floor, Westferry House, 11 Westferry Circus, Canary Wharf, London, E14 4HD
[redacted]

**APPENDIX K**

# ACOG's advice on the proposed withdrawal of Manston Airport from the masterplan

See next page.

Airspace Change Organising Group

# ACOG Advice to the CAA & DfT

**Subject: Withdrawal of Manston Airport from the UK Airspace Change Masterplan**



## Summary

Although not currently an active airport, Manston was originally included within the LTMA cluster of the Masterplan as the route designs being considered might constrain designs of other LTMA airports. After a review of the ACP submitted by Manston's owners, RiverOak Strategic Partners (RSP), NERL's assessment is the proposal does not create any technical interdependencies with other LTMA airports. This allows Manston to progress their ACP independently outside the Masterplan, bringing forward the delivery of economic benefits and spreading the demand on scarce technical resource. **Therefore, ACOG's recommendation is that Manston can leave the Masterplan and progress their ACP independently, without any loss of benefit or negative impacts to any other LTMA airports.**

## Background


Conceived as an RAF airfield, Manston is located adjacent to the coast near Margate, Kent, with a single 2,748m runway, 10/28. Following closure in 2014, an investment company, RiverOak Strategic Partners (RSP) purchased the airfield. In 2022, a Development Consent Order (DCO) was granted, allowing redevelopment of the airport as an airfreight hub. A Judicial Review and subsequent appeals against the DCO have been dismissed[1], allowing the development necessary to reinstate the airport to proceed. Once fully operational, Manston is expected to handle over 1 million tonnes of freight and 10,000 ATMs annually, providing significant benefit to the UK economy. RSP are now undertaking the detailed work necessary prior to the planned reopening of the airport, expected in 2028. In parallel, RSP, acting through their aviation consultant, Osprey Consulting Services Limited (OCSL), have pursued **ACP-2018-075** (currently Stage 3: *Consultation & Engagement Preparation*, of the CAA's CAP1616 Airspace Change Process) which intended, as per the below ACP 2018-075 Statement of Need (SoN):

*"The Masterplan submitted with the Development Consent Order (DCO) application describes an integrated aviation services hub with an air freight centre, at Manston Airport, capable of handling in excess of 10,000 air freight Air Traffic Movements (ATMs) annually. Should the DCO be granted, there will be a need to introduce appropriate flight procedures and airspace to enable safe operations. The procedures will need to comply with Resolution 36/23 ratified by the 36th International Civil Aviation Organisation (ICAO) General Assembly and the UK Future Airspace Strategy (FAS) published by the Civil Aviation Authority (CAA). This involves the introduction of routes and procedures compliant with Performance Based Navigation (PBN) criteria, a State requirement for 2024.*

[1] Support Judicial Review of SECOND Manston Airport DCO

*Future Airspace Strategy Implementation (South) (FASI(S)) and London Airspace Management Programme (LAMP) require UK southeast airports to implement PBN in order that the complex interactions between the region's airports are fully considered. The aerodrome sits below Controlled Airspace (CAS), the eastern extensions of the London Terminal Manoeuvring Area (TMA) which contains busy routes into and out of inter alia Heathrow, Gatwick, and London City (to/from The Continent). Routes into and out of the future Manston Airport will need to integrate with these London TMA routes at some distance from the Airport.*

*The airspace solution will seek to provide an appropriate degree of protection to enable the safe management of the Airport associated ATMs in the critical stages of flight; take-off and landing."*



## Manston's position

Having invested considerable effort to reach agreement and receive approval for their DCO, RSP now seek to progress their ACP which is required to allow the re-opening of Manston.

- Currently, the ACP is included within the FASI (LTMA) programme and is therefore subject to the Masterplan process.
- RSP are aware that the scope of the ACP no longer includes defined SIDS/STARS. Given that the scope has changed, OCSL are investigating whether the ACP can progress independently outside the Masterplan process.
- OCSL have provided background information on the current content of their ACP[2].
- In summary, this information explains that the ACP no longer has any interdependencies with other LTMA airports and as such could be progressed outside the Masterplan.

## NERL Technical Analysis

NERL have conducted a review of Manston's proposal to progress the ACP outside the Masterplan. Their assessment, which provides some context around the reopening of Manston airport from a NERL perspective both ahead of, and alongside, the LTMA FASI changes, is documented in Appendix B[3]. In summary:

- **NERL does not believe Manston's ACP needs to be linked to FASI and coordinated through the Masterplan to facilitate the re-opening of Manston.**
- NERL is required, and is committed to, responding and reacting to all ACPs which interact with the NERL operation and airspace.
- NERL will continue to do so, in support of Manston reopening, regardless of FASI status and will continue to work closely with Manston to develop the required detailed understanding surrounding any reopening scenario.

## Feedback from London Southend Airport (LSA)

At a meeting with the DfT in January 2025, London Southend Airport (LSA) raised a concern that Manston leaving the Masterplan could impact the progress of their ACP. LSA stated that, although they have no operational concerns, Masterplan Iteration 2 contains a schematic diagram indicating a potential interdependency between Manston and LSA, suggesting a potential impact to their plans (see Appendix C).

[2] Appendix A: Background information on the changes to Manston's ACP provided by Osprey.
[3] Appendix B: NERL considerations around potential independence of Manston ACP from AMS Masterplan.

In recent discussion between ACOG and LSA, this concern was clarified, highlighting that, because of the immature state of ACP airspace designs at the time iteration 2 was written, interdependency diagrams were drafted on the basis of assumed instead of actual approach and departure profiles, and Manston was not seeking routes or controlled airspace that would conflict with LSA's proposals. Consequently, no interdependency exists that cannot be resolved outside the Masterplan, within the standard CAA CAP1616 process.

## Summary

ACOG have reviewed RSP's proposal to progress Manston's ACP outside the Masterplan and sought the advice of NERL on the potential impacts of this course of action. In summary;

- The ACP has no interdependencies with other LTMA airports, and the technical risk is negligible.
- The challenges noted by NERL that need to be addressed in order to incorporate Manston into the network, such as safety assurance, development of procedures, etc, can be accomplished by NERL and Manston outside of the Masterplan.
- Accelerating the development of Manston as a freight airport is consistent with the Government's programme for growth and delivering economic benefit.
- In terms of resource scheduling, the proposal is likely to enable NERL to deploy resource needed for technical integration to the network ahead of the wider LTMA development, spreading workload peaks and providing an 'early win.'

## Recommendation

Therefore, ACOG's recommendation is that Manston can leave the Masterplan and progress their ACP independently, without any loss of benefit or negative impacts to any other LTMA airports.

To bring Manston's ACP into line with this high level recommendation, we would suggest that:

- The title of Manston's ACP[4] (ACP 2018-75) should be updated to reflect the position that their ACP will now continue outside the AMS Masterplan.

- The CAA should review the ACP's published Statement of Need (SoN), originally submitted in May 2019, to ensure they reflect the ACP's updated intentions, as outlined in Appendix A.

We stand ready to discuss if helpful.

| Prepared by | Title | Date |
|---|---|---|
| [redacted] | *ATC Technical Coordinator* | 5 February 2025 |



[4] Current ACP 2018-75 title: '*Manston Airport (FASI South Programme)*'

## Appendix A: Background information on the changes to Manston's ACP (provided by Osprey Consulting Services Limited)

Our client (RiverOak Strategic Partners), the sponsor of the ACP, has approval to develop the airport and is keen to re-commence work on the ACP to ensure that the necessary procedures are in place when the airport re-opens. Although the ACP forms part of the FASI (London TMA) programme and is therefore subject to the Masterplan, we would like to progress the ACP (including getting approval for a Stage 3 Gateway assessment) as soon as possible. Please see the following information for background on the progress so far:



- This ACP is unique since we are looking to introduce procedures at an airport that currently doesn't exist. It was agreed with the CAA back in 2018 that the ACP could be started even though approval for the airport had not been granted at that time. The ACP became part of the FASI programme, with Manston Airport being represented by Osprey at FASI programme meetings.
- The Statement of Need (submitted in April 2019) stated the requirement to 'introduce appropriate flight procedures and airspace to enable safe operations'. During early stages of the CAP 1616 process, the solutions considered were Standard Instrument Departures (SID), Approach Transition Procedures, Instrument Approach Procedures (IAP) and an ATZ (CAS was discounted as it was considered disproportionate considering the expected movements, especially in the first ten years of operations).
- Following discussions with the CAA at the Stage 2 gateway assessments, clarification was sought on the interpretation of the CAA Containment Policy and as a result, it was considered that the implementation of SIDs and Transition procedures was not viable. As a result, the departure procedures being considered will be omnidirectional departures and arriving aircraft will be tactically managed by ATC vectoring, both in Class G airspace outside of the London TMA and CTA airspace in the vicinity of Manston.
- As a result, the only procedures being taken forward to Stage 3 for consultation will be an omnidirectional departure from either end of the runway and two IAPs (RNAV and ILS) at either end of the runway. These procedures will all remain in Class G airspace.
- Although this ACP has been part of the FASI programme throughout its development, it is now considered that the procedures being considered would have no interactions with the procedures being developed at other FASI airports, specifically Southend, as these will all be contained in CAS. Aircraft departing Manston Airport will need to join the en-route structure, but this will be managed by ATC as with other UK airports that currently have no connection to the airways structure (e.g. Exeter, Norwich and Inverness).
- There will be no cumulative environmental impacts with other airports; all Manston options aim to keep aircraft over the sea as much as possible.

At this stage, we do not fully understand the implications of the UKADS on the Manston Airport ACP and in particular any delays to the project as a result of remaining within the FASI programme.

## Appendix B: NERL considerations around potential independence of Manston ACP from AMS Masterplan

This document sets out NERL's considerations on the removal of Manston from the AMS Masterplan. These are to provide guidance to ACOG to then provide advice to the AMS co-sponsors which could allow the ACP for Manston (ACP-2018-75) to progress independently of the NERL FASI ACPs (ACP-2020-043, ACP-2020-044, ACP-2020-045).

Note, where this document refers to Manston this refers to dialogue with Osprey as technical consultants appointed by RiverOak Strategic Partners (site owner and ACP sponsor).

Key to these considerations is the assumption that Manston will operate, once reopened, broadly as previously (up to 2014), in line with their Stage 2 Options Development, without contiguous controlled airspace (CAS) adjoining the network and without SIDs nor any free flow type arrangement for departures.

Due to the slow progression rate of the LTMA linked ACPs (other than London Airspace South) which now awaits a holistic design to be driven through a UK Airspace Design Service, it is possible that Manston's reopening could occur ahead of any FASI deployments in the same area.

These considerations are a summary of the Airspace and Future Operations airspace team's subject matter expert views – it is not a full NATS wide impact assessment.

### Manston reopening within current airspace operations

It is important to note that since Manston airport closed in 2014 the airspace around Manston has evolved significantly and so a complete "like for like" reopening with 2014 procedures is not possible.

The most significant change, in 2016, was the deployment of LAMP 1a and the associated new holds and arrival structures for London City and Biggin Hill airports. This change included the creation of a new sector (TC GODLU) which now overlies the Manston area.

However, given the assumptions listed above around new CAS, a tactical arrival release and departure clearance procedure, like that operated pre-2014, would still be possible and therefore is the assumed way of operating the interface between NERL and Manston Approach.

### Arrivals

The introduction of STARs to the London City/Biggin Hill holds at GODLU and LAKCO through LAMP1a offers the opportunity to also use these STARS for Manston traffic, much as Northolt traffic flight plans via a Heathrow arrival STAR today. This gives an expectation of vertical profile, the potential for contingency holding, and reduces coordination between en-route sectors for arriving traffic through use of standing agreements. Traffic would then be cleared to leave CAS by descent under an appropriate Air Traffic Service Outside Controlled Airspace (ATSOCAS), with release at a specific point as tactically agreed between the relevant en-route sector and Manston Approach.

Arrivals from the east could be transferred directly from Brussels ACC to Manston to facilitate a continuous descent for runway 28. NERL would need to be the conduit for the flow of flight data information to ensure a full traffic picture is known.

### Departures

It is assumed that, as operated previously, and as stated in Manston's CAP1616 Stage 2 Options development, the alternative to introducing SIDs would be to promulgate omnidirectional departures for IFR departing aircraft in Class G airspace. These departures could then be offered a tactical joining

clearance by the relevant en route sector at a level and position appropriate to the prevailing traffic situation at the time.

Whilst departures in any direction could in theory be facilitated, direct departures to the West or South West are likely to continue to be challenging to accommodate due to other LTMA traffic and therefore the right turn options from Runway 28 which remain over the sea are more likely to be offered as a joining option, regardless of onward direction, as these allow height to be gained before heading to the West or South West once in the network. It is assumed that these options will be preferable from a noise perspective too.

As previously, given the proximity of the FIR boundary to the East, it is likely a limited radar service, would be offered by NERL to departures to the east from runway 10 with Brussels ACC being potential first radar control contact. NERL would be the conduit for the flow of flight data information including pre noting of departures to adjacent ANSPs as required.



### Overall

It is important to state that the reopening of Manston, regardless of when it happens, will be a major change for the NERL operation and an agreed timeline will have to be drawn up to facilitate this.

Factors such as safety assurance activities including real time simulation, development of ATC procedures including letters of agreements with other ANSPs, adaption of operational systems and ATC training (to name a few) will all need to be considered and sufficient resource allocated to these (and away from other activities) to ensure re-opening can take place in a safe and orderly manner. NERL requires early engagement on the thorough planning of all required change management elements before any assumed opening dates can be agreed.

### Compatibility with future operations

### NERL Stage 2 Findings:

### Arrivals:

As set out in NERL's Stage 2 Develop and Assess Manston Airport Arrivals Connectivity Module, NERL found that a "do nothing" or "do minimum" option for Manston arrivals to be the most feasible solutions for arriving traffic.

Through engagement with Manston both parties agreed that a fully separated arrival system within the network is not warranted due to the low to very low traffic forecast following Manston reopening +10 years. Whilst contingency delay absorption due to unforeseen circumstances (runway closure, weather etc) could be provided in the network using other holding facilities, or using holds outside CAS created by Manston, routine delay absorption is not required.

In future operations route connectivity for arrivals would be provided by utilising the updated ATS route network and could potentially continue to include the sharing the STARs of other FASI airports (likely to be London City, Southend, Biggin Hill or combination thereof) before being cleared to leave CAS by descent at a specific point as tactically agreed between the relevant en-route sector and Manston Approach.

### Departures:

Whilst NERL's Stage 2s did not focus on departure options reasoning these are best developed from a network perspective once the airports' options are rationalised, we agreed with Manston (Osprey) that, without contiguous CAS, departures would continue to use an omnidirectional departure procedure and be offered a tactical joining clearance by the relevant en-route sector at a level and position appropriate to

the prevailing traffic situation at the time. Whilst departures in any direction could in theory be facilitated, direct departures to the West or South-west will be challenging to accommodate due to other LTMA traffic and will therefore likely require a tactical join towards the North or South before turning West/South-West later within the network.

Progression of arrival and departure concepts such as these, given they are flexible by their nature, do not constrain any other airports' options.

## Summary

This paper provides some context around the reopening of Manston airport from a NERL perspective both ahead of, and alongside, the LTMA FASI changes.

**NERL does not believe Manston's ACP needs to be linked to FASI and coordinated through the masterplan to facilitate the re-opening of Manston.** NERL is required and is committed to respond and react to all ACPs which interact with the NERL operation. NERL will continue to do so, in support of Manston reopening, regardless of Manston's FASI status and will continue to work closely with Manston to develop the required detailed understanding around any reopening scenario that arises.

## Appendix C: Original ACP interdependency diagram from UK Airspace Change Masterplan Iteration 2


Figure 18: *Potential interdependencies between airport-led ACPs in the LTMA region.*

**APPENDIX L**

# CAA response to ACOG's advice on the proposed withdrawal of Manston Airport from the masterplan

See next page.

**By Email**

27th March 2025

[redacted]
Head of Masterplan Delivery
Airspace Change Organising Group
4000 Parkway, Whiteley,
Fareham, Hampshire PO15 7FL

Dear [redacted]

**RE: ACOG Advice to the Co-sponsors (CAA and DfT) on the participation of Manston Airport in the UK Airspace Change Masterplan**

Thank you for ACOG's updated advice, received in February 2025, regarding Manston Airport's FASI Airspace Change Proposal (ACP-2018-75), which is currently included in the scope of the airspace change masterplan.

We understand from the advice that Manston's proposal was included in the masterplan because the ACP had potential design interdependencies with other airports, in particular Southend. Manston have since reviewed their options and are proposing omnidirectional departures, with arriving aircraft tactically managed by ATC vectoring, both in Class G airspace outside of the London TMA and CTA airspace in the vicinity of Manston.

The scope of the remaining ACP does not, in ACOG's view, need to be coordinated through the masterplan to facilitate the re-opening of Manston. ACOG have advised that Southend Airport have no objections to Manston progressing on an independent timeline. We also note that NERL is required and is committed to respond and react to all ACPs which interact with the NERL operation. NERL will continue to do so, in support of Manston reopening, regardless of whether Manston's ACP is co-ordinated as part of the masterplan or not. The co-sponsors have considered this advice and have **accepted** the rationale for removing Manston from the coordinated masterplanning process.

We will in due course publish ACOG's advice and our response in an updated addendum to Iteration 2 of the masterplan (CAP2312A Addendum). For the purposes of CAP1616 gateway and resource planning, we accept from here on that the Manston ACP will now follow an independent timeline. This means that progress will not be conditional on Iteration 3 of the masterplan being assessed and accepted. Any further timeline change requests should be communicated between the sponsor (Manston) and CAA Airspace Regulation.



**Civil Aviation Authority**
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[redacted]

The co-sponsors would like to emphasise that should Manston or NERL wish to make further changes to the airspace in the future, this would potentially fall under the remit of the proposed UK Airspace Design Service (UKADS) which has recently been the subject of a public consultation.[1]

Kind regards,

**Stuart Lindsey**
**Head of Airspace Modernisation**



[1] https://www.caa.co.uk/our-work/publications/documents/content/cap3029/

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