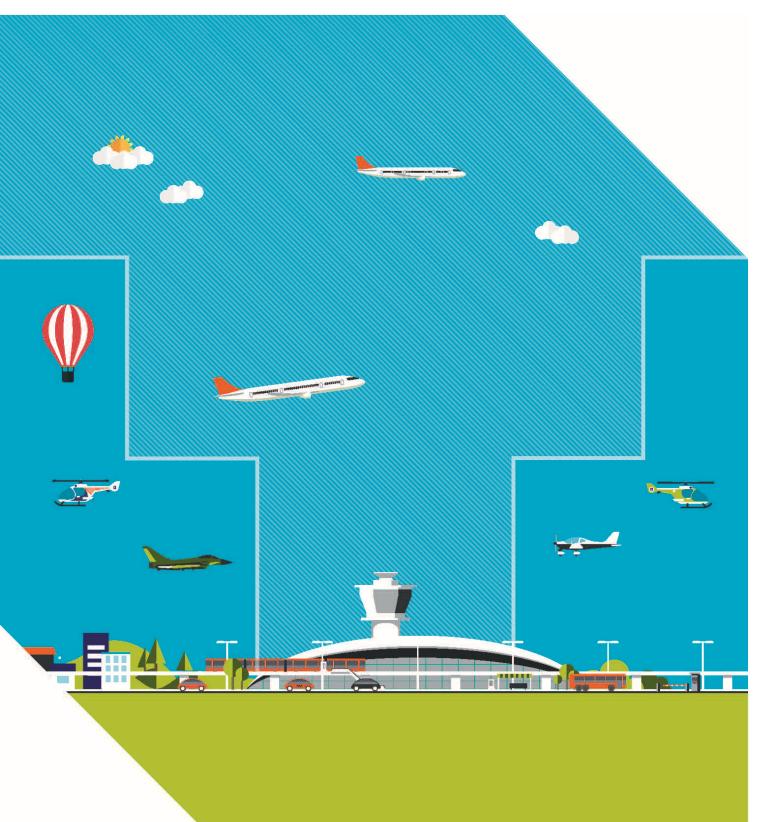


# Draft procedure for reviewing the classification of airspace – a consultation

CAP 1934



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Second edition published July 2020 to clarify footnote 19 and the corresponding glossary entry.

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## Summary of this consultation and how to respond

## Overview

- 1. The Secretary of State has given the CAA a new function to review airspace classifications and to amend them where appropriate. This requires a new regulatory procedure. This document seeks your views on a draft of that procedure.
- 2. The classification of airspace determines the flight rules which apply how and where aircraft can fly, the equipment that must be carried and procedures that must be followed. The new function given to the CAA responds to a General Aviation-led review of how airspace is managed.<sup>1</sup> The new procedure will be a useful tool to assist the CAA with the longer-term strategy for airspace modernisation, for example for integrating new types of airspace user.
- 3. As a way of initiating a review in parallel with developing this new procedure, between December 2019 and March 2020 we ran a public consultation to seek suggestions of airspace volumes that might need the classification reviewed. We have published a summary of the responses as CAP 1935.<sup>2</sup> We will start work on considering amendments to some of the airspace volumes recommended by respondents once the new procedure is in place.
- 4. We must introduce the new procedure and allocate staff to run it by 1 December 2020.

## **Regulatory basis**

- 5. As part of our airspace regulation functions, which are set out in Air Navigation Directions from the Secretary of State, the CAA has:
  - developed and published a national policy for the classification of UK airspace
  - classified UK airspace in accordance with that national policy

<sup>&</sup>lt;sup>1</sup> The definition of General Aviation varies, but it generally encompasses a wide range of aviation activity from microlights, gliders and balloons to corporate business jets, and includes all sport and recreational flying. The review referred to is the Lord Kirkhope Inquiry into Airspace Change, commissioned by the All-Party Parliamentary Group on General Aviation. This is discussed further in Chapter One.

<sup>&</sup>lt;sup>2</sup> The summary of responses is published as CAP 1935, Outcome of the consultation on the airspace classification review 2019/2020 <u>www.caa.co.uk/cap1935</u> and on our consultation website <u>https://consultations.caa.co.uk/corporate-communications/airspace-classification-review-2019-2020/</u>

- published that classification.
- 6.

In October 2019 the Secretary of State modified the CAA's responsibilities in this area. Effective 1 December 2020<sup>3</sup>, we must:

- regularly consider whether airspace classifications should be reviewed
- carry out a review (which includes consultation with airspace users) where we consider a change to classification might be made, and
- as we consider appropriate, amend any classification in accordance with procedures developed and published by the CAA for making such amendments – this is the procedure that we are consulting you about.
- 7. The Air Navigation Directions also say that in developing the national airspace classification policy, classifying UK airspace, or amending the classification of a volume of airspace, the CAA must seek to ensure:
  - that the amount of controlled airspace is the minimum required to maintain a high standard of air safety, and
  - subject to overriding national security or defence requirements, that the needs of all airspace users are reflected on an equitable basis.

#### **Structure of this consultation document**

- 8. We have structured this consultation document as follows:
  - Chapter 1 explains the background to the Government's decision to give the CAA this new role
  - Chapter 2 explains what the CAA must take into account in designing the new procedure
  - Chapter 3 gives an overview of our proposed three-stage procedure
  - Chapter 4 explains the first stage, Consider
  - Chapter 5 explains the second stage, Review
  - Chapter 6 explains the third stage, Amend
  - Chapter 7 covers implementation arrangements
  - Chapter 8 sets out next steps
  - Appendix A is a glossary of relevant airspace terms used in this document and more widely

<sup>&</sup>lt;sup>3</sup> The Secretary of State deferred the original effective date of 1 April 2020 until 1 December 2020.

- Appendix B is a CAA-produced consolidated version of the Air Navigation Directions from the Secretary of State to the CAA
- Appendix C reproduces section 70 of the Transport Act 2000 which governs the way the CAA exercises its air navigation functions
- Appendix D explains more about the context of the Airspace Modernisation Strategy.

#### What we are consulting on

9. We are seeking your views on the procedure we propose to adopt for amending the classification of airspace, reflecting the CAA's airspace functions, government policy and best practice decision-making.

#### What we are not consulting on

- 10. We are not seeking your views on any of the following:
  - the policy on airspace classification
  - the classifications of particular volumes of airspace
  - the functions given to the CAA in the Air Navigation Directions, which come directly from the Secretary of State
  - aspects of government policy, including the Air Navigation Guidance the statutory guidance which the Secretary of State gives the CAA on how it should take environmental impacts into account – including policy objectives in respect of people significantly affected by aircraft noise, the concentration, dispersion or alternation of flight paths, or avoidance of tranquil areas; government policy is not within the direct control of the CAA
  - the CAP 1616 airspace change process, specific airspace change proposals going through that process, or specific airspace changes that have already happened using that process or its predecessor.
- 11. Consequently the CAA will disregard elements of responses to this consultation that focus on any of these areas.

#### Your views are invited

12. This document seeks your views on our proposed procedure to review and amend airspace classifications that we will introduce on 1 December 2020. We aim to design a procedure that will allow different, sometimes competing, factors to be taken into account, including satisfying the requirements of all airspace users.

- 13. We are interested to learn what elements of the new procedure are the most important to you, bearing in mind that the procedure must be proportionate and reflect the CAA's airspace functions and government policy.
- 14. We are allowing 12 weeks for responses to the consultation. We appreciate that as a result of the Covid-19 pandemic, some stakeholders may have other priorities at the moment. However, we are required to introduce the new procedure by 1 December 2020, and have scheduled as much time as we are able to.

#### How to respond to this consultation

- 15. We have sought to make this consultation as accessible as possible by presenting the key points on our dedicated consultation website. The longer document you are reading is for stakeholders wanting more detail. The questions in each case are the same.
- 16. Please note that the consultation will close at 23.59 on 17 September 2020 and we cannot commit to taking into account comments received after this date. Please let us have your comments by answering the questions on our consultation website. The questions include some multiple-choice answers and the opportunity to submit your comments by completing text boxes. Our strong preference is that you complete the online consultation. We understand that some stakeholders prefer not to be constrained by the questions alone and will want to send a self-contained response. While we will read these submissions, we will not be able to analyse the submissions in the same way that we analyse the online responses.
- 17. We will assume that all responses can be published on our website. When you complete the online consultation there will be an option for you to hide your identity or refuse publication. (In any event, your email address will not be published.) In the interests of transparency, we hope people will not refuse publication. If you do send us a separate submission and it includes any material that you do not want us to publish, please also send us a redacted version that we can publish. You should be aware that information sent to and therefore held by the CAA is subject to legislation that may require us to disclose it, even if you have asked us not to (such as the Freedom of Information Act and Environmental Information Regulations). Therefore, if you do decide to send information to the CAA but ask that this be withheld from publication via redacted material, please explain why, as this will help us to consider our obligations to disclose or withhold this information should the need arise.
- 18. There are five consultation questions, which are listed on the next two pages for ease of reference. They also appear through the document, in the context of information that will help you to respond to them.

19. If you would like to discuss anything about how to respond to the consultation, please email <u>airspace.modernisation@caa.co.uk</u>.

#### Next steps

20. We will take your views into account and, where we feel it necessary to do so, make modifications to our proposed procedure for reviewing airspace classification. We will then publish the final procedure before implementing it from 1 December 2020.

#### **Consultation questions**

Question 1: Do you have any general comments about our proposed new procedure?

**Question 2:** Do you have any comments about our proposed approach for the Consider stage?

About right	Some modifications needed	Significant modifications needed (please list your modifications)	Don't know
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Please explain your answer and provide any other general comments.

**Question 3:** Do you have any comments about our proposed approach for the Review stage?

About right	Some modifications needed	Significant modifications needed (please list your modifications)	Don't know
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Please explain your answer and provide any other general comments.

**Question 4:** Do you have any comments about our proposed approach for the Amend stage?

About right	Some modifications needed	Significant modifications needed (please list your modifications)	Don't know
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Please explain your answer and provide any other general comments.

**Question 5:** Please can you quantify the cost impacts of the new procedure on your organisation, or more broadly if possible, and how we might best minimise these?

#### Chapter 1

## Background to the CAA's new procedure

#### Summary

- The CAA is introducing a new procedure to review and where appropriate amend airspace classification.
- This chapter explains what we mean by airspace classification and how this relates to UK airspace and the Airspace Modernisation Strategy.
- It goes on to explain the CAA's new function to review and, where appropriate, amend airspace classification, and the new procedure which the Secretary of State's Air Navigation Directions have required us to introduce.

#### Purpose of this consultation

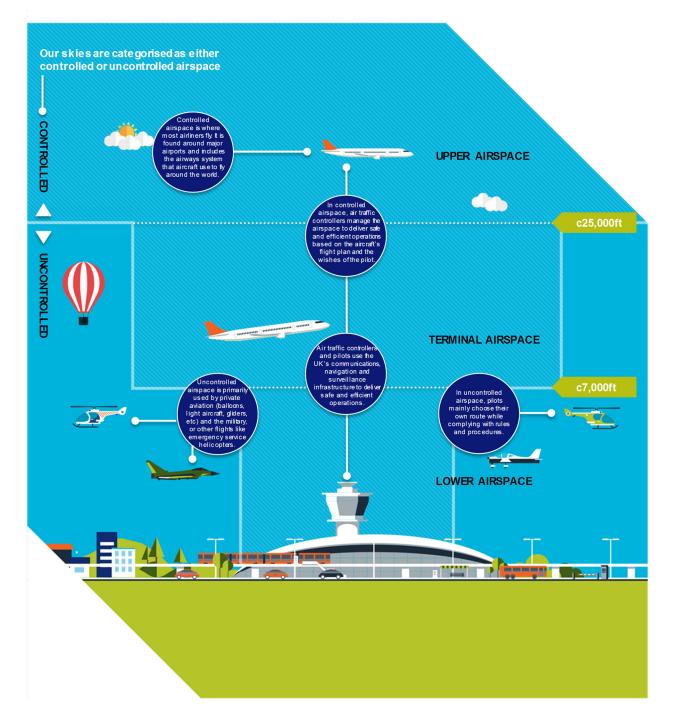
1.1 The Secretary of State has given the CAA a new function to review airspace classifications and to amend them where appropriate, requiring a new regulatory procedure. This document seeks your views on a draft of that procedure.

#### Airspace

- 1.2 States have complete and exclusive sovereignty over the airspace above their territory. States have chosen to commit, by international treaty, to provide air navigation services (which include air traffic control) in that airspace to an internationally recognised standard.
- 1.3 For the purposes of providing air traffic services, airspace can be divided into two main categories, controlled and uncontrolled. Aircraft in controlled airspace fly under the positive monitoring and direction of air traffic control to maintain safe distances between them.<sup>4</sup> Uncontrolled airspace typically incorporates areas where aircraft are not required to be identified and managed by air traffic services, although pilots may request a service from notified air traffic service providers to support their safe flying.
- 1.4 Prior to the Covid-19 pandemic, the UK's skies were accommodating increasing numbers of commercial flights, military activities and an active General Aviation sector, as well as new types of user such as unmanned aircraft systems.<sup>5</sup>

<sup>&</sup>lt;sup>4</sup> In Class E airspace, only flights under Instrument Flight Rules are controlled.

<sup>&</sup>lt;sup>5</sup> Unmanned Aircraft may also be referred to as Drones, Remotely Piloted Aircraft Systems (RPAS), Unmanned Aerial Vehicles (UAV), Model Aircraft, Radio Controlled Aircraft.



#### Figure 1: Controlled and uncontrolled airspace

Note: this diagram is representational only and does not necessarily depict the specific areas in which airspace users operate.

For more information see <u>https://www.caa.co.uk/Consumers/Unmanned-aircraft/Our-role/An-introduction-to-unmanned-aircraft-systems/</u>

## The CAA's role in airspace modernisation

- 1.5 The CAA's statutory duties and functions in respect of airspace regulation are contained in Section 70 of the Transport Act 2000 and The Civil Aviation Authority (Air Navigation) Directions 2017 (as amended).<sup>6</sup>
- 1.6 One of the CAA's functions is to have a strategy and plan for airspace. The CAA reviewed and rearticulated its airspace strategy in response to a government policy change that redefined our role when the Government's Air Navigation Directions were updated and republished in October 2017. In those Directions the Secretary of State gave the CAA a number of new roles, including developing a long-term strategy and plan for modernising UK airspace, with the objective to deliver quicker, quieter and cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace. The CAA published its revised strategy in December 2018, setting it in the context of the latest government policy, including on environmental impacts, demand from airspace users and technological developments. Appendix D explains more about the resulting Airspace Modernisation Strategy, CAP 1711.<sup>7</sup>

## **Airspace classification**

- 1.7 The Air Navigation Directions have long required the CAA to publish a national policy for the **classification of airspace**. ICAO requires that States determine those portions of airspace where air traffic services will be provided and, where it is so determined, whether air traffic control service or flight information service are provided. In turn, the airspace is designated according to the type of air traffic service provided and in accordance with the ICAO airspace classification system. **Air traffic control** service is provided to all flights within airspace classes A to D and to those flights operating in accordance with the instrument flight rules (IFR) in class E airspace; these are known as 'controlled airspace' classifications. **Flight information service** may be provided to all flights in class E airspace) and to visual flight rules (VFR) flights in Class E airspace.
- 1.8 The classification of the airspace determines the flight rules that apply and the procedures that must be followed. The classification depends upon the types of air traffic involved, the density and complexity of air traffic and the safety hazards posed to passenger-carrying commercial air transport operations. In summary, the ICAO airspace classifications notified within the UK are:

<sup>&</sup>lt;sup>6</sup> The CAA publishes the Air Navigation Directions and any subsequent amendments. For ease of reference, the CAA also produces a consolidated version. These can be found at: <u>https://www.caa.co.uk/Commercial-industry/Airspace/Airspace-change/Legislative-framework-to-airspacechange/</u>

<sup>&</sup>lt;sup>7</sup> www.caa.co.uk/cap1711

- class A: the most restrictive airspace classification, allowing IFR operations only
- class C and class D: airspace allowing for both IFR and VFR operations in a controlled environment
- class E: airspace allowing for both IFR and VFR operations wherein VFR operations are not controlled
- class G: the least restrictive airspace classification, applied to all other airspace.
- 1.9 More information on airspace classifications can be found in the CAA policy statement *The Application of ICAO Airspace Classifications in UK Flight Information Regions.*<sup>8</sup>
- 1.10 In class G (i.e. uncontrolled) airspace, there are currently no restrictions on which aircraft can enter it or the routes they take. The recreational flying and aerial sports sector within General Aviation tends to operate in class G, alongside a few commercial and business flights. The vast majority of commercial air transport flights operate solely in controlled airspace. The military has significant requirements to use both types of airspace and occasionally also operates within the confines of segregated training or danger areas.

#### The CAA's new role on airspace classification

- 1.11 In summer 2018 the All-Party Parliamentary Group on General Aviation commissioned the Lord Kirkhope Inquiry into Airspace Change to examine the management and design of lower airspace in the UK. In June 2019 the Inquiry's report<sup>9</sup> recommended the introduction of a process that would give the CAA the power to either lower the class of controlled airspace or make airspace uncontrolled.<sup>10</sup> There was a concern that controlled airspace was subject to a 'ratcheting up' effect where there was little incentive for the airspace controlling authority to initiate these changes itself.
- 1.12 In October 2019 the Secretary of State gave the CAA new Air Navigation Directions that modified the CAA's responsibilities in respect of airspace classification, requiring us to introduce a new procedure whereby we review and where appropriate amend airspace classifications. In his covering letter, he said that the changes were designed to strengthen how airspace is managed. He also said he was committed to see that the UK benefits from being the best place in

<sup>&</sup>lt;sup>8</sup> <u>http://publicapps.caa.co.uk/docs/33/20141113PolicyStatementApplicationOfAirspaceClassificationInUKPolicyVersion5.pdf</u>

<sup>&</sup>lt;sup>9</sup> <u>https://generalaviationappg.uk/wp-content/uploads/2019/07/Lord-Kirkhope-Final.pdf</u>

<sup>&</sup>lt;sup>10</sup> The CAA's proposed procedure is more flexible; it would accommodate proposals to make the classification more restrictive as well as less restrictive, according to future need.

the world to undertake General Aviation-related activities, and that enhancing the UK's existing airspace arrangements was key to achieving this objective.

- 1.13 The new procedure on which we are consulting is a CAA function which must be consistent with the CAA's statutory duties under section 70 of the Transport Act 2000 and with government policy. Within those constraints, our aim is also to make it proportionate to the objectives and to design it in accordance with modern, best-practice regulatory principles. It must also align with the CAA's longer-term strategy, to ensure that airspace planning is consistent with national and international obligations or standards and with new concepts such as the integration of new technologies.
- 1.14 We expand on this in the next chapters, beginning with the legal and policy framework within which the procedure must be designed and operate.

#### Chapter 2

## Considerations in designing the procedure

#### Summary

- This chapter explains the considerations we must take into account in designing the new procedure, in particular the legal and policy framework within which we must work.
- Unlike the airspace change process where the change sponsor presents a new airspace design to the CAA for approval, the procedure for reviewing airspace classification involves the CAA itself designing and proposing amendments to airspace.
- Input from the airspace controlling authority (i.e. the air navigation service provider) is
  essential, because only the airspace controlling authority will have the local operational
  knowledge needed. The airspace controlling authority will need to own the safety of the
  airspace, and therefore the operational procedures and safety case for the amended
  design, even though we assist them as they prepare it.
- The new procedure must be consistent with the Airspace Modernisation Strategy. In the future it could be a useful tool for amending classification to improve our compliance with ICAO requirements or to facilitate the introduction of new air traffic management concepts. The new power is sufficiently flexible to allow us to make a classification more restrictive as well as less restrictive.
- We explain the stakeholders that will be involved in the new procedure, and our policy of maximising transparency through the publication of all documents wherever possible.

### Legal and policy framework

2.1 The new procedure we design must operate within the legal and policy framework set by government.

#### **Air Navigation Directions**

2.2 Under sections 66 and 68 of the Transport Act 2000, the Secretary of State has given the CAA a number of airspace-related functions. As a result of these Air Navigation Directions<sup>11</sup>, the CAA has already developed and published a

<sup>&</sup>lt;sup>11</sup> Civil Aviation Authority (Air Navigation) Directions 2017, as amended by the <u>Civil Aviation Authority (Air Navigation) (Amendment) Directions 2018</u> and the <u>Civil Aviation Authority (Air Navigation) (Amendment)</u> <u>Directions 2019</u>. The 2017 Directions form an annex to the <u>Air Navigation Guidance 2017</u> and the 2018 and 2019 amendments will also be annexed in due course. For ease of reference, the CAA also produces a consolidated version. These can be found at <u>https://www.caa.co.uk/Commercial-industry/Airspace/Airspace-change/Legislative-framework-to-airspace-change/</u>

national policy for the classification of UK airspace, classified UK airspace in accordance with that national policy, and published that classification.

- 2.3 The revised Directions go further and require us in Direction 3(b) to:
  - regularly consider whether airspace classifications should be reviewed
  - carry out a review (which includes consultation with airspace users) where we consider a change to classification might be made, and
  - as we consider appropriate, amend any classification in accordance with procedures developed and published by the CAA for making such amendments.
- 2.4 A new Direction 3(ba) also requires that in applying our classification policy, or amending a classification, we seek to ensure that the amount of controlled airspace is the **minimum required** to maintain a high standard of air safety and, subject to overriding national security or defence requirements, that the **needs of all airspace users are reflected on an equitable basis.** (The CAA understands 'equitable' to mean that needs are fairly accounted for, not that each user has the same and equal amount of airspace. The needs of different types of airspace user could vary considerably.)
- 2.5 Directions 3(b) and 3(ba) are reproduced in Appendix B. The relevant Directions were originally due to come into force on 1 April 2020, but the Secretary of State subsequently amended this date to 1 December 2020 because of the time it would take for us to develop and consult on a robust procedure.

#### Sections 70 and 71 of the Transport Act 2000

- 2.6 Under section 70 of the Transport Act 2000, we have a duty to take a number of factors into account when exercising our air navigation functions, including whether to amend an airspace classification. Our duty to maintain a high standard of safety has priority over other factors. Those other factors include international obligations, and security, operational and environmental impacts such as aircraft noise and emissions, including taking account of any guidance on environmental objectives given by the Secretary of State. The full text of section 70 is reproduced in Appendix C.
- 2.7 Section 71 of the Transport Act 2000 allows the CAA to request any specific documents or information from an air navigation service provider for any purpose connected with our air navigation functions.

#### Air Traffic Management and Unmanned Aircraft Bill

- 2.8 Should the Air Traffic Management and Unmanned Aircraft Bill become law in the form currently drafted<sup>12</sup>, it will give the Secretary of State (or the CAA if powers are delegated) new powers to compel an air navigation service provider or airport (or other person with functions relating to air navigation):
  - to prepare an airspace change proposal that will assist in the delivery of the CAA's airspace strategy
  - to take steps towards the preparation of such an airspace change proposal
  - to co-operate for the purpose of assisting another air navigation service provider, airport (or other person with functions relating to air navigation) to do the above

including following CAA procedures and having regard to its guidance and doing specified things by specified dates. In this context, 'airspace change proposal' includes a proposal to change the classification of a volume of airspace under this procedure.

#### Secretary of State for Defence

- 2.9 Direction 12 adds a provision in cases "where it appears to the CAA that there is a need to increase the volume, or alter the classification, of UK airspace, but to do so might, in the opinion of the CAA or the MoD [Ministry of Defence], have an adverse effect on the ability of the armed forces of the Crown to maintain their operational capability". The Directions require us to seek the approval of the Secretary of State for Defence before proceeding with any such change to UK airspace.
- 2.10 Where the Secretary of State for Defence is content with the proposed change, the CAA must ensure that such further consultation on the proposal is undertaken as required under the Directions. Where the Secretary of State for Defence is not content with the proposed change, the CAA may only approve the proposed change in accordance with directions given by the Secretary of State under section 68(3) of the Act.
- 2.11 We may therefore need to consult the Ministry of Defence on a proposal to change airspace classification, and seek its approval where appropriate, before proceeding with any consultation.

<sup>&</sup>lt;sup>12</sup> The draft Bill can be viewed at <u>https://services.parliament.uk/bills/2019-21/airtrafficmanagementandunmannedaircraft.html</u>

#### **Environmental guidance from the Secretary of State**

- 2.12 Section 70 requires the CAA to take account of the interests of any person other than an airspace user (which would include those on the ground) and of any guidance on environmental objectives given to the CAA by the Secretary of State when carrying out its air navigation functions as set out in the Air Navigation Directions. For our function relating to a change in airspace design (one which goes through the CAP 1616 process), this guidance is the Air Navigation Guidance 2017, last issued in October 2017. However, in respect of airspace classification, the guidance was amended by the Secretary of State's letter of 31 October 2019 accompanying the Directions.
- 2.13 In that letter, the Secretary of State stated that the CAA should consider the environmental consequences of a proposal we make for amending the classification of airspace, but he also specifically *disapplied* the existing Air Navigation Guidance. Because of the section 70 requirement, we must therefore make our own assessment of the potential environmental consequences. We have concluded that the principles we would use would be the same as the Air Navigation Guidance, but without any of the obligations on process that the guidance contains.<sup>13</sup>
- 2.14 Below is an extract from the Secretary of State's letter:

#### "Supplementary guidance to the Civil Aviation Authority (CAA) on environmental objectives when carrying out its air navigation functions

In accordance with section 70(2)(d) of the Transport Act 2000, the CAA should note that:

i. the environmental objectives set out in the Air Navigation Guidance 2014 and 2017, as well as the rest of that Guidance, are not to apply to:

- decisions whether to approve proposals for permanent changes to airspace design which seek to implement GNSS approaches without approach control; or
- decisions to amend the classification of any airspace in accordance with the amended Directions 2017 new direction 3(b) (airspace reclassification);

ii. this exemption from the Guidance is to apply with immediate effect and until further notice;

iii. although exempted, we expect sponsors of exempted proposals, including the CAA, to consider the potential environmental consequences

<sup>&</sup>lt;sup>13</sup> Our proposed approach to the assessment of environmental impacts is on pages 48 to 49.

of the proposals, and to engage with relevant communities as the CAA considers appropriate;

iv. the department will keep this exemption under review and will notify you of any change in this policy; and

v. the exemption will be incorporated into the Air Navigation Guidance when a suitable opportunity arises."

#### Call-in by the Secretary of State

- 2.15 If a proposal for a change in airspace design meets certain criteria, the Secretary of State may decide to call-in the proposal and to make the related decision, instead of the CAA doing so. One of these criteria is where a proposal could lead to any volume of airspace classified as class G being reclassified as class A, C, D or E. This is set out in Direction 6(5)(d) of the Air Navigation Directions.
- 2.16 However, this only applies to the CAA's decision-making functions subject to the call-in requirements (Directions 4(1), 5(1), 5A(1)). There is no provision in the Directions for the Secretary of State to call-in a proposal by the CAA to amend airspace classification under the new procedure on which we are consulting here.
- 2.17 Therefore, call-in does **not** apply to the new procedure.

#### Summary of legal and policy framework

- 2.18 In summary, the CAA must:
  - regularly consider whether to review the classification of airspace
  - consult airspace users as part of any review
  - where we consider an amendment to airspace classification might be made, amend it in accordance with a new procedure that we must develop and publish
  - in developing that procedure and our usage policy, seek to ensure that the amount of controlled airspace is the minimum required to maintain a high standard of air safety and, subject to overriding national security or defence requirements, that the needs of all airspace users are reflected on an equitable basis
  - ensure that the outcome is consistent with the factors set out in section 70 of the Transport Act 2000, including complying with any environmental guidance given to us by the Secretary of State
  - consult the Ministry of Defence before making any amendment to airspace classification

- ensure that the procedure is consistent with the Airspace Modernisation Strategy and best practice regulatory principles.
- 2.19 Our overriding objective will always be to maintain a high standard of safety.

#### Role of the CAA as proposer of the classification amendment

- 2.20 From the above it can be seen that the modified Directions give the CAA a different role from the existing CAP 1616 airspace change process for proposed changes in airspace design.<sup>14</sup> The new classification procedure is functionally separate from the CAP 1616 process, which gives us some flexibility in what the new procedure looks like. More importantly, there is one fundamental difference, which is that the Directions require the CAA to propose the classification change, whereas CAP 1616 airspace change proposals are 'sponsored' by an airport or air navigation service provider, with the CAA acting only as regulator.<sup>15</sup> This presents us with something of a challenge, as it means the CAA designs and proposes the new airspace, with essential input from the airspace controlling authority (i.e. the air navigation service provider). To accomplish this, we need specialist skills that could undertake airspace design.
- 2.21 There are some aspects of a proposed change in classification that, even with those skills, we cannot produce alone. We are reliant on the airspace controlling authority, as only they will have the local operational knowledge needed. The airspace controlling authority will need to own the safety of the airspace, and therefore the operational procedures and safety case for the amended design, even if we assist them as they prepare it.
- 2.22 In the unlikely event that the airspace controlling authority's input is not forthcoming, the Air Traffic Management and Unmanned Aircraft Bill would give the Secretary of State (or the CAA if powers are delegated) new powers to compel that input where it would assist in the delivery of the CAA's airspace strategy (see legal framework above).
- 2.23 The Airspace Regulation decision-making process will assess whether any amendment in classification complies with all relevant implementation requirements for airspace design and does not conflict with the airspace design overall. Although that formal decision would come at the end of the procedure, and will be taken independently, there will need to be formal discussion between the CAA teams during the design process.

<sup>&</sup>lt;sup>14</sup> www.caa.co.uk/cap1616

<sup>&</sup>lt;sup>15</sup> Although the new procedure is quite separate from the CAP 1616 airspace change process, any change in airspace design that is proposed by a sponsor under the CAP 1616 process could well include a change in airspace classification. This is unaffected by the new procedure.

- 2.24 Our new procedure must be proportionate to its objective, and designed in accordance with modern, best-practice regulatory principles. It must also align with the CAA's Airspace Modernisation Strategy (CAP 1711 published in December 2018) that seeks to modernise UK airspace through new operations, new airspace design and new technologies (see Chapter 1 and Appendix D).
- 2.25 The Secretary of State has given the CAA a useful new role to review and amend airspace classification. When considering proposals for a change in airspace design, we already have a policy of keeping the volume of controlled airspace to the minimum necessary to meet the needs of UK airspace users and to comply with the UK's international obligations. The new procedure gives us the opportunity, where it is appropriate and safe to do so, to make a change to a less restrictive airspace classification or to reduce the volume of airspace that is controlled. It would also accommodate proposals to make the classification more restrictive, where necessary.
- 2.26 In the future the new procedure could be used to enable our compliance with ICAO requirements on airspace classification, and to facilitate the introduction of new air traffic management concepts to support, for example, the integration of drones and other emerging technologies.
- 2.27 In designing and using the new procedure, our overriding objective will always be to maintain a high standard of safety. Expectations for what the procedure can reasonably deliver should always be seen in this context.

### Collecting and analysing data to create an evidence base

- 2.28 The CAA does not currently routinely collect data on airspace utilisation. As a consequence of our regulatory functions, we have selected pockets of information and knowledge. But to obtain a solid evidence base, we are currently devising mechanisms for collecting data and analysing it. We will need to work within our resource constraints, but we expect as a minimum to source data for a given volume of airspace that we have identified as of potential interest or which is the subject of a stakeholder suggestion where we need to verify what we are being told.
- 2.29 This means:
  - identifying what data we need (sufficient to meet our statutory obligations in support of this new procedure, but not so extensive or granular that its collection and analysis would be unmanageable or disproportionate)
  - identifying who owns that data
  - if not owned by the CAA, establishing whether we can obtain that data, on what timescales and at what cost, and

- analysing that data in a way that is meaningful and that will give us appropriate outputs.
- 2.30 We set out the data we have identified so far in Chapter 5.

## **Relevant stakeholders**

- 2.31 **Secretary of State:** The Secretary of State's objective for the new procedure is for the CAA to regularly consider whether the classification of designated volumes of UK airspace requires review. The new procedure will allow the CAA, where it is appropriate and safe to do so, to use a less restrictive airspace classification or to reduce the volume of airspace that is controlled. In doing so, we will satisfy the obligation in new Direction 3(ba) to "seek to ensure [...] that the needs of all airspace users are reflected on an equitable basis" and potentially provide benefits for airspace users generally, including members of the General Aviation community, by allowing better access to it. In the longer term, as explained above, the new procedure will also give us another tool to use in seeking to modernise airspace so as to maintain a high standard of safety and accommodate new users and new technology.
- 2.32 **Airspace controlling authority:** The main interested parties in the design and classification of airspace are, at higher altitudes, NERL (NATS En Route plc, the subsidiary of NATS which is air traffic control provider for upper airspace); at lower levels, airport operators and localised air traffic services providers; and the Ministry of Defence which has an interest in upper and lower airspace for diverse purposes.
- 2.33 **Airspace users** including airlines and other commercial operators, the Ministry of Defence, and the General Aviation community, which encompasses a wide range of aviation activity from microlights, gliders and balloons to corporate business jets. In the future, and depending on how airspace classes evolve, drone operators and other types of airspace user may also have an interest in the procedure. Controlled airspace can reduce the freedom to manoeuvre for certain users. At lower altitudes in particular, there is more of a challenge in balancing the differing (and often conflicting) requirements of a more diverse range of users without compromising safety. Depending on the airspace classification, recreational flyers, for example, may have to fly around controlled airspace, or seek permission to cross it. If a review suggests a volume of controlled airspace may be underutilised or larger than necessary, or its classification is no longer justified, then the CAA can consider its amendment.
- 2.34 **Communities:** those affected by aviation noise or other environmental impacts, their representatives, councils and other elected representatives, and organisations with an interest in aviation's environmental impact. We do not anticipate that this procedure will be used for any change that causes

measurable environmental impacts, such as changes to departure and arrival routes at aerodromes.

2.35 **Users of air transport services**, i.e. passengers and shippers: we do not anticipate that the procedure will have any impact on this group.

#### Transparency

- 2.36 As with the airspace change process, a prime objective of the new procedure will be that it is as transparent as possible throughout. Those with an interest in a change in airspace classification should feel confident that their voice has a formal place in the procedure. Openness also allows the CAA and the airspace controlling authority to see more clearly what is expected from them.
- 2.37 The default position is therefore that the CAA will publish any documentation in relation to a proposal, including documents from and notes of meetings. We will consider withholding material:
  - for reasons of national security
  - which the CAA has agreed with the airspace controlling authority should not be made public, in order to protect the legitimate commercial interests of a person or business (in the same way that we are obliged to apply the Freedom of Information Act to any information held by the CAA)
  - containing personal information, in accordance with data protection law.
- 2.38 However, we do not anticipate needing to withhold large amounts of information and would only accept redaction of the minimum information necessary to comply with our obligations.
- 2.39 For the purpose of transparency in airspace change proposals, the CAA runs an online portal that holds all relevant information. For the longer term we see merit in adapting the portal to accommodate the new classification procedure, but for the moment we will place relevant information on a dedicated webpage. We discuss this further in Chapter 7.

#### Chapter 3

## Overview of our proposed three-stage procedure

#### Summary

- This chapter gives an overview of our proposed new procedure, summarising the main features of the three stages, Consider, Review and Amend.
- At the **Consider** stage, normally every two years, we decide whether to do a review.
- At the **Review** stage, we develop a plan for airspace volumes where we will make a case for amending the classification (or for an alternative airspace management solution if this is a more appropriate or proportionate response).
- At the **Amend** stage we develop specific proposals for amendment, for which we must receive vital input from the airspace controlling authority.

#### The three stages of our proposed procedure

- 3.1 The wording of the Directions gives us three distinct stages for our new procedure: to **Consider** regularly whether we carry out a review of airspace classification; to carry out a **Review** (including consulting airspace users) where we consider a change might be made; and to **Amend** the classification as we consider appropriate.
- 3.2 We summarise our proposals for each of those stages in the procedure in the table that follows. Each stage is described in more detail in Chapters 4 to 6.

## Question 1: Do you have any general comments about our proposed new procedure?

Stage	Purpose	Outcome
(starting point)		
Consider	The CAA regularly (normally every two years) considers whether to carry out a review of airspace classifications, and makes a yes/no decision at an internal meeting of senior airspace colleagues, based on, for example: (a) whether there are international obligations to meet within a certain timeframe (b) whether there are airspace safety, efficiency, environmental or access benefits that a review might help to define and deliver (c) our workload/resources (d) any outstanding priorities from previous reviews (e) a specific request from the Department for Transport.	The CAA decides whether to carry out a review and when. We may limit the scope of the review if we choose. We notify aviation stakeholders of our decision and reasoning.
Review (The CAA has decided to carry out a review of airspace classification)	We use appropriate intelligence including continuous monitoring of airspace safety, access or utilisation issues to draw up a plan that lists airspace volumes where a case could be made for amending the classification, and a proposed schedule for when we will address them. We consult organisations in the Airspace Modernisation Strategy governance structure that represent airspace users, or are a conduit to them, for feedback on the plan including any strategic advice or other information they would like us to consider. (Periodically we may widen this to a public consultation.) When we receive suggestions, we apply filters to remove changes which would have significant operational or environmental impacts that make them unsuitable for this procedure. We would not pursue an amendment that was the subject of an ongoing or recent airspace design change. We publish a refined plan after consultation and adopt it as part of our Airspace Modernisation Strategy.	The CAA publishes a plan for airspace volumes where we will make a case for amending the classification (or for an alternative airspace management solution if this is a more appropriate or proportionate response).
Amend (The CAA has published a plan for airspace volumes where we will make a case for amending the classification)	For each airspace volume identified, the CAA develops further a formal proposal for amending the classification, with vital input from the designated airspace controlling authority. The proposal must satisfy the requirements of the Air Navigation Directions and the factors in section 70 of the Transport Act 2000. This includes the airspace controlling authority developing the operational procedures and safety case with CAA assistance, but ultimately the controlling authority owning the safety component of the proposal. The CAA assesses any potential environmental impacts and adds this to the proposal. The CAA consults relevant stakeholders about the proposal and takes their feedback into account in finalising the formal proposal is then given to the CAA Airspace Regulation team for submission to the decision-making process.	After review by the CAA Airspace Regulation team, the CAA publishes its decision on each formal proposal for amending the classification. The airspace controlling authority implements any amended classification, monitors its ongoing effectiveness and reports after one year to the CAA.

## Chapter 4 Consider stage

#### Summary

- This chapter explains the CAA's proposals for the Consider stage of the new procedure.
- We consider every two years whether to commence a review, or sooner if there is an immediate safety need or a pressing international obligation.
- The decision is based on high-level considerations by an internal CAA meeting including:
  - (a) whether there are international obligations to meet within a certain timeframe

(b) whether we know of airspace safety, efficiency, environmental or access benefits that a review might help to define and deliver

- (c) CAA workload/resources
- (d) whether there are outstanding priorities from previous reviews
- (e) a specific request from the Department for Transport.
- This is a simple yes/no binary decision whether to commence a review or not and does not involve any consultation or analysis of airspace volumes.

#### Purpose of the Consider stage

4.1 The purpose of this first stage is to decide whether or not to hold a review, the timing of the review and possibly the broad scope of the review, but nothing more. The Consider stage is therefore **a simple, binary yes/no decision on whether to launch a review**. It does not involve any consultation or analysis of airspace volumes.

#### How often do we consider launching a review?

- 4.2 As explained in Chapter 2, the Air Navigation Directions require the CAA to consider regularly whether to carry out a review of airspace classifications. We propose that 'regularly' in this context means **every two years**.
- 4.3 We would make an exception and launch an earlier review of classification if there were a pressing necessity for this outside the biennial cycle because of either:

- a new or amended regulatory requirement
- an immediate safety issue that requires resolution, based on intelligence derived from Mandatory Occurrence Reports or the CAA's safety oversight activities.

#### Basis for the decision whether or not to review

- 4.4 The Directions go on to say (emphasis added) that the CAA must 'carry out a review...where the CAA considers a change to classification might be made...'. Therefore, at the Consider stage the decision to launch a review must be based on the CAA considering that a change to classification might be needed.
- 4.5 We want to keep the procedure proportionate. While it may be superficially attractive to keep all airspace classifications under review at all times, the resources involved could be enormous, bearing in mind the extent of UK airspace, its complexity, the variety of airspace users, and the ever-changing extent to which a given volume of airspace might be used over time. It would require us to collect and analyse large quantities of data from other organisations on the use of UK airspace, which would be beyond the CAA's limited resources, and would not be a proportionate approach.
- 4.6 We therefore propose to keep this first Consider stage very simple. We will only take into account general high-level considerations. We will do so by holding an internal CAA meeting of senior airspace staff, with sign-off by Manager, Future Airspace. The output of that meeting is a report that sets out whether we are going to conduct the review or not, and a rationale as to why. Where we have decided to launch a review, the report also sets out the timing and any scope limitation.

## Criteria we may take into account in making a decision at the Consider stage whether to launch a review or not

- 4.7 For the purposes of that internal CAA meeting, we will base our 'Consider' decision on high-level considerations which will include:
  - new or amended regulatory requirements whether from national law or international obligations from ICAO – in respect of airspace classification that need to be complied with within a certain timeframe
  - whether we know of airspace safety, efficiency, environmental or access benefits that a review might help to define and deliver, for example in support of an initiative in the Airspace Modernisation Strategy
  - whether the CAA anticipates having sufficient staff resource (including the necessary skillset) to carry out a review, and to what extent

- outstanding priorities that we have gleaned from previous classification reviews
- a specific request from the Department for Transport.
- 4.8 The meeting attendees will decide what supporting information is available and appropriate for the above criteria. Outstanding priorities from a previous classification review will be determined by a progress report that the CAA will publish with its decision. The CAA will also have high-level information from airspace users about access or utilisation issues from a relaunched *Use of UK airspace report* online CAA form FCS1521, which we say more about in the next chapter.
- 4.9 The Directions do not oblige the CAA to adhere to any particular timing. Any amendment to classification will involve extensive analysis of data, stakeholder consultation, design work, cooperation with the airspace controlling authority, and implementation arrangements. This could easily take most of the two-year period between reviews, excluding the need to review the effectiveness of the change after it has been implemented.

#### Potentially limiting the scope of the review

- 4.10 The CAA could limit the review in scope. It is difficult to predict scenarios in advance where this might happen, but we give two examples below:
  - There may be known issues or opportunities in particular UK regions, but there
    may be insufficient CAA resources to review them all at once. We may decide
    to review one region first and review another region the following year, to
    make best use of our resources. Those indications of issues or opportunities
    would only be at a very high level, as we would have carried out no analysis.
  - Where we have a series of international obligations concerning airspace classification to comply with over a specified timescale, we may decide to focus a particular review on a specific obligation.
- 4.11 In both of these examples we would not be choosing particular volumes of airspace for potential review; that would come at the next stage (Review).

#### Outcome of the Consider stage

4.12 The outcome of the Consider stage is a report explaining the reasoning for our decision either to carry out a review of airspace classifications (including the anticipated timescales for the Review stage and scope if applicable) or not to carry out a review.

- 4.13 We will publish our report and inform aviation stakeholders, principally organisations in the Airspace Modernisation Strategy governance structure that represent airspace users or that are a conduit to them.<sup>16</sup>
- 4.14 Where we announce our intention to launch a review, this gives these representative organisations the opportunity to advise their members of the likely CAA timetable.

Question 2: Do you have any comments about our proposed approach for the Consider stage?			
About right	Some modifications needed	Significant modifications needed (please list modifications below)	Don't know

<sup>&</sup>lt;sup>16</sup> We propose to inform members of the CAA's National Air Traffic Management Advisory Committee and also Airspace4All, Airlines UK, the Airport Operators Association, the British Airline Pilots Association, the Guild of Air Traffic Control Officers, the CAA's General and Business Aviation Strategic Forum, Industry Coordination for the Airspace Modernisation Strategy, the Ministry of Defence, NERL, the Airspace Change Organising Group and the CAA's UAS Stakeholder Forum.

## Chapter 5 **Review stage**

#### Summary

- This chapter explains the CAA's proposals for the Review stage of the new procedure.
- Our review is based on continuous monitoring of appropriate intelligence that we collect on an ongoing basis from a variety of sources including occurrence reports, feedback from our regulatory activity, and a relaunched online CAA form FCS1521 for airspace users to report to the CAA any access or utilisation concerns.
- We use this intelligence to draw up a plan that lists airspace volumes where a case could be made for amending the classification and a proposed schedule for addressing them.
- We consult organisations in the Airspace Modernisation Strategy governance structure that represent airspace users, or are a conduit to them, for feedback on the plan including any strategic advice or other information they would like us to consider.
- We explain why we think this approach is preferable to a one-off public consultation.
- When we receive suggestions, we apply filters to remove changes which would have significant operational or environmental impacts that make them unsuitable for this procedure. We would not pursue a change that was the subject of an ongoing or recent airspace design change.
- We publish a refined plan after this consultation and adopt it as part of our Airspace Modernisation Strategy.

#### Purpose of the Review stage

- 5.1 The starting point for the Review stage is that the CAA has decided at the Consider stage to carry out a review of airspace classification.
- 5.2 The purpose of the Review stage is to carry out a review of airspace classifications to understand current problems, including safety and access issues. We use appropriate intelligence to draw up a plan. The Air Navigation Directions require the CAA's review to include consultation with airspace users.
- 5.3 In addition to remedying safety issues, we will be concerned with controlled airspace that is underused or larger than necessary, or no longer justified. The review will consider whether amending the classification of the airspace would provide benefits for different airspace users by allowing better access to it.

#### Information used to support the process

- 5.4 Key to the new process is how we understand where there is a potential issue or opportunity for a change in classification. In the CAP 1616 airspace change process we are reliant on the change sponsor, usually an airport or air navigation service provider, coming to us with a proposal and all relevant supporting information. As noted earlier, this is where the classification review process differs. It is the CAA that must collect the intelligence and make the case, with essential appropriate input from the airspace controlling authority and airspace users. We have had to consider how we can best gather this information in a proportionate but effective way. The information we gather might be in the form of data collected about types of aircraft accessing airspace, or it might be the views of particular people or groups that is collected through consultation and engagement exercises, or more likely a composite of both.
- 5.5 We want the proposed procedure to maximise the value from intelligence we gather, in particular airspace user feedback. We believe that we can achieve this by being more proactive in gathering airspace intelligence throughout the year. An aspiration that will also support this specific procedure is to encourage a better reporting culture at the individual airspace user level for both safety and airspace access or utilisation issues. With a suitable reporting and analysis structure in place and the right culture, we believe we will get better-value intelligence than we can from meetings or public consultation alone. Such reporting gives us data from the bottom level that we can tie in with other empirical evidence to give us a real picture of what is going on. We see this as a more innovative and targeted approach to intelligence-gathering.
- 5.6 We therefore propose to use the outputs from continuous monitoring of airspace safety, access or utilisation issues as the basis for drawing up a plan that lists airspace volumes where a case could be made for amending the classification (or other remedial action). This would come from a variety of sources as described below. The CAA has only limited resources to buy in data (such as surveillance data) and to analyse it. We continue to explore what data would be most valuable for our analysis and how we get hold of that data.
- 5.7 The CAA will have access to various forms of safety data. We also want to give strong encouragement to airspace users to express any airspace access or utilisation concerns, including refusals of crossing of controlled or managed airspace, via a relaunched *Use of UK airspace report* online CAA form (FCS1521). This will give us continuous feedback throughout the year, rather than us asking a one-off question. The CAA will raise awareness among airspace users through a wide publicity, education and awareness campaign of the importance of appropriate and accurate reporting of safety, access or utilisation concerns, and in particular focusing on the purpose of the online form and how to use it.

- 5.8 At the Review stage of the procedure we consult airspace users about the plan including any strategic advice or other information they would like us to consider. We say more about this below. We will need to apply filters to remove changes which would have significant operational or environmental impacts that make them unsuitable for this procedure, or that are subject to an ongoing or recent airspace design change. We publish a refined plan after this consultation.
- 5.9 At the Amend stage, described in the next chapter, we analyse intelligence relating to those specific volumes of airspace in much more detail. We will also require the designated controlling authority for the airspace concerned to provide more detailed information as we work with them to put together a formal amendment that aligns with our statutory duties. We then seek feedback on that amendment from relevant stakeholders. Proportionate consultation with relevant stakeholders therefore occurs at both the Review and Amend stages.

#### **Technical evidence**

- 5.10 We begin by using appropriate intelligence to draw up a plan that lists airspace volumes where a case could be made for amending the classification, or to identify where alternative airspace management arrangements might be a more appropriate and proportionate solution. Sources will include ongoing feedback from airspace users relating to airspace access or utilisation issues, as described above. We will also use the CAA's own high-level safety intelligence, derived from ongoing reports for this purpose, where there are indications that an existing airspace structure may have the potential to be a causal or contributory factor in a safety event.
- 5.11 In more detail, these reports include:
  - continuous feedback from airspace users expressing any airspace access or utilisation concerns via online CAA form FCS1521; the CAA will raise awareness of the form among airspace users through a publicity and education campaign
  - civil Mandatory Occurrence Reports<sup>17</sup>, including reports and analysis by Local Airspace Infringement Teams relating to airspace issues

<sup>&</sup>lt;sup>17</sup> Mandatory Occurrence Reporting requires the reporting, analysis and follow up of occurrences in civil aviation and delivers a European just culture declaration. An occurrence means any safety-related event which endangers or which, if not corrected or addressed, could endanger an aircraft, its occupants or any other person. The purpose of occurrence reporting is to improve aviation safety by ensuring that relevant safety information relating to civil aviation is reported, collected, stored, protected, exchanged, disseminated and analysed. It is not to attribute blame or liability. <u>https://www.caa.co.uk/Our-work/Make-a-report-or-complaint/MOR/Occurrence-reporting/</u>

- Military Aviation Authority analysis of MoD Defence Air Safety Occurrence Reports relating to airspace issues
- CHIRP (a confidential incident reporting programme) analysis of reports relating to airspace issues<sup>18</sup>
- intelligence gained from the broad spectrum of CAA regulatory oversight activities
- CAA-gathered aerodrome activity data highlighting trends in traffic numbers and types of operations derived from CAA airport statistics
- Air traffic service surveillance data. We are still considering the available surveillance data and its applicability at the Review stage. The various methods of electronic conspicuity combined with radar sources means there are a number of options to consider to fully inform the use of the UK's airspace. Some are likely to incur a cost as well as legal agreement on the use and access to the data, as it is not owned by the CAA. Where we can obtain data, we will need to make a judgement on how best to use it with the limited resources available.
- designated areas of outstanding natural beauty and national parks
- aeronautical charts and other reference information such as airspace structure, local considerations or topography
- internal planning information relating to ongoing and recent airspace change proposals
- progress report on the outcome from any previous classification reviews.

#### Drawing up the plan

- 5.12 At this point in the procedure, the CAA will have undertaken a detailed review of the volumes of controlled airspace that make up the initial plan. We will be considering whether the evidence shows that traffic patterns (perhaps because of changes in demand or aircraft operational behaviours) have changed the airspace requirement.
- 5.13 Some of the issues that our continuous monitoring reveals are likely to fall outside the classification procedure, because they are already dealt with by the CAA's Airspace Regulation team. For example, where there are complaints that VFR traffic is having difficulty obtaining clearance for transits through a particular volume of controlled or managed airspace, or where restricted airspace is no longer needed.

<sup>&</sup>lt;sup>18</sup> <u>chirp.co.uk</u>

5.14 Some volumes of airspace may not be suitable for this procedure because they are already subject to an ongoing or recent change in airspace design, or because of the potential impacts that changing the classification might have. We need to filter these out before drawing up the plan. We discuss this further below.

## Filtering volumes of airspace that are not suitable for this procedure

5.15 In drawing up our list of possible opportunities, we apply a series of filters to remove proposals that are not appropriate for this procedure for amending airspace classification.

#### Airspace that is the subject of a change in airspace design

- 5.16 We will **not** consider under this procedure any volumes of airspace that are subject to an ongoing proposed change in airspace design (Levels 1, 2, M1 or M2) that is in progress between **stages 1 and 4** of the CAP 1616 process. Through those stages of the process, the sponsor of the change in airspace design will be considering whether the design, dimensions and classification of the airspace are appropriate. They will be determining how to adhere to the policy of keeping the volume of controlled airspace to the minimum necessary to meet the needs of airspace users and to comply with the UK's international obligations. The sponsor will potentially be amending these aspects of the design as the proposal progresses through the process. Between stages 1 to 4, sponsors must develop options for the airspace, consult on design proposals and amend proposals in light of consultation feedback. Undertaking a classification amendment during this work could limit the design options or mitigations available to the sponsor.
- 5.17 Any volumes of airspace that are subject to a change in airspace design (Levels 1, 2, M1 or M2) at stages 5 to 7 of the CAP 1616 process, or where the outcome of the post-implementation review (stage 7) was decided less than three years ago, will be assessed by the CAA on a case-by-case basis. It is only from stage 5 that the proposal is mature enough to assess this. It could be that the classification issue we found with that volume of airspace is sufficiently distinct from the airspace design change that we can proceed with including it in our plan. If it is not sufficiently distinct, then we will not consider that volume of airspace under the classification procedure, because it would not be appropriate to carry out a further review of the classification so soon after implementation. The CAA will have considered the design, dimensions and classification of the airspace when making our decision. The airspace change sponsor will have invested resources and money into the change and should have a reasonable expectation of a period of time to implement and monitor the change and benefit from its investment. This is why we are proposing a period of three years after

the outcome of the post-implementation review before we could consider reviewing the classification at a later date.

5.18 In cases where we do not progress a classification amendment through the new procedure because of an ongoing or recent change in airspace design, we will instead formally notify the airspace change sponsor and (where appropriate) the Airspace Change Organising Group<sup>19</sup> of the intelligence we have derived.

#### Changes with an adverse effect on military operations

- 5.19 As explained in Chapter 2, the Air Navigation Directions require us to first seek the approval of the Secretary of State for Defence before increasing the volume of controlled airspace or altering the classification of UK airspace where to do so might, in the opinion of the CAA or the Ministry of Defence, have an adverse effect on the ability of the armed forces of the Crown to maintain their operational capability.
- 5.20 The CAA must therefore review whether there is the potential for any change to an airspace volume to meet those criteria:
  - where in our opinion there is no such potential, we will proceed with including it in our plan, or
  - where in our opinion there is such potential, we will filter out that airspace volume for further discussion with the Ministry of Defence, and depending on those discussions, we may seek the approval of the Secretary of State for Defence, after which:
    - where the Secretary of State for Defence is content, we will proceed with including it in our plan, or
    - where the Secretary of State for Defence is not content, the CAA may only approve the proposed change in accordance with directions given by the Secretary of State under section 68(3) of the Act, and therefore we will notify the Department for Transport).<sup>20</sup>

#### Airspace considered in the preceding review cycle

- 5.21 We will also not consider any airspace volume that was in the immediately preceding classification review and where:
  - a classification change proposal is still at the Amend stage, or

<sup>&</sup>lt;sup>19</sup> The Airspace Change Organising Group, usually known as ACOG, was established in 2019 to coordinate the delivery of key aspects of the Airspace Modernisation Strategy. It operates impartially and is overseen by the CAA and Department for Transport. <u>https://www.ourfutureskies.uk/about-us/who-are-acog/</u>

<sup>&</sup>lt;sup>20</sup> Direction 12(8) of the Air Navigation Directions.

- an amendment to classification is complete but where the outcome of the effectiveness review was decided less than three years ago, or
- a classification change was considered and rejected in the immediately preceding review, and the reasons for rejection remain valid.

## Changes that would have significant operational or environmental impact

- 5.22 If, as we develop a proposal, we find that there would be a significant operational, safety or environmental impact, for example if we would need to make changes to departure and arrival routes at aerodromes, then we would not progress the proposal any further using the classification procedure. This is because such a proposal would constitute a significant change in airspace design, where the impacts must be thoroughly assessed through the more detailed CAP 1616 process. Instead we would recommend to the airspace controlling authority that it considers addressing the airspace issue concerned through an airspace design change in the future, or where appropriate we might discuss other solutions with them (such as enabling access to airspace in a flexible way).
- 5.23 Table 1 below sets out the criteria we propose to apply for this filter:
  - the first part of the table relates to impacts where we will definitely <u>not consider</u> a change under this procedure
  - the second part relates to impacts where we <u>may consider</u> a change under this procedure, and
  - the third part gives examples of impacts where we will consider a change under this procedure.

Table 1: Filter for determining whether a specific classification change is suitable for the proposed procedure

Filter	Criteria	Comments
In developing options to amend any airspace classification, the CAA <b>will not consider</b> amending the classification of airspace under this procedure where:	<ul> <li>the amendment has the potential to affect the design of notified</li> <li>IAPs</li> <li>SIDs</li> <li>STARs</li> <li>standard departure routes (SDR)</li> <li>preferred departure routes (PDR)</li> <li>noise preferential routes (NPR), or</li> <li>ATS routes within existing volumes of controlled airspace</li> <li>where traffic demand for the continued use of these routes and procedures exists.</li> </ul>	Where the classification of a volume of airspace will not be amended through this procedure, but evidence gathered in the Consider, Review and/or Amend phases indicates a safety issue with that airspace volume, the CAA Future Airspace Team will advise the CAA Airspace Regulation and Air Traffic Management teams (as appropriate) so that they can progress the matter with the airspace controlling authority through the normal oversight process.
In developing options to amend any airspace classification, the CAA <b>may consider</b> amending an airspace classification under this procedure where:	<ul> <li>the amendment has the potential to affect:</li> <li>the flight path of departing/arriving IFR flights as a consequence of the presence of unknown VFR flights transiting a volume of airspace that has been reclassified from a more restrictive classification, to a less restrictive classification; or,</li> <li>vectoring practices established in unit MATS Part 2 where vectoring is required to position aircraft onto the final approach track, or towards a point from which the flight-planned route can be continued; or</li> <li>areas of ATS delegation.</li> </ul>	The CAA will use an operational safety assessment to determine whether these changes are appropriate to be pursued under this procedure.

Note: in each case the CAA will undertake engagement with the affected airspace controlling authority and other relevant stakeholders to ensure that their opinions are considered.

#### (continued overleaf)

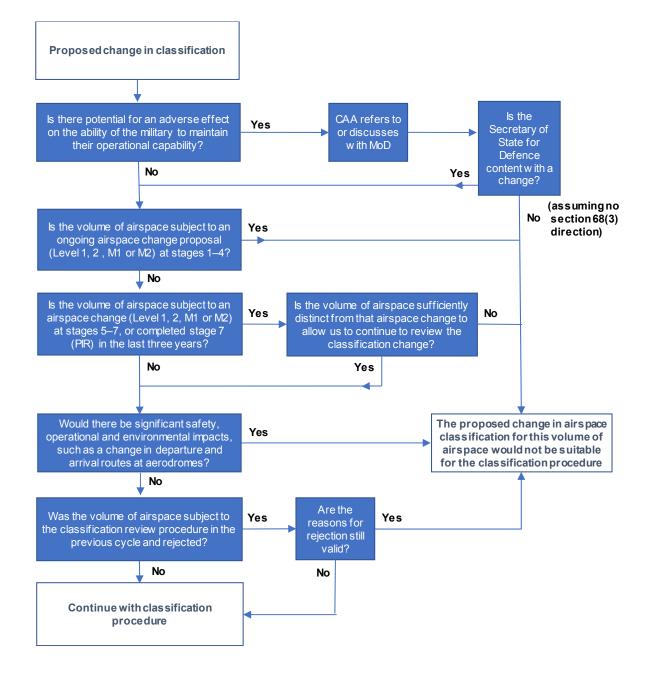
Table 1: Filter for determining whether a specific classification change is suitable for the proposed procedure (continued)

Filter	Criteria	Comments
In developing options to amend any airspace classification, the CAA will consider amending an airspace	<ul> <li>for example,</li> <li>it is demonstrated that traffic demand or aircraft operational behaviours have changed the airspace volume requirement</li> </ul>	
classification under this procedure where:	<ul> <li>is subsequent to a change or withdrawal of notified:</li> <li>IAPs</li> <li>SIDs</li> <li>STARs</li> <li>standard departure routes (SDR)</li> <li>preferred departure routes (PDR)</li> <li>noise preferential routes (NPR)</li> <li>ATS routes, or</li> </ul>	
	<ul> <li>is subsequent to the amendment or withdrawal of operational procedures and/or landing areas which render the volume of controlled airspace surplus to requirements, or</li> </ul>	
	<ul> <li>has the potential to affect the flightpaths of aircraft transiting the airspace (i.e. not departing from or arriving at the aerodrome whose airspace is being reviewed) as follows:</li> </ul>	
	<ul> <li>where flights may now need to decide whether to seek a crossing clearance for flight within a more restrictive airspace classification, or to route around that airspace, or</li> </ul>	
	<ul> <li>where flights may now be able to operate within airspace which they previously had not, due to the notification of a less restrictive airspace classification.</li> </ul>	

Note: in each case the CAA will undertake engagement with the affected airspace controlling authority and other relevant stakeholders to ensure that their opinions are considered.

#### 5.24 Figure 2 illustrates these filters in the form of a flowchart.

#### Figure 2: Filters applied to create the CAA's plan at the Review stage



## Consultation on the plan

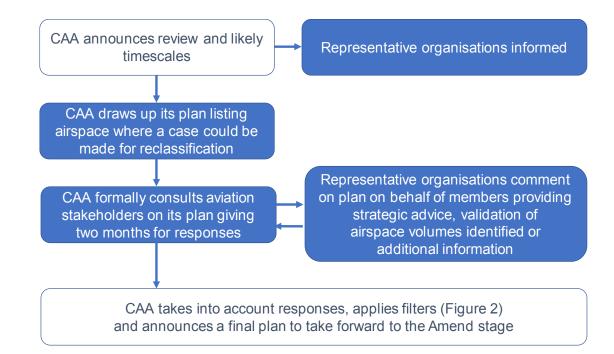
5.25 Having drawn up an initial plan of airspace volumes where a case can be made for amending the classification, we will consult aviation stakeholders on that plan, as required by the Air Navigation Directions. We will:

- inform aviation stakeholders of those volumes of airspace we have identified for review; the consultation will be in writing, but we may supplement this with briefings and/or feedback sessions as appropriate with relevant stakeholders to hear their views first hand, as set out in a consultation strategy that we will draw up
- seek validation of (and any additional evidence to support the need to review) those airspace volumes we have identified, and
- consider any strategic advice or other additional information provided in response to the consultation; where this relates to a specific volume of airspace, it should ideally include supporting reasoning and evidence where possible. We will do our best to verify the information that is provided in the response, and, if a reasonable case can be made, we will consider adding to or amending the plan.
- 5.26 As mentioned at the end of Chapter 4, in identifying which aviation stakeholders to consult, we use the Airspace Modernisation Strategy airspace modernisation governance structure to identify the best representatives of airspace users, or are a conduit to them.<sup>21</sup>
- 5.27 Each organisation will be invited to make one response, regardless of its size or whether someone is a member of more than one group in the governance structure. We will make clear that respondents must give their organisation's views, not their own. It is essential that the input from these representative organisations is properly informed by the views of the members of the groups they represent.
- 5.28 When we seek feedback, we will normally allow two months for responses. We hope that this gives representative organisations sufficient time to collate input from their members, because we do not want to prolong the procedure unnecessarily. To help them plan for and meet this timeline, we will notify these organisations in advance of our intention to launch a review, as noted in Chapter 4. We then expect these organisations to advise their members of the likely CAA timetable and to invite their members to consider whether they have any feedback relating to the third bullet above. This should give each organisation sufficiently representative material that it can draw from when putting together its response.
- 5.29 We will ask respondents to support their suggestions with appropriate rationale and evidence where possible. We recognise that airspace users are likely to have only limited information with which to evidence a suggestion, so the CAA

As noted later in this chapter, because our proposed classification procedure was not in place for our first review in December 2019, we decided on that occasion to go beyond the requirement of the Air Navigation Directions to consult airspace users, and offered any individual a say.

will complete the picture using other sources of information. We need to understand why the proposal is reasonable, how it would work and what the benefits and disbenefits would be.

- 5.30 If the review is limited in scope, for example geographically, this may mean we target specific stakeholders with a local interest. We may also sometimes extend the consultation to a wider range of stakeholders, depending on the circumstances. The consultations will normally be published on our consultation website <a href="https://consultations.caa.co.uk/">https://consultations.caa.co.uk/</a> with access confined to the stakeholders we are consulting.
- 5.31 When we receive suggestions, we will again apply filters to remove changes that make them unsuitable for this procedure, as described above.
- 5.32 Figure 3 illustrates this process in the form of a flowchart.



#### Figure 3: Consultation at the Review stage

## Consulting on airspace classification more widely

5.33 The procedure described above is based on a consultation of specific stakeholders, not a public consultation. Between December 2019 and March 2020, the CAA did run a public consultation to seek suggestions of airspace volumes where we might consider reviewing the classification, as a way of initiating a review while we develop a new procedure. While the Directions only insist that we consult airspace users, we took a different approach to our firstever review. We wanted to create an opportunity to hear from as many interested stakeholders as possible, and gain an initial understanding of the volumes of airspace that people would want us to try to amend.

5.34 In the future, the CAA may decide on occasion to repeat a public consultation on airspace classification similar to this first example, in the interest of being fully open to new ideas and suggestions. However, it would not be proportionate or appropriate to do this every two years; therefore the usual procedure will be that described earlier, and any wider public consultation will be on an ad hoc basis.

# Using the new procedure to review broader classification needs

- 5.35 Each time we carry out a review, a plan will be produced. Following our first review and our consultation that closed in March 2020, our initial plan will focus on reducing the amount of controlled airspace. The review helped us identify opportunities for more equitable access for other airspace users, and these are likely to form the majority of our first plan.
- 5.36 The Air Navigation Directions also give us some useful flexibility in our new function. Consistent with our duty to seek to ensure that the amount of controlled airspace is the minimum required to maintain a high standard of air safety and that the needs of all airspace users is reflected on an equitable basis, the new function gives us the ability to amend a classification to make it more, as well as less, restrictive.
- 5.37 This would be relevant where there is a need to address safety concerns that we identify from routine reporting of issues relating to airspace classification. The new procedure must accommodate this possibility, because in carrying out this new function our overriding objective will always be to maintain a high standard of safety.
- 5.38 In the future the new procedure could also be used to improve our compliance with ICAO requirements on airspace classification, and to facilitate the introduction of new air traffic management concepts including the integration of drones and other types of aircraft.

## Drawing up the final plan

5.39 As we draw up the final plan, we will begin to identify the external airspace stakeholders specific to each airspace volume under consideration. We may also undertake some preliminary engagement with the relevant airspace controlling authorities for each volume for airspace in order to understand the issue or opportunity better as we finish the plan and before we embark on detailed analysis work.

## Outcome of the Review stage

- 5.40 The outcome of the Review stage is that the CAA publishes its final plan identifying the airspace volumes where we will make a case for the classification to be amended in accordance with our statutory duties, including the Secretary of State's Direction to the CAA about equitable access and the factors set in section 70 of the Transport Act 2000.
- 5.41 The plan will include:
  - a brief description of the airspace volumes where we believe a case can be made for amending the classification or where the introduction of alternative airspace management arrangements would be a more appropriate and proportionate solution
  - a brief statement of what opportunity or issue we are seeking to address for each specific airspace volume
  - a summary of our analysis of the airspace volumes that were subject to review, including:
    - the consultation responses we received and how we altered the plan based on those responses and why
    - the rationale for excluding specific airspace volumes.
- 5.42 We will then adopt this plan as part of our Airspace Modernisation Strategy, and take the airspace volumes in this final plan forward to the Amend stage.

he Review	w stage?		
About right	Some modifications needed	Significant modifications needed (please list your modifications)	Don't know

## Chapter 6 Amend stage

### Summary

- This chapter explains the CAA's proposals for the Amend stage of the new procedure.
- Our analysis of the intelligence we have collected becomes more detailed as we develop each case further into a proposal to amend the airspace classification, relying on vital input from the airspace controlling authority and working with other relevant stakeholders as necessary.
- Options might include changing the dimensions of the airspace (for example, reducing the size), changing the classification or enabling access to airspace in a flexible way.
- The proposal must satisfy the requirements of the Air Navigation Directions and the factors in section 70 of the Transport Act 2000. The airspace controlling authority develops the operational procedures and safety case with CAA assistance, but ultimately the controlling authority owns the safety component of the proposal. The CAA assesses any potential environmental impacts and adds this to the proposal.
- The CAA consults relevant stakeholders about our proposal, identifying those stakeholders using the principles in CAP 1616. We take into account feedback in finalising the formal proposal.
- This proposal, including an implementation plan, is then submitted to the CAA's Airspace Regulation decision-making process.
- If the Airspace Regulation team approves the proposal, the airspace controlling authority arranges implementation of the approved amendments.
- The airspace controlling authority monitors the ongoing effectiveness of the change and reports after one year to the CAA. The CAA reviews that report.

## Purpose of the Amend stage

- 6.1 The starting point for the Amend stage is the CAA plan that was developed at the Review stage and adopted into the Airspace Modernisation Strategy. The plan lists airspace volumes where a case can be made to amend the airspace classification (or enabling access to airspace in a flexible way if this is a more proportionate response).
- 6.2 The purpose of the Amend stage is to analyse each identified airspace volume in more detail, and, working closely with the designated airspace controlling authority and other relevant stakeholders, to develop an amendment to the classification that satisfies our statutory duties, including the requirements of the

Air Navigation Directions and the factors in section 70 of the Transport Act 2000. The Directions require that "The CAA must [...] in [...] amending the classification of a volume of airspace [...] seek to ensure that the amount of controlled airspace is the minimum required to maintain a high standard of air safety and, subject to overriding national security or defence requirements, that the needs of all airspace users is reflected on an equitable basis".

6.3 The Amend stage moves from the development of a proposal with the airspace controlling authority, taking into account feedback from consultation, to submission of the final proposal to the CAA's Airspace Regulation decision-making process. The effectiveness of a change that has been implemented is reviewed after one year to see how it is performing.

## **Proposal development**

- 6.4 For each airspace volume in the plan, the CAA develops a proposal to determine whether an amendment to the classification is viable and would satisfy our statutory duties, including the requirements of the Secretary of State's Directions and the factors in section 70 of the Transport Act 2000. We will be relying on vital input from the airspace controlling authority and working with other relevant stakeholders as necessary. We will draw further on our technical evidence base, as well as requiring the controlling authority for the airspace concerned to provide detailed information that must feed from them into our formal amendment proposal. This information will help us define the optimum arrangement of new boundaries and related service provision.
- 6.5 In this procedure the CAA is responsible for identifying volumes of airspace and amending the classification correctly, with the airspace controlling authority owning the safety risk by having to prepare the operational procedures and safety case, with our assistance. We collect evidence supporting the amendment, presenting this to the airspace controlling authority, tasking them with the operational procedures and safety case.

## Complying with the legal and policy framework

- 6.6 For each case, the CAA sets out a statement of what opportunity or issue the proposal seeks to address. We include the cause of the issue or opportunity, why action is required and any associated factors or requirements that must be achieved (safety, operational, technical, and environmental).
- 6.7 In considering different options for how we might address that opportunity or issue, we must apply the necessary legal and policy framework. Our design work will ensure that the proposal is compliant with:
  - ICAO SARPs (Standards and Recommended Practices) and PANS (Procedures for Airspace Navigation Services) relating to airspace design and any relevant national law

- relevant CAA policies and airspace design guidance
- relevant best practice published by the Independent Commission for Civil Aviation Noise (ICCAN)<sup>22</sup>, to the extent that this is applicable to the impacts anticipated

and also that the resulting proposal:

- is compliant with the CAA's statutory duties, including delivering the factors in section 70 of the Transport Act 2000
- adheres to the Air Navigation Directions relating to airspace classification and takes into account the guidance relating to environmental considerations that the Secretary of State has given us (see 'environmental assessment' below).
- 6.8 Section 70 applies to the exercise of all our functions in the Air Navigation Directions, including this new one. If in any particular case there is a conflict, we must apply those factors in the manner we think is reasonable having regard to them as a whole.
- 6.9 Our new function in the Air Navigation Directions makes specific reference to objectives (ensuring that the amount of controlled airspace is the minimum required to maintain a high standard of air safety, and equitable access subject to national security and defence requirements), but we must always consider the other section 70 factors.
- 6.10 The new procedure therefore collects appropriate evidence for each factor to demonstrate that the requirements of section 70 are delivered. We discuss the most important of these below our overriding safety objective; operational assessment and environmental impacts.
- 6.11 Should our deeper analysis reveal significant operational or environmental impacts from a proposal (see Table 1) that had not previously been apparent when we applied the filters at the Review stage (see Figure 2), then that proposal will not be pursued. As described in Chapter 5, in such cases we would instead recommend to the airspace controlling authority that it considers addressing the airspace issue concerned through an airspace design change in the future, or where appropriate we might discuss other solutions with them (such as enabling access to airspace in a flexible way).

## Safety assessment

6.12 Local operational knowledge for the airspace in question is essential in order to develop the safety case. Also, once a proposal is implemented, the airspace controlling authority will own the safety component. It must therefore be the

<sup>&</sup>lt;sup>22</sup> ICCAN is the independent UK body responsible for creating, compiling and disseminating best practice to the aviation industry on the management of civil aviation noise and advising government in this area.

airspace controlling authority that develops the operational procedures and safety case with CAA assistance.

- 6.13 The safety assessment by the airspace controlling authority must comply with ATM/ANS.OR.010<sup>23</sup> and will:
  - describe the scope of the proposed airspace classification change
  - identify new and changing hazards
  - identify and quantify risks arising from those hazards
  - set mitigations for those risks.
- 6.14 The CAA has published separate guidance (CAP 760) about safety assessment.<sup>24</sup>
- 6.15 As per the CAP1616 process, Airspace Regulation decision-making requires a regulatory review of the safety system which will be part of this new procedure as well. Therefore, we will publish plain English summaries of the safety assessment by the airspace controlling authority and of the CAA's review so that affected stakeholders can see that the airspace controlling authority has demonstrated that it has properly considered the potential safety impacts of the proposed change. The summaries may exclude material which the CAA is satisfied should be kept confidential.
- 6.16 The CAA will review the air traffic safety risks associated with the airspace design and, where appropriate, whether the level of air traffic service resource and infrastructure is appropriate to support the change safely. The CAA will review whether the air traffic procedures associated with the change are adequately safe, that those procedures support the operational environment and that all appropriate risks have been considered. The CAA will also review the design of the proposal from a safety perspective, such as whether the instrument flight procedures have been designed appropriately, or whether the route spacing is correct.

## **Operational assessment**

- 6.17 The CAA will set the operational objectives for the change. Again, local operational knowledge will be essential to complete the operational case for the proposal, requiring essential input from the airspace controlling authority.
- 6.18 Working with the airspace controlling authority, the CAA will ensure that the proposed airspace design and associated operational arrangements are fit for

<sup>&</sup>lt;sup>23</sup> EU Regulation No 2017/373 ATM/ANS implementing rules Annex III or the equivalent in national law.

<sup>&</sup>lt;sup>24</sup> CAP 760 Guidance on the Conduct of Hazard Identification, Risk Assessment and the Production of Safety Cases: For Aerodrome Operators and Air Traffic Service Providers www.caa.co.uk/cap760

purpose, and that it meets relevant regulatory requirements. We will also assess whether adequate resource exists to deliver the change, and whether adequate communications, navigation and surveillance infrastructure exists to enable the change to take place; that maps and diagrams explain clearly the nature of the proposal; and that operational impacts on all airspace users, airfields and on traffic levels have been considered and mitigated appropriately.

## **Environmental impacts**

#### **Guidance from the Secretary of State**

- 6.19 The CAA is required by section 70 to take into account any guidance on environmental objectives given to the CAA by the Secretary of State. For a change in airspace design going through the CAP 1616 process, this guidance is the Air Navigation Guidance 2017.
- 6.20 As explained in Chapter 2, when the Secretary of State wrote to the CAA in 2019 giving us our new Directions about this procedure for amending airspace classification, he said that the environmental objectives set out in the Air Navigation Guidance 2014 and 2017, as well as the rest of that Guidance, are not to apply to decisions under this new procedure. However, the letter also says that he expected the CAA to consider the potential environmental consequences of proposals under the procedure, and to engage with relevant communities as the CAA considers appropriate.
- 6.21 In consequence, in the absence of environmental guidance from the Secretary of State, the CAA has had to determine its own environmental objectives when making decisions under this procedure. We will do so with reference to background government policy, including but not limited to, the Climate Change Act 2008, the Aviation Policy Framework 2013 and the Noise Policy Statement for England 2010. We conclude that applying those background documents to determine our own environmental objectives will lead to the same environmental objectives as are set out in the Air Navigation Guidance.

#### **Environmental assessment**

- 6.22 As far as we are able to, the CAA will assess any potential environmental impacts and add this to the proposal.
- 6.23 As we describe in more detail in Chapter 5, we do not envisage any significant or measurable environmental impacts from a classification change, such as might be caused by changes to departure and arrival routes at aerodromes, because these would have been filtered out at an earlier stage in the procedure.
- 6.24 The environmental impacts of a classification amendment under this procedure could be uncertain and are probably not measurable. For example, removing controlled airspace effectively opens up that volume of airspace to all flights. If

the airspace were previously relatively unused (hence the reclassification), there could potentially be an increase in noise from new low-level traffic. Because the airspace is not controlled, we cannot estimate how frequent those new flights are or where and at what height they will overfly those on the ground. Therefore, we are unlikely to be able to model noise or other environmental impacts.

- 6.25 That means we cannot use the detailed assessment for airspace change proposals that is described in CAP 1616 and its environmental technical annex CAP 1616a. Nor would we apply the options appraisal of costs and benefits that is set out in the Air Navigation Guidance, or the Government 'WebTAG' quantitative methodology.
- 6.26 For these reasons, making any assessment of the environmental impacts would, at least for a change to a less restrictive classification, be a **qualitative not quantitative exercise**. Even then, although the impact is unlikely to be zero, the amount of information we can give interested stakeholders about the impact will be limited.

## Forms that the proposal may take

6.27 The CAA develops and evaluates the preferred option that will address the opportunity or issue identified and complies with the legal and policy framework. The amendment itself could take various forms. The options are likely to fall into one of three categories, plus a 'do-nothing' option.

#### A. Amending the dimensions of the volume of controlled airspace

6.28 This option involves amendment of the classification of a volume of controlled airspace. This would probably be most commonly achieved by changing the upper and lower bounds or how far it extends laterally (or a combination).

#### B. Amending the classification of the volume of airspace

6.29 In this option the dimensions of the controlled airspace do not change, but the airspace classification and therefore probably the air traffic service provision arrangements within it do change. We could, for example, amend the classification from class D to class E, and therefore make it less restrictive for VFR flights by changing the access and air traffic service provision arrangements within it.

#### C. Enabling access to airspace in a flexible way

6.30 In this option we would introduce flexible airspace management arrangements.

#### Switching the classification flexibly

6.31 We could adopt a flexible arrangement that switches the airspace from a more restrictive classification (when it is needed for use by IFR flights) to a less

restrictive classification (at other times).<sup>25</sup> It might be possible to switch the airspace classification according to time of day; for example where a commercial aerodrome has no night-time operations, the classification is downgraded during those hours according to a fixed schedule which is recorded and published through NOTAMs.

6.32 A more dynamic, real-time variant of flexible airspace management is a longerterm aspiration. For safety and efficiency reasons this would first require new procedures and supporting enabling technology such as real-time information sharing using electronic conspicuity. It will be important to have dissemination and assurance-of-receipt of the status of a particular block of airspace. For example, if VFR traffic is using airspace while the airspace classification is 'off' but needs to be contacted before it can be switched back 'on', thereby allowing IFR operations to be safely resumed, it must be possible to correctly identify and communicate with that VFR traffic. This longer-term aspiration will be built into future airspace structures once the CAA is satisfied that a safe and tested regulatory solution is in place.

#### Letters of Agreement

6.33 Where the needs of a defined set of airspace users could be accommodated by a bilateral agreement with the airspace controlling authority, the CAA could encourage the controlling authority to develop a formal Letter of Agreement, instead of changing the airspace classification. If necessary the CAA could act as mediator.

#### **D.** Do-nothing option

6.34 We may decide as a result of further, more in-depth analysis, that the classification or management of a volume of airspace should not be changed.

## Working in cooperation with the airspace controlling authority

- 6.35 The cooperation between the CAA and the designated airspace controlling authority on the amendment is a key feature of the Amend stage.
- 6.36 Any amendment to classification needs a supporting safety argument, and this will be written by the CAA when the best option has been chosen. However, the CAA accepts that it lacks the technical knowledge of a volume of airspace at a local level, because the CAA does not operate the airspace. We will therefore not be able to design the whole amendment on our own.

<sup>&</sup>lt;sup>25</sup> Note that this differs from Flexible Use of Airspace (FUA), which is a specific airspace management concept defined by ICAO whereby airspace is no longer designated as either pure civil or military airspace, but rather be considered as one continuum in which all airspace user requirements have to be accommodated.

- 6.37 The CAA will resource the necessary airspace design expertise, but to undertake that design work and write the necessary safety case we need information from the airspace controlling authority about the utilisation of that airspace. This includes the airspace controlling authority developing the operational procedures and safety case with CAA assistance where required.
- 6.38 The CAA will produce evidence as to why the change is necessary. We therefore expect full cooperation from the controlling authority and other relevant stakeholders. We recognise that there could be a resource cost incurred by the controlling authority, and the CAA will do its best to minimise this, using our own resources where we can. But any cost the controlling authority does incur should be seen as part of the cost of managing that airspace effectively, in view of the supporting case the CAA will present about the need for change.
- 6.39 The CAA bears the risk of identifying volumes of airspace and amending the classification correctly, with the airspace controlling authority owning the safety risk by having to prepare the operational procedures and safety case, with our assistance. We mitigate our risk by collecting evidence supporting the change, presenting this to the airspace controlling authority, tasking them with the operational procedures and safety case, and consulting on the full proposal to ensure we have not missed anything.
- 6.40 In the unlikely event that the airspace controlling authority's input is not forthcoming, the Air Traffic Management and Unmanned Aircraft Bill would give the Secretary of State (or the CAA if powers are delegated) new powers to compel that input where it would assist in the delivery of the CAA's airspace strategy.
- 6.41 If necessary we have powers under section 71 of the Transport Act 2000 to request any specific documents or information from an air navigation service provider for any purpose connected with our air navigation functions.
- 6.42 The legal framework is described in Chapter 2.

## **Outputs from proposal development**

- 6.43 In order to complete a draft formal proposal on which to consult relevant stakeholders, the following outputs from the Amend stage so far are needed:
  - operational case for preferred option to take forward for engagement with stakeholders
  - rationale for options chosen/not chosen
  - HAZID (initial identification of safety issue) conducted by the airspace controlling authority for the preferred option

- identification, in qualitative terms and as far as practicable, of potential environmental and economic implications of the proposed change
- formal assessment of how the proposal delivers the requirements of section 70 of the Transport Act 2000.

## Consulting stakeholders for feedback on the proposal

#### Why we consult

- 6.44 Our prime consideration is that the amendment can be implemented safely and that it is operationally workable. We also need to consider the implications of the amendment for airspace users and anyone else affected. We do not envisage extensive consultation being necessary at the Amend stage, and the Air Navigation Directions do not specifically require it. However, because the amendments will have impacts on airspace users and other relevant stakeholders, we must consult those affected to make sure that:
  - we clearly communicate our proposed amendment
  - they have an opportunity to inform us of the positive and negative impacts of an amendment, and help us consider mitigations to negative impacts
  - they can see how their views have been captured and considered before we implement an amendment.

#### **Proportionate approach**

- 6.45 We will follow the best-practice principles on consultation and engagement that are set out in CAP 1616.
- 6.46 It is our aim to keep this procedure as proportionate as possible, and that includes consultation. If the proposal is a relatively minor change, with few impacts, the best-practice principles on consultation will dictate a proportionate approach. For example, in many cases we may decide that having informed affected stakeholders of a change, we do not need to ask for written responses through a formal consultation. Instead we can get the feedback we need by organising engagement sessions or other events. Nevertheless, the procedure still needs to be transparent. Because stakeholder feedback provided in those sessions or other (public or private) events will not be submitted to us in a formal consultation response but through verbal statements or conversations, we will make it visible through a summary on the webpage with a clear indication of how it has been considered.

#### **Consultation and engagement strategy**

6.47 We cover some of the main principles below. It should be noted, however, that not all of these principles will need to be applied in respect of every proposal.

- 6.48 For each proposal we develop a stakeholder consultation and engagement strategy. (We use engagement as a catch-all term for developing relationships with stakeholders, whether in writing or through meetings.) We will do so in conjunction with the airspace controlling authority, and where appropriate the airport operator, which may be better placed (in terms of experience and communication channels) to identify relevant, and in particular local, stakeholders. The fundamental principles of effective consultation are targeting the right audience, communicating in a way that suits the audience, and giving the audience the tools to make informative, valuable contributions to the proposal's development. There could be a wide variation between individual proposals depending on the anticipated impact.
- 6.49 The strategy describes whom we engage with and how. It sets out who may be affected, positively or negatively, by the proposed change (a stakeholder map), including airspace users, airports using neighbouring airspace or air navigation service providers that might experience consequential impacts as a result of our proposal. Where a change may impact on General Aviation's access to airspace, we are likely to communicate directly with local flying clubs, schools and airfields, as well as with the national bodies representing these types of activity. Should we be able to identify any impacts on specific communities, our strategy will address who needs to be contacted. An option may be to use the airfield's consultative committee, or its local noise management body. As explained earlier in this document, we do not envisage any significant or measurable environmental impacts from a classification change, because these would have been filtered out at an earlier stage in the procedure.
- 6.50 The stakeholder map will likely involve the same organisations representing airspace users that we consulted at the Review stage, but because it is likely to be more focused at the local level, there will be other interested stakeholders who may be directly impacted. The CAA will therefore normally adopt a targeted approach and, taking advice from the airspace controlling authority, focus our engagement with stakeholders affected by the proposal at the local level where we can.
- 6.51 As well as this stakeholder map, our strategy for each proposal also includes:
  - how we will inform stakeholders about the consultation
  - how consultation and supporting materials will be developed to suit a range of audiences, such as how technical information will be communicated in an accessible way
  - what opportunities audiences will have to engage and respond (channels used), at which times (timetable of activity), including the period of the consultation
  - the use of the most up-to-date and credible, clearly reference sources of data.

#### **Commencing consultation**

- 6.52 Once we have finalised our strategy, we can commence our targeted consultation. We do this in a fair, open and transparent manner using, as appropriate, the CAA's consultation website and the dedicated webpages on airspace classification we will create. These are the primary means of sharing information between the CAA and consultees. Respondents will be expected to use our consultation website to download documents and to submit their responses including any supporting documents. Those responses will be recorded and published on the website as they are received, subject to the CAA moderating them to remove any unacceptable material.
- 6.53 We will also use the airspace classification webpage to maintain a transparent record of any other engagement activity with stakeholders throughout the procedure. Doing so will support our interactions with stakeholders and help to explain and justify any changes we might make to the original proposal we are consulting on.
- 6.54 We will adopt a flexible, best-practice approach when setting a deadline for responses based on the anticipated impact of the proposal, the audience we are consulting and the method of consultation.

#### Amending the proposal in the light of stakeholder feedback

6.55 When the period of consultation has ended, we will collate, review and categorise responses. We will then know which responses have the potential to impact on the proposal – because they include new information or ideas that we believe could lead to us modifying or rethinking the proposal – and those that do not. We then look more closely at the former category and decide whether or not it is appropriate to amend our proposal, working closely with the airspace controlling authority. We will be fully transparent about the comments and suggestions we do and do not take on board, and the reasons why. We will do so through a consultation response document that we will publish alongside the final proposal.

# Submission of the final proposal to CAA Airspace Regulation decision-making process

6.56 Having taken account of stakeholder feedback, the CAA continues to work closely with the airspace controlling authority to complete the final proposal, including implementation requirements.

#### **Operational unit implementation plan**

6.57 Before the proposal is submitted to the CAA's Airspace Regulation decisionmaking process, we work with the airspace controlling authority to:

- identify the implementation date to align with the AIRAC (Aeronautical Information Regulation and Control) cycle
- finalise operational procedures and revisions to local instructions; for example, updates to the Manual of Air Traffic Services (MATS Part 2)
- develop an implementation plan, ensuring training and awareness material, charting and procedure updates, and AIS submission to promulgate the changes through the Integrated Aeronautical Information Package
- identify unit system changes (i.e. radar maps, frequency assessment).

# Submission document outlining the CAA's formal proposal for a classification change

- 6.58 We formally submit the final proposal, including all relevant documentation from the proposal development, plus the operational unit implementation plan, to the CAA's Airspace Regulation decision-making process. It is published on a webpage dedicated to airspace classification, with redactions confined to the minimum where the criteria given in Chapter 3 (under the heading Transparency) are met.
- 6.59 Notwithstanding the likelihood of classification proposals varying in characteristics, we will structure the submission in accordance with a standard template. This makes it easier for anyone interested in airspace classification changes to see what is being proposed. The template will identify the main characteristics of the proposal (akin to an executive summary) and will be structured using standard headings including safety, operational, environmental and consultation, drawing from the earlier outputs in the procedure.
- 6.60 The default position is that all material in relation to a proposal is published. We anticipate redaction of the minimum information necessary to comply with our legal obligations.
- 6.61 The Airspace Regulation decision-making process will assess whether the amendment complies with all relevant implementation requirements for airspace design and does not conflict with the airspace design overall. Although that formal decision would come at the end of the procedure, and will be taken independently, there would obviously need to be formal discussion between the CAA teams during the design process.
- 6.62 The Airspace Regulation team will issue a decision that we will publish, signed by the Group Director, Safety and Airspace Regulation or the Head of Airspace, ATM and Aerodromes.

## Review of how the change is performing

- 6.63 As with any change in airspace design, it is essential that the designated controlling authority monitors the effectiveness of the change once implemented. The purpose is to verify that the revised classification is performing as expected, from an operational, safety and environmental perspective, and to assess whether there are, for example, any unintended consequences.
- 6.64 The controlling authority should therefore openly solicit and monitor feedback from airspace users or anyone else impacted. This includes monitoring any complaints from those on the ground about noise.
- 6.65 We will require the controlling authority to provide us with a report one year after implementation. Each time we start a new review cycle, we will want to refer to these reports to inform the Consider stage as to whether there are outstanding priorities from a previous review cycle.
- 6.66 The CAA will confirm whether it is satisfied with the report or whether further action is needed.

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## Chapter 7 Implementation of the procedure

### Summary

- This chapter explains the CAA's proposals for implementing the new procedure from 1 December 2020.
- Alongside this consultation we have published a summary of the responses we had to the consultation we ran last December for our first Review, which invited suggestions of volumes of airspace where we should review the classification.
- Given current financial pressures related to the COVID-19 pandemic and its impact on air traffic, we will initially resource the new team to run the procedure through internal secondments where we can. Exceptionally, airspace design skills require external recruitment, which we will initiate as soon as possible. After a year we will review the position. We are considering how best to recover the costs of the new procedure.
- We will create a specific webpage for airspace classification in order to be as transparent as possible. For the longer term we see merit in adapting the airspace change portal used for airspace change proposals to accommodate the new classification procedure.
- We are keen to understand how we can best minimise the cost impacts of the new procedure on affected stakeholders.

## Implementation date

7.1 The implementation date for the new procedure is 1 December 2020. This is required by the Air Navigation Directions given to the CAA by the Secretary of State. The implementation date in the amended Directions were originally due to come into force on 1 April 2020, but the Secretary granted an extension to 1 December 2020 because of the time it would take for us to develop and consult on a robust procedure."

## Progress with the current review

7.2 As noted in Chapter 3, in response to the Secretary of State's 2019 Directions, the CAA decided to begin a review of airspace classification without delay, and before we had devised the new review procedure. As a result, between December 2019 and March 2020 the CAA ran a public consultation seeking suggestions for volumes of airspace that we might consider for reclassification through our new procedure. We have already published the responses where we had permission to do so, and alongside this consultation we are publishing a summary of them and next steps.<sup>26</sup>

### **CAA staff resources**

- 7.3 In order to run the new procedure we will employ a dedicated staff team within our Safety and Airspace Regulation Group. We estimate that six full-timeequivalent posts will be required. We say 'estimate' because if we decide to amend the new procedure in the light of consultation responses, we may need to amend some of the roles slightly. We aim to have at least the first of these in place from autumn 2020. The team will need to include staff with specialist skills that can undertake airspace design.
- 7.4 Like the rest of the aviation industry, the CAA's financial position has been severely impacted by the Covid-19 crisis, and we have a general freeze on recruitment. The Secretary of State has been very clear that he will accept no delay in implementing the new procedure or resourcing the team to run it. Therefore we will resource the team through internal reprioritisation of colleagues and secondments for the first year. The team will require appropriate skills to propose, review and implement amendments to the classification of specific volumes of airspace.
- 7.5 Some skills required are entirely new to the CAA, for example expertise in airspace design. Although we have expertise to regulate airspace design, that is not the same as carrying out the actual design work. Exceptionally, therefore, airspace design skills may require external recruitment, which we will initiate as soon as possible. After the first year we will review the staffing situation in the light of the prevailing circumstances.

## Recovering the costs of running the new procedure

7.6 We are considering how best to recover the costs of the new procedure. Airspace resources are usually funded through the NERL en-route unit rate, which best captures all commercial airspace users. If we choose that option, then after the first year the additional costs of running the new procedure would be recovered from these charges, and they would be built into the future RP3 price control.<sup>27</sup> These costs were not originally budgeted for in RP3, because it

<sup>&</sup>lt;sup>26</sup> The summary of responses is published as CAP 1935, Outcome of the consultation on the airspace classification review 2019/2020 www.caa.co.uk/cap1935. The actual responses, where we have permission to publish them, can be seen on our consultation website <a href="https://consultations.caa.co.uk/corporate-communications/airspace-classification-review-2019-2020/">https://consultations.caa.co.uk/corporate-communications/airspace-classification-review-2019-2020/</a>.

<sup>&</sup>lt;sup>27</sup> RP3 is the fixed reference period around which the CAA's economic regulation of NERL (NATS En Route plc) is based.

pre-dated the amended Air Navigation Directions giving us this new airspace function.

7.7 We are considering whether there are other options for recovering our costs.

# Webpage for the CAA to communicate airspace classification reviews and individual proposals

- 7.8 The CAA will introduce a webpage for our new function of reviewing airspace classification. The webpage will include:
  - the status of the current review cycle (the stage, progress so far, proposed schedule)
  - where the Review stage is in progress, details of any plan, draft or final, that lists airspace volumes where a case could be made for reclassification (or for an alternative airspace management solution if this is a more proportionate response)
  - where the Amend stage is in progress, details of any proposal for reclassification that the CAA has made, links to any public consultation (which will be accessed via the CAA's consultation website)
  - the CAA's decision on any amendment
  - the implementation arrangements for an amendment that has been approved by the CAA's Airspace Regulation team
  - the report by the airspace controlling authority on the effectiveness of an amendment (or the alternative airspace management solution, as applicable), and the CAA's response.
- 7.9 In principle, the CAA sees merit in the above being accessed via our online airspace change portal. Because of current financial constraints and the cost of modifying the portal, this would be a longer-term aspiration. This would be subject to there being a sensible case for doing so, no unforeseen technical obstacles arising during the IT development work, and the modification being achievable at reasonable cost relative to the likely number of classification proposals.

## Cost impact on stakeholders

7.10 We have considered the cost impact on stakeholders. The CAA staff team doing this work will, in the long-term, have to form part of our cost base that is recovered, as set out in paragraph 7.6 above. In addition, there will be a cost on an airspace controlling authority from preparing the operational procedures and safety case, working with us collaboratively on designing airspace that we decide to reclassify, and possibly retraining air traffic controllers to implement a new

service provision. We do not expect the impact to be that great, because we will be doing much of the work, and the changes that go through this procedure will not require extensive airspace redesign or have wide-ranging impacts. However, we have yet to discuss this with relevant stakeholders. We welcome comments on the likely cost impacts.<sup>28</sup>

Question 5: Please can you quantify the cost impacts of the new procedure on your organisation, or more broadly if possible, and how we might best minimise these?

We do not believe that the impact will score against the Government's Business Impact Target. <u>https://www.gov.uk/government/publications/business-impact-target-statutory-guidance</u> The CAA is required to introduce the new procedure by formal Directions from the Secretary of State in exercise of the powers conferred by sections 66(1), 68 and 104(2) of the Transport Act 2000.

## Chapter 8 Next steps

## Analysis and publication of consultation responses

- 8.1 This consultation will be open for 12 weeks and will close at 11.59pm on 17 September 2020.
- 8.2 We will analyse the responses and publish a summary of our conclusions and anything we have changed as a result. We expect this to take the form of a 'We asked, you said, we did' statement.
- 8.3 We will publish responses online through our consultation website. You can if you wish request that your response is not published, or provide a redacted version if some material is sensitive (please see 'Summary of this consultation and how to respond' at the beginning of this document).

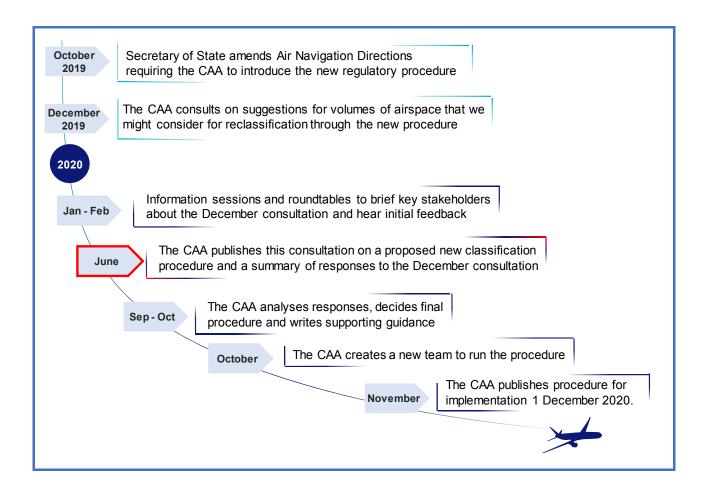
## Publication and implementation of the new procedure

8.4 We expect to publish the final procedure in November 2020. We will then begin to apply the new procedure from 1 December 2020 and develop our first plan. Our first plan will likely start by addressing the volumes of airspace that we have identified from the December 2019 consultation and review. At some point in the subsequent two years, i.e. before December 2022, we would expect to begin a new review cycle, this time following the new procedure, and therefore beginning with the Consider stage.

## Timeline

8.5 A timeline for next steps is shown in Figure 4.

#### Figure 4: Timeline for the development and implementation of the procedure



#### Appendix A

## Glossary

Although we have avoided the use of abbreviations where possible in this document, in the interests of completeness we have included below some common abbreviations – as well as other terms – that relate to airspace classification or airspace change.

Term	Abbreviation	Description
Advisory route	ADR	A designated route along which air traffic advisory service is available.
Aerodrome traffic zone	ATZ	Aerodrome traffic zone – normally, circular zones around an aerodrome where pilots and ATS providers must follow specific requirements.
Aeronautical Information Publication	AIP	Long-term information essential to air navigation, including the detailed structure of UK airspace and flight procedures, which forms part of the UK Integrated Aeronautical Information Package. Sometimes informally known as the Air Pilot. Publication is the responsibility of the CAA but is carried out under licence by NATS.
		www.ais.org.uk
Aeronautical Information Regulation and Control	AIRAC	For operationally significant changes, the AIRAC cycle is used where revisions are produced every 56 days (double AIRAC cycle) or 28 days (single AIRAC cycle). These changes are received well in advance so that users of the aeronautical data can update their flight management systems that are used to guide aircraft along their flightplans.
Aeronautical Information Regulation and Control cycle	AIRAC cycle	28-day cycle over which changes to the AIP are made. See Aeronautical Information Regulation and Control.
Air Navigation Directions		The Civil Aviation Authority (Air Navigation) Directions 2017 (as amended) set out the CAA's air navigation duties and are jointly issued by the Secretary of State for Transport and the Secretary of State for Defence. For ease of reference, the CAA also produces a consolidated version. These can be found at: <u>https://www.caa.co.uk/Commercial- industry/Airspace/Airspace- change/Legislative-framework-to-airspace- change/</u>

Air Navigation Guidance	ANG	Guidance to the CAA on its environmental objectives when carrying out its air navigation functions, and to the CAA and wider industry on airspace and noise management, October 2017, Department for Transport Guidance from the Secretary of State which the CAA is required to take account of when considering airspace change or PPR proposals. <u>https://www.gov.uk/government/publications/uk- air-navigation-guidance-2017</u>
Air navigation service provider	ANSP	An organisation which operates the technical system, infrastructure, procedures and rules of an air navigation service system, which may include air traffic control.
Air traffic control	ATC	Service from an air navigation service provider providing guidance to aircraft through controlled airspace.
Air traffic management	ATM	The combined processes of air traffic control, air traffic flow management, and aeronautical information services. ATM can also mean air transport movement.
Air traffic service	ATS	Generic term that covers flight information services, alerting services, air traffic advisory services, air traffic control services (area control service, approach control service or aerodrome control service) and aerodrome flight information services.
Air transport movement	АТМ	Air transport movements are landings or take- offs of aircraft used for the transport of passengers, cargo or mail on commercial terms. ATM can also mean air traffic management.
Airspace Change Organising Group	ACOG	The Airspace Change Organising Group was established in 2019 to coordinate the delivery of key aspects of the Airspace Modernisation Strategy. It operates impartially and is overseen by the CAA and Department for Transport. <u>https://www.ourfutureskies.uk/about-us/who-are- acog/</u>
Airspace change process		The staged process an airspace change sponsor follows to submit a proposed change in airspace design to the CAA for a decision. The process includes actions associated with implementation and post-implementation review, after the CAA or, where applicable Secretary of State, decision.
Airspace change proposal		A request (usually from an airport or air navigation service provider) for a permanent change to the design of UK airspace.

Airspace classification		Airspace classifications are defined by the International Civil Aviation Organization. In the UK, controlled airspace will normally be Class A, C, D or E. The normal default background classification will be Class G, unless flight safety or air traffic management reasons require a higher classification.
Airspace design		Together, the airspace structure and flight procedures.
Airspace infringement		When an aircraft enters controlled airspace without having previously obtained permission to do so from the airspace controlling authority.
Airspace Modernisation Strategy	AMS	A co-ordinated strategy and plan for the use of UK airspace for air navigation up to 2040, including for the modernisation of the use of such airspace. prepared and maintained by the CAA, incorporating the previous Future Airspace Strategy. <u>www.caa.co.uk/cap1711</u> The CAA published a progress report in December 2019. <u>www.caa.co.uk/cap1862</u>
Airspace Modernisation Strategy governance structure		Governance structure for airspace modernisation, designed to oversee the delivery of the initiatives contained within the Airspace Modernisation Strategy. <u>www.caa.co.uk/cap1711b</u>
Airspace structure		Designated volumes of airspace within identified characteristics, including the equipment aircraft wanting to enter that airspace must carry and actions pilots must carry out before entering that airspace.
		The volumes of airspace are designed to ensure the safe and optimal operation of aircraft. Airspace structures consist of:
		<ul> <li>(a) controlled airspace, namely control zones, control areas, terminal control areas and airways</li> </ul>
		(b) airspace restrictions, namely danger, restricted and prohibited areas
		(c) radio mandatory zones, transponder mandatory zones
		(d) other airspaces specified by the CAA when defining the airspace change process, such as, for example, flight information zones, aerodrome traffic zones, temporary segregated areas, temporary reserved areas or free-route airspace.
Airspace4All Ltd	A4A	Implementation group representing VFR (Visual Flight Rules) community interests (including General Aviation) in airspace matters, including modernisation strategy. Formerly known as the Future Airspace Strategy VFR Implementation Group Ltd (FASVIG). <u>https://airspace4all.org/</u>

Airway		A corridor of controlled airspace of defined width with a defined lower base, extending to Flight Level 245 (a nominal altitude of 24,500 feet) unless otherwise denoted.
Area of outstanding natural beauty	AONB	An area of countryside which has been designated for conservation because of its significant landscape value, recognising its national importance.
Carbon dioxide	CO <sub>2</sub>	Naturally occurring atmospheric gas, which causes greenhouse effects leading to global warming, and ocean acidification in increased concentrations.
Classes or classification of airspace		See airspace classification.
Conditional route		An airspace route that is only available under certain circumstances.
Consultation		Formal process seeking input into a decision, undertaken in line with the Gunning Principles, and government guidance.
Control area	СТА	Area of controlled airspace, usually surrounding an aerodrome, extending from ground level to a specified altitude.
Control zone	CTR	Area of controlled airspace, usually surrounding an aerodrome, extending between two specified altitudes.
Controlled airspace	CAS	Airspace in which air traffic control must have control over aircraft to maintain safe separation between them.
Danger Area		Airspace within which activities dangerous to the flight of aircraft may exist at notified times.
Electronic conspicuity	EC	Electronic or digital means of alerting others to the position of an aircraft.
En-route phase		That part of the flight from the end of the take- off and initial climb phase to the commencement of the approach and landing phase.
Engagement		Catch-all term for developing relationships with stakeholders, covering a variety of activities including but not limited to consultation, information provision, regular and one-off meetings and fora, workshops and town hall discussions.

Flexible use of airspace	FUA	A specific airspace management concept based on the fundamental principle that airspace should no longer be designated as either pure civil or military airspace, but rather be considered as one continuum in which all airspace user requirements may be accommodated by varying classification and/or access rules.
Flight information region	FIR	Specified region of airspace, coordinated through the International Civil Aviation Organization.
Flight procedures		Part of the airspace design. A set of predetermined segments intended to be followed by a pilot when arriving to or departing from an aerodrome.
Flight rules		Aircraft can operate under Visual Flight Rules (VFR) or Instrument Flight Rules (IFR). There is also an intermediate form, Special Visual Flight Rules (SVFR).
General Aviation	GA	Essentially all civil flying other than commercial airline operations, which therefore encompasses a wide range of aviation activity from microlights, gliders and balloons to corporate business jets, and includes all sport and recreational flying.
Gunning principles		Principles that set out the legal expectations surrounding formal consultation.
Independent Commission on Civil Aviation Noise	ICCAN	The independent UK body responsible for creating, compiling and disseminating best practice to the aviation industry on the management of civil aviation noise and advising government in this area.
Instrument approach procedure	IAP	A set series of aircraft manoeuvres from the initial approach to landing.
Instrument flight procedures	IFP	Procedures designed to international/ national criteria, published in the UK AIP, flown by aircraft with reference to ground-based or satellite-based navigation aids and most usually associated with arrival at or departure from an airport.
Instrument flight rules	IFR	The rules under which a pilot can fly and navigate an aircraft, in certain weather conditions, primarily through use of on-board instruments.
International Civil Aviation Organization	ICAO	The agency of the United Nations responsible for international standards for civil aviation which the UK is bound by international treaty to implement.
International Civil Aviation Organization standards and	ICAO SARPs	Technical specifications set by the International Civil Aviation Organization for aviation, implemented and regulated national by states globally to manage safety risks.

recommended practices		
Letter of Agreement	LoA	Operational agreement between air navigation service providers and airspace users.
Local air quality	LAQ	Measure of pollutants in the air.
Lower air traffic services route	Lower ATS Route	An air traffic route notified in the UK aeronautical information publication in lower airspace.
Lower airspace		Controlled airspace below Flight Level 245 (a nominal altitude of 24,500 feet).
Manual of Air Traffic Services	MATS	The Manual of Air Traffic Services (MATS) contains procedures, instructions and information which are intended to form the basis of air traffic services within the UK. It is published for use by civil air traffic controllers and for the general interest of a wider audience. It is arranged in two parts.
Manual of Air Traffic Services Part 1	MATS Pt 1	Instructions that apply to all UK Air Traffic Service Units (published by the CAA as CAP 493 <u>www.caa.co.uk/cap493</u> )
Manual of Air Traffic Services Part 2	MATS Pt 2	Instructions that apply to a particular Air Traffic Service Unit, produced locally and approved by the CAA, amplifying and interpreting, at local level, MATS Part 1 instructions. It underpins how an air navigation service provider's air traffic controllers manage aircraft, and in turn influences their decisions. Any authorisation required by MATS Part 1 appears in the MATS Part 2.
National Air Traffic Management Advisory Committee	NATMAC	National Air Traffic Management Advisory Committee. An advisory body chaired by the CAA with representation across the UK aviation community, consulted for advice and views on airspace management and strategy matters.
NATS		The biggest air navigation service provider in the UK, formerly National Air Traffic Services. Parent company of NERL (NATS (En Route) plc) and NSL (NATS Services Limited). www.nats.co.uk
NATS En Route plc	NERL	Subsidiary of NATS Holdings Ltd and the sole provider of air traffic control services for aircraft flying en route in UK airspace. NERL also provides some air traffic control services in the eastern part of the North Atlantic, as well as providing a combined approach function (London Approach) for five London airports.
NATS Services Ltd	NSL	Subsidiary of NATS Holdings Ltd providing air traffic services on a commercial basis.

Noise preferential route	NPR	Aircraft departing from certain airports follow set departure routes agreed by government or the local authority, with the aim of providing certainty in respect of, and, where possible, minimising noise impacts on the ground. Noise Preferential Routes are not decided by the CAA.
Non-governmental organisation	NGO	An organisation that is neither a part of a government nor a conventional for-profit business.
Notified airspace design		Details of airspace structure and procedures published in the UK Aeronautical Information Publication.
Operational procedure		In this context, a set of step-by-step instructions relating to air traffic control operations that form part of a written manual.
Options appraisal		A means of assessing the possible different approaches for delivering a desired outcome. As a high-level objective, a comprehensive list of options is derived, which is then whittled down through a shortlist to the optimal option for delivery. At the core of an options appraisal is an assessment of the cost and benefits of the proposal. As part of the analysis, the change sponsor is required to put as many costs and benefits as possible into monetary terms, to allow for a direct comparison between options. When quantification of costs and benefits may not be possible or proportionate, a qualitative description of the costs and benefits can be used. The appraisal must use WebTAG, the Department for Transport's appraisal guidance, for health impacts associated with noise, and potentially for other impacts, where possible.
Performance- based navigation	PBN	A concept developed by ICAO that moves aviation away from the traditional use of aircraft navigating by ground-based beacons to a system more reliant on airborne technologies, utilising area navigation and global navigation satellite systems. (Air Navigation Guidance 2017). More specifically, area navigation based on performance requirements for aircraft operating along an ATS route, or an instrument approach procedure or in a designated airspace. (ICAO Doc 9613) <u>https://www.icao.int</u>
Planned and permanent redistribution of air traffic	PPR	A new category of airspace change where there is no change in airspace design, but there is a planned and permanent redistribution of air traffic through changes in air traffic control operational procedure. "Planned and permanent" means other than a day-to-day or at the time decision taken by an air traffic controller or other decision- maker.

Planned/Preferred Departure Route	PDR	See Standard Departure Route.
Portal		The CAA's airspace change portal – an online portal containing details of all current and previous airspace changes, including the ability to respond to consultations. <u>https://airspacechange.caa.co.uk</u>
Prohibited area		An area of airspace of defined dimensions within which the flight of aircraft is prohibited.
Radio mandatory zone	RMZ	Defined airspace structure in which the carriage and operation of radio equipment is mandatory unless previously agreed.
Relevant PPR		The subset of PPRs which must be approved by the CAA before a proposed change can be implemented (effective 1 November 2019).
Remotely piloted air system	RPAS	A powered aircraft without a human pilot on board which is piloted remotely, also known as an unmanned aerial system or vehicle (UAS or UAV) or drone.
Representative group		Stakeholder group that gathers together those with similar interests in a proposal. It could be at an industry level (for instance the Airport Operators Association), national level (for instance the Aviation Environment Federation) or local level (for instance HACAN).
Restricted area		An area of airspace of defined dimensions within which the flight of aircraft is restricted in accordance with certain conditions.
Safety buffer requirement		CAA policy setting out requirements for a safety buffer between classes of airspace.
Secondary surveillance radar	SSR	Type of radar which both detects and sets position of aircraft in the air, and also receives information from the aircraft.
Single European sky	SES	European legislation that supports a programme of modernisation and harmonisation of airspace structures and air traffic control methods for a more systemised and efficient European air traffic management system.
Special visual flight rules	SVFR	A special case of operating under visual flight rules.
Sponsor (or change sponsor)		An organisation that proposes, or sponsors, a change to the airspace design in accordance with the CAA's airspace change process.
Stakeholder		A party interested in a change in airspace design or classification or a PPR proposal.

Standard arrivel	OTAD	Dublished flight presedures followed by sizes
Standard arrival route	STAR	Published flight procedures followed by aircraft on an Instrument Flight Rules (IFR) flightplan just before reaching a destination airport. More specifically, a STAR is a designated IFR arrival route linking a significant point, normally on an ATS route, with a point from which a published Instrument Approach Procedure (IAP) can be commenced.
Standard departure route	SDR	ICAO uses this term to refer to IFR departure routes in general. Certain UK aerodromes use either this term or 'Preferred Departure Route' or 'Planned Departure Route' (both PDR) to define IFR departure procedures that leave, or remain outside, controlled airspace and have no direct connectivity to the en-route ATS system. However, misinterpretation of each of these terms and inconsistency in their application has led to confusion as to the purpose and application of such procedures. Therefore, it is the CAA's intention to progressively remove all references to both terms in order to remove such confusion. Within the UK, the term Standard Instrument Departure (SID) is the sole term to be used in the context of routes providing designated IFR departure procedures that remain wholly within controlled airspace and permit direct connectivity with the en-route ATS system. See CAP 778, Policy and Guidance for the Design and Operation of Departure Procedures in UK Airspace (paragraph 1.3) <u>www.caa.co.uk/cap778</u>
Standard instrument departure	SID	Published flight procedures followed by aircraft on an Instrument Flight Rules (IFR) flight plan immediately after take-off. More specifically, a SID is a designated IFR departure route linking the aerodrome or a specified runway of the aerodrome with a specified significant point, normally on a designated ATS route, at which the en-route phase of a flight commences.
Terminal air navigation services	TANS	Terminal air navigation services comprise two elements: the 'radar approach and departure' (approach control) service, and the aerodrome control service. The approach service typically takes control of the aircraft from the en-route service within 40–50 nautical miles of the airport, and sequences aircraft for landing before handing over to aerodrome control. It also takes control of aircraft on departure from aerodrome control. Aerodrome control manages (visually from the airport's control tower) aircraft taking off and landing, and ground movement control of aircraft taxiing between the runway and the stands.
		These two elements of terminal air navigation services are provided by the airport (acting as an air navigation service provider) itself, or by a third-party air navigation services provider.

Terminal control area		Area of controlled airspace surrounding an airport.
Terminal manoeuvring area	ТМА	A designated area of controlled airspace surrounding a major airport where there is a high volume of traffic.
Tranquillity		There is no universally accepted definition of tranquillity. In general terms it can be defined as a state of calm. The consideration of impacts upon tranquillity for airspace changes is with specific reference to National Parks and Areas of Outstanding Natural Beauty (AONB), plus any locally identified 'tranquil' areas that are identified through community engagement and are subsequently reflected within an airspace change proposal's design principles
Transponder mandatory zone	ТМΖ	Defined airspace structure in which the carriage and operation of transponder equipment is mandatory unless previously agreed.
Transport Analysis Guidance	WebTAG	DfT transport options analysis and modelling tool and associated guidance. <u>https://www.gov.uk/guidance/transport-analysis-</u> guidance-webtag
Uncontrolled airspace		Airspace in which aircraft are able to fly freely through the airspace without being constrained by instructions in routeing or by air traffic control, unless they require an air traffic service.
Unmanned aerial system	UAS	See RPAS.
Unmanned aerial vehicle	UAV	
Upper airspace		Controlled airspace above Flight Level 245 (a nominal altitude of 24,500 feet).
Visual flight rules	VFR	The rules under which a pilot can fly and navigate an aircraft, in certain weather conditions, by seeing where the aircraft is going.
Visual reference point	VRP	Fixed point on land or sea used by pilots to fix position of their aircraft in relation to their route.
WebTAG		See Transport Analysis Guidance.

#### Appendix B

## Extract from The Civil Aviation Authority (Air Navigation) Directions 2017 (as amended)

#### DIRECTIONS 3(a),3(b),3(ba)

#### 3. The CAA must—

(a) develop and publish a national policy for the classification of UK airspace;

(b) classify UK airspace in accordance with such national policy, publish such classification, keep such classification under review and, as the CAA considers necessary, modify it regularly consider whether such classification should be reviewed, carry out a review (which includes consultation with airspace users) where the CAA considers a change to classification might be made and, as the CAA considers appropriate, amend any classification in accordance with procedures developed and published by the CAA for making such amendments;

(ba) in developing the national policy referred to in sub-paragraph (a), classifying UK airspace under sub-paragraph (b), or amending the classification of a volume of airspace under that sub-paragraph, seek to ensure that the amount of controlled airspace is the minimum required to maintain a high standard of air safety and, subject to overriding national security or defence requirements, that the needs of all airspace users is reflected on an equitable basis;

A consolidated version of the Directions can be found here.

Appendix C

## Section 70 of the Transport Act 2000

#### 70 General duty.

(1) The CAA must exercise its air navigation functions so as to maintain a high standard of safety in the provision of air traffic services; and that duty is to have priority over the application of subsections (2) and (3).

(2) The CAA must exercise its air navigation functions in the manner it thinks best calculated—

(a) to secure the most efficient use of airspace consistent with the safe operation of aircraft and the expeditious flow of air traffic;

(b) to satisfy the requirements of operators and owners of all classes of aircraft;

(c) to take account of the interests of any person (other than an operator or owner of an aircraft) in relation to the use of any particular airspace or the use of airspace generally;

(d) to take account of any guidance on environmental objectives given to the CAA by the Secretary of State after the coming into force of this section;

(e) 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;

(f) to take account of the interests of national security;

(g) to take account of any international obligations of the United Kingdom notified to the CAA by the Secretary of State (whatever the time or purpose of the notification).

(3) If in a particular case there is a conflict in the application of the provisions of subsection (2), in relation to that case the CAA must apply them in the manner it thinks is reasonable having regard to them as a whole.

(4) The CAA must exercise its air navigation functions so as to impose on providers of air traffic services the minimum restrictions which are consistent with the exercise of those functions.

(5) Section 4 of the Civil Aviation Act 1982 (CAA's general objectives) does not apply in relation to the performance by the CAA of its air navigation functions.

#### Appendix D

## Airspace Modernisation Strategy

- D1. The Airspace Modernisation Strategy, published in December 2018, sets 15 initiatives for the industry to deliver, focusing on the period until the end of 2024.<sup>29</sup> The CAA has established programmes of work with relevant stakeholders to deliver these initiatives. We published a progress report in December 2019<sup>30</sup>, and we are currently considering how to ensure our strategy responds to the changing context.
- D2. The initiatives seek to modernise UK airspace through new operations, new airspace design, and by introducing new technologies. They cover five areas of airspace infrastructure:
  - upper airspace (above c.25,000 feet)
  - terminal airspace (complex lower airspace around airports from c.25,000 feet to c.7000 feet)
  - airspace at lower altitudes (below c.7000 feet)
  - uncontrolled airspace
  - the UK's communications, navigation and surveillance (CNS) infrastructure and air traffic management.
- D3. Three of the initiatives in lower (below c.7000 feet) and uncontrolled airspace are interlinked, and include a review of airspace classification:
  - review the provision of the Flight Information Service to align with the UK's international obligations (initiative 9)
  - review the use of all airspace classifications, both controlled and uncontrolled, the associated airspace structures and related air traffic management requirements to ensure the arrangements are optimised for all classes of aircraft (initiative 10)

<sup>&</sup>lt;sup>29</sup> CAP 1711, <u>www.caa.co.uk/cap1711</u>

<sup>&</sup>lt;sup>30</sup> CAP 1862, <u>www.caa.co.uk/cap1862</u>

- electronic conspicuity: the utilisation of cost-effective electronic surveillance information and its consideration in designing new or revised airspace structures and procedures, including how electronic surveillance solutions and digital information services can be used to better integrate commercial and non-commercial operations outside controlled airspace such that the airspace user can sense all others and be seen by all others (initiative 11).
- D4. European regulations concerning the provision of air traffic services, and the need for new types of aircraft to see and be seen by one another safely, mean that the classification, design, and navigation services and requirements need to be reviewed together.
- D5. This work therefore already included a review of airspace classification. The CAA's new regulatory role set out in this consultation document builds on this initiative. The work already undertaken has informed our development of the proposed new procedure. The Airspace Modernisation Concepts Working Group was set up by the CAA in April 2019 to develop airspace concepts that will enable more efficient use of airspace, the integration of future technologies such as drones and determine future service provision requirements, while remaining compliant with the UK's national and international obligations.
- D6. The Airspace Modernisation Strategy also includes implementing an airspace change masterplan that applies the new concepts and aims to reduce controlled airspace through changes to both existing and future planned airspace (noting that these changes must also consider other factors such as commercial growth) (Initiatives 4 to 8). The masterplan and the analysis and engagement that must feed into it have been commissioned from a new unit in NERL, called ACOG the Airspace Change Organising Group. The Masterplan which ACOG produces will need to be formally assessed and accepted into the Airspace Modernisation Strategy, in order to give it a statutory basis. Acceptance of the Masterplan into the Strategy<sup>31</sup> makes the Masterplan, together with CAP 1616, the legal basis against which the individual airspace change decisions are made by the CAA.

<sup>&</sup>lt;sup>31</sup> <u>https://consultations.caa.co.uk/policy-development/airspace-change-masterplan-criteria/</u> and CAP 1887 www.caa.co.uk/cap1887.