



Department  
for Transport

# Air Navigation Guidance 2026

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Department for Transport  
Great Minster House  
33 Horseferry Road  
London  
SW1P 4DR



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# Introduction

1. Section 70(2) of the Transport Act 2000 requires the Civil Aviation Authority (CAA), when carrying out its air navigation functions, to take account of guidance on environmental objectives given to it by the Secretary of State. These functions are set out in the Air Navigation Directions 2026, made by the Secretary of State under sections 66(1), 68 and section 104(2) of the Transport Act 2000.

This document, the air navigation guidance 2026, is that guidance. It replaces the air navigation guidance 2017 with effect from 1 October 2026.

2. The CAA's functions include preparing the UK's airspace modernisation strategy (AMS) in consultation with the Secretary of State and approving individual changes to the UK's airspace design. In this guidance the terms "air navigation functions" and "airspace functions" are used interchangeably.

3. The AMS was refreshed in 2023. The AMS takes into account the:

- latest developments in innovation and technology
- the continuing need for more efficient airspace design
- the need to treat environmental sustainability as an overarching principle to be applied through all modernisation activities
- requirement to meet the UK's international obligations in regard to airspace and navigation

## Aims of the guidance

4. The air navigation guidance 2026 sets out key guidance on environmental objectives for airspace modernisation to aid the CAA, as the UK's independent regulator, in determining how to balance the factors set out in section 70 of the Transport Act 2000. This includes:

- setting out the government's priorities for airspace redesign, through a set of principles called the "airspace design priorities", explaining how environmental objectives sit alongside other aims and objectives of government policy for aviation

- providing clarity on the relationship between airspace change and the planning process- removing duplication means that airspace redesign can best realise the objectives of planning decisions within the scope of the requirements set by the planning process
- improving the UK's airspace change process to deliver the wider societal and economic benefits aviation can bring, including by new users such as uncrewed aircraft systems
- strengthening the ability of the airspace change process to deliver government priorities for UK airspace- this is achieved by providing a clear policy framework for decisions about the design and use of particular volumes of airspace
- enabling the CAA's airspace change process to meet the government's policy to reduce regulatory burden wherever possible and appropriate to do so

## Applicability of the guidance

5. This document gives the CAA and airspace change sponsors guidance in relation to the CAA's responsibilities as set out in the Air Navigation Directions 2026.

6. This guidance extends to all the CAA's air navigation functions. The government intends to keep this guidance under review and update it when necessary to reflect development of policy in related areas.

7. The CAA is expected to take account of the government's environmental objectives, as set out in section 70(2)(d) of the Transport Act 2000. This guidance, given to the CAA under section 70(2)(d), addresses environmental impacts of aircraft movements while acknowledging that there are other operational objectives which must also be met. These include the overriding need to maintain a high standard of safety, and the need to enhance and maximise the overall efficiency of the UK airspace network. The CAA, as the UK's independent regulator, must balance these factors as set out in section 70 of the Transport Act 2000.

8. When there is conflict in the application of the factors set out in section 70(2) in the exercise of the CAA's air navigation functions, the CAA should take this guidance into account when applying section 70(3) to determine the most appropriate balance. This will help ensure that airspace designers have a clear understanding of the scope of environmental matters that individual airspace change proposals will need to address. This information should also be noted and taken into consideration by the aviation industry.

9. This document is statutory guidance to the CAA in accordance with section 70(2) of the Transport Act 2000 and should be read alongside the air navigation directions 2026.

10. The air navigation guidance 2026 has two purposes:

1. It sets out the government's environmental objectives that the CAA must take into account in the exercise of its air navigation functions.

2. It provides the CAA with guidance on how to achieve these objectives in the context of its duties under section 70 of the Transport Act 2000.

## Effective date of guidance

11. This guidance comes into effect on 1 October 2026 and will apply:

- in respect of all new airspace change proposals commenced after the date at which this guidance comes into effect
- where an airspace change proposal designing a block of UK airspace that covers the area of airspace managed by more than one airport and is being sponsored by NERL as the UK Airspace Design Service (UKADS) provider
- where the sponsor of a level 1 or a level 2 permanent airspace change proposal commenced under the CAA's 2023 (or earlier) CAP1616 has not passed the consultation gateway (stage 3) on its proposal at the date at which this guidance comes into effect

12. The [air navigation guidance 2017](#) (or air navigation guidance 2014 if applicable) continues to apply to other airspace change proposals that are in progress provided that an airspace proposal is submitted to the CAA for decision by the end of July 2031.

13. The air navigation guidance 2026 will therefore apply to any airspace change proposal submitted to the CAA after this date.

14. Where an airspace change sponsor requests it, or where the CAA believes that it is necessary to support the delivery of an airspace cluster, the CAA may require an ACP sponsor to follow a specific version of the guidance even if it falls outside the criteria above.

15. The CAA is encouraged to consult the Secretary of State if it considers there is any doubt whether the air navigation guidance 2026 may apply to an ongoing airspace change proposal.

## Interpretation

16. Terms used in this guidance have the same meaning as in the Transport Act 2000 and the Air Navigation Directions 2026 unless otherwise stated.

17. In this guidance, all altitude figures are expressed in feet above mean sea level (AMSL). In some locations the actual height of the land maybe several hundred feet above sea level.

## New airspace users

18. The objective of this guidance is to facilitate time-limited trial activity. This will further the government policy of enabling new users to integrate into the existing

aviation system, drive economic growth and enable the collection of data about this activity.

19. This will inform future government policy, which will be reflected in future iterations of this guidance.

20. The CAA should consider the environmental impacts of temporary airspace changes or airspace trials for emerging users, such as uncrewed aircraft systems (UAS) and advanced air mobility (AAM) operations.

# Government's environmental objectives for CAA's airspace functions

21. The objectives addressed in this Guidance are to:

- minimise the adverse noise impact experienced on the ground from the use of airspace:
- from individual flights, by maximising vertical flight efficiency
- through an appropriate lateral distribution of noise impacts
- ensure appropriate engagement with stakeholders likely to be affected by the impacts of changes to the design and use of airspace
- minimise emissions of greenhouse gases from individual flights by maximising flight efficiency
- ensure that environmental impacts of aviation are addressed at the appropriate point in the overall decision-making process by the appropriate decision maker, and wherever possible avoid duplication with other processes, such as planning processes

22. The Secretary of State has provided this Guidance to update and bring together all elements of government policy and guidance likely to be relevant to the CAA's exercise of its airspace functions.

23. This Guidance will help ensure that airspace designers, and others with an interest in the CAA's airspace functions, have a clear understanding about the scope of the environmental matters that individual airspace change proposals will need to address.

# Strategic Direction

## Objectives of airspace modernisation

24. The UK has some of the busiest and most complex airspace in the world. As technologies advance, passenger demand grows and new kinds of airspace user emerge, the current structure of UK Airspace risks becoming outdated, inefficient and reaching its capacity.

25. Airspace modernisation aims to maintain the UK's high levels of safety, which is the priority over all other objectives of the programme. This is the CAA's primary statutory duty under section 70(1) of the Transport Act 2000. Airspace modernisation aims to make airspace quieter, more efficient, less polluting and more resilient than unmodernised airspace. This guidance recognises that there are different factors which need to be balanced in achieving this.

26. UK airspace is used by a diverse range of operators. The objective of airspace modernisation includes achieving optimum network performance under a variety of operational conditions, so that all types of airspace users (including future users) can safely fly their preferred trajectories. Futureproofing UK airspace can also unlock the economic and societal potential of Uncrewed Aircraft Systems (UAS).

27. All of these objectives can be supported through improved airspace design.

28. Key benefits of improved airspace design include increased opportunity for the systemisation of commercial air traffic and less complexity. Systemisation of airspace enables smoother ascents and descents for aircraft and is a key aspect of making any airspace design safer, whilst having the potential to reduce noise impacts.

29. Airspace modernisation aims to ensure that airspace design doesn't create inefficiencies in the network which constrain aircraft performance when aircraft cannot efficiently reach their optimum cruising altitude (by way of one example). Airspace modernisation aims to address these inefficiencies which in turn could result in less emissions and fuel burn.

30. The government recognises that the redesign of the airspace around airports may include changes to standard arrival and departure routes. This ensures that aircraft are making the most efficient use of airspace available, taking account of the needs of the

users of that airport, adjacent airports, the wider aviation system as well as the needs of stakeholders in the vicinity of the airport.

31. Aviation infrastructure must ensure that domestic and international aircraft can access a modern airspace system. This includes ensuring that the design of airspace enables aircraft to take off from UK airports, swiftly enter the global network and land at UK airports safely and efficiently.

32. Supporting environmental sustainability is a key objective of airspace modernisation activities. The Jet Zero Strategy considers improvements in system efficiencies, which includes airspace modernisation, as one of its key foundations, providing important short- to medium-term savings in emissions before 2050.

## Objectives of airspace design

33. The government believes that aviation can make a key contribution to the achievement of economic growth, increasing the prosperity of the whole country. The government aims to facilitate the delivery of the economic benefits from aviation within its legally binding climate obligations. Recognising that the CAA's primary responsibility for UK airspace is to maintain a high level of safety, reflected in section 70(1) Transport Act 2000, the CAA is also to ensure that UK airspace is utilised in an efficient manner, which makes best use of the airspace available, as reflected in section 70(2)(a) of the Act. This ensures that the overall network and flights operate as effectively as possible, improving overall resilience of this nationally strategic important infrastructure.

34. The government considers that efficiency plays an important role in minimising the environmental impacts of aviation. Efficient flight patterns, achieved by appropriate airspace design, are likely to mean that aircraft are flown over shorter departure and arrival routes and, particularly in the case of arrivals, under lower power. This can enable a lower fuel burn, fewer greenhouse gas emissions and lower levels of noise experienced on the ground while aircraft are manoeuvring at low altitudes.

35. The majority of aviation activity in the UK is enabled by airports and aerodromes. The CAA's airspace functions do not include policymaking or decision-taking about the scale, location or use of ground infrastructure. Policies and decisions are made about the construction and operation of airports and aerodromes by the planning process. Planning permissions determine whether new infrastructure may be introduced at a particular location and may include conditions or requirements limiting the scale of operations.

36. This means that changes to airspace design on their own will not lead to increased numbers of air traffic movements. The numbers of flights to, from and over the UK is set by a number of factors, including airport runway or terminal capacity. The aim of the airspace change process is to deliver airspace improvements to enable the capacity or other limits set by any planning decision.

37. The government's policy is that airspace changes should seek to achieve the safest and most efficient use of airspace, taking into account the following:

- any limit on physical airport capacity

- the number of flights permitted by planning decisions
- planning conditions such as noise preferential routes and operational procedures
- any limit on greenhouse gas emissions, including in planning conditions

38. The CAA's airspace change process is not intended as a mechanism to impose or revisit those limits, nor should it duplicate the assessment of impacts and community engagement that should take place as part of the planning process.

39. This guidance sets out the government's policy on its priorities for UK airspace, to inform the CAA and airspace change sponsors how to best design and implement changes to airspace design. It is important that the impact of the use of airports, particularly the noise impact in the vicinity of airports, is taken into account, and this is reflected in the priorities set out below.

## Policy priorities for the CAA airspace functions

40. Having regard to the policy objectives set out earlier in this guidance the government has set out below policy priorities for the CAA's airspace functions. In this guidance these are referred to as the airspace design priorities.

41. The airspace design priorities provide guidance on securing the most efficient use of airspace consistent for the safe and expeditious flow of air traffic.

42. Safety remains the overriding priority. The airspace design priorities strike a balance between seeking to achieve the government's objective for economic growth, meeting our climate obligations and minimising adverse noise impacts on local stakeholders.

43. The airspace design priorities provide guidance on how the CAA and airspace change sponsors should balance these objectives.

44. The airspace design priorities can be summarised as follows.

Airspace should be designed to:

- safely meet the capacity needed to enable economic growth
- minimise newly overflowed populations
- minimise the adverse noise impact of aircraft below 5,000ft
- enable the most flight-efficient flight profiles (thereby minimising greenhouse gas and noise emissions per flight) at and above 5,000ft.

## The airspace design priorities

45. The CAA should perform its air navigation functions, particularly those concerning decisions which alter airspace design (including the associated processes and

procedures), by applying or implementing these airspace design priorities. The CAA should prioritise outcomes in the following order:

1. First, ensure safety and viability of the design.
  2. Within the possibilities remaining after prioritising 1, enable aviation activity permitted by planning decisions, including any relevant conditions, and government planning policy statements.
  3. Within the possibilities remaining after prioritising 1 and 2, minimise change to the areas where aircraft noise is currently experienced from aircraft below 5,000ft.
  4. Within the possibilities remaining after prioritising 1, 2 and 3, minimise, as much as is practicable and realistic to do so, the total adverse noise impacts of aircraft below 5,000ft.
  5. Within the possibilities remaining after prioritising 1,2,3 and 4, prioritise flight efficiency where aircraft are at 5,000ft and above.
46. The design of airspace must safely enable the capacity permitted by the planning decisions applicable to each UK airport, so that:
- Where the relevant planning decision places a cap on the number of aircraft movements, the airspace design must enable that number of aircraft movements to the extent that it is safe to do so
  - Where the relevant planning decision places no cap on the number of aircraft movement, the airspace design must enable the safe maximum number of air traffic movements, having regard to the demand for air transport, to and from the runway
47. Recognising that increased aviation capacity (and therefore activity) will increase greenhouse gas emissions from the aviation sector, reducing greenhouse gas emissions per flight remains a key objective for airspace modernisation.
48. Inefficiencies in the network design prevent aircraft from reaching their optimum cruising altitude as efficiently as possible, resulting in more fuel burn, higher emissions and more noise. The government notes that there is a correlation between minimising fuel burn, greenhouse gas emissions, noise impacts and the most flight efficient airspace design.
49. However, in applying priorities 3 and 4, where aircraft are below 5,000ft, the CAA should prioritise minimising adverse noise impacts rather than maximising flight efficiency.
50. In applying priority 4, where practicable, the CAA should take into account the desirability of minimising noise impacts for noise sensitive buildings of which the CAA is aware.

## Single and multiple routes

51. Designs may include single or multiple routes. Each has both costs and benefits for affected parties and stakeholders. Some stakeholders prefer the impact of flights from airports to be distributed over a wider area. Advancements in technology such as Performance Based Navigation mean that aircraft can fly more accurately and predictably. Multiple routes can provide operational flexibility, and to some extent spread the impact between stakeholders. The government has taken these considerations into account when developing the airspace design priorities above.

52. The CAA must require that any airspace design developed and proposed by an airspace change sponsor aligns with the airspace design priorities. Noting that the opportunity for multiple routes will vary (depending on the circumstances of each volume of airspace, such as the relative congestion of the surrounding airspace, the proximity of other airports and the operational needs of the airport), it is for airspace change sponsors to consider whether single or multiple routes best achieve those priorities.

## Airspace design in the planning context

53. Airports and aerodromes provide the means for the majority of aviation activity in UK airspace to take place through ground infrastructure such as runways. As noted above, the construction of this infrastructure, together with any limits on permitted operations, generally results from decisions taken through planning processes. The CAA is a statutory consultee and a statutory body for applications for planning permission and development consent for aviation infrastructure.

54. Where planning processes are underway in parallel with an associated ongoing airspace change proposal process, the CAA should continue progressing the airspace change process at the same time. This ensures that the processes can continue in tandem, without delay to the implementation of the associated airspace change (if ultimately approved) should the planning or development consent applications be granted in due course.

55. Where a planning decision is outstanding, the CAA may use its judgement to allow an airspace change proposal to continue through the CAA process on the basis that the design should enable the maximum level of capacity of the planning or development consent application.

## Decision-making efficiency

56. Planning decisions, including conditions or requirements attached to planning permission or a development consent, determine ground-based infrastructure (airports), and therefore where and at what scale aviation activity is possible. Airspace design decisions determine how the resulting air traffic movement activity is safely enabled.

57. Each decision-maker should avoid considering, or reconsidering, an issue already or more appropriately determined by another decision-maker.

58. Wherever possible, airspace change sponsors and other stakeholders should not be asked to duplicate evidence, analysis and other information over different or successive regulatory processes.

59. In relation to the CAA's airspace design decision-making, sponsors should be asked to provide only information that relates to considerations properly relevant to the airspace design decision, and not information relating to matters on which that decision has no impact.

## Deploying airspace changes

60. Following a decision to approve an airspace change, the change will need to be deployed in order to become operational. Because of the size and complexity of some parts of airspace, it is possible that the safest and most effective approach to making an airspace change operational may be through several phased deployments. The CAA's processes and procedures should support this approach where appropriate. The government will seek to enable the CAA to safeguard such multi-deployment flight procedures by making an amendment to the [guidance on safeguarding aerodromes, technical sites and military explosives storage areas](#).

61. Where an airspace change is delivered through multiple deployments, this should include an appropriate degree of flexibility for the CAA to agree minor amendments to the design after the first deployment has taken place, without requiring a new airspace change.

## How to assess an airspace design against the airspace design priorities

62. When the CAA exercises its air navigation functions, it is required first to maintain a high standard of safety in the provision of its air traffic services and then to apply consideration to the various factors listed within section 70(2) of the Transport Act 2000. If there is a conflict in the application of the provisions listed in section 70(2), the CAA must, according to section 70(3), apply them in a manner it thinks is reasonable having a regard to those factors as a whole.

63. To help the CAA do this, airspace change sponsors should be required to demonstrate that they have produced a design that meets the government's airspace design priorities, that they have undertaken an adequate assessment of different impacts and taken into consideration the views of different parties when developing proposed airspace changes.

64. The CAA should develop processes and procedures containing this requirement on airspace change sponsors in accordance with the following considerations.

65. A pragmatic approach should be taken to utilising existing environmental assessments where they are still relevant and up to date for the purpose of an airspace change proposal (ACP). This could include, but is not limited to, assessments already undertaken for the purpose of a planning application or other regulatory process for aviation activities to avoid duplicative efforts.

66. The CAA should robustly scrutinise and satisfy itself that any pre-existing environmental assessment relied on by an airspace change sponsor remains valid and fit for the purpose of an ACP. Where an existing assessment only partially fulfils the requirements of an ACP, the CAA should ensure that airspace change sponsors carry out sufficient supplemental work.

## The demand for air transport from an airport

64. When considering the demand for air transport at an airport which is the subject of an airspace change proposal (see guidance on Airspace Design Priority 2 above) the CAA should consider requiring airspace change sponsors to use the Department for Transport's National Air Passenger Allocation Model (NAPAM).

## Noise assessments metrics

67. In order to enable the CAA to apply the airspace design priorities, the CAA's processes and procedures should require airspace change sponsors to carry out an assessment of potential noise impacts of the proposed change as follows.

68. Change in noise exposure as referred to in the airspace design priorities should be considered to be where there is a change, plus or minus, three decibels of noise (i.e.  $\pm 3$  dB LA<sub>max</sub>). The CAA should publish guidance on how to assess change, for the purpose of preparing an airspace change proposal in its relevant processes and procedures.

69. In order to evaluate and minimise as much as is practicable and realistic to do so, total adverse noise impacts below 5,000ft, the CAA should require airspace change sponsors to first calculate population noise exposure and then calculate adverse noise impacts, as follows:

70. Population noise exposure should be assessed using noise modelling software and inputs in accordance with CAP2091. Noise exposure from aircraft must be calculated up to 5,000ft; vertical profiles must be truncated at 5,000ft to exclude noise from aircraft above this level. Noise exposure must be evaluated for the summer average using:

- (1) the LA<sub>eq</sub>,16h daytime metric between 7am-11pm; and
- (2) the LA<sub>eq</sub>,8h nighttime metric between 11pm-7am.

71. Next, population noise exposure within the resulting noise contours should be estimated using the latest available demographic data.

72. Finally, the CAA's process should require the airspace change sponsors to use the Department for Transport's Transport Analysis Guidance (TAG) to measure the anticipated adverse noise impact of the proposed design from the calculated population noise exposure.

## Transport analysis guidance and LOAEL

73. The Department for Transport's [transport analysis guidance \(TAG\)](#) provides a standard method for valuing the positive and negative impacts of an infrastructure proposal or project.

74. Use of TAG allows decisions on transport schemes to take account of the costs and benefits or proposals in a consistent manner. The CAA must require the airspace change sponsor to use TAG as a method to compare the anticipated impacts of the proposed design, even if only a single option is developed. The CAA's processes and procedures

should guide sponsors on the TAG parameters relevant for the purpose of airspace change proposals.

75. 'Adverse noise impacts' are those related to health and quality of life, as described in the [Noise policy statement for England](#). To help assess these impacts, a concept is used known as the Lowest Observed Adverse Effect Level (LOAEL). This represents the point at which adverse noise effects begin to be seen across a community.

75. The current LOAEL values used for aviation noise are:

- 51 dB LAeq,16h for daytime noise exposure
- 45 dB LAeq,8h for night time noise exposure.

76. Above these levels, the likelihood of people experiencing adverse effects from noise increases. In line with this increase in risk, the proportion of the population likely to be significantly affected can be expected to grow as the noise level increases.

77. The LOAEL values are based on the best available evidence at the time they are adopted. As the scientific understanding of aviation noise and its effects on health and quality of life develops, these values may be reviewed and updated to reflect new research and evidence. Similarly, the methods and values used in TAG to calculate the costs and benefits of noise impacts are maintained and updated as necessary to remain consistent with government policy and the latest evidence base.

## Flight efficiency assessments

78. Flight efficiency in this context means the minimum fuel burn per flight. Maximising flight efficiency results in minimising fuel burn for a given flight and is commensurate with minimising greenhouse gas emissions for that given flight.

79. The planning system, within decisions about physical infrastructure, determines the overall capacity, and thus the greenhouse gas emissions, of air traffic movements to and from UK airports. The planning system considers the overall greenhouse gas emission impact of the airport (including if applicable its construction) as part of that decision process. The government recognises that the aim of the airspace change process is to deliver airspace improvements within this set capacity, determined by the planning process. In this way, planning decisions are likely to have a greater impact on greenhouse gas emissions from aviation than airspace change decisions. The aim of the airspace change process is to deliver airspace improvements within the capacity or other limits set by any planning decision.

80. The CAA should require airspace change sponsors to demonstrate any net benefits using comparison with a defined baseline scenario agreed with the CAA. The CAA should publish guidance on how to make this assessment, for the purpose of preparing an airspace change proposal in its relevant processes and procedures. When assessing flight efficiency, the assessment should be limited to the aircraft using the airspace (and any procedures in scope of the airspace change proposal) as well as any consequential impacts on other airspace users. It should not assess any greenhouse gas emissions generated from non-aviation activity that is enabled or otherwise.

## Local air quality

80. Oxides of nitrogen (NO<sub>x</sub>) and particulate matter are the two most important emissions affecting the air quality around airports. Studies have shown that NO<sub>x</sub> emissions from aviation related operations reduce rapidly beyond the immediate area around the runway. Emissions from aircraft above 1,000ft are unlikely to have a significant impact on local air quality. The impact of airspace design on local air quality is generally negligible compared to the impact changes in the volume of air traffic and in use of the local transport infrastructure. Those matters will have been considered as part of the airport planning process.

81. Airspace Design Priority 4 which prioritises minimising the total adverse noise impacts of aircraft below 5,000ft should also mean that air quality adverse effects are minimised. Accordingly, the impact of air traffic movements to and from UK airports on local air quality is not a relevant consideration for the CAA when exercising its air navigation functions.

## National parks, national landscapes and the broads, habitats, biodiversity, sites of special scientific interest

82. The CAA's processes and procedures will need to take account of any relevant and applicable environmental legislation. When undertaking air navigation functions, the CAA is required to consider other relevant policy and guidance issued by the government and devolved administrations relating to habitats.

83. The impact of aviation activity on habitats, biodiversity, National Parks, National Landscapes and the Broads and Sites of Special Scientific Interest is not determined by the airspace design. The impact is determined by the planning decisions that enable the airport to be built, and the conditions placed on their operations.

84. Given the finite amount of airspace available, it will not always be possible to design flight procedures that avoid flying over National Parks, National Landscapes and the Broads, sensitive habitats or Sites of Special Scientific Interest.

85. When carrying out assessments required by this legislation airspace change sponsors, unless clearly required otherwise, should only assess those areas where aircraft are likely to overfly at an altitude of up to 5,000ft as a result of the proposed change.

## Guidance related to the Ministry of Defence (MoD), space and uncrewed aircraft systems (UAS)

86. The CAA is not required to take into account the impacts on the environment when considering airspace change proposals of the following kinds:

- a proposal submitted by or on behalf of the MoD, for aircraft operated by or on behalf of the armed forces
- the elements of a proposal submitted which includes aircraft operated by or on behalf of the armed forces

- a proposal for an airspace change which has been submitted to facilitate spaceflight or rocket activities where the environmental impact has already been considered as part of a licence application
- a proposal for an airspace trial which has been submitted for the purpose of enabling UAS flights to support policy development and learning or a temporary airspace change to facilitate government policy to enable new users in order to promote economic growth

87. Noise complaints during such a trial or temporary airspace change should be required to be monitored by the sponsor and reported to the CAA. Noise attitude surveys should be undertaken as a condition of sufficient trials to build an evidence base to enable future government policy to be developed to support this activity whilst taking into account its impacts on all stakeholders.

88. This specific guidance is time-limited whilst a definitive noise policy for UAS operations is in development. The government will update the ANG to reflect its revised policy in a further version.

89. The CAA should take into account the consequential effect of other aviation activity, for example routing around a danger area, when considering an airspace change sponsored by the MoD or sponsored for the purpose of spaceflight activity.

90. Relevant assessments required by non-aviation environmental legislation should still be undertaken and considered by the CAA.

## **Assessing Airspace Change Proposals**

91. The CAA should assess the overall effectiveness of UK airspace by considering how the airspace system as a whole is performing, including whether implemented airspace change proposals are performing as anticipated at the time of the decision.

92. This must take into account sustained performance and continued progression of the AMS's objectives. This assessment should inform the CAA's continuing consideration of whether the UK's airspace design remains appropriate and effective to the extent to which the airspace system supports the objectives of the AMS.

## New users and innovation

93. It is government policy to facilitate the entry of new users into the UK aviation system, and the AMS makes clear that UK airspace should be accessible by all. To support novel and innovative users, changes to airspace design, or air traffic control (ATC) operational procedures are required for the purpose of research and development.

94. The policies and procedures which underpin the airspace change process are well established for conventional airspace users such as commercial aviation. There is currently limited understanding and evidence of the environmental impacts of new users and the current requirements are both disproportionate and not wholly applicable for these users. In order to gather the evidence and data to inform future policy, a bespoke arrangement is required to support these operations in the short term.

95. As outlined above in this guidance, the CAA does not therefore need to take into account the impacts on the environment when considering airspace change proposals for UAS trials which support government policy development and learning.

## Airspace trials

96. All airspace trials require prior approval from the CAA and must have a defined objective and a confirmed start and end date. Airspace trials must not be seen as a mechanism to avoid the full airspace change process. If the sponsor wishes to make an airspace trial permanent, it will need to undertake the full airspace change process.

97. The government recognises that it is not proportionate for a sponsor wishing to implement a trial to be required to follow the full environmental assessments required for a permanent airspace change. The CAA should consider what assessment is sufficient and proportionate to the proposed trial.

98. After an airspace trial, the airspace should revert to its original state. It is sometimes the case that the airspace change sponsor subsequently intends to implement a permanent change to the airspace design. If it is not practical to disestablish the trial procedure, the CAA may consider extending the trial whilst the airspace change process for the permanent change is being completed.

99. DfT expect that sufficient information is provided to those likely to be impacted by the trial before implementation and that noise complaints are monitored by the airspace

change sponsor, and reported to the CAA, as part of the trial data. If the basis of the noise complaints suggests to the CAA that the airspace change sponsor failed to provide information properly before implementation or that the trial is not meeting its objectives, the CAA should give careful consideration as to whether it is in the public interest to end the trial as soon as it is safe and practicable to do so. If, after consideration, the CAA decides not to end the trial, it should make this clear on the airspace change portal supporting reasons.

## **Temporary change to airspace design**

100. A temporary airspace arrangement will usually revert to its original state at the end of the designated period. Under extraordinary circumstances it may not do so but this is only permitted with the express authorisation of the CAA.

101. The government recognises that it is not proportionate for an airspace change sponsor wishing to implement a temporary airspace arrangement to follow the full environmental assessments required for a permanent airspace change. The CAA should consider what assessment is sufficient and proportionate to the temporary arrangement.

102. If a sponsor wishes to extend a temporary airspace arrangement beyond the originally agreed end date, the CAA should assess whether the rationale for doing so is appropriate. An extension should not be granted solely to remove the effort required by an airspace change sponsor when pursuing the full airspace change process.

103. The airspace change sponsor should monitor and report to the CAA any complaints associated with a temporary airspace arrangement once it has been implemented. Any complaints should be taken into account by the CAA before any decision to extend the period of the temporary change.

## **The airspace design priorities and temporary changes to airspace design and trials**

104. The CAA should consider whether it is appropriate to apply the airspace design priorities to temporary airspace changes and trials. Temporary airspace changes are by their nature short-term and are often to test out new processes and procedures in order to provide an evidence base to support future policy development or air traffic management arrangements. It may therefore not be appropriate to apply the airspace design priorities for situations where new and innovative procedures are being trialled or tested.

## Engaging with those impacted by airspace use

105. Airports should have high quality and open engagement with their local stakeholders on an ongoing basis.

106. Specific consultation requirements for airspace change sponsors should be set out by the CAA as part of its airspace change processes and procedures. Those affected by an airspace change should be consulted with sufficient time to respond and clear, accessible information of what the proposed changes are and what the impacts of these will be. Stakeholders must have sufficient opportunity to feed in their views before a final decision is made.

107. This guidance deals with both airspace change processes and aspects of the CAA's air navigation functions that concern ongoing airport operations.

### Consultation on an airspace change proposal

108. Where the CAA's process and procedures require consultation with local stakeholders, airspace change sponsors should be required to adhere to the principles set out in the [Cabinet Office guidance on consultation principles](#).

109. In all cases, the CAA should determine the appropriate level of consultation required of an airspace change sponsor for a given change and scale the required process accordingly.

110. CAA should require airspace change sponsors, when undertaking consultation, to select the most appropriate and proportionate delivery medium based on what is best suited to their stakeholder group and local communities. The CAA should encourage airspace change sponsors, where appropriate, to consider the use of intermediaries, including airport consultative committees and representative bodies during consultation to effectively reach local communities during their airspace change proposal consultations.

111. The CAA's processes and procedures should require sponsors to gather the information needed to apply those principles to the volume of airspace in question having regard to its location and other characteristics.

## Expectations for transparency on aircraft movements

112. Whether or not they are engaged in a current airspace change process, airports and their air navigation service providers should engage proactively on the noise impact of aircraft operating into and out of their airport with their local communities. This could be achieved through established bodies such as airport consultative committees, other relevant consultative groups, and, where appropriate, through other means such as the internet and social media, to engage and inform their communities as appropriate on relevant air operations.

113. It is desirable to try to balance benefits on the one hand against any noise impacts on the other. The government therefore strongly urges all airports and aerodromes across the UK to engage closely with their statutory airport consultative committees. Measures which could be taken include establishing local community meeting groups where all can meet and discuss any ongoing concerns, encouraging pilots to avoid overflying built up areas where practical to do so, and greater attention paid to the effect of noise from intensive operations such as take-off and landing training exercises.

114. The CAA's guidance to airport operators, air navigation service providers, aircraft operators and pilots on transparency and aircraft movements should also stipulate that as part of the engagement activities carried out by the airports, they should, where it is practicable to do so, to provide their stakeholders with information on the tracks flown by aircraft, the numbers of flights, and altitude data. This information must be clear and accessible and made to the public in a transparent and timely way. As part of its function to keep the performance of airspace design under review, the CAA should provide a national, standardised system for collecting and auditing this flight-tracking data.

115. The government recognises the need to avoid disproportionate regulatory burden, and the CAA should take this into account when carrying out its function of guiding airports on specific flight information to publish. However, where an airport has approved standard instrument departure flight procedures, the CAA should encourage airports to publish information that compares the actual routes flown by aircraft departing UK airports as compared to the nominal tracks of those departure procedures.

116. The CAA should set specific guidance for aircraft operational changes affecting the use of airspace. This guidance should outline expectations for airports around community engagement and transparency. The CAA's guidance should focus on the provision of information by airports and airspace change sponsors to communities and increasing the level of transparency that exists with air operations.

117. If necessary, the CAA should consider exercising any powers it has to require information of the nature above is published.

## Routing information

118. To provide local stakeholders with transparency on the numbers of aircraft flown near them, the CAA's guidance on transparency and aircraft movements should encourage airports to publish information on how accurately aircraft are flying against the set flightpaths and the amount of noise created. These airports, working with their local stakeholders, may determine the precise information they wish to publish.

119. The CAA's guidance should guide airports that the information should be made available on the airport's website and also provided to their respective consultative committees. It should be updated on a regular basis, although the airport should be able to determine the precise frequency of this taking into account the views of their local stakeholders. Airports should also be encouraged to provide annual information returns which will enable stakeholders to see whether there have been any changes in traffic patterns over previous years.

## **Aircraft operational changes affecting the use of airspace**

120. Over time it is possible that the distribution pattern of air traffic and the types of aircraft being flown can change and that this can have a noise impact. For example, airlines may make changes to the routes they fly or increase the intensity of flights to more popular destinations.

121. The CAA's guidance should stipulate that airports and sponsors are therefore expected, where practical, to analyse how aircraft operations involving their airport affect the use of airspace, be transparent with local stakeholders about any identified changes to the distribution of air traffic and consider whether any such changes may constitute a Planned and Permanent Redistribution of Air Traffic (PPR).

## **Use of airspace by helicopters and light aircraft operators**

122. The CAA should guide airspace users, such as helicopter and light aircraft operators, to ensure that when operating over built up areas they do so with consideration for the people who may live there. In addition, airspace users not flying instrument flight procedures should also give similar consideration when they operate over National Parks and Sites of Special Scientific Interest.

# Glossary

## **ACP - Airspace Change Proposal**

A proposal (usually from an airport or air navigation service provider) to change the design of UK airspace.

## **AMS - Airspace Modernisation Strategy**

The UK CAA's coordinated strategy and plan for the use of UK airspace. It is based on four strategic objectives: Safety, Integration, Simplification and Environment.

## **AMSL - Above Mean Sea Level**

A unit of measurement (usually in feet) for elevation or altitude, indicating the vertical distance of a location relative to a historical average of the ocean's surface.

## **AND - Air Navigation Directions**

In these Directions the Secretary of State gives the UK CAA its functions in relation to air navigation.

## **Airspace Design Priorities**

The airspace design priorities, sets out the government's priorities for airspace redesign, explaining how environmental objectives sit alongside other aims and objectives of government policy for aviation.

## **ANSP - Air Navigation Service Provider**

An organisation which operates the technical system, infrastructure, procedures and rules of an air navigation service system, which may include air traffic control.

## **ATC - Air Traffic Control**

The service provided by controllers to prevent collisions between aircraft and to expedite and maintain an orderly flow of air traffic.

## **ATS - Air Traffic Services**

The various flight information services, alerting services, air traffic advisory services and ATC services (area, approach and aerodrome control services).

## **Airspace Change Sponsor**

An organisation that proposes, or sponsors, a change to the airspace design in accordance with the UK CAA's CAP 1616 airspace change process.

## **Airspace Design**

The structure of airspace and the routes and flight procedures within it.

## **Airspace Management**

A function with the primary objective of maximising the efficient use of airspace.

## **Airspace Users**

All persons or organisations who make use of the United Kingdom's airspace to conduct or support an aerial activity, whether by operating within it, managing its use, or influencing its accessibility.

## **CAA - Civil Aviation Authority**

The statutory body which oversees and regulates all aspects of civil aviation in the United Kingdom.

## **CAP 1616 - Airspace Change Process**

The staged process an airspace change sponsor follows to submit a proposed change in airspace design to the UK CAA for a decision.

## **CAT - Commercial Air Transport**

Any aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.

## **dB - Decibel of Noise**

A decibel is a logarithmic unit describing sound level or changes of sound level.

## **DCO - Development Consent Orders**

A Development Consent Order is the formal permission required to build a Nationally Significant Infrastructure Project in the UK, such as large energy or transport developments.

## **DfT - Department for Transport**

The government department that leads on UK aviation and the author of the air navigation guidance.

## **EASA - European Union Aviation Safety Agency**

The European Union authority for aviation safety.

## **eVTOL - Electric Vertical Take-Off and Landing**

Also known as advanced air mobility or aerial taxis. Still in development, eVTOL aircraft are powered by electricity.

## **GA - General Aviation**

All civil aircraft, which encompasses a wide range of aviation activity from paragliders, microlights, gliders and balloons to corporate business jets, including aerial survey, flying training and all sport and leisure flying.

## **ICAO - International Civil Aviation Organisation**

The international aviation body established by the 1944 Chicago Convention on International Civil Aviation.

## **MoD - Ministry of Defence**

The Ministry of Defence protects the security, independence and interests of the UK at home and abroad. Its aim is to ensure that the armed forces have the training, equipment and support necessary for their work, and that they keep within budget.

## **Navigation Services**

The facilities and services that provide aircraft with positioning and timing information.

## **Noise Contours**

These are lines or circles on a map showing where equal levels of noise are experienced.

## **NPRs - Noise Preferential Routes**

A set departure path that aircraft should try to follow when using an airport; established through local planning processes for noise management purposes.

## **PBN - Performance Based Navigation**

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.

## **PPR - Planned and Permanent Redistribution**

Air traffic control operational procedure changes that give rise to a planned and permanent redistribution of air traffic.

## **SofS - Secretary of State**

The Secretary of State for Transport oversees the policies and priorities to deliver the government's transport agenda.

## **TAG - Transport Appraisal Guidance**

This is the structured process for evaluating potential transport interventions by assessing their costs, benefits, and wider impacts.

## **Transport Act 2000**

The legislative framework created to establish the framework for modernising and integrating transport systems, introducing measures like local transport plans and strategies.

## **UAS - Uncrewed Aircraft Systems**

Also known as Unmanned Aircraft System, this term is being adopted by government. It is commonly known as a drone or RPAS, an aircraft system without a pilot on board which is controlled and operated from a remote location.

## **UKADS - UK Airspace Design Service**

A service provided by NERL to propose, design and deliver a holistic and modernised UK airspace.