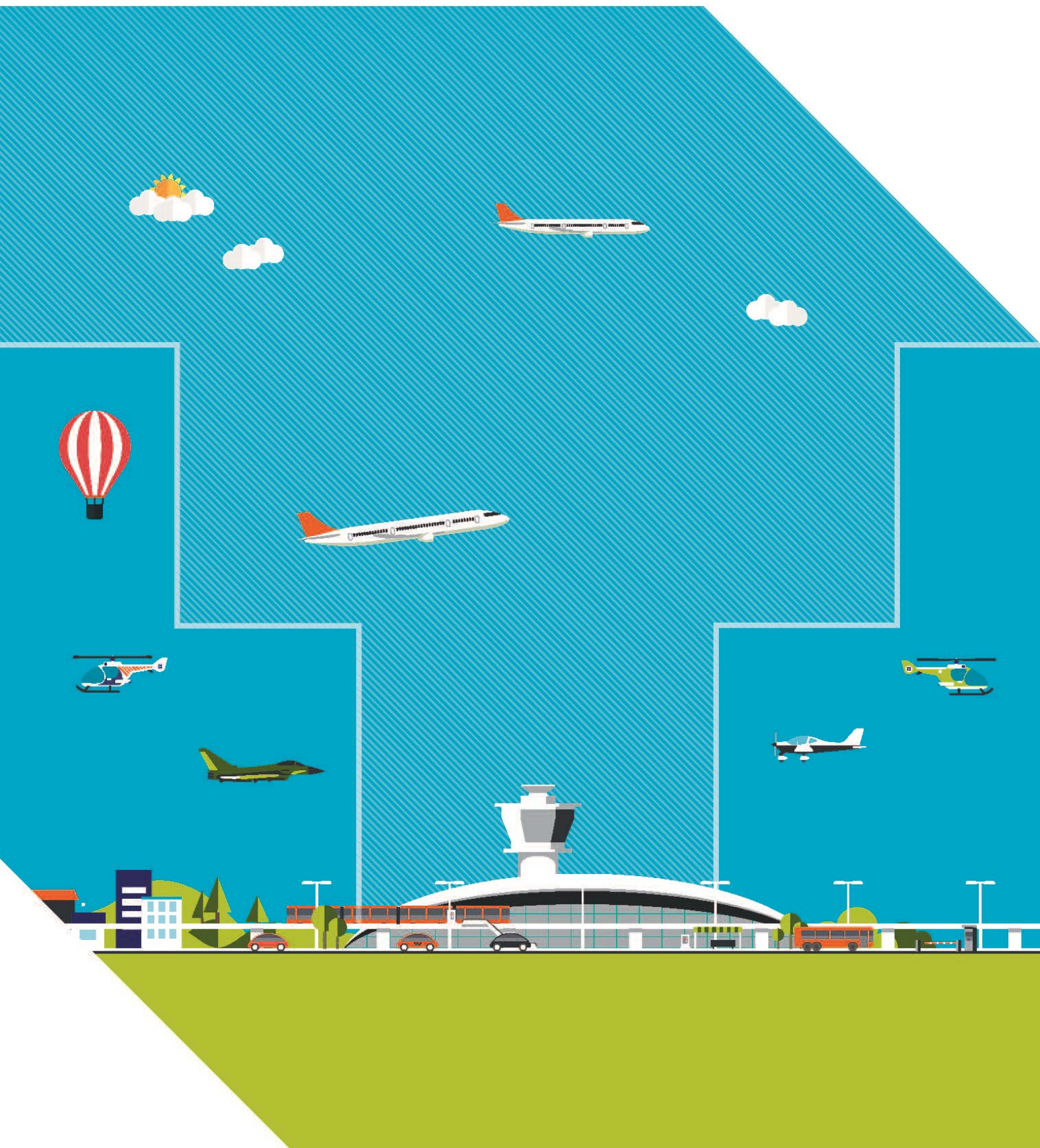


Outcome of the engagement on proposed criteria for assessing and accepting the airspace change masterplan

CAP 2157



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Summary of changes to the acceptance criteria originally proposed

Subject	Change
Scope	The acceptance criteria have been amended to reflect that ACOG has now been commissioned to produce a masterplan covering the UK and not just southern England, thus encompassing the FASI-South and FASI-North programmes (FASI meaning Future Airspace Strategy Implementation) redesigning the existing airspace structure.
Clarity of document	For greater clarity we have published the criteria for accepting the masterplan as CAP 2156a Airspace change masterplan – CAA acceptance criteria and the assessment framework as CAP 2156b Airspace change masterplan – assessment framework . By assessment framework we mean the legal and policy considerations, and the process that the co-sponsors will follow (1) to assess ACOG’s progress with developing the airspace change masterplan iterations and (2) to confirm that these are delivering what the co-sponsors commissioned. We have introduced diagrams to illustrate the masterplan development process more succinctly, and also how it relates to the CAP 1616 process that sponsors of the airspace change proposals making up the masterplan must also follow. We have published a short guide, CAP 2156c Airspace change masterplan – future opportunities to express views , explaining the opportunities that stakeholders have for engagement with ACOG about the masterplan and sponsors about airspace change proposals.
Plain English	We have used plain English as far as we can for the acceptance criteria and explained any unavoidable technical terms. We have specified that ACOG’s engagement material must include a simple, clear and non-technical version in plain English, to include cumulative impacts, and a clear explanation of the expected benefits and programme timeline.
Transparency	We are considering with ACOG and the Department for Transport how best to publish all the information associated with the development of the masterplan, ideally as a ‘one-stop shop’, probably as a CAA webpage.
Iteration 3	As a result of this engagement exercise, we have decided to make changes to the stages at which the masterplan will present proposed trade-off solutions. The proposal in CAP 1887 was that ACOG will include in Iteration 3 actual proposed trade-off solutions to the conflicts and interdependencies identified in Iteration 2. We have now decided that

	<p>Iteration 3 will not propose one design option in preference to another. The masterplan will now only propose trade-off solutions in subsequent iteration(s).</p> <p>We have done this to ensure that the final iteration(s) of the masterplan is/are the product of analysis carried out by individual airspace change sponsors. That analysis will be based on the output of the consultation stage (Stage 3) of the sponsors' individual constituent CAP 1616 process airspace change proposals. These Stage 3 consultations will be an important opportunity for stakeholders to influence decisions on proposed trade-off solutions that may affect them (see below). ACOG will include in Iteration 3 a description of how specific design trade-offs between interdependent airspace change proposals could be resolved conceptually. Iteration 3 will be based on the outputs of Stage 2 and 3 work carried out by sponsors during the CAP 1616 process.</p>
Final iteration	Iteration 4 (and potentially subsequent iterations) will show the complete, detailed plan of airspace changes setting out how ACOG, working with airspace change sponsors, envisages that any conflicts between interdependent airspace change proposals are resolved, i.e. include proposed trade-off decisions.
Engagement	ACOG will consider the views of individual stakeholders at the strategic, masterplan level through a public engagement exercise on a draft of Iteration 3. This includes views on the way the masterplan proposes conceptual solutions to potential conflicts between interdependent airspace change proposals, and views on any potential gaps or improvements in the masterplan. Through this engagement ACOG will make stakeholders aware of the upcoming consultations on each constituent airspace change proposal, how they are linked together, and how stakeholders can input into proposed trade-off decisions that may affect them.
Flexibility	<p>We have introduced greater flexibility into the acceptance criteria:</p> <ul style="list-style-type: none"> • when submitting Iteration 2 for acceptance, ACOG is required to include a plan for the content of later iterations; we will keep the acceptance criteria in CAP 2156a for Iteration 3 and beyond under review and update them as circumstances require • in development of a particular iteration, ACOG may choose to make a case to the CAA and Department for Transport as co-sponsors during the ongoing assessment process that a particular element in the criteria should be moved between iterations, or omitted should it no longer be relevant or proportionate to the required outcome

	<ul style="list-style-type: none"> • we recognise that there may be more iterations than the four described in our engagement document CAP 1887 • in order to progress the modernisation programme most efficiently, it may be beneficial for ACOG to divide the masterplan into separate 'clusters' with different timelines, each with a set of interdependent airspace change proposals; the co-sponsors will consider ACOG's advice on this and will accept these clusters in any accepted version of Iteration 3 • we have made clear that we will need to update the acceptance criteria over the lifetime of the masterplan.
Masterplan development	We have made clearer that the acceptance criteria focus on outcomes for the masterplan, rather than prescribing a specific process ACOG must follow. ACOG will be required to explain milestones, assumptions and the process it is using to develop the masterplan iterations, including how it arrives at proposed solutions for resolving conflicts. The co-sponsors will assess whether ACOG is following this approach and delivering the required outcomes while remaining consistent with the legal and policy framework.
Environmental assessments	We have added to the criteria that a strategic environmental assessment and Habitats Regulation assessment will need to be developed for the masterplan. These assessments are a fundamental part of, and therefore must inform, ACOG's development of the masterplan. The CAA is legally responsible for ensuring that these assessments are carried out in respect of the masterplan. We will, in due course, set out what ACOG's role is in these assessments, and where in the process this occurs. The acceptance process will ensure that these assessments have been carried out and acted upon appropriately.
General Aviation	The acceptance criteria already required the masterplan to include information about the cumulative impacts of different design choices. We have added to the criteria a specific requirement for ACOG to include in each iteration of the masterplan, a general assessment of the potential positive benefits or negative impacts on airspace usability, including on the General Aviation sector.
CAA procedure to review airspace classification	We have recognised in the masterplan assessment framework (CAP 2156b) that there could be an interaction between the CAA's new procedure to review airspace classification and the masterplan where the volume of airspace concerned is the subject of an airspace change proposal which forms part of the masterplan. The CAA would formally notify the sponsor concerned of the evidence derived as part of the classification review and also inform ACOG as masterplan coordinator.

Chapter 1

Engagement exercise

Purpose of this document

- 1.1 In February 2020, the CAA launched an engagement exercise seeking views on CAP 1887, *Proposed Criteria for Assessing and Accepting the Airspace Change Masterplan*¹, in particular:
- our proposed approach for assessing and accepting the masterplan into the CAA Airspace Modernisation Strategy, including ensuring it delivers government policy
 - our proposed criteria and evidence to inform acceptance of the masterplan, including whether we were asking the right questions of ACOG, the Airspace Change Organising Group², as it develops iterations of the masterplan.
- 1.2 This document sets out the outcome. It has a summary of the changes we have made from CAP 1887, and two chapters:
- Chapter 1 summarises the engagement exercise and who responded
 - Chapter 2 looks in detail at what those responses told us, including:
 - the key themes we identified from multiple-choice and free-text responses to the four questions we asked, and the methodology we used
 - selected direct quotes from responses, where we have permission to publish
 - our conclusions from this analysis
 - the outcome of how we have taken this feedback into account in the acceptance criteria, which we have published as three documents: CAP 2156a, *Airspace change masterplan – CAA acceptance criteria* CAP 2156b, *Airspace change masterplan – assessment framework* CAP 2156c, *Airspace change masterplan – future opportunities to express views*.³

¹ See www.caa.co.uk/cap1887 and <https://consultations.caa.co.uk/policy-development/airspace-change-masterplan-criteria/>.

² www.acog.aero

³ www.caa.co.uk/cap2156a, www.caa.co.uk/cap2156b and www.caa.co.uk/cap2156c.

Background

- 1.3 In December 2018, the UK Civil Aviation Authority (CAA) published an Airspace Modernisation Strategy to initiate a crucial programme of airspace modernisation to deliver a once-in-a-generation upgrade to a key piece of national infrastructure. The strategy is in response to a direction to the CAA from the Secretary of State to “prepare and maintain a co-ordinated strategy and plan for the use of UK airspace up to 2040, including modernisation”.⁴
- 1.4 The CAA and Department for Transport, as co-sponsors of airspace modernisation in the UK, have commissioned ACOG⁵ to create an airspace change masterplan. Initially the commission was in respect of airspace in Southern England, but this has now been extended to cover all of the UK, thus encompassing the ‘FASI-South’ and ‘FASI-North’ programmes (FASI meaning Future Airspace Strategy Implementation) redesigning the existing airspace structure. The masterplan is a single coordinated implementation plan showing which airspace changes are necessary and when, to support delivery of the objectives of the Airspace Modernisation Strategy. The masterplan ensures that all of the individual airspace changes work together to deliver a modernised airspace system.
- 1.5 Responsibility for the redesign of the airspace and routes in these initiatives is split mainly between airports (for routes close to airports) and NERL (NATS En Route plc, for upper airspace routes connecting airports). These are complex airspace design programmes that require coordination between these different ‘sponsors’ of airspace design changes. Interdependencies and potential conflicts mean such changes must be considered and coordinated as a package. UK airspace is some of the most complex in the world. The FASI-South airspace change programme is particularly complex because of the number of changes necessary to achieve modernisation over Southern England.
- 1.6 The masterplan is therefore a crucial element in airspace modernisation. It will set out where airspace changes would provide particular benefits while also considering interdependencies and potential conflicts and trade-offs. It does not set out the precise design of individual airspace changes; that will be determined through the CAA’s airspace change process set out in CAP 1616.

⁴ The Civil Aviation Authority (Air Navigation) Directions 2017, as amended by the Civil Aviation Authority (Air Navigation) (Amendment) Directions 2018 and the Civil Aviation Authority (Air Navigation) (Amendment) Directions 2019. The CAA has published a [consolidated version](#) of the Directions.

⁵ The commission was originally made of NERL, NATS En-Route plc, which manages upper airspace and its design. NERL subsequently set up ACOG as an impartial body to coordinate between airports and the NERL team designing the upper airspace system. The commissioning letters are reproduced as an appendix to CAP 2156a *Airspace change masterplan – CAA acceptance criteria* www.caa.co.uk/cap2156a.

- 1.7 In a letter to the Chair of the CAA dated 4 November 2019⁶, the Secretary of State stated that ACOG should have the following strategic aims, and that these should be reflected in the Terms of Reference of ACOG and its Steering Committee:
- create airspace capacity to support the growth of aviation
 - reduce controlled airspace
 - release lower airspace
 - reduce delay for passengers to ensure that they get to their destination on time
 - reduce noise and CO₂ emissions.
- 1.8 With agreement from the CAA and Department for Transport as co-sponsors, ACOG has adopted an iterative approach to the development of the masterplan, which recognises that different information and levels of detail will be available at different points as the constituent airspace changes which together make up the plan, and therefore the plan itself, develop.
- 1.9 **The CAA's engagement exercise set out draft criteria for the CAA's decision whether to accept the masterplan into the Airspace Modernisation Strategy, based on assessment by the CAA and Department for Transport of information provided by ACOG to determine whether the commission for the masterplan is being met and the Government's policy objectives are being delivered.** That acceptance makes the masterplan, together with CAP 1616, the legal basis against which the CAA makes decisions on individual airspace change proposals.
- 1.10 The engagement exercise published in CAP 1887 was to give us the opportunity to strengthen our proposed criteria and take feedback on whether we were asking the right questions of ACOG as it developed iterations of the masterplan. The exercise was originally planned to be relatively short, for just four weeks from 27 February 2020 until 27 March 2020. This was to give us enough time to consider responses, publish how we had taken responses into account, and publish the criteria for accepting the masterplan, all by summer 2020, after which time the criteria would have become operational for the purposes of assessing and accepting future iterations of the masterplan.
- 1.11 Because of the disruption caused by the Covid-19 pandemic, the CAA decided to give stakeholders more time to provide feedback. We eventually extended the deadline for comments by a further three months to 26 June 2020, and the four-week engagement exercise became 17 weeks, attracting considerable interest from nearly 100 respondents, many giving us very detailed comments. Although we said that we might seek further views if it became apparent through analysing

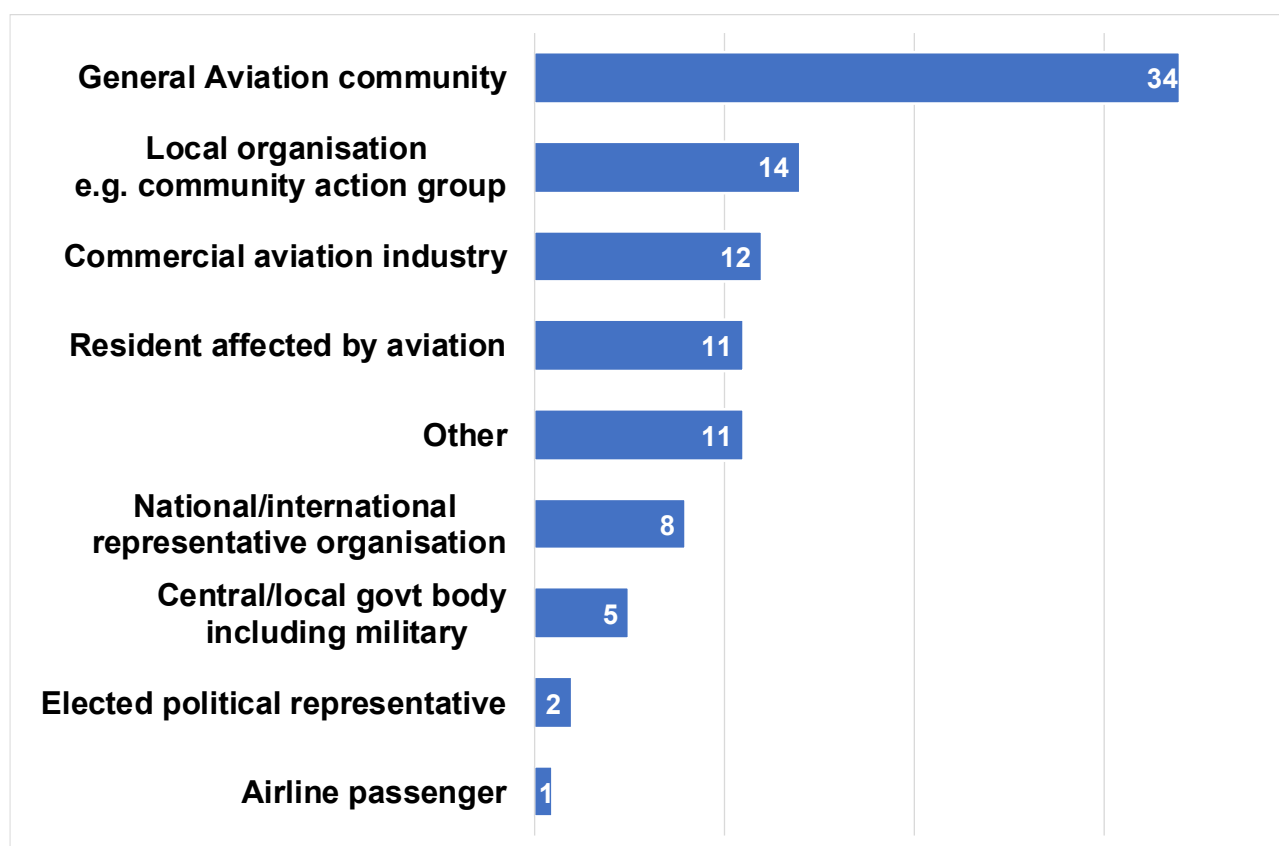
⁶ www.caa.co.uk/cap1889

the engagement that we had not received a broad spread of views, our analysis did not show this to be necessary.

Who responded to this engagement exercise

- 1.12 We had 98 responses in total, after removing duplications (four respondents submitted two responses). We asked respondents to categorise themselves into one of nine categories (Figure 1.1).

Figure 1.1: Responses to the engagement exercise by category of respondent



- 1.13 Of the 98 respondents:
- 34 responses were from members of the General Aviation community
 - 14 responses were from local organisations such as community action groups
 - 12 responses were from the commercial aviation industry of which six were from airports or air navigation service providers, and two were from airlines
 - 11 responses were from residents affected by aviation
 - 11 responses were in the 'other' category, including four from organisations or individuals whose specific focus is on aviation noise, two

from organisations representing pilots and five from a variety of other interests

- eight responses were from a national or international representative organisation e.g. trade association
- five responses were from a central or local government body including military
- two responses were from an elected political representative e.g. councillor or MP
- one response was from an airline passenger.

1.14 Although 16 responses categorised themselves as 'other', we decided it was more appropriate to recategorise five of these:

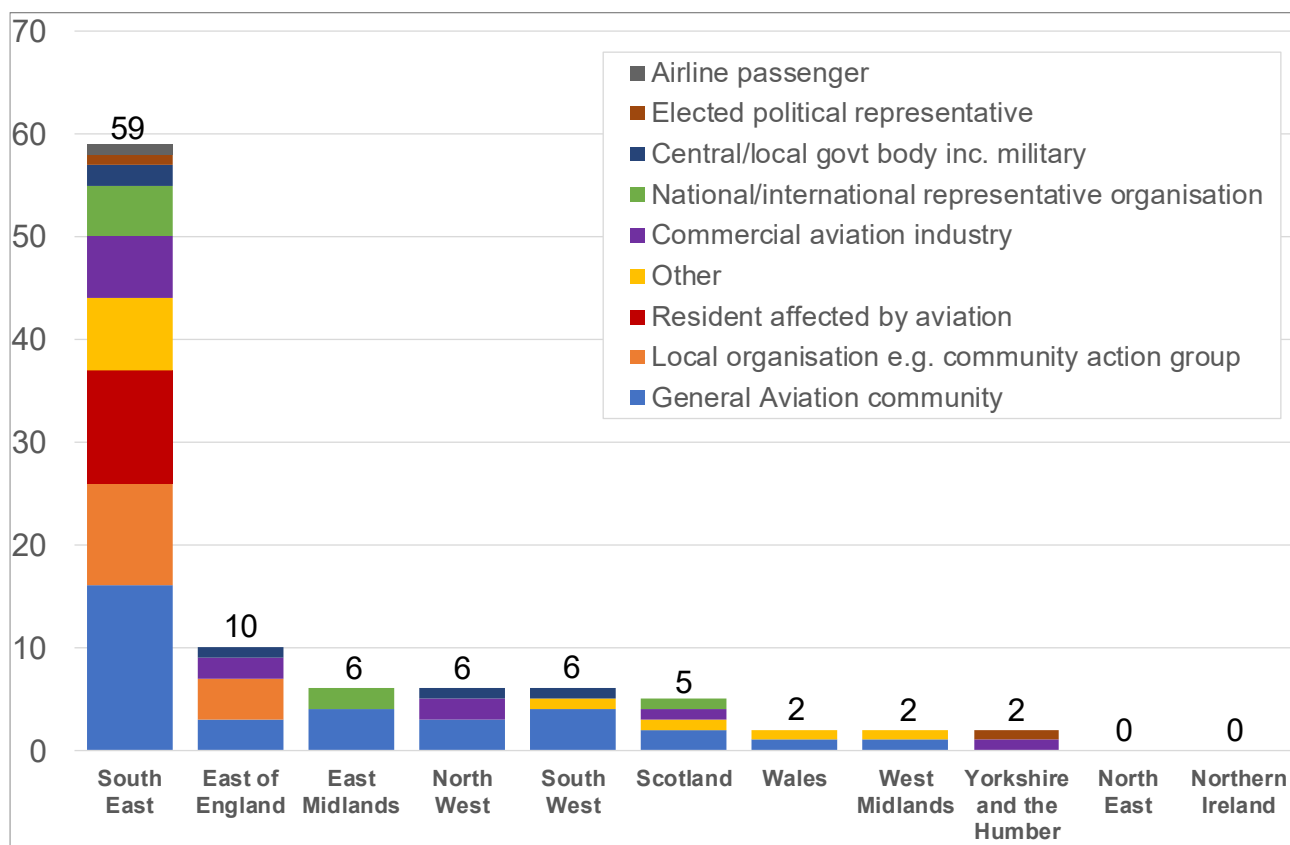
- three responses on behalf of airports or air navigation service providers – recategorised as commercial aviation industry
- one response from a parish council – recategorised as local government
- one response from a trade association – recategorised as national representative organisations e.g. trade associations (accepting that it was an *international* trade association).

1.15 A full list of respondents appears at the end of this chapter.

Geographic spread of responses

1.16 Of the 98 responses, 59 identified themselves as resident or based in the South East, 10 as resident or based in the East of England, six in each of the South West, North West and East Midlands, five in Scotland and two in each of Wales, West Midlands and Yorkshire and the Humber (Figure 1.2).

Figure 1.2: Responses to the engagement exercise by geographic region



Publicising the engagement exercise

1.17 To encourage a wide engagement, on the day of publication the CAA invited views from approximately 730 individuals and organisations through a direct email and a further 13,000 through the CAA's Skywise platform. Two comments extensions were notified in the same way, serving as a further reminder.

List of respondents by category

Member of the General Aviation community (34)

- Bliss Aviation
- Cirrus Advanced Flight Training
- London Transport Flying Club
- Rattlesden Gliding Club
- Warbird Experiences Ltd
- two General Aviation businesses that preferred not to be identified
- 27 individuals.

Local organisation e.g. community action group (14)

- Communities Against Gatwick Noise Emissions
- Englefield Green Action Group
- Friends of Richmond Park

- Hanwell Community Forum
- Heathrow Association for the Control of Aircraft Noise
- Luton and District Association for the Control of Aircraft Noise
- Plane Hell Action SE
- Richmond Heathrow Campaign
- St. Albans Quieter Skies
- Stop Stansted Expansion
- Teddington Action Group
- three local organisations that preferred not to be identified.

Member of the commercial aviation industry (12)

- Heathrow Airport Ltd
- London Luton Airport Operations Ltd
- UPS
- three individuals
- six members of the commercial aviation industry that preferred not to be identified.

Resident affected by aviation (11)

- 11 individuals.

Other (11)

- British Airline Pilots' Association
- Edinburgh Airport Noise Advisory Board
- Heathrow Strategic Planning Group
- Independent Commission on Civil Aviation Noise
- Local Authorities' Aircraft Noise Council
- The Honourable Company of Air Pilots
- The Royal Parks
- Vanguardia Ltd
- three individuals who preferred not to be identified.

National or international representative organisation e.g. trade association (8)

- Airport Operators Association
- Aviation Communities Forum
- British Gliding Association
- British Microlight Aircraft Association
- General Aviation Alliance
- International Air Transport Association
- Light Aircraft Association
- one organisation that preferred not to be identified.

Central or local government body including military (5)

- Hertfordshire County Council
- Prestbury Parish Council
- Surrey County Council
- Wrington Parish Council
- one central or local government body that preferred not to be identified.

Elected political representative e.g. councillor or MP (2)

- one Member of Parliament
- one parish councillor.

Airline passenger (1)

- one individual.

Chapter 2

Analysis of the responses

Overview

- 2.1 In this chapter we consider in detail what the responses told us. You can read individual responses, where we had permission to publish them, on our consultation website.⁷
- 2.2 This chapter includes:
- a reminder of the four questions we asked in our engagement document (CAP 1887)
 - our analysis of the answers to the two questions that had a multiple-choice element (questions 2 and 3)
 - the methodology we used to identify key themes from free-text responses to all four questions we asked
 - the 19 key themes we identified and how we grouped them under 10 headings
 - direct quotes from responses, where we have permission to publish
 - our conclusions from this analysis
 - how we have taken this feedback into account in the acceptance criteria, which we have published as CAP 2156a, *Airspace change masterplan – CAA acceptance criteria*.⁸

Engagement questions

- 2.3 Our engagement document CAP 1887 asked four questions, two of which were in a multiple-choice format with space for supporting free-text comments giving views or supporting rationale, and two of which were free text only. For convenience we have labelled these as questions 1 to 4 for the purpose of our analysis in this chapter. The questions were:

⁷ <https://consultations.caa.co.uk/policy-development/airspace-change-masterplan-criteria/>

⁸ www.caa.co.uk/cap2156a

- **Question 1:** CAP 1887 details the proposed criteria to be used to inform whether to accept the Airspace Change Masterplan, which is being created by the Airspace Change Organising Group (ACOG), an impartial team in NERL. **Do you have any general comments you would like to share on the proposed criteria for assessing and accepting the Airspace Change Masterplan?** [free text]

- **Question 2:** Are the proposed criteria detailed in CAP 1887 the right criteria to enable acceptance? [multiple choice]

about right minor modifications needed
 significant modifications needed don't know

Please explain your answer and provide any other general comments. [free text]

- **Question 3:** Chapter 3 of CAP 1887 details the policy considerations that are relevant to the Airspace Change Masterplan. **Are there examples of where further policy may be required to guide trade-off decisions?** [multiple choice]

yes no don't know

If yes, please be specific, preferably with a local example. [free text]

- **Question 4:** Chapter 4 of CAP 1887 details the engagement expectations for the Airspace Change Organising Group (ACOG) to undertake. **Do you have any comments on the engagement we are asking ACOG to undertake?** [free text]

Quantitative analysis of multiple-choice questions

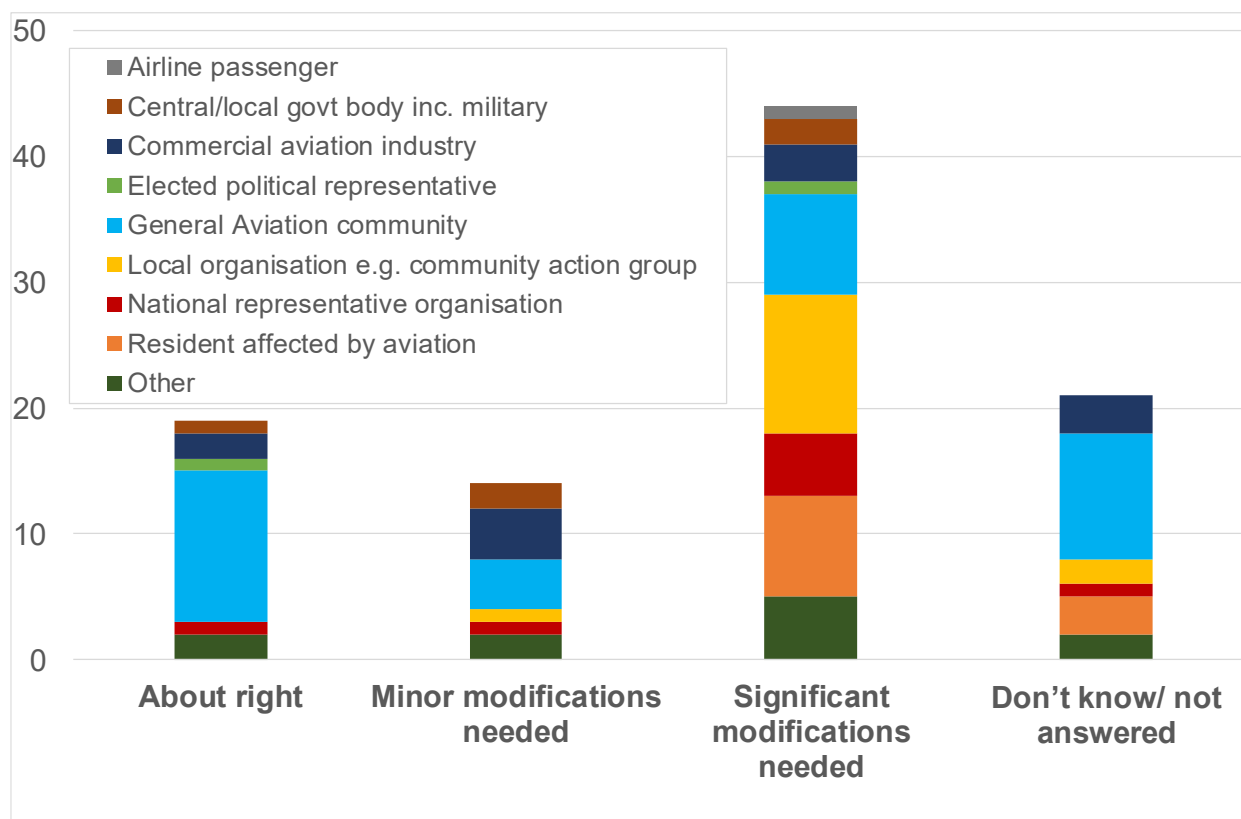
Responses submitted by email

2.4 Of the 98 responses we received, three were submitted by email rather than through our online consultation portal. These three email submissions were not arranged in our question format and so gave no answer to individual questions. Therefore they are shown as 'not answered' in our analysis of answers to the two multiple-choice questions, and we consider the points they raised in our qualitative analysis of free-text responses.

Question 2: Are the proposed criteria detailed in CAP 1887 the right criteria to enable acceptance?

2.5 Of the 98 responses, 44 thought that significant modifications to the acceptance criteria were needed. Excluding 21 'don't know/not answered' responses, this equates to more than half the responses expressing a view. There were 33 responses saying that the criteria were about right (19) or that only minor modifications were needed (14). (See Figure 2.1 below.)

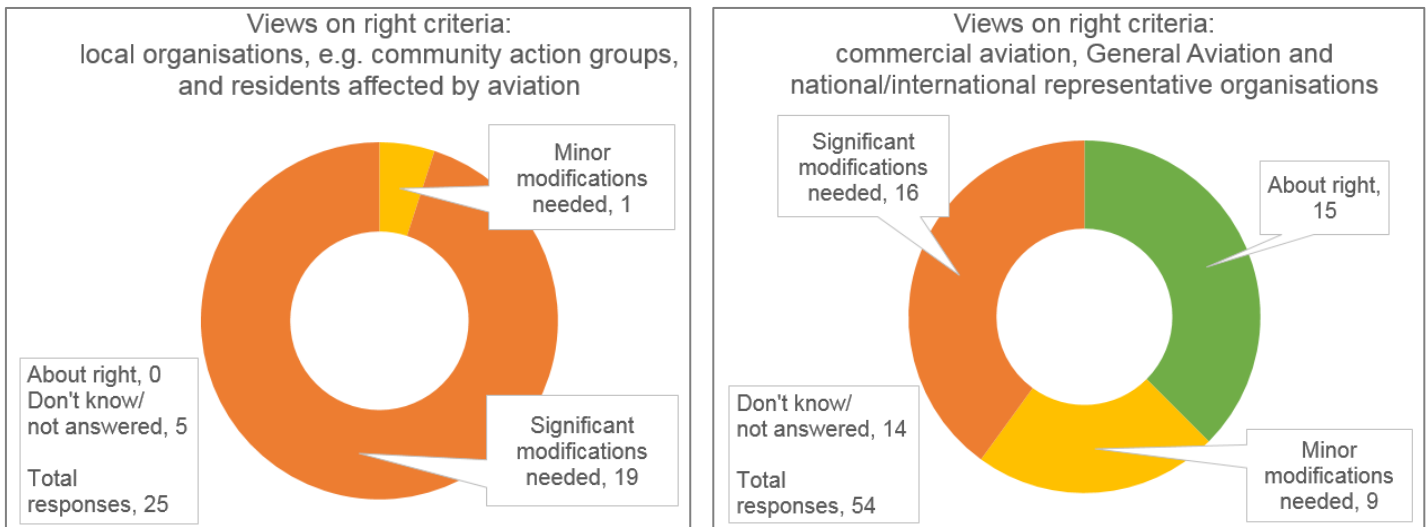
Figure 2.1 Responses to question 2: are these the right criteria to enable acceptance?



2.6 A more detailed look at each category of respondent (see Figure 2.2 below) shows that this outcome is more pronounced if we focus only on responses from local organisations such as community action groups and from residents affected by aviation. Excluding five 'don't know/not answered' responses, 19 of 20 responses (95%) from local organisations and residents said that significant modifications to the acceptance criteria were needed, with one response saying minor modifications were needed (none said the criteria were 'about right').

2.7 In contrast, aviation stakeholders were more divided in their views, if we consider responses from commercial aviation industry, General Aviation and international or national organisations (of which six of the eight respondents were either commercial industry or General Aviation organisations). Excluding 14 'don't know/not answered' responses, there were 40 responses from these three categories, of which 24 (60%) said that the criteria were about right or needed only minor modifications, and 16 said that significant modifications were needed.

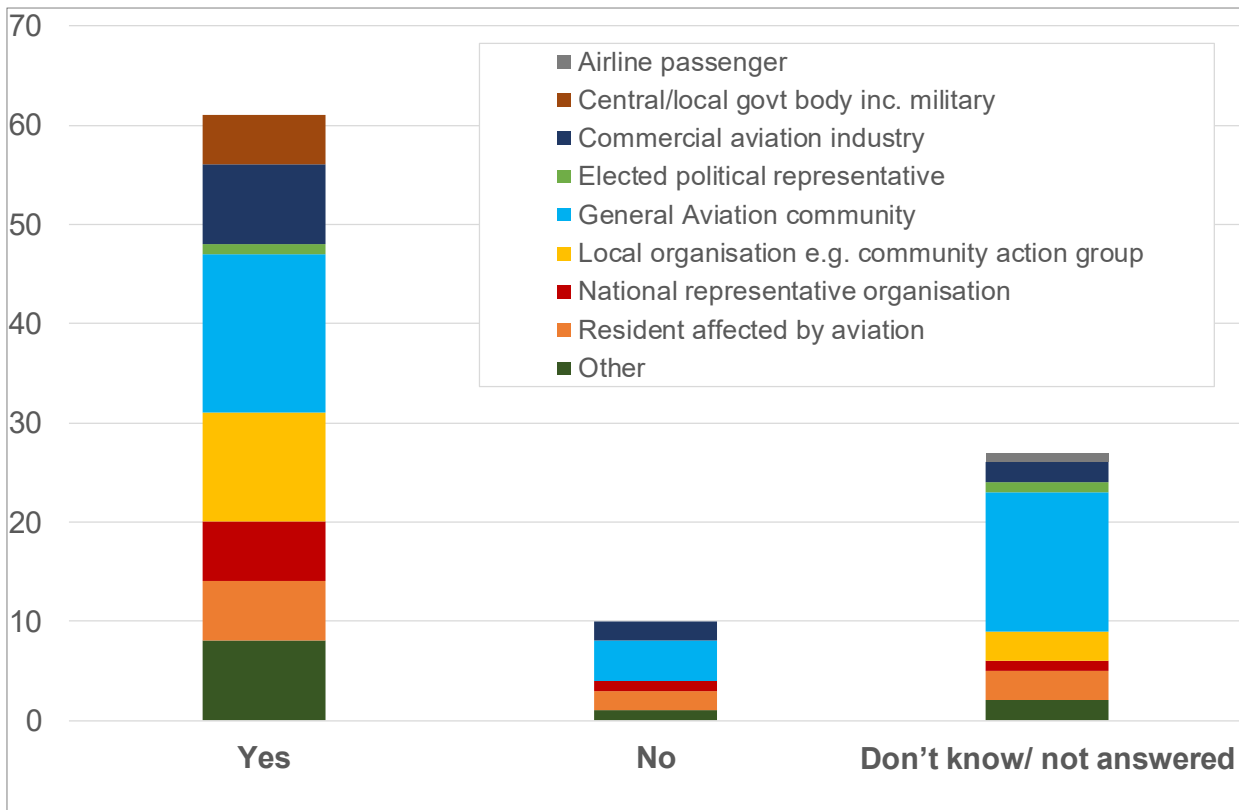
Figure 2.2 Responses to question 2 by selected respondent group



Question 3: Are there examples of where further policy may be required to guide trade-off decisions?

2.8 Of the 98 responses, 61 thought that there were examples where further policy may be required to guide trade-off decisions and 10 thought there were not. (Two of the 61 ‘yes’ responses did not, however, give any examples in the free-text box as we asked.) If we exclude ‘don’t know/not answered’ responses, 86% of responses said further policy may be required (see Figure 2.3).

Figure 2.3 Responses to question 3: are there examples of where further policy may be required to guide trade-off decisions?



Conclusion from the answers to multiple-choice questions 2 and 3

The answers to question 2 suggest that many respondents thought the criteria for acceptance needed changes. Although the engagement exercise was not a referendum, it seems clear that this view was held across all stakeholder categories.

Similarly the answers to question 3 indicate that across all stakeholder categories there was a view that we need to expand or explain better the policy guiding trade-off decisions.

In each case we have looked at the free-text responses to understand the views of respondents and whether we should in the light of those make appropriate changes to the acceptance criteria and supporting information.

Methodology for analysing free-text responses

- 2.9 We used a basic qualitative research method to analyse the free-text responses. To identify key themes, four members of CAA staff each read around 15 responses in full, listing the topics, concerns and comments raised within them. These lists were then discussed and consolidated, creating a list of themes identified by unique tags. Four members of CAA staff between them then read all the responses and, using the software contained in the consultation hub, allocated 'tags' to the free-text responses to each of the four questions in each response. This method ensured that:
- every individual response was read from start to finish by a member of CAA staff
 - the themes we discuss in this chapter were generated by the respondents in their free text responses – they were not pre-identified by the CAA but are the key points raised directly by the respondents themselves, and
 - key themes emerging in each response were noted so that, where possible, they were analysed quantitatively (i.e. so that we know how many respondents, and of which stakeholder group, raised a particular topic or concern).
- 2.10 If a respondent raised the same theme in several questions, each instance was counted, but each theme was only counted once per question, per response. For example, if a respondent mentioned 'safety' once in response to a question, that counts as one instance; if they mentioned it three times in response to that question, it was still counted as one instance; if they mentioned it in response to three separate questions that was counted as three instances.
- 2.11 Stakeholder groups were not evenly represented in terms of numbers, so where there are differences of opinion we have avoided focusing on the overall percentage of respondents favouring or criticising a particular aspect of the

proposed process. Instead we consider how individual stakeholder groups have responded and whether they are split as a group or in disagreement with other groups.

Matters out of scope

2.12 A significant number of responses included comments that were out of scope of the engagement exercise. Our engagement document CAP 1887 (paragraphs 18 and 19) set out clearly what we were seeking views on and what we were not:

“What we are seeking views on

18. We are seeking your views on:

- the proposed approach for assessing and accepting the Masterplan into the CAA Strategy as outlined in Chapters 2 to 5 of this document
- commentary on the proposed criteria and evidence to inform acceptance of the Masterplan.

“What we are not seeking views on

19. We are not seeking the following:

- views on technical or operational concepts about how aircraft will fly or other aspects of airspace design. Whether potential designs are technically feasible will be a regulatory decision to be made in accordance with the CAP 1616 process.
- contributions of potential design options for individual airspace changes to be included within the Masterplan. There will be an opportunity to contribute these as the Masterplan and the individual airspace changes in it develop.
- comments on Government policy, as this derives from section 70 of the Transport Act 2000 and includes the primary duty to maintain a high standard of safety and otherwise to ensure the most efficient use of airspace, satisfy the requirements of operators and owners of all cases of aircraft and take into account any guidance on environmental objectives given to the CAA by the Secretary of State.”

2.13 Many respondents gave us lengthy responses running over multiple pages on a whole range of issues that concerned them. Some responses even acknowledged that they knew that elements were out of scope of the engagement exercise.

2.14 We recognise that it is important to respondents that the CAA considers their responses, which we have done. To show this we summarise in this chapter what was said. Some of those views concern aviation policy matters that the Department for Transport, not the CAA, is responsible for developing. It is

possible that some comments were out of scope because respondents said they found parts of the engagement document hard to understand (see Heading 1 below). We have taken note of this and clarified much of the text of the acceptance criteria.

Themes from analysis of the free-text responses

- 2.15 From our analysis of free-text responses we identified 19 themes across the four questions. There were 591 instances (defined as explained above) in total where those themes were raised.
- 2.16 We then arranged these 19 themes under 10 headings as follows:
- **Heading 1: CAP 1887 or acceptance criteria not easy to understand (22 instances)**
 - **Heading 2: Proposed approach for accepting the masterplan**
 - supportive comments (18 instances)
 - negative comments (37 instances)
 - **Heading 3: Negative comments about the CAA, government policy or ACOG's impartiality**
 - negative comments about the role or independence of CAA as airspace regulator (31 instances)
 - negative comments about government policy (37 instances)
 - ACOG and/or steering group not impartial (52 instances)
 - **Heading 4: Masterplan acceptance criteria and airspace modernisation in the light of changed circumstances**
 - masterplan acceptance criteria are based on insufficient or invalid information (ANPS-related or Covid-related) (48 instances)
 - airspace modernisation including the masterplan and related processes should continue or be kept flexible (9 instances)
 - **Heading 5: Design standards that inform the masterplan (9 instances)**
 - **Heading 6: Envisaged engagement on masterplan inadequate or too much**
 - engagement on masterplan inadequate (59 instances)
 - engagement on masterplan too much (8 instances)
 - **Heading 7: Trade-offs – clarity and stakeholder input**
 - need for clarity (46 instances)
 - stakeholder input and mediation in trade-off decisions (35 instances)
 - individual trade-off decisions should be assessed through the CAP 1616 airspace change process rather than the masterplan (3 instances)
 - **Heading 8: Reducing environmental impacts should take precedence over growth**
 - noise impacts (57 instances)
 - emissions impacts (32 instances)

- **Heading 9: Concern about the extent of controlled airspace and/or detriment to General Aviation**
 - concern about the amount or design of controlled airspace (47 instances)
 - concern about detriment to General Aviation (32 instances)
- **Heading 10: Concern about airspace access or use by drones and spacecraft (9 instances).**

2.17 The themes under each of these headings are discussed below. At the end of each section we explain what we have concluded and how we have made changes to the assessment and acceptance criteria in response to the views expressed by respondents.

Heading 1: CAP 1887 or acceptance criteria not easy to understand

2.18 There were 22 instances where respondents said that CAP 1887 or the acceptance criteria were not easy to understand, not sufficiently accessible for those without aviation knowledge, confusing or too complex.

2.19 Respondents asked for a clearer and more concise expression of the criteria and the underlying reasoning, using plain English that would be comprehensible to a non-specialist audience. It was suggested that we include a description of the multiple iterations of the masterplan and the different stages of release of information to stakeholders. Also that we include worked-through scenarios where airspace redesign caused a conflict, showing more clearly at what point communities have their say while iterations and trade-offs are being brokered.

2.20 Most of the instances of this theme occurred in response to the first two questions. Half were in responses from members of the General Aviation community, and nine were in responses from local organisations such as community action groups, an elected political representative and organisations with an interest in aviation noise. However, we did not record any instances where this theme was raised in a response from a resident affected by aviation.

Quote

I do not believe that this consultation has been designed to be accessible to those outside the aviation industry. [response from Ms Sarah Olney MP]

Quote

Responding to CAP 1887 was difficult. I would be concerned that the length and very general nature of statements of the document about the acceptance criteria and process makes it difficult for a member of the public to make a constructive response and for the consultation process to add value. [respondent in the 'Other' category]

Quote

Given the particularly complex nature of the FASI-South airspace programme we feel that communication around the Masterplan and airspace modernisation needs to be as clear and transparent as possible. We do not feel that the information in this consultation would be clear enough for a wider audience or anyone without a knowledge of aviation, so better communication and engagement around the Masterplan itself will be required.

[response from Independent Commission on Civil Aviation Noise]

Quote

This chapter [on engagement] is badly written and lacks clarity. You surely can address each specific group directly and outline who you intend to engage with us. I read avidly the aviation press and know almost nothing about it. Having skim read the document I want to tear my hair out in frustration. STOP speaking in riddles, condense down potential courses of action into easily understood bullet points!

[response from a member of the General Aviation community]

Outcome (Heading 1)

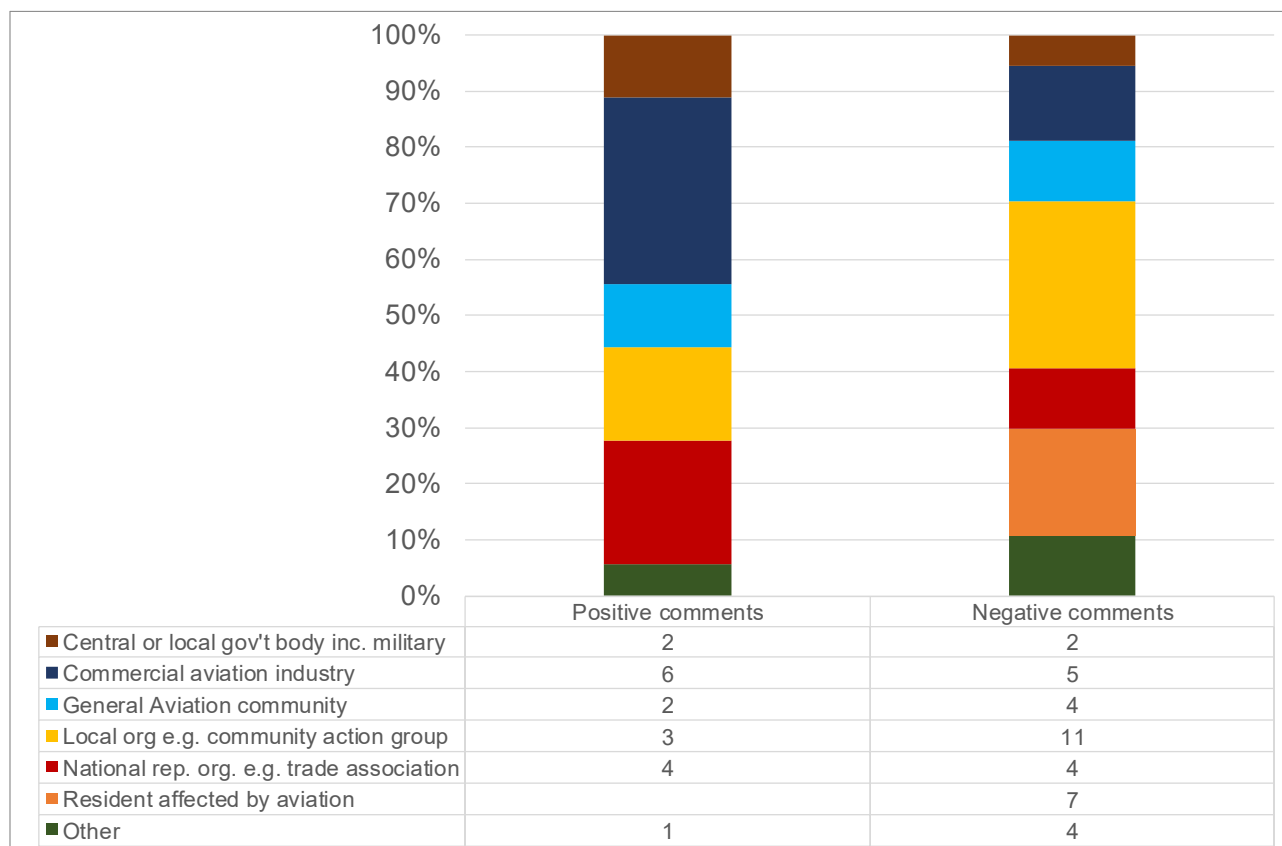
We received 98 responses, many with detailed comments, all of which we have read and reviewed. Many responses mention policy clarity (which we cover under later headings), but a number also said that our engagement document CAP 1887 itself could have explained the draft criteria and our underlying reasoning more clearly or in plainer language.

For greater clarity we have therefore published the criteria for accepting the masterplan as [CAP 2156a](#) and the assessment framework as [CAP 2156b](#). By assessment framework we mean the legal and policy considerations, and the process that the co-sponsors will follow (1) to assess ACOG's progress with developing the airspace change masterplan iterations and (2) to confirm that these are delivering what the co-sponsors commissioned.

We have also introduced diagrams to illustrate the masterplan development process more succinctly and how it relates to the CAP 1616 process that sponsors of the airspace change proposals making up the masterplan must follow. We have published a short guide, [CAP 2156c](#), explaining the opportunities that stakeholders have for engagement with ACOG about the masterplan and sponsors about airspace change proposals. We have used plain English as far as we can for the final criteria and explained any unavoidable technical terms, and we are requiring the same of ACOG's engagement material (see Heading 6 below).

Heading 2: Proposed approach for accepting the masterplan

Figure 2.4 Respondents supportive of or negative about the proposed approach for accepting the masterplan



Supportive comments

2.21 There were 18 instances where respondents were generally supportive of the CAA's proposed approach for accepting the masterplan, or the purpose of the CAP 1887 engagement exercise, or ACOG's role in coordinating the masterplan. This theme mainly occurred in response to question 1 (general comments). It occurred in responses from seven different categories of respondent, with six occurring in four responses from the commercial aviation industry and four occurring in three responses from national representative organisations such as trade associations (see Figure 2.4 above).

Quote

The global airline community are heavily invested in the process of airspace modernisation in the U.K. and across Europe. Airlines are the primary beneficiaries of many of the proposed changes and have contributed significantly to the funding for airspace modernisation through en-route and airport charges. Most airlines have also invested upfront in new avionics and airframes to maximise the benefits of a modernised airspace system. However, very few of the proposed airspace changes have been successfully implemented over the past decade. One of the main reasons for this failure is the lack of a robust plan, overseen at the State-level, that lays out the

changes each industry organisation is responsible for and sequences the deployment to deliver a coherent set of upgrades. IATA is encouraged by the potential for the Airspace Change Masterplan to tackle this issue...

IATA welcomes the clarity that the engagement document provides regarding the scope of the Masterplan, the information it should include and the way that the CAA intends to use it to support regulatory decisions about airspace changes.

[response from International Air Transport Association]

Quote

Heathrow welcomes the further clarity provided in this document as to the CAA's expectations of the process ACOG should follow to develop the Masterplan, Iterations 2 and 3. We believe that the process defined to accept the Masterplan appears fair. [...]

Iteration 2 of the Masterplan will provide a high-level view of the scale of change that the industry is being asked to deliver. This will provide a solid foundation for our ACP planning and give confidence to all ACP sponsors (who will have interdependencies) that the FASI-S programme is deliverable as a whole. The masterplan will also provide an essential framework that allows sponsors to understand how the requirements of CAP1616 are to be met where there are adjacent and overlapping ACPs. To make the most of this opportunity, it is essential that all involved have certainty of the CAA's expectations for the masterplan and what it means in practice for the ACPs being progressed by sponsors.

[response from Heathrow Airport Ltd]

Negative comments

- 2.22 There were 37 instances of negative comments about our proposed approach for accepting the masterplan, or about the criteria themselves, not including any negative comments relating to a third runway at Heathrow or the Covid-19 epidemic which are the subject of separate themes below. The comments in this theme included that the proposals were too complex, not flexible, not bold enough, would compromise the objectives of the Airspace Modernisation Strategy, had insufficient or invalid information, lacked or needed clarity (including about feedback on masterplan iterations), were not transparent or explicit, were not aligned with wider policy goals including government policy, or that the criteria or masterplan itself needed to be written in plain non-technical English.
- 2.23 Some more specific comments about the overall approach for accepting the masterplan are summarised below:

Scope

- CAP 1887 only mentions southern England and implies that other areas of the UK are peripheral and not part of the strategy; if the criteria are to apply to other areas of the UK as well as the FASI-S programme, the CAA should make this clear and also set out the CAA's intentions around a FASI-N masterplan.

Process

- the CAA should explain how changes to the masterplan will be made public
- the masterplan should include a roadmap with key milestones, dependencies and modelling where appropriate, including specific criteria for when large infrastructure projects such as a new runway should be assumed in or out of the masterplan; the masterplan should clearly state the confidence airspace change sponsors have in each phase of the programme plan and indicate where timelines presented are indicative pending more work allowing them to commit to delivery dates
- the masterplan should set out the process for achieving coordinated airspace changes between all the airports using or needing to use a given volume of airspace
- the CAA should consider making available a funding mechanism given the financial implications of changes and trade-offs
- airspace change sponsors should be allowed to pass through Stage 2 of the CAP 1616 process even if Iteration 2 of the masterplan has yet to be accepted (and similarly with Iteration 3); the masterplan should be an aid to help coordinate and guide the overall FASI-S programme but should not delay the delivery of the programme
- pausing all airspace change proposals at the second or third gateways until the CAA has accepted the relevant iteration of the masterplan may affect the finances of an airport, its relationship with local stakeholders, and its commitment to modernisation; so the CAA should work to clear deadlines to manage the expectations of ACOG and external stakeholders and avoid open-ended delay
- it was questionable whether ACOG's iterative approach was achievable, and that instead ACOG should first identify the most complex-set of interdependent changes that could deliver benefit to airports, airspace users and communities, and how the masterplan solves that first challenge in the most optimal and expedient way, thus indicating whether less complex interdependent changes and therefore the programme overall were also achievable
- iterative evolution of the masterplan by ACOG in parallel with individual airspace change proposals will make it difficult for sponsors to maintain confidence among their own stakeholders; therefore, rather than the proposed approach of ACOG seeking solutions with each party

individually, there should be a joint application of the airspace change process for all sponsors and stakeholders of the largest interdependent set of airspace change proposals to resolve the conflicts and interdependencies and to produce design options that can be seen by all to be as optimised as possible.

Criteria

- CAP 1887 did not set out acceptance criteria as such; it set out what the masterplan should contain but not how the development of the masterplan would be validated in terms of technical content and rigour
- the criteria omitted some key references to Government aviation policy, in particular the commitment to reduce emissions to net zero by 2050
- the criteria wording was too loose, for example defining what was meant by ‘planned development on the ground’, or reflecting that entities other than airports and air navigation service providers could be sponsors or drivers of airspace change
- the criteria should be sufficiently flexible for the masterplan not to be based on a snapshot but to be able to accommodate:
 - unexpected events that have caused changes or disruption to the programme plan
 - new or improved – perhaps as a result of research or stakeholder feedback – airspace change proposals
 - perhaps (in light of the pandemic impacts) moving to a much more modular or iterative masterplan than previously envisaged, enabling sponsors to stand-up and deliver airspace changes when economically viable to do so, with the masterplan and ACOG providing appropriate assurance that these changes fit with the overarching aims of the Airspace Modernisation Strategy.

Relationship with CAP 1616 process

- the level of detail required of the masterplan set out in the criteria to enable acceptance is too great in a number of areas, and conflicts with the criteria set out in the co-sponsors’ commissioning letter (paragraph 43 of CAP 1887) – the criteria should instead be based upon the acceptance of a framework of agreed processes or protocols to enable and support how decisions on airspace change proposals are made (i.e. how trade-offs are agreed, or conflicts are resolved), but not the detailed information of each individual trade-off decision, to avoid undermining the CAP 1616 process that will address this; the CAA should clarify what is required so as not to undermine the CAP 1616 process, and should more clearly delineate between the masterplan and CAP 1616; as drafted, the masterplan is not being presented clearly enough as a strategic document and will be complex to create and update, specifically because:

- for Iteration 2: dependencies, conflicts and impacts will not be available because the airspace design process for FASI-S will be too immature at this point
- for Iteration 3: proposed airspace structure and route network when viewed as a collective, including macro impacts from the 'full' options appraisals, will not be available because sponsors are taking a modular approach to the development and delivery of FASI-S, neither will information on trade-offs, solutions to dependencies and implications of these solutions
- in both cases: the level of detail is not appropriate for the masterplan and should be part of the CAP 1616 process; there will be duplication of regulatory assessment and public engagement first for the masterplan and then for the CAP 1616 process
- the CAA should clarify, perhaps with examples, the process by which an airspace change proposal that conflicts with the masterplan will be rejected; and whether wider masterplan considerations would always take priority over a local airspace change (noting paragraph 87 of CAP 1887: "the policy and the acceptance of the Masterplan does not override the need to consider all these factors when developing an airspace change, each of which must still follow the CAP 1616 process")
- the process as currently designed would effectively block any individual airspace change that would be welcomed by local communities to achieve small but significant environmental improvements
- in relation to airspace change proposals in progress prior to the establishment of ACOG:
 - more clarity was needed on the criteria and mechanism for assessing that such proposals did not conflict with the masterplan
 - airspace change sponsors need to be reassured that the masterplan would not impose changes retrospectively, at least not without compensation
 - the masterplan should set out how its objectives relate to design principles that have already been the subject of recent public engagement.

Acceptance decision

- further information was sought on the process for the CAA consulting the Secretary of State to seek acceptance of the masterplan and what happens if the Secretary of State disagrees or requires different information
- the final decision to accept the masterplan might better rest with the Secretary of State
- the CAA's review of stakeholder engagement would be too little and too late to affect the outcome.

- 2.24 Most of these instances occurred in response to the first two questions asking for general comments or comments about the proposed criteria. They occurred in responses from seven different categories of respondent, with six occurring in four responses from the commercial aviation industry and four occurring in three responses from national representative organisations such as trade associations (see Figure 2.4 above).

Quote

The criteria appear to be all about supporting commercial aviation with GA and others as just groups to be consulted. This does not fairly represent the value of GA, nor its role in supporting commercial aviation. The separate groups within aviation should be supported equally. None of the criteria reflect climate change issues. Does not reflect that request for change could come from the groups other than CA.
[response from a member of the General Aviation community]

Quote

We do not believe the consultation sets out clearly the criteria the CAA will use to accept (or not accept) the Masterplan. In our view the information requirements set out in paragraph 63 of the consultation are a sensible starting point but do not amount to a set of acceptance criteria. [response from Aviation Communities Forum]

Quote

In NATS' view, the purpose of the masterplan is to provide a coordinated programme plan and to provide the overall framework for how Initiative 4 of the AMS will be delivered. The masterplan should detail the required airspace changes, the sponsors of those changes, and the rationale for those changes. The masterplan should also be used to document how the changes are progressing and the benefits the changes will deliver, however it should only do this when appropriate and not before solutions have been presented by sponsors as part of the CAP1616 process. Item 43 in CAP1887 explains this clearly and is consistent with this viewpoint.

However, the proposed content for the masterplan as detailed in other sections of CAP1887 would go far beyond this remit and creates unnecessary confusion by commissioning ACOG to provide a level of detail on the FASI-S programme that would currently be documented through the CAP1616 process. NATS feels that there needs to be clearer delineation between the masterplan and CAP1616, as based on these criteria, the Masterplan is not being presented clearly enough as a strategic document. If there is overlap with CAP1616 this may lead to confusion, duplication and delay when the Masterplan should be acting as an enabler. [response from NATS]

Outcome (Heading 2)

Scope

ACOG was specifically set up by NERL at the request of the CAA and Department for Transport as co-sponsors to create a single coordinated implementation plan for airspace changes in Southern England (the masterplan), with the expectation of further commissions for other areas of the UK. The co-sponsors have now extended the commission to cover all of the UK, thus encompassing the FASI-South and FASI-North programmes (FASI meaning Future Airspace Strategy Implementation) redesigning the existing airspace structure. We have therefore reworded the acceptance criteria accordingly.

Process

We agree that transparency is a key requirement. We are considering with ACOG and the Department for Transport how best to publish all the information associated with the development of the masterplan. We discuss this further in the context of improving stakeholder engagement under Heading 6 below.

We agree that ACOG must include in the masterplan key milestones and assumptions, working closely with sponsors of the constituent airspace change proposals. The acceptance criteria focus on outcomes, not on the masterplan development process, which must be kept flexible. We do not prescribe the process by which ACOG must coordinate between sponsors where there are interdependencies between airspace change proposals; that is a matter for ACOG. However, the acceptance criteria do require ACOG to describe that process and how it was used to arrive at solutions for resolving conflicts.

We have asked ACOG to develop a preferred implementation plan for modernisation. Once Iteration 2 has been accepted, in order to progress the modernisation programme most efficiently, it may be beneficial for ACOG to divide the masterplan into separate 'clusters' with different timelines, each with a set of interdependent airspace change proposals; the co-sponsors will consider ACOG's advice on this. As the programme restarts, any delay in one airspace change risks undermining these crucial interdependent changes, which is a risk that ACOG and the co-sponsors will manage.

Masterplan iterations are linked to particular stages of the CAP 1616 airspace change process which the constituent airspace change proposals must also follow (see 'Interaction with CAP 1616 process' below). We recognise that there may be more iterations than the four described in CAP 1887. We recognise that the Covid-19 pandemic caused many airspace change proposals to be paused while some

continue to progress.⁹ In March 2021, the Government announced a £5.5m fund for airports to seek grants in support of airspace modernisation, and the co-sponsors are actively working with ACOG on restarting the programme.¹⁰

We do not agree that airspace modernisation can only be achieved effectively by a joint multi-sponsor airspace change encompassing multiple interdependent airspace change proposals, as one respondent suggested. The coordination of those changes transparently and impartially, including engaging with all relevant parties, is why ACOG was set up and commissioned with creating the masterplan that resolves potential conflicts.

Criteria

Airspace modernisation is a long and complex programme. The masterplan has been commissioned to cover the period to 2040. From feedback we have received it has been apparent that we needed to introduce greater flexibility into the acceptance criteria, and to modify some of the expected content of Iteration 3.

The CAA will need to update the criteria over the lifetime of the masterplan to reflect the evolving context for airspace modernisation, such as any changes or additions to co-sponsor commissions to produce elements of the masterplan, or unanticipated external events.

When submitting each iteration for acceptance, ACOG is required to include a plan for the content of later iterations. In development of a particular iteration, ACOG may choose to make a case to the CAA and Department for Transport as co-sponsors during the ongoing assessment process that a particular element in the criteria should be moved between iterations, or omitted should it no longer be relevant or proportionate to the required outcome. The acceptance criteria in CAP 2156a for Iteration 3 and beyond are therefore subject to change.

In order to progress the modernisation programme most efficiently, it may be beneficial for ACOG to divide the masterplan into separate 'clusters' with different timelines, each with a set of interdependent airspace change proposals; the co-sponsors will consider ACOG's advice on this.

We have included appropriate references to relevant government aviation policy in the masterplan assessment framework (CAP 2156b), including provision for new government policy such as decarbonisation.

⁹ <https://www.gov.uk/government/publications/update-on-airspace-modernisation/update-on-airspace-modernisation> (July 2020).

¹⁰ <https://www.gov.uk/government/news/55-million-to-drive-improvements-to-uks-motorways-in-the-sky> (March 2021).

Interaction with the CAP 1616 process

Several respondents were concerned that the acceptance criteria were too prescriptive and they stressed that the CAP 1616 process was the mechanism for deciding upon detailed airspace design.

The acceptance criteria require ACOG, as coordinator, to set out in Iteration 2 potential interdependencies between individual airspace change proposals. In preparing the greater detail for Iteration 3, ACOG will be required to describe how specific design trade-offs between interdependent airspace change proposals could be resolved conceptually.

In the light of feedback, we have decided to make changes to the stages at which the masterplan will present proposed trade-off solutions. The proposal in CAP 1887 was that ACOG will include in Iteration 3 actual proposed trade-off solutions to the conflicts and interdependencies identified in Iteration 2. We have now decided that Iteration 3 will not propose one design option in preference to another. The masterplan will now propose trade-off solutions in subsequent iteration(s).

The reason we have done this is to ensure that the final iteration(s) are the product of analysis carried out by individual sponsors which will be based on the output of the consultation stage (Stage 3) of their individual constituent CAP 1616 process airspace change proposals, as these individual consultations will be an important opportunity for stakeholders to influence decisions on proposed trade-off solutions that may affect them.

The final iteration(s) of the masterplan is the complete, detailed plan of airspace changes, setting out how ACOG, working with airspace change sponsors, envisages that any conflicts between interdependent airspace change proposals are resolved, i.e. include proposed trade-off decisions. Where trade-offs are unable to be resolved by sponsors in coordination with ACOG, the decision may be brought before the co-sponsors to propose a resolution. This will happen during the development of Iteration 4 (and potentially any subsequent iterations).

The CAA's acceptance of Iteration 4 will potentially limit the design options for individual airspace change proposals. This is because trade-offs between design options may be required to resolve any conflicts arising from interdependencies between those airspace change proposals that have been identified as part of the masterplan process.

Where an airspace change proposal predates the masterplan and is interdependent with other airspace changes forming part of the modernisation programme, ACOG will by definition already be coordinating with the sponsor concerned.

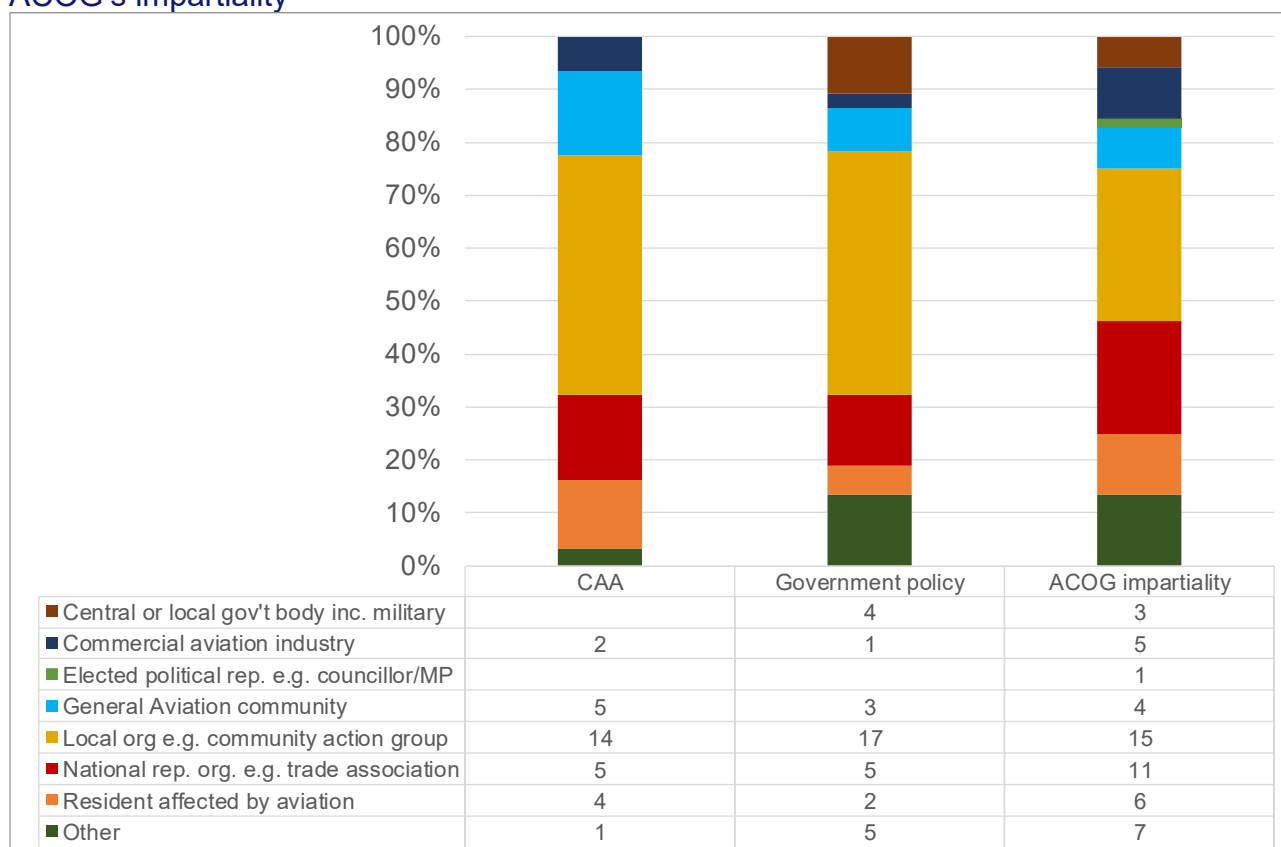
Acceptance decision

As further iterations of the masterplan are developed, the co-sponsors will assess whether the criteria for acceptance into the Airspace Modernisation Strategy have been met. Because we are tasked with producing the strategy, the acceptance decision is for the CAA, but we will also consult the Secretary of State.

The CAA’s acceptance does not come too late in the process to affect the outcome. The co-sponsors will be assessing the development of the masterplan on an ongoing basis, including ACOG’s engagement. The co-sponsors will also assess the masterplan at each iteration to determine whether the CAA can accept it into the Airspace Modernisation Strategy.

Heading 3: Negative comments about the CAA, government policy or ACOG’s impartiality

Figure 2.5 Respondents making negative comments about the CAA, government policy or ACOG’s impartiality



Negative comments about the role or independence of CAA as airspace regulator

2.25 There were 31 instances of negative comments about the role or independence of the CAA as an airspace regulator, the way the CAA has engaged on this project or acted on airspace matters generally, including our airspace change

process or a specific airspace change decision. Most instances were in response to question 1 (general comments). More than half of the instances occurred in responses from local organisations such as community action groups (14) or from residents affected by aviation (4). Most other instances occurred in responses from national representative organisations such as trade associations (5) or from members of the General Aviation community (5) (see Figure 2.5).

Quote

We understand that the CAP 1616 process continues, and is independent of the Masterplan, but question whether the CAA can be truly independent as the final decision makers at that level. It is difficult to see how they have demonstrated an understanding of overall airspace management to date.

[response from British Microlight Aircraft Association]

Quote

• The CAA should not have conducted this consultation through the Coronavirus lockdown. • This consultation should not take place during a time when aviation is grounded and citizens are enjoying a respite from aircraft noise; as such, they may be switched off to CAA actions that may, long term, affect them with an increase in noise or new aircraft noise. • The CAA has a duty of care to all UK citizens; by not promoting the consultation to a wider audience the CAA is discriminating against many that could be unknowingly impacted by what is proposed. This makes this consultation not fit for purpose as the CAA has not looked to engage with all citizens that could be impacted by what is proposed in CAP 1887.

[response from Communities Against Gatwick Noise Emissions]

Quote

There is no such thing as an impartial team for this subject matter. CAA HAS already made its decision just as last time on flight routes despite overwhelming local opposition. National disgrace.

[response from a local community action group]

Negative comments about government policy

2.26 There were 37 instances of negative comments about government policy (not counting negative comments about the masterplan itself, the acceptance criteria or the airspace modernisation strategy). These included comments about government airspace or environmental policy being unclear, missing, uncertain, obsolete, requiring more focus or requiring more environmental or health research. More specifically, comments concerned such topics as giving priority to growth or to emissions or noise reduction, economic benefit, equitable access to airspace, updating the Aviation Strategy, compensation for property values, and

ICCAN (the Independent Commission for Civil Aviation Noise) giving advice to ACOG. Most instances occurred in response to question 1 asking for general comments and in response to question 3 asking for examples of where further policy may be required to guide trade-off decisions.

- 2.27 Nearly half the instances (17) were in 10 responses from local organisations such as community action groups, with the balance spread across six other categories of respondent (see Figure 2.5).

Quote

We do not believe that the key government policies against which the Masterplan is to be prepared, assessed and accepted are sufficiently clear to enable any of those activities to be undertaken on an objective basis. In particular the government's aviation noise and environmental policies are opaque and lack specificity to such an extent that it will not, in our view, be possible for ACOG to resolve conflicts and trade-offs associated with airspace redesign in a way that is (as required) transparent and fair, or for the CAA to assess whether ACOG's processes will do so, or for stakeholders to engage with ACOG on policy in an informed and meaningful way. Paragraph 85 of CAP 1887 appears to confirm this view.
[response from Aviation Communities Forum]

Quote

The AOA agrees with the sentiment expressed in paragraph 84 regarding the current deficiencies in the Government's airspace policy framework. There is no clear hierarchy of policy considerations or trade-offs to be made. Such a hierarchy or prioritisation can only be directed and decided upon by national government in line with their wider economic and social agendas for the country. However, it is clear from the draft masterplan and the feasibility study that, at least, some trade-offs between crucial policy areas will be required. The Government needs to assign priority to essential outcomes of airspace modernisation such as the reduction in carbon emissions, reduction in local noise effects, potential economic benefit and equitable access to airspace concerns. Ideally these strategic objectives would be consulted upon with industry and wider aviation sector stakeholders. The AOA strongly believes that further policy guidance is necessary to ensure Government objectives are achieved and the full potential of benefits are realised through the programme of airspace modernisation.
[response from Airport Operators Association]

ACOG and/or steering group not impartial

- 2.28 There were 52 instances where responses suggested that ACOG, or the cross-industry steering committee which guides it, were not impartial. Some responses commented that the composition of ACOG or the steering group (including how their members were selected and information on their governance) was not transparent. Also that they did not sufficiently involve non-industry stakeholders (in particular community and environmental participation) or certain categories of

industry stakeholder (specifically the air traffic controller, flight information service officer and the pilot communities, who it was pointed out operate the current airspace structure daily).

- 2.29 It was suggested as a result that the process for creating the masterplan was biased in favour of industry stakeholders and that ACOG was not impartial but had a vested interest. It was also suggested that the engagement arrangements proposed for ACOG were not an adequate substitute for mechanisms that ensure that all stakeholders' interests are transparently and equally considered.
- 2.30 Most of these instances arose in the general comments under the first question and in the fourth question that specifically asked about ACOG engagement. They occurred in responses from all categories of respondent (except for airline passenger), mainly those from local organisations such as community action groups (15 instances in 10 responses) and from national representative organisations such as trade associations (11 instances in five responses) (see Figure 2.5).

Quote

...ACOG is far from being impartial, being composed of people drawn from limited commercial aviation-industry backgrounds and with no identifiable representation from those suffering on the ground from the environmental effects of airspace change or those with other aviation non-commercial aviation interests. The composition and remit of the "cross-industry Steering Committee" is unclear and its Terms of Reference should be available and open to public consultation. The checks and balances needed to prevent ACOG acting solely in line with NATS wishes determined by the financial interests of its airline owners must be strengthened.

[response from a resident affected by aviation]

Quote

The attachment of the adjective "impartial" to the description of ACOG, appears to be an attempt to deny the conflict of interest inherent in the fact that ACOG is staffed by NERL which is a division of NATS. NATS is a hybrid organisation but largely owned by Commercial Aviation interests and stands to gain from the entire Masterplan exercise and the implementation of its outcomes. A "cross-industry Steering Committee" is referred to as part of ACOG but without definition of • its composition, • its terms of reference, • its authority over the commercial organisations creating the Masterplan and developing the individual ACPs. These should be published urgently and opened to public consultation. The obvious concern is that not only NERL itself but also the Steering Committee will be dominated by commercial aviation interests and that the Masterplan and resulting airspace implementations will not properly balance the interests of other aviation and environmental groups.

[response from British Gliding Association]

Quote

The ACOG membership is not known to HSPG but is reported to include only aviation experts and interests; yet it is expected to be capable of 'trade-off' and 'balancing' all the competing objectives of the aviation industry and community and wider interests too. ACOG should be expanded to include local authorities in airport areas, residential communities and environmental interests not currently represented...The huge range of matters involved in the 'balancing' and 'trade-off' of interests cannot be adequately managed by the 'impartial' aviation technical team alone as ACOG is currently formulated, and opportunities for wider engagement appear are too late in the process to be effective

[response from Heathrow Strategic Planning Group]

Outcome (Heading 3)

Negative comments about the CAA included comments about the CAP 1616 process. This engagement exercise was not about the CAP 1616 process, although a review of that process is underway separately, as committed to when we first introduced CAP 1616 in early 2018. Comments were also made about specific airspace change decisions, which are subject to extensive engagement requirements at many stages of the CAP 1616 process, and which were also outside the scope of this engagement exercise. Negative comments about government policy mostly focused on a lack of clarity, which we discuss below under Heading 7.

The CAA and Department for Transport as co-sponsors considered various models for ACOG to provide suitable funding, impartiality from industry and expertise to organise a change programme of this scale and complexity. As a result of the co-sponsors' commissioning letter to NERL of 2 November 2018, ACOG was set up in 2019 as a separate unit within NERL specifically to keep it impartial. This is specified in condition 10a of NERL's economic Air Traffic Services licence¹¹, which also sets out a number of other related requirements that are subject to the CAA's regulatory oversight. These include that the masterplan must take into consideration the views of stakeholders listed in the Airspace Modernisation Strategy Governance Annex.¹² Also that the ACOG Steering Committee will include at least one representative from NERL, airlines, airports, the General Aviation community and independent members with appropriate experience.¹³ More information is on ACOG's website <https://www.acog.aero/>.

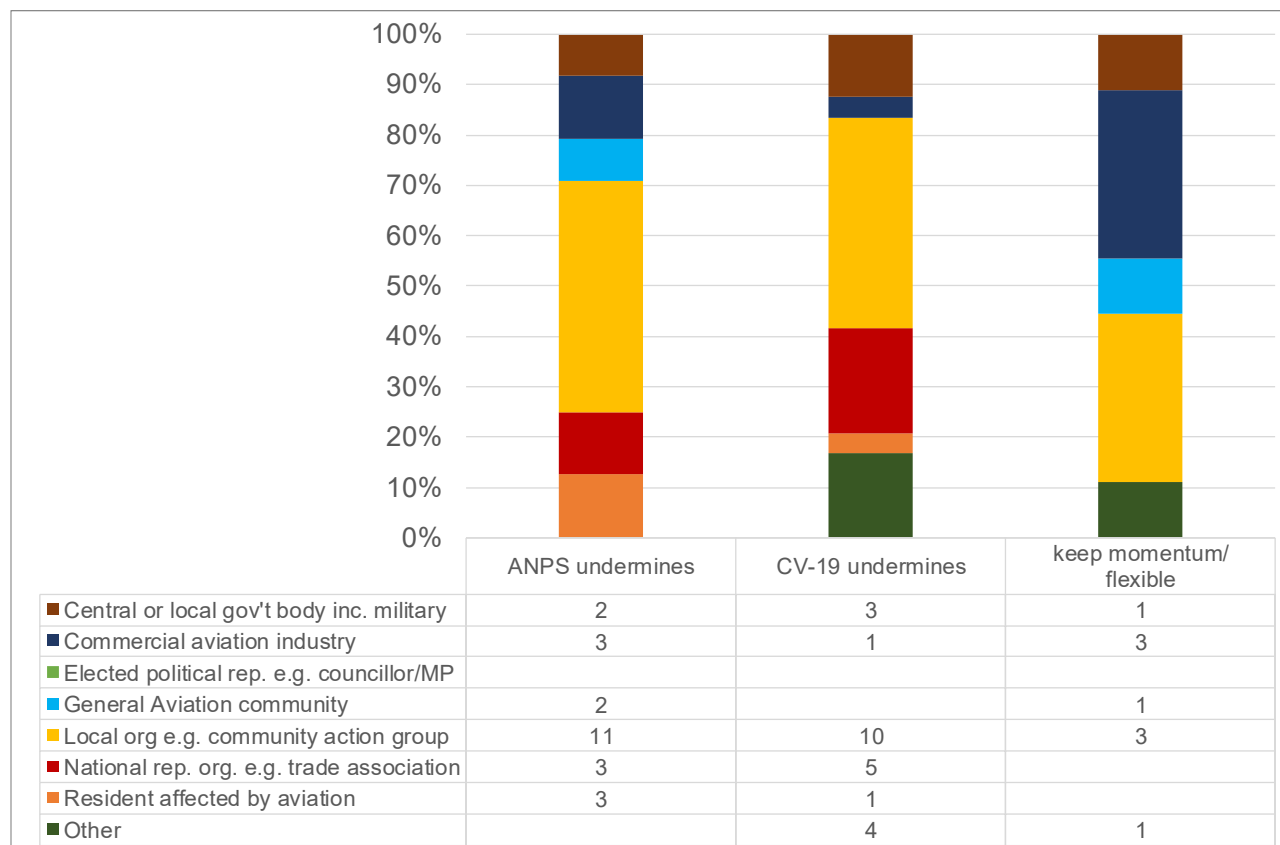
¹¹ Condition 10a of the licence, in Part II The General Conditions. www.caa.co.uk/cap2111

¹² For the latest version please see page 7 of CAP 1862 *Airspace Modernisation – 2019 Progress Report*. www.caa.co.uk/cap1862 The original can be found in the governance annex to the Airspace Modernisation Strategy, published in December 2018. www.caa.co.uk/cap1711b

¹³ See also the Secretary of State letter of 4 November 2019 about ACOG's role and governance www.caa.co.uk/cap1889.

Heading 4: Masterplan acceptance criteria and airspace modernisation in the light of changed circumstances

Figure 2.6 Respondents commenting on masterplan acceptance criteria and airspace modernisation in the light of changed circumstances



Masterplan acceptance criteria are based on insufficient or invalid information

2.31 There were 48 instances, largely in general comments responding to question 1, where responses had a theme that the masterplan acceptance criteria or process, the related CAP 1887 engagement process, the Airspace Modernisation Strategy, government aviation strategy or individual airspace change proposals had been undermined by:

- the Court of Appeal ruling (in the light of the Paris Agreement on climate change) on the Government decision to designate the Airports National Policy Statement¹⁴, including support for a third runway at Heathrow, and/or

¹⁴ Following the designation of the Airports National Policy Statement (ANPS) in June 2018, it has been subject to legal challenge, which was ultimately unsuccessful before the Supreme Court in December 2020. The responses we received to CAP 1887 were written between February and June 2020.

- the effects of the Covid-19 pandemic, which meant that masterplan publication timescales were unrealistic or unnecessary because airspace change proposals had been paused.

- 2.32 This theme included comments that the engagement process or wider strategy and policy was consequently based on insufficient or invalid information, because of uncertainty or unreliability around forecast aviation growth or the forecast need for new capacity; or that these were no longer an imperative; some responses said that the engagement process should be suspended or that the respondent could not meaningfully comment in these circumstances. Some responses suggested that the criteria should be reworked to reflect changed priorities given that there was currently a less pressing need for additional capacity, and that this was likely to be the case for several years.
- 2.33 Some respondents also referred to the omission from the criteria of the Aviation 2050 green paper which the Department for Transport published in December 2018 which featured airspace modernisation.
- 2.34 The most instances occurred in responses from local organisations such as community action groups, 11 instances in six responses mentioning the ANPS appeal and 10 instances in seven responses mentioning Covid-19. Of these, five responses mentioned both themes. In other categories of respondent there were between one and three responses, many with the theme occurring more than once, and many mentioning both themes. (See Figure 2.6.)

Quote

The CAA is not seeking comments on Government policy (Paragraph 19 third bullet point). However, the impact of the Covid-19 pandemic, which broke out after the publication of CAP1887, has made this stance untenable and exposes the CAA to legal challenge. The CAA itself acknowledges, in paragraph 3 of CAP1910 (Reference to the CMA of the NERL RP3 price controls: CAA response to provisional findings) that Covid-19 has caused “a complete collapse in traffic volumes with little indication of the timing or shape of any recovery” and that “the present circumstances are unprecedented in terms both of the immediate impact on the sector but also in relation to uncertainty about air traffic in the future”. Against this background, it is no longer possible to make a meaningful response to this consultation without taking into account the massive impact of the Covid-19 pandemic on commercial aviation growth and, consequently, the aviation growth assumptions set out in the Airspace Modernisation Strategy. These assumptions are now unrealistic. Even before the outbreak of the Covid-19 pandemic, growth in air passenger numbers had slowed significantly...

[response from Wrington Parish Council]

Quote

- The Judicial Review has determined that the Airports NPS has no legal force and hence the support for a third Heathrow runway cannot be safely assumed. Airport plans and airspace plans (including the Airspace Modernisation Strategy) need reassessment in the light of that ruling.

- The Climate Change Commission have recently reported new recommendations for aviation to meet the needs for net-zero by 2050 which include the government planning for demand-side measures. The government is shortly to consult on a new forthcoming aviation strategy which will include addressing climate change implications. Until this is determined there can be no robust forecasting to underpin an airspace plan. To base it on the current sum of the aspirations of existing airports is delusional.

- The current COVID-19 outbreak has severely limited demand and there is no clarity on when traffic may safely return. The document states that "a masterplan for the south of the UK is needed as a matter of urgency" but this is no longer the case. The CCC recommend a "review of the UK's airport capacity strategy in light of COVID-19 and Net Zero, including household and business survey of long-term travel expectations."

- There is no imperative to crash on with a flawed, rushed plan that is not likely to match what the country needs and can afford.

[response from a resident affected by aviation]

Airspace modernisation including the masterplan and related processes should continue or be kept flexible

2.35 There were nine instances, largely in general comments responding to question 1, where responses had a theme that:

- irrespective of the court of appeal ruling on the Airports National Policy Statement or the Covid-19 pandemic, the momentum of airspace modernisation and the masterplan or acceptance criteria should not be slowed down, should be continued because of important benefits in the longer term, even if timescales and scope may change
- the masterplan, including iterations and assessment criteria, needed to be flexible and agile to adapt to changed circumstances or the needs of airspace change proposal timetables, given the interdependencies.

2.36 The nine responses each mentioned this theme only once. Three were from the commercial aviation industry and three from local organisations such as community action groups, and one each in three other categories. (See Figure 2.6.)

Quote

...there is a real risk that with the impact on aviation of COVID-19 the airspace modernisation process will either stall significantly or stop completely without Government support and funding wherever necessary. ACOG have made significant progress to date and it would be very disappointing if all this work was to go to waste.
[response from London Luton Airport Operations Ltd]

Quote

Two key events have taken place since this consultation was prepared: the Court of Appeal's decision on the Airports National Policy Statement; and the Coronavirus shutdown. Both may influence the final airspace change proposals made but we think that it would be a mistake to halt or slow down the process because of this. All stakeholders – communities; airports; airlines; other airspace users; air traffic control – are looking for the new proposals to emerge as soon as they can. That will then bring much-needed certainty. At present we are contacted on a regular basis by people looking to buy or rent a property or looking to move and keen to know where the flight paths will be before they do so. There are also many residents who get no break from the noise (i.e. all-day flying) and would welcome new flights paths, with respite, as soon as possible. The uncertainties around the Heathrow Third Runway and the impact of the shutdown will be challenging for ACOG to deal with but any slowing down of the work would prolong the uncertainty. The impacts of the final decision on the third runway and on traffic levels post the shutdown would need to be factored in in due course and ACOG should be given the flexibility to do this.
[response from HACAN (Heathrow Association for the Control of Aircraft Noise)]

Quote

...modernisation of UK airspace, particularly in London and the South-East, is fundamental to protect against current and future delays and ensure that airlines can continue to provide consumers with safe, efficient and resilient connections to destinations across the world, and deliver the economic benefits that air transport offers the UK. This should be pursued with urgency irrespective of any delays or changes to airport expansion initiatives or the impact of COVID-19.
[response from an airline]

Outcome (Heading 4)

Despite the impact the COVID-19 pandemic continues to have on the aviation industry, there remains a strong case to modernise UK airspace. Upgrading airspace will provide the opportunity to help minimise aircraft noise experienced by local communities, reduce traffic delays when demand returns and support the aviation industry's recovery and growth. Critically, the emissions savings modernisation will deliver are also a key component of the UK's commitment to reach net zero by 2050.

Early on in the pandemic, ACOG examined possible routes for re-mobilising the airspace change programme in light of the impact of COVID-19 and developed a set of recommendations.¹⁵ In updates issued in July 2020 and March 2021 the Government and CAA have confirmed their continued commitment to airspace modernisation and responded to that report¹⁶, including a £5.5m fund for airports to seek grants in support of airspace modernisation.¹⁷

Following the designation of the Airports National Policy Statement (ANPS)¹⁸ in June 2018, it has been subject to legal challenge, which was ultimately unsuccessful before the Supreme Court in December 2020. (The responses we received to CAP 1887 were written between February and June 2020.) The ANPS therefore remains the articulation of the UK aviation policy context in which airspace modernisation sits. The ANPS sets out that there is a need to increase airport capacity in the South East of England by 2030 and that this need is best met by a new northwest runway at Heathrow. In June 2018 the Government also set out its approach to capacity at other airports in its 'Making best use of existing runways' policy, where it confirmed that it is supportive of airports beyond Heathrow making best use of their existing runways as long as they address the economic and environmental impacts and proposed mitigations.¹⁹

In July 2021 the Government set out its commitments and the actions needed to decarbonise the entire transport system in the UK, to meet the challenge of the 2050

¹⁵ <https://www.acog.aero/acog-remobilising-airspace-change-report/>

¹⁶ <https://www.gov.uk/government/publications/update-on-airspace-modernisation/update-on-airspace-modernisation> (July 2020) and <https://www.gov.uk/government/publications/update-on-airspace-modernisation/dft-and-cao-update-on-airspace-modernisation-march-2021> (March 2021).

¹⁷ <https://www.gov.uk/government/news/55-million-to-drive-improvements-to-uks-motorways-in-the-sky> (March 2021).

¹⁸ *Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England*, DfT June 2018. <https://www.gov.uk/government/publications/airports-national-policy-statement>

¹⁹ *Beyond the horizon: the future of UK aviation, making best use of existing runways*, DfT June 2018. <https://www.gov.uk/government/publications/aviation-strategy-making-best-use-of-existing-runways>

net-zero emissions target.²⁰ This included launching a consultation on a net-zero aviation strategy.²¹ It is also continuing to develop a strategic framework for the long-term recovery of the sector from the impacts of the Covid-19 pandemic, which will focus on building back better and ensuring a successful UK aviation sector for the future.

The CAA's obligations in respect of the Airspace Modernisation Strategy, set out in formal directions from the Secretary of State, are unchanged. The Government and CAA agree that the loss of momentum in the modernisation programme caused by the pandemic should be minimised as far as possible and, as noted above, the Government has now provided funding to facilitate a restart of the programme. The delay does not impact on the criteria for acceptance of the masterplan.

Heading 5: Design standards that inform the masterplan

- 2.37 There were nine instances where responses mentioned the need for more information or publication of design standards that would be used to inform the masterplan or where airspace changes needed to take place. Three instances occurred in responses from local organisations such as community action groups, four occurred across three responses from national representative organisations such as trade associations (all of which represented elements of the General Aviation community), one occurred in the 'other' category from a respondent connected with a flying club, and one occurred in a commercial aviation industry response.
- 2.38 It was suggested that while a full set of technical design standards and deployment guidance were external to the masterplan itself, the masterplan should not be permitted to proceed without them, and that this was a CAA/Department for Transport rather than ACOG responsibility. Innovations upon which delivery of the Airspace Modernisation Strategy depends – such as electronic conspicuity, flexible use of airspace, improved flow management and a lower airspace strategy – first needed appropriate design standards or better definition, and this dependency should form part of the criteria. Otherwise there was a risk of a lack of innovation in the airspace designs proposed.

²⁰ *Decarbonising transport: a better, greener Britain*, DfT July 2021

<https://www.gov.uk/government/publications/transport-decarbonisation-plan>

²¹ Jet Zero consultation: a consultation on our strategy for net zero aviation, DfT July 2021

<https://www.gov.uk/government/consultations/achieving-net-zero-aviation-by-2050>

- 2.39 Also mentioned was the need for the boundaries of controlled airspace to be simpler to depict, understand and identify, and for airspace design to reflect the better performance and technology of modern aircraft (for example to raise the base of controlled airspace to release more lower airspace for General Aviation). It was noted that current airspace was designed for aircraft types that were flying decades ago and before satellite navigation existed. One response highlighted the challenges of redesigning airspace to accommodate climbing or descending aircraft on flightpaths that intersect from/to different neighbouring airports and that ACOG needed to solve this first to avoid a design where aircraft were held artificially low causing avoidable disturbance on the ground. It was suggested that a clean-sheet approach was needed to the design and not to rely on simply replicating existing airspace design and routes.
- 2.40 A number of responses asked the CAA to ensure adequate safety standards for all airspace whether controlled or uncontrolled, and to ensure that the design of lower airspace did not create 'pinchpoints' for aircraft flying visually in uncontrolled airspace. The CAA was asked to ensure that its decisions were based on transparent evidence, for example when considering improving access to airspace for all users because the existence of controlled airspace is no longer justified, or through more flexible design or procedures. Some responses referred to the design of specific volumes of airspace in the south east.

Quote

...there is little detail of the assessment and acceptance criteria, and the design standards that will be used to arrive at such decisions. Unless these are consulted upon and agreed there is a real danger that old and inefficient strategies will be proposed resulting in the continued growth of Class D airspace and proliferation of RNAV routes, ignoring forward-looking developments such as Flexible Use of Airspace, Electronic Conspicuity, improved flow management, the minimisation of vectoring and Reclassification of Controlled Airspace.

[response from Light Aircraft Association]

Quote

Heathrow welcomes the suggestion in paragraph 66 that NERL will be able to propose technical or operational concepts about how aircraft will fly, or other aspects of the design. However, how aircraft fly Heathrow's low-level routes will be critical to the way in which we achieve our local objectives, such as meeting the policy for managing noise. It is therefore critical that Heathrow and other airport sponsors may also propose operational concepts to ACOG, NERL and other airports.

[response from Heathrow Airport Ltd]

Quote

It would be useful for the masterplan to indicate how the objectives for airspace change in the south of the UK relate to the specific design principles that have been put forward for initial airspace change designs in recent public consultations.
[response from Surrey County Council]

Outcome (Heading 5)

The masterplan considers potential interdependencies between constituent airspace change proposals, and potential conflicts and the trade-offs that might be used to resolve them. The masterplan does not show the detail of individual airspace designs. These are determined through the CAP 1616 process which assesses a far wider range of issues than whether the proposed option works from a whole-system perspective and delivers against the commission, which is the purpose of the masterplan process.

The final iteration is the complete, detailed plan of airspace changes, which will be the product of the individual sponsors' proposals based on the output of their CAP 1616 Stage 3 consultations. However, the CAA's acceptance of the final iteration will potentially limit the design options for individual airspace change proposals. This is because trade-offs between design options may be required to resolve any conflicts arising from interdependencies between those airspace change proposals that have been identified as part of the masterplan process.

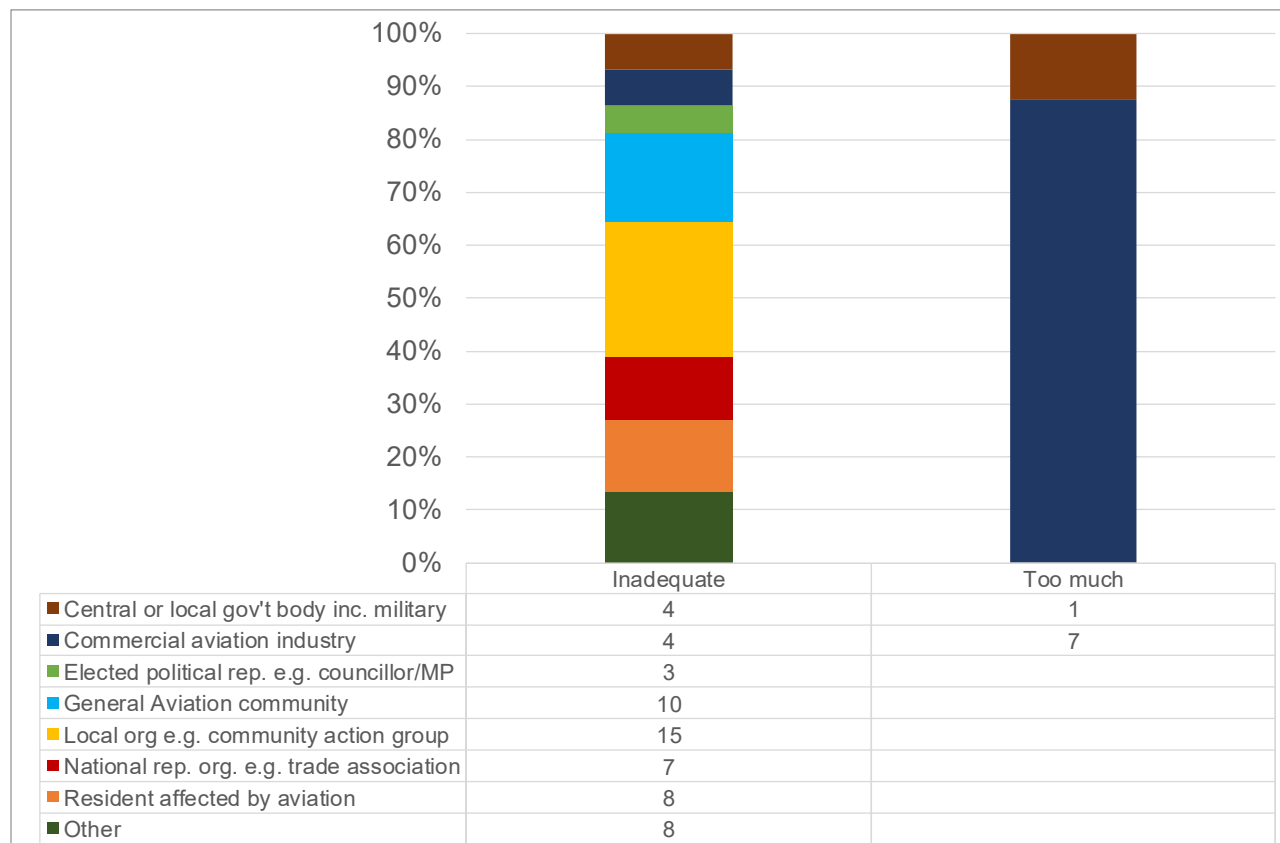
The CAA may assess supporting technical work by ACOG in developing the masterplan, such as operational concepts or assumptions. To the extent that the technical feasibility of these concepts needs to be approved by technical experts in the CAA's Airspace Regulation team, this would happen at the decision stage of the CAP 1616 process (Stage 5) for the airspace change proposal concerned. It does not form part of the masterplan acceptance process. However, in order for us to accept the masterplan, it may be necessary for the CAA's Airspace Regulation team to consider such technical or operational concepts earlier, and offer technical feedback.

The UK ambition to modernise airspace structures, air traffic services delivered and the supporting infrastructure is captured in the CAA's Airspace Modernisation Strategy. Sponsors undertaking an airspace change are expected to consider the ambition of that strategy and how it applies to their operating environment.

Paragraph 19 of CAP 1887 made clear that we were not seeking contributions of potential design options for individual airspace changes to be included within the masterplan. There will be an opportunity to contribute to these through the usual CAP 1616 consultation and engagement process. Guidance on the expected interaction between the development of the masterplan and the CAP 1616 process is summarised in Figure 5 of CAP 2156a.

Heading 6: Envisaged engagement on masterplan inadequate or too much

Figure 2.7 Respondents mentioning ACOG engagement on the masterplan



Engagement on masterplan inadequate

2.41 There were 59 instances where responses said that engagement on the masterplan (or the description of it) was inadequate and that it should go wider, further, or be ongoing. The 59 instances included various comments about best practice in engagement and consultation, and more specifically that:

- to minimise confusion and prevent duplication of activity, the CAA should give more detail on the roles and responsibilities for each stakeholder involved in the engagement process, including ACOG and airspace change sponsors; in particular:
 - the CAA should make clear that ACOG's engagement on the masterplan is about the generic, system-level approach to resolving trade-offs etc and paragraph 94 of CAP 1887 did not mean determining specific lines on a map for interdependent airspace change proposals (which can occur only later at the CAP 1616 Stage 3 gateway for each proposal, after a full options appraisal)

- how engagement takes place and feeds into the separate CAP 1616 airspace change process
- engagement was too focused on industry and optimising industry outcomes; direct and early engagement with stakeholders potentially impacted by noise (such as communities, affected borough councils, MPs, airport noise boards, land managers) was needed rather than the limited number of representational groups in the Airspace Modernisation Strategy governance structure; community/environmental representatives should be involved in resolving trades-offs on an equal basis with industry; that participating groups must be genuinely representative and smaller entities without a national organisation must have a voice
- engagement should be fully transparent to allow public review, in particular:
 - any data used in a trade-off decision mediated by ACOG should be published on the relevant CAA airspace change portal pages for each sponsor's airspace change proposal
 - there should be a standard format for outputs from airspace changes and the reporting of changes between iterations
- engagement material needs to be simple, clear and non-technical, to include cumulative impacts, and a clear explanation of the expected benefits from and timeline for the airspace change; industry should fund independent technical support to help understand impacts
- airspace change proposals at the Stage 2 gateway identify the dependencies shown in Iteration 2 of the masterplan, and hence will be constrained by it but without any public input to Iteration 2; therefore although there will be full public engagement before Iteration 3 of the masterplan, this is too late if CAP 1616 proposals have already been sifted out at an earlier stage on the basis of an uninformed Iteration Two; this breaches the requirement that a consultation should be sufficiently early for public input to have a meaningful effect on the outcome
- stakeholders should be consulted on modifications to airspace change proposals introduced late in the process after Iteration 3 of the masterplan that resolve unresolved conflicts, such as an operational issue
- the co-sponsors should consider undertaking their own public consultation exercise on the proposed masterplan and its consistency with government policy and legislation,
- Iteration 1 of the masterplan was issued some time ago but has not been published
- engagement should not diminish because of the Covid pandemic.

2.42 Most of these instances arose in answers to the fourth question about engagement, although a number also arose in general comments under question 1.

- 2.43 Figure 2.7 shows that of the 59 instances, 15 were raised (in 11 responses) from local organisations such as community action groups, 10 (in six responses) by the General Aviation community, eight (in seven responses) by residents affected by aviation, eight (in five responses) in the 'other' category, seven (in four responses) by national representative organisations such as trade associations, four (in three responses in each case) by the commercial aviation industry and by central or local government bodies, and three (in two responses) by elected political representatives.

Quote

No one in the ACOG structure appears to have responsibility for representing either environmental interests or the interests of impacted communities, specifically the need to reduce noise. The result is likely to be a Masterplan that optimises collective industry benefits, but takes little account of noise concerns and is then imposed on overflowed communities and their recreational and wildlife spaces. The public engagement exercise that ACOG is to be required to undertake is not in our view an acceptable substitute for proper involvement of community and environmental representatives in ACOG's work in general and trade-off discussions at Iteration Two in particular on an equal basis with industry representatives.

[response from Friends of Richmond Park]

Quote

...CAP 1887 paras 93–97 demonstrate process bias towards designing to meet commercial air transport needs first, then only consulting more widely thereafter. This is in conflict with the overall UK airspace strategy and will significantly disadvantage some sectors by placing their requirements secondary to those of the airlines, airports and NERL.

[response from Light Aircraft Association]

Quote

It is unclear how masterplan 'engagement' can be disaggregated from that required by the CAA's CAP1616 process for airspace change. Based upon the numerous consultations we have engaged on through the work of the Airports Commission and the subsequent ANPS we have a low level of expectation that engagement would lead to changes in policy or outcomes. Airspace change impacts will likely be complex, our experience with recent Heathrow expansion 'consultations' is that the documentation that is provided for these engagement exercises is not only unreasonably voluminous but technically impenetrable to most lay consultees. For future airspace modernisation the industry should fund the provision of independent technical support to help communities understand what is being proposed and how it will affect them.

[response from Local Authorities' Aircraft Noise Council]

Quote

IATA requests that the airline community is fully engaged in the definition of the technical and operational concepts about how aircraft will fly in a modernized airspace system and implications for aircraft design. The CAA should provide assurance that the ACOG team responsible for creating the Masterplan are taking all reasonable steps to gather inputs from airspace users, in addition to their established technical and operational work streams, which focus primarily on ANSPs and airports.

[Response from International Air Transport Association]

Quote

...it is requested that a paragraph is added that provides a high-level overview of the sequence of events for sponsors and ACOG. This would benefit sponsors and stakeholders alike by providing a clear summary of expectations and go some way to answering some of the more detailed questions we have on the draft CAP... Our understanding of the high-level steps, and therefore our suggestion for what is added to CAP 1887 is as follows:

5 Step Overview of Where the Stage 2 Masterplan Fits in From a Sponsors Perspective

- 1. Sponsors engage and coordinate with each other in Stage 2 to identify potentially conflicting areas of the design, which they then fed to ACOG*
- 2. ACOG collate and present these at a system level and engage with sponsors and stakeholders on the potential solutions for resolving them (these are conceptual, generic solutions as illustrated on Page 7 on CAP1887 rather than detailed solutions). The results are presented in iteration 2 of the masterplan*
- 3. Sponsors submit their Stage 2 material to CAA with evidence of the coordination with other sponsors and reference to the range of solutions that could be used for resolving them (as presented in the masterplan)*
- 4. Sponsors refer to the masterplan in the development of detailed designs in Stage 3 to address the conflicts (using the masterplan as a checklist to ensure they have considered all the different types of solution)*
- 5. Sponsors consult in full detail on the preferred solutions and rationale in Stage 3C (coordinated with other airports as appropriate)*

If this is correct, we request that it (or a version of it) is included in the final CAP. If it is not correct it would be symptomatic of the fact that we have been unable to grasp the key sequence of events from the details in CAP1887, and so would still request further clarity in order to understand the relationship between the requirements.

[response from Heathrow Airport Ltd]

Quote

Consultation by individual sponsors at Stage 3 of the CAP 1616 process is too late for public views to be taken into account as solutions to conflicts have already been decided. This is important and relevant to keep in mind: no 'fait accompli' decisions must be included if an opportunity for communities to contribute to change is to be truly objective.

[Response from Plane Hell Action SE]

Engagement on masterplan too much

- 2.44 Figure 2.7 shows that there were eight instances where responses said that engagement on the masterplan was too wide or unnecessary.
- 2.45 It was suggested that engagement with external stakeholders on the scope of the masterplan could dilute, run counter to or be confused with sponsor engagement with stakeholders on specific airspace change proposals, could cause 'engagement fatigue' or could interfere with the CAP 1616 process. Misunderstanding by stakeholders during masterplan engagement could potentially affect the ability for meaningful engagement by airspace change sponsors later during the CAP 1616 process.
- 2.46 Seven of these instances occurred in four responses from the commercial aviation industry, and the other in a response from a central or local government body.

Quote

...there is concern around paragraphs 73-75 and the trade-off decisions. Any trade-off decision should not be based on public engagement. This decision should be made by the two airports as it is assumed that they would have the technical knowledge of the capabilities of their fleet and they will understand the geographic location of communities and the needs of General Aviation users around their airports. Any decisions should be data driven and use evidence from the Initial Options Appraisals submitted as part of Stage 2 or a Full Options Appraisal as part of Stage 3. Any sort of public engagement on a trade-off decision would create referendum style engagement between different groups of stakeholders, this could create additional tension and also significantly delay the process [...]

...the full public consultation will be undertaken by the change sponsors, which is very important and should be sufficient in trade-off decisions. Furthermore, ACOG are independent and the feedback from the wider public engagement is likely to be conflicting, how will ACOG make this decision and remain independent? There is also unease that the public may not fully understand the complexities in the trade-off and the designs as this can be a complex subject, taking into account noise and carbon assessments as well as the technical limits of flight route design..

[response from London Luton Airport Operations Ltd]

Quote

...some caution should be applied to the proposed approach for engaging external stakeholders on the scope of the Masterplan. The prospect that stakeholders might be invited to offer alternative solutions to specific airspace changes as part of an overall ACOG-led engagement exercise, may run counter to the sponsors' own consultation activities, leading to confusion, re-work and potentially a breach of the regulatory process (CAP1616).

[response from International Air Transport Association]

Outcome (Heading 6)

The requirement for stakeholder engagement is embedded at all levels in the Airspace Modernisation Strategy governance structure²², from working groups and the ACOG Steering Committee to the Airspace Strategy Board at Ministerial level. ACOG is also required to set out (in Iteration 2) how it will engage with stakeholder groups in the development of the masterplan, which include bodies representing communities. Such engagement is essential to the creation of the masterplan and the acceptance process, but it must also be appropriate and proportionate for it to be effective.

Some respondents wanted ACOG to run a full public consultation on Iteration 2 of the masterplan. We have decided not to include this in the criteria, because:

- ACOG will engage extensively as it prepares Iteration 2 with the stakeholders listed in the Airspace Modernisation Strategy governance structure. The governance structure is specifically designed to be as representative as possible of as wide a range of interested stakeholders while remaining within the practical bounds for effective engagement. The entities listed are either representative of a stakeholder group (such as communities, environmental groups, General Aviation) or will act as a conduit of information to them; Iteration 2 will therefore be informed by those various groups and not purely by industry as many responses suggested.
- Iteration 2 is intended to identify potential dependencies (conflicts or enablers) between airspace change proposals, based on available information at the time – Iteration 2 will not resolve trade-offs involving those dependencies. This will only occur in the final iteration, after the Stage 3 consultations on individual airspace change proposals as part of the CAP 1616 process.
- ACOG will run a public engagement exercise on a draft of Iteration 3 and take into account responses before submitting it for acceptance. ACOG's engagement

²² For the latest version please see page 7 of CAP 1862 *Airspace Modernisation – 2019 Progress Report*. www.caa.co.uk/cap1862 The original can be found in the governance annex to the Airspace Modernisation Strategy, published in December 2018. www.caa.co.uk/cap1711b

strategy will be subject to assessment by the CAA and Department for Transport as co-sponsors. ACOG will consider the views of individual stakeholders at the strategic, masterplan level. Stakeholders will be able to provide feedback on the identification of conflicts and interdependencies, and any potential gaps in or improvements in the masterplan, for example whether ACOG has identified all the airspace changes needed to deliver the airspace modernisation that the co-sponsors have commissioned. Through this engagement, ACOG will make stakeholders aware of the later consultations on airspace change proposals, how they are linked together, and how stakeholders can influence decisions on proposed trade-offs that may affect them. (See Heading 2 above.)

We have sought to make the interaction between masterplan iterations and the CAP 1616 process clearer in the acceptance criteria (CAP 2156a, Figure 5). We have also set out our expectations when assessing ACOG's engagement strategy, including specifying that ACOG's engagement material must include a simple, clear and non-technical version in plain English, to include signposting how stakeholders can comment on cumulative impacts of multiple airspace changes, and a clear explanation of the expected benefits and programme timeline.

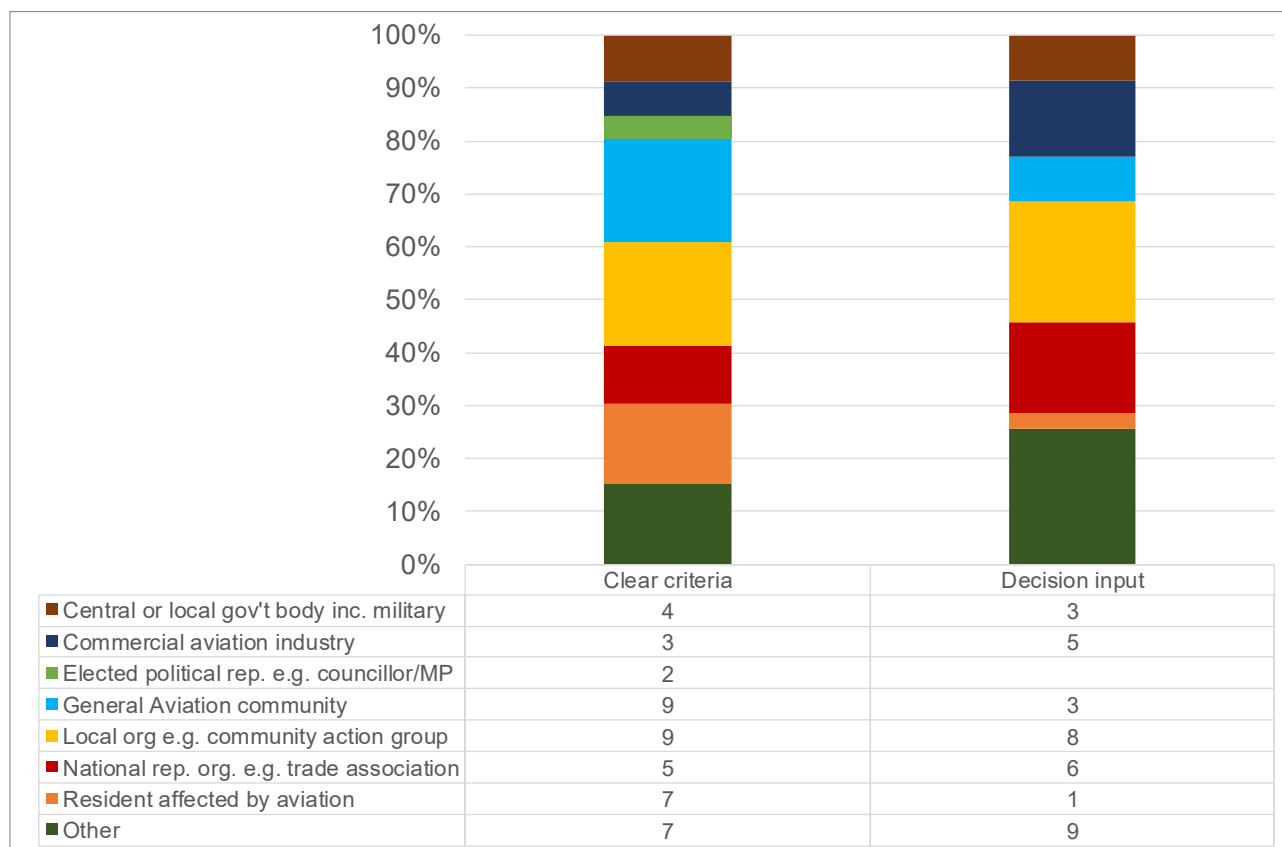
We agree that transparency is a key requirement. We are considering with ACOG and the Department for Transport how best to publish all the information associated with the development of the masterplan, ideally as a 'one-stop shop', probably as a CAA webpage. We envisage this including, as a minimum, in the form of text, hyperlinks or documents to download:

- relevant CAA or Government policy documents
- ACOG governance information, including terms of reference for the ACOG steering committee
- each ACOG masterplan iteration or draft iteration, and how that iteration has changed since the previous iteration and why
- ACOG plans for future masterplan iterations
- ACOG stakeholder engagement strategy
- ACOG stakeholder engagement material
- CAA decisions as to whether an iteration meets the criteria for acceptance into the Airspace Modernisation Strategy.

Publication of Iteration 1 of the masterplan was held up by the impacts of Covid-19. In February 2021 we published Iteration 1, and our assessment of it, as CAP 1884 www.caa.co.uk/cap1884, with appropriate updates to reflect the different context of an industry severely impacted by Covid-19.

Heading 7: Trade-offs – clarity and stakeholder input

Figure 2.8 Respondents mentioning clarity or stakeholder input/mediation in relation to making trade-offs



2.47 A number of responses noted from paragraph 84 of CAP 1887 that:

- where a trade-off is needed, the masterplan will identify it
- the CAA and Department for Transport, as co-sponsors, will need to be assured that the solution reached is aligned with policy
- at present, there is no clear and consistent hierarchy of policy considerations to inform airspace change decisions, other than the CAA's overriding safety objective in section 70

and consequently these responses asked us to publish the formal process (and whether the outcome would be binding) as per paragraph 85 of CAP 1887, which said:

- where ACOG is unable through its mediation process to facilitate an agreement between two sponsors' conflicting airspace change proposals, or where a trade-off is proposed between section 70 objectives, it will escalate the issue to the oversight team in the CAA
- the Department for Transport and CAA are considering what formal process needs to be in place to manage decision-making and escalation to the Secretary of State.

Need for clarity

- 2.48 There were 46 instances where responses mentioned that the assessment criteria must be clear or explicit about trade-offs.
- 2.49 Some respondents said that publishing the trade-off policy was essential before the masterplan could be developed and that the policy should be the subject of a separate consultation before being adopted. It was suggested that while accepting that policy is a matter for government, it was incumbent on the CAA either to ensure that it is operating in a well-defined policy environment or to spell out and engage on the way it proposes to interpret policy when it is not clear. It was also suggested that the policy should require that any supporting data be published.
- 2.50 There were also many comments about specific trade-offs. There was general agreement that safety was the priority, but many different views were expressed seeking more clarity on:
- how the policy would trade-off between greater capacity and reduced or dispersed noise or emissions
 - methodologies or weightings for environmental impacts when considering options for safely dispersing traffic, and therefore noise, on multiple routes, and providing respite
 - whether the criteria align with government policy on noise including the altitude-based priorities in the Air Navigation Guidance
 - how the CAA could objectively evaluate the trade-offs when neither CAA nor the Department for Transport have access to the necessary evidence base to assess health and quality of life impacts of a significant restructuring of UK airspace
 - adhering to the Government's Airports National Policy Statement regarding making the best use of existing runways while allowing equal weight for smaller airports' needs and growth aspirations compared with those of Heathrow
 - conflict resolution between a FASI-S airspace change proposal and a non-FASI airspace change proposal (or the interests of an entity not undertaking a change) – and ensuring this did not undermine the CAP 1616 process
 - ensuring that airspace access or safety for one group of users did not suffer as a result of resolving conflicts between multiple airspace demands from other users.
- 2.51 This theme largely occurred in responses to the first three questions (general comments, acceptance criteria and policy guiding trade-off decisions). It occurred nine times (in eight responses in each case) in both responses from the General Aviation community and from local organisations such as community action groups; it occurred seven times (one in each response) in the 'other'

category and seven times (in three responses) in views expressed by residents affected by aviation (Figure 2.8).

Quote

All the points are there BUT there is no indication given as to how you are going to trade off conflicting points. eg does the desire to create more capacity ALWAYS trump reduction of noise? So without clearer controls of how these criteria points will be applied then you could have a scenario that extra SIDS are created which WILL adversely affect thousands of people by noise, and yet all that would be done is to try to minimise the impact by tinkering with the SID's route or its dispersion pattern. Is that correct? if so this needs to be more clearly explained as at the moment your proposals could be read by communities that would be hoodwinked into believing that noise reduction is a serious deciding criteria – when actually it is not – it is completely subservient and cannot trump the creation of extra routes or capacity.

Instead some of the criteria points need to linked and weighted so that the question becomes – is it possible to detangle air routes increase capacity, increase safety AND decrease noise? Answer – probably possible – but only if some other criteria are relaxed. eg we do not want commercial airspace to be squeezed by the demands of recreational users. Allowance for recreational use must be way down the list of prioritized order of trumping. You need a table of criteria with their priority weighting which will be used in designing and assessing airspace solutions – otherwise the decision making process will not be transparent.

[response from a resident affected by aviation]

Quote

The policies that will drive decisions about the trade-offs required when airspace is redesigned are vague and do not provide enough detail to enable good decisions to be made. It is not clear whether the aspirations of airports to increase their capacity can be properly weighted against noise reduction goals.

[response from Ms Sarah Olney MP]

Quote

Item 86 states that policy guidance may be needed on how trade-offs should be struck between different airspace changes. NATS believes if policy is provided, it should be provided as soon as possible. Many sponsors are already in Stage 2 of the CAP1616 process and therefore developing their airspace designs according to their design principles. These design principles are in alignment with government policy, meaning overarching policy is not required in NATS opinion. However, if the DfT/CAA were to provide such policy, they should do so as soon as possible as additional policy guidance may be contradictory to the airspace designs that are currently being developed, leading to significant rework and additional cost for the sponsors.

[response from NATS]

Quote

The document states that dependencies between airspace changes will mean that ACOG must resolve conflicts and work with sponsors to amend the design of those proposals. We would like to see a set of criteria established which sets out how those trade-offs and conflicts are managed and decided upon and where noise would be placed within that. It is our view that noise must be considered among the highest decisive factors and would like to see how these criteria are weighted. These need to be transparent and simple, so the public can understand what is being proposed.

While it is important that sponsors work with each other on this, it is essential that those local communities who will be impacted by trade-offs are identified and brought into the conversation. Transparency around this is vital and there needs to be clear explanations around what the trade-offs will mean for those potentially impacted. People must be able to understand how one issue is weighted against another and what this means in practice as they need to be able to understand the decision, even if they don't agree with it.

We would like to see some joint engagement between sponsors and those impacted communities to ensure that their concerns are addressed as part of the trade-off decision-making process, so that assumptions are not made on their behalf. The decision-making process around trade-offs and conflicts needs to be fully transparent to avoid any potential future challenges and must have been addressed sufficiently with those impacted communities by the time Stage 3 consultations are live. We would support, where possible, dependent sponsors working to the same timeline so that any engagement / consultations can be done in a coordinated way to avoid any unnecessary confusion from the public about what they are being asked to respond to.
[response from the Independent Commission on Civil Aviation Noise]

Stakeholder input and mediation in trade-off decisions

- 2.52 There were 35 instances with the theme that either industry or communities should have a say in trade-off decisions, or that the masterplan needed a clear escalation or mediation process to address conflicts that cannot be resolved, or that the Secretary of State should make fundamental decisions on trade-offs. It was suggested that the process for this should be set out in the criteria, along with timescales. One respondent asked whether a third-party mediator could be used to help resolve trade-offs. These instances were spread mainly across the first (general comments), third (policy guiding trade-off decisions) and fourth (ACOG engagement) questions.
- 2.53 Figure 2.8 shows that instances of this theme were mentioned nine times (in five responses) in responses in the 'other' category, eight times (in six responses) by local organisations such as community action groups, six times (in three responses) by national organisations such as trade associations and five times (in four responses) by the commercial aviation industry.

Quote

Broadly we support the iteration process but not the division of the process between the four iterations. We believe public consultation should be brought in much sooner and preferably at the flightpath decision node, which we suggest above should be part of the CAP 1616 process rather than part of the Masterplan. With our emphasis on CAP 1616 we urge the CAA to align Masterplan consultation with that prescribed by CAP 1616. Consultation processes aligned separately with the Masterplan and CAP1616 processes can only lead to confusion and irrational decisions.
[response from Richmond Heathrow Campaign]

Quote

The wider public engagement exercise to discuss the trade-offs and potential solutions is crucial as the public will need to have a say on these decisions and fully understand the noise implications of the proposals. As design principles are discussed and agreed by stakeholders in Stage 1 of CAP1616, the trade-off / conflict process could be done in a similar fashion so that all the information is fully considered by those impacted communities. As with CAP1616, all this engagement work must be done transparently so the outcomes and decisions of these exercises must be available for the public to review before the third iteration of the Masterplan and the agreed dependent changes are published.
[response from the Independent Commission on Civil Aviation Noise]

Quote

Item 85 states that the DfT and the CAA are considering what formal process needs to be in place to manage decision-making and escalation to the Secretary of State where agreement of trade-offs cannot be reached between ACP sponsors. NATS would appreciate further information on the timeline for developing this guidance and information on how this guidance will be developed. NATS would also ask for practical examples of how this process will be applied as escalation to the Secretary of State may be time consuming and risk delays to the overall FASI-S programme. The process will require clear timelines and process for assessment in order to be efficient.
[response from NATS]

Quote

...due to the complexity of the stakeholders involved and various changes and iterations expected, there needs to be a clear escalation and mediation process in place to address conflicts that cannot be resolved.
[response from an airline]

Quote

...we are keen to understand more about the process that the CAA will follow, and the resources and timescales involved for the CAA to manage the decision-making and escalation processes with respect to ACOG failing to facilitate an agreement between sponsors.

[response from Heathrow Airport Ltd]

Individual trade-off decisions should be assessed through the CAP 1616 airspace change process rather than the masterplan

- 2.54 There were three additional instances (not shown in Figure 2.8) specifically suggesting that individual trade-off decisions should be assessed through the CAP 1616 airspace change process rather than the masterplan; related sentiments also appeared in the context of themes relating to clarity, stakeholder engagement etc.

Quote

CAP1887 states in Item 74/75 that a public engagement exercise must be undertaken on trade-offs and solutions. NATS believes that it is for the individual ACP sponsors to develop solutions that meet their design principles and deliver the overall objectives of the AMS and then present these to stakeholders as part of the CAP1616 process. To repeat this exercise as part of the masterplan would be confusing to stakeholders and lengthen the timescales for FASI-S delivery.

[...]

CAP1887 states that the masterplan should provide information on trade-offs, solutions to dependencies and implications of these solutions as part of Iteration 3. NATS believes that the masterplan should provide details on the framework for how these decisions will be taken, but that individual trade-offs and solutions should be presented on an individual basis as part of the CAP1616 process. Presenting trade-offs and solutions in the masterplan could risk undermining stakeholder engagement and consultation that is part of the CAP1616 process and in effect lead to the CAA regulating on the same solution twice (as part of masterplan acceptance and CAP1616). In addition, it is unlikely that information on trade-offs and solutions would be available to present in the masterplan, given that Iteration 3 of the masterplan is required before consultation. NATS believes that it is appropriate to call-out dependencies between individual ACPs but allow solution development to occur as part of the CAP1616 process.

[...] As CAP1887 states, there could be thousands of potential trade-offs which are undertaken in order to deliver a coherent airspace design. Therefore, providing this detail in the masterplan would be excessive and NATS believes that it would be more appropriate for the masterplan to provide the framework for resolving trade-offs only. Each individual trade-off will be detailed, where appropriate, as part of the CAP1616 process submission.

[response from NATS]

Quote

We understand, through follow up conversations with ACOG, that the engagement referred to in the section starting at paragraph 93 is ACOG engagement on the masterplan, which means the focus of the engagement is at a generic, system level. This was not immediately apparent from the text, and so may raise false expectations. For example, in paragraph 94 it states that stakeholders may be able to offer alternative solutions as to how conflicts between airspace changes may be resolved. This is manageable if it is seeking input on the generic approaches that may be taken to resolve conflicts and trade-offs, but as written, it could be interpreted as an opportunity to review and suggest alternatives for specific conflicts/trade-offs (i.e. a specific line on a map from one airport versus a specific line on a map for another airport). This should be made clear alongside a clear statement of the objective for the broader engagement carried out by ACOG.

If the intention is that engagement on specific detailed interactions was required at Stage 2 then we note that it would require sponsors to generate and engage upon a level of detail that they would not otherwise expect to have at Stage 2 of the process. It would also mean setting the inter ACP trade-offs before the intra ACP trade-offs (an example of an intra ACP trade-off being the provision of local noise respite vs minimising new populations overflow). Intra ACP trade-offs will be identified in Stage 2, but sponsors will not have detail on how they propose to resolve them until after the Full Options Appraisal at 3A.

[response from Heathrow Airport Ltd]

Outcome (Heading 7)

Policy position

A number of respondents mentioned the interaction between planning, airspace modernisation and noise. Paragraph 5.10 of the 2018 Airspace Modernisation Strategy says: “In its Aviation Strategy the Government intends to explore the relationship between growth and noise reduction, the possibility of noise reduction targets and the potential for these to be enforceable. These might be set at a national level, airport level or even at a route level. The Airspace Modernisation Strategy needs to have regard to any such binding targets which would complement limits set through the planning process at individual airports, and the CAA will look to the Government to set a clear policy on this. This development on noise policy will not be finalised until after the Government’s Aviation Strategy has been consulted on and published.”

The Aviation 2050 green paper which the Department for Transport published in December 2018 contained proposals for a robust policy framework and package of measures to address the harmful effects of aviation on the environment. This included consideration of aviation noise within the planning process. In the context of consultation responses and subsequent developments, the Department for Transport is considering how best to develop these proposals.

The Government is working on a strategic framework for the sector, to be published by the end of 2021, which will focus on building back better and ensuring a successful UK aviation sector for the future. We understand that this framework will explore growth of the aviation sector, including consideration of workforce and skills, regional connectivity, noise, innovation and regulation, and consumer issues. The Government will also consider climate change and decarbonisation, as well as the critical role that UK aviation plays in retaining the UK's global reach.

One of ACOG's recommendations for restarting the airspace change programme (see Outcome under Heading 4) was that the CAA produce detailed guidance on the treatment of trade-off decisions for airspace design when one objective (for example, sustainability) has more weighting than others (for example, noise mitigation or additional capacity). The co-sponsors responded in March 2021: "We agree that a number of trade-off decisions will potentially need to be made, and these will be consulted on by ACOG in due course. However, the Department for Transport, who are responsible for aviation-related policy, will not be able to provide detailed guidance that will cover all potential trade-off decisions. Each decision should fully take into account the individual circumstances and relevant policies at the time."²³

Acceptance criteria

We have decided that the masterplan will now only propose trade-off solutions in the final iteration(s), i.e. Iteration 4 and any subsequent iterations. The reason for this decision is to ensure that the final iteration(s) are the product of analysis carried out by individual sponsors, which will be based on the output of the consultation stage (Stage 3) of their individual constituent CAP 1616 process airspace change proposals. These individual consultations will be an important opportunity for stakeholders to influence decisions on proposed trade-off solutions that may affect them.

Where trade-offs are unable to be resolved by sponsors in coordination with ACOG, the decision may be brought before the co-sponsors to propose a resolution. These decisions may be complex and need to address conflicts such as:

- the objectives of different airspace change proposals, for example, where two airports want to make use of the same volume of airspace
- the objectives of an airspace change proposal and its impact on an existing airspace design (or the potential opportunities for that design)
- multiple objectives for a single airspace design (for example, reducing controlled airspace, increasing capacity, noise reduction).

²³ <https://www.gov.uk/government/publications/update-on-airspace-modernisation/dft-and-cao-update-on-airspace-modernisation-march-2021>

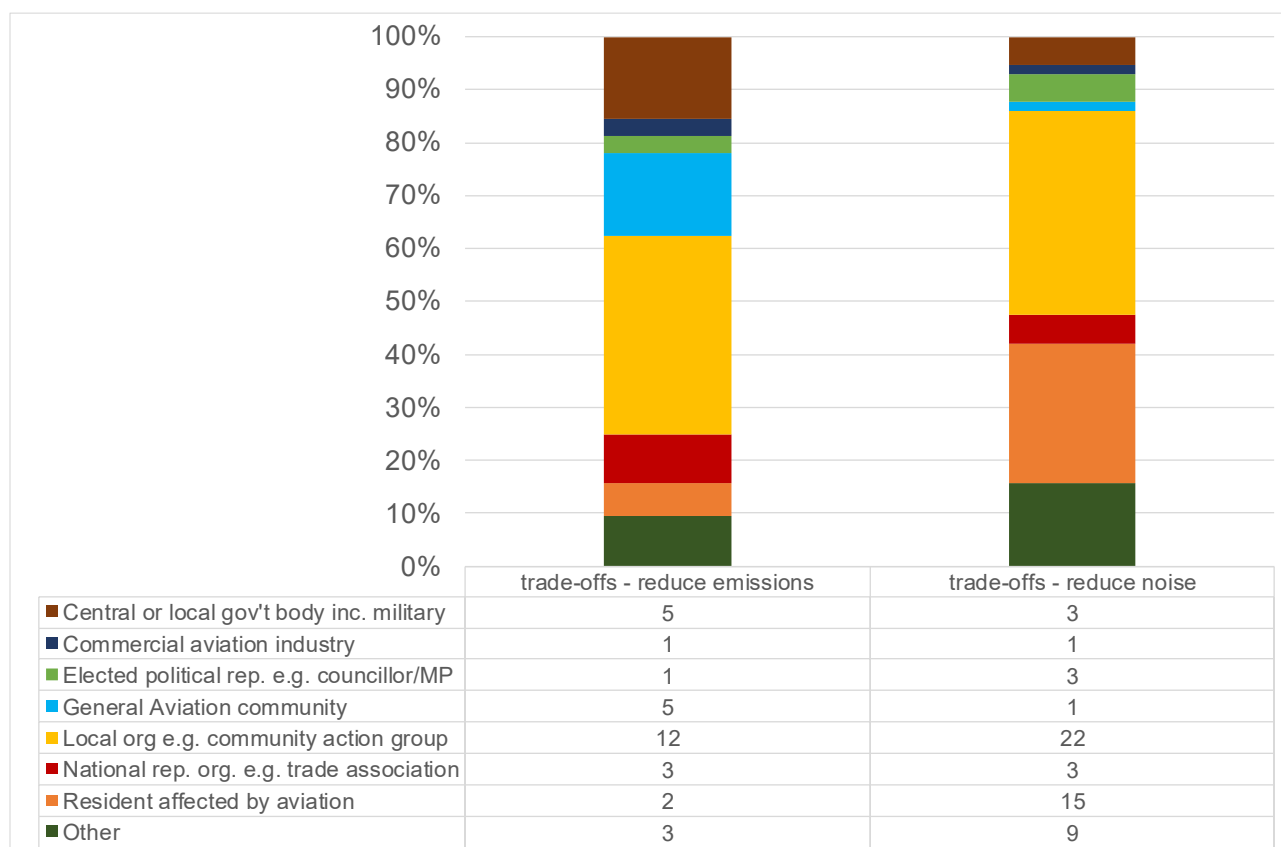
The co-sponsors will make a judgement based upon individual circumstances, recognising that each airspace change varies greatly in terms of size, scale of impact and complexity. Should the CAA require government policy direction to aid our acceptance decisions in respect of the masterplan, we will approach the Department for Transport as co-sponsor as part of the assessment process.

Interaction with the CAP 1616 process

See our response under Heading 2 above. In response to feedback, we have set out in a flowchart in the acceptance criteria (CAP 2156a, Figure 5) the expected sequencing of masterplan iterations and constituent airspace change proposals.

Heading 8: Reducing environmental impacts should take precedence over growth

Figure 2.9 Respondents mentioning environmental impacts



2.55 There were 89 instances where respondents mentioned that reducing environmental impacts should take precedence over commercial interests, traffic growth or more capacity – or otherwise expressed concern over climate change and a continuing need to reduce emissions; or to reduce noise or the number of people overflowed or to increase opportunities for respite from aviation noise.

These 89 instances comprised 32 concerning emissions and 57 concerning noise, and they were raised in response to the first three questions.

- 2.56 There were many general comments about the environmental impacts of aviation, including health impacts, the use of airspace designs based on satellite navigation and their potential environmental impacts, the way environmental impacts are measured, the need for a review of public attitudes to noise, the potential for mitigation measures, and ICCAN's related work. Some responses suggested that change was needed in these areas before modernisation could proceed or the masterplan formally accepted, because neither the CAA nor the Department for Transport had a robust or reliable evidence base for making decisions on matters relating to health and environment.
- 2.57 There was a call for much clearer, more detailed and accurately evidenced policy to give clearer guidance on the balance between benefits to the industry (greater capacity, reduced overall fuel usage) and benefits to people on the ground (reduced noise, improved air quality). There was a concern that achieving airports' capacity aspirations was seen as a fixed and primary requirement of airspace modernisation, rather than a variable outcome. It was suggested that the CAA should show leadership in seeking greater policy clarity from the Department for Transport before we undertake any further work on airspace modernisation, and that there was an opportunity in the present pandemic to reset some of the noise metrics and policy for when traffic levels returned.
- 2.58 It was suggested that paragraphs 5.7 to 5.11 of the Airspace Modernisation Strategy (on emerging UK policy with respect to noise) should be substantially re-assessed because it wrongly prioritised growth which was likely to result in an increase in total aviation noise. The CAA could not, as a result, be seen as sufficiently objective to make impartial decisions on trade-offs that impact public health. There was also some criticism of the Government's Air Navigation Guidance, CAA oversight of airspace change sponsors' analysis of noise impacts, and of the CAP 1616 process generally.
- 2.59 We were asked to make the criteria more explicit about how trade-offs involving environmental impacts would be determined. For example, whether increased capacity would always take priority over noise reduction, even if attempts were made to mitigate noise impacts, or whether the criteria could be weighted in a transparent way such as to make the objective greater efficiency and thus increase capacity while simultaneously improving safety and reducing noise.
- 2.60 More specifically, there were concerns about a lack of policy on allocating noise across communities and determining either concentration or dispersion that spreads noise impacts, taking into account overflight frequency and respite; weighting more heavily the negative effects of night noise; geographical topology; and compensation for property values.

- 2.61 There were many comments suggesting that the criteria must be tested against the requirements embodied in the UK's climate change commitments, and the strategic aims the Secretary of State set for ACOG updated accordingly. It was noted that emissions were not mentioned in the summary of government policy contained in paragraph 80 of CAP 1887 (drawn from the Department for Transport and CAA shared objective for modernising airspace quoted in the Airspace Modernisation Strategy).
- 2.62 It was suggested that the CAA's interpretation of the "most efficient use of airspace" in the Transport Act 2000 was too narrowly focused on aircraft throughput and that it should be revised to take account of noise and emissions impacts. It was suggested that ICCAN be given a specific role to review masterplan iterations and the criteria amended to incorporate its advice and guidance.
- 2.63 Figure 2.9 above shows that this theme was raised by every category of respondent except airline passenger. Concern about emissions was raised most often by local organisations such as community action groups (12 instances), the General Aviation community and central or local government bodies (five instances each). Concern about noise was raised most often by local organisations such as community action groups (22 instances), residents affected by aviation (15 instances), and responses in the 'other' category (9 instances).

Quote

The definition of environmental "benefits" is limited to noise reduction, improvements in air quality and fuel consumption. Given the need, identified by the Court of Appeal, to revise the ANPS to take account of climate change objectives and internationally legally binding targets for CO2 reduction, it is considered that the scope of the criteria should be broadened. [response from Surrey County Council]

Quote

...policy is severely lagging behind the clear imperative to address climate change by significantly reducing aviation emissions, which is likely to require measures to damp demand through taxation, elimination of "frequent flyer" incentives, and requiring aviation to pay for its externalities (The Polluter Pays principle). In guiding trade-off decisions, policy must give far clearer guidance on the balance between benefits to the industry (greater capacity, reduced overall fuel usage) and benefits to people on the ground (reduced noise, improved air quality). The current guidance is ambiguous and vague, and the DfT has acknowledged the need for greater clarity. [response from LADACAN (Luton and District Association for the Control of Aircraft Noise)]

Quote

We remain concerned that airspace modernisation is not being developed and delivered in a way likely to achieve an acceptable and sustainable balance between industry, community and environmental interests on a long-term basis. The CAA's airspace strategy gives excessive (and potentially unlawful) weight to growth (i.e. facilitating additional capacity) at the expense of noise and other environmental benefits. This is likely to transition into the Masterplan unless changes are made to the strategy to ensure balanced outcomes. It is compounding this by failing to ensure it has a detailed understanding of the community and health impacts of aircraft noise and emissions, particularly where the implementation of PBN concentrates noise or noise changes for other reasons clarity. [joint response from Aviation Communities Forum, HACAN, LADACAN and Stop Stansted Expansion]

Quote

...the airspace modernisation programme as currently planned and governed is likely to result in cost and capacity benefits for the aviation industry but increase total aviation noise and the industry's other adverse environmental impacts (such as CO₂ emissions). CAA reports confirm that may be the case. Specifically, the CAA's review of NATS' Feasibility Study concluded that the programme would deliver every airport's capacity aspirations and achieve a 10–20% improvement in fuel burn but that "the absolute levels of aircraft noise and emissions may increase with airspace modernisation because it enables traffic growth that would not otherwise occur". A programme that is likely to result in "win/lose" outcomes in this way is not, in our view, an acceptable or sustainable basis on which to take forward a fundamental redesign of UK airspace. To address this the CAA's Transport Act 2000 section 70 duties should be amended so that it is required to ensure that airspace changes achieve a fair balance between increasing capacity and reducing environmental impacts, subject to safety at all times. [response from Aviation Communities Forum]

Outcome (Heading 8)

There was a wide range of comments on environmental issues. Most comments focused on legal obligations or government policy, which are out of scope of this engagement exercise, for example the altitude-based priorities in the Government's Air Navigation Guidance, and policy on satellite navigation or concentration/dispersion. The policy approach on trade-offs is discussed under Heading 7 above.

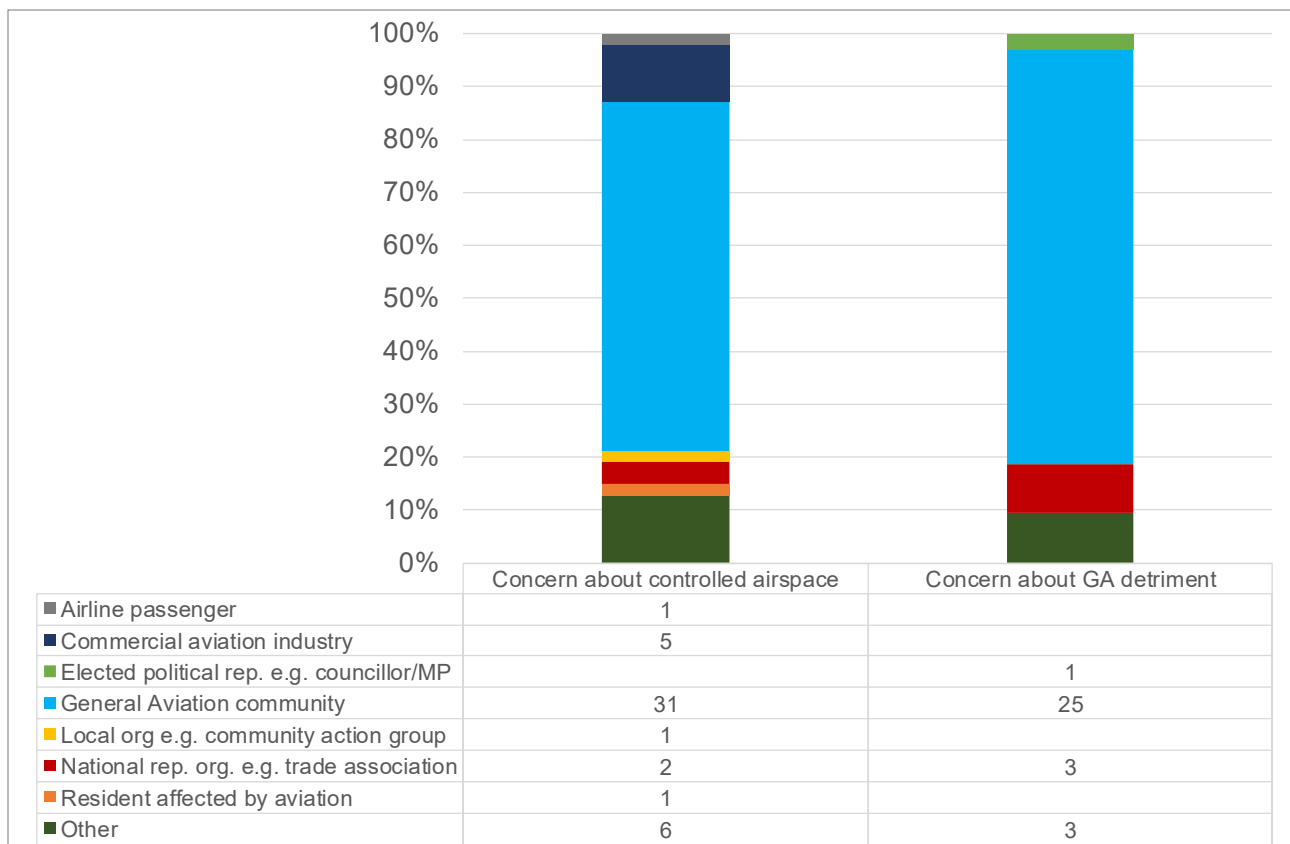
We have added to the criteria that a strategic environmental assessment and Habitats Regulation assessment will need to be developed for the masterplan. These assessments are a fundamental part of, and therefore must inform, ACOG's development of the masterplan. The CAA is legally responsible for ensuring that

these assessments are carried out in respect of the masterplan. We will, in due course, set out what ACOG’s role is in these assessments, and where in the process this occurs. The acceptance process will ensure that these assessments have been carried out and acted upon appropriately. More information about these assessments can be found in the acceptance criteria (CAP 2156a) and the assessment framework (CAP 2156b).

ICCAN is one of the bodies in the Airspace Modernisation Strategy governance structure and so ACOG will be engaging with it and considering best-practice guidance it provides as part of the masterplan process. CAP 1616 requires airspace change sponsors to factor in ICCAN’s best-practice guidance to airspace change proposals, where relevant.

Heading 9: Concern about the extent of controlled airspace and/or detriment to General Aviation

Figure 2.10 Respondents mentioning a concern about controlled airspace or detriment to General Aviation



Concern about the amount or design of controlled airspace

- 2.64 There were 47 instances of responses expressing concern about the amount or design of controlled airspace, including that controlled airspace is excessive in coverage and complex to navigate, will be increased, should be minimised, or should be released where not needed, facilitated by modern technology; that the current design of airspace is based on out-of-date assumptions or tendency of air traffic units to prefer that traffic be controlled; that commercial interests have made unjustified ‘grabs’ of airspace; that modernisation will not improve General Aviation access to airspace; that Class G (i.e. uncontrolled) airspace should be the default or must be simple for General Aviation to identify; or that there is a safety issue for General Aviation through pinchpoints etc created by current policies or decisions. Most of these instances occurred in the answers to the first (general comments) and third questions (policy guiding trade-off decisions).
- 2.65 Figure 2.10 above shows that of the 47 instances, 31 were raised (in 21 responses) by the General Aviation community, six (in three responses) by the ‘other’ category, one each by five respondents from the commercial aviation industry, two by national representative organisations and single mentions in three other categories.

Quote

The proposed criteria for assessing Airspace Change should prioritise aircraft safety in Class G airspace over reducing delays, noise and CO₂ emissions; for example by not creating more choke points.

[response from a member of the General Aviation community]

Quote

Weighting criteria should prioritize safety over other factors (noise/air quality/fuel efficiency, etc). It is important for all of GA that we are not boxed in too much because this causes safety issues by squeezing everyone into tight corridors and the potential for a collision is higher. For Commercial traffic, even outside of controlled airspace, this is not usually an issue because they receive a better radar service (they are reasonably prioritized for this kind of service).

[response from a member of the General Aviation community]

Concern about detriment to General Aviation

- 2.66 There were 32 instances of responses concerned that General Aviation was suffering because of current policy or because controlled airspace or commercial traffic was prioritised, or expressing the view that greater, priority or more equitable consideration of General Aviation was needed when making trade-off decisions. This included comments about recreational flying being restricted by a proliferation of controlled airspace or military activity; detrimental impacts on

safety from the extension of controlled airspace; a perceived negative view of General Aviation or its ability to co-exist with commercial traffic; and the impact of airfield closures. We were reminded of the importance of General Aviation for the wider aviation industry. Around half of these instances occurred in general comments responding to the first question.

- 2.67 Figure 2.10 above shows that of the 32 instances, 25 were raised (in 21 responses) from the General Aviation community. Three instances came from national representative organisations such as trade associations (one each by three respondents, of which two were General Aviation organisations). There were also three instances (by one respondent) in the 'other' category and one by a local councillor.

Quote

The criterion for "where airspace changes are needed to allow improved access to airspace for all users, for example where the existence of controlled airspace is no longer justified" needs to be specifically based on hard data related to both the airspace efficiency and the safety of all airspace users, including the creation of dangerous pinch points outside the CAS in question. The criteria should require the data to be published. The more CAS that is implemented, the more that logically unresolvable dependencies will arise. The dependency resolution criteria need to be carefully worked out in advance and published in an understandable manner to preclude GA being arbitrarily swept away by unrealistic regional commercial traffic requirements and "subjective" trade-offs.

[response from a member of the General Aviation community]

Quote

Gliding has been more and more restricted by the proliferation of non class G airspace for the economic benefit of a tiny minority of people. Most of this is granted with little or no proper consultation or oversight and with no relation to the amount or type of traffic that will actually use it. The recent help in crossing class G are some help but the svfr confusion makes this less than useful.

[response from Rattlesden Gliding Club]

Quote

We understand the benefits of a Masterplan to ensure that the airspace modernisation plan is made to happen. Joined up thinking and planning of airspace is long overdue. The ends are expectedly bias towards commercial aviation, with reference to others including General Aviation. In our view it is important that the Masterplan is not driven entirely by the needs/preferences of Air Traffic Controllers who have a tendency to want to increase airspace at the expense of those flying who have no need or desire to be controlled.

[response from British Microlight Aircraft Association]

Outcome (Heading 9)

The criteria for acceptance of the masterplan require ACOG to include in each iteration of the masterplan, an assessment of the potential positive benefits or negative impacts on airspace usability, including on the General Aviation sector overall.

The impact on the General Aviation community both when accepting any iteration of masterplan and accepting the proposal for any individual airspace change is a factor that the CAA is required to consider under paragraph 3(ba) of the Civil Aviation Authority (Air Navigation) Directions 2017 (as amended) and section 70 of the Transport Act 2000.

Most of the issues raised are a matter for the CAA's Airspace Modernisation Strategy, our coordinated 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, and of which the masterplan will therefore form a part. The strategy is being reviewed during 2021/22. We are already engaging with stakeholders, including the General Aviation community, to understand their views, and there will be further opportunities for engagement.

Some of the issues raised are a matter for the CAA's new procedure to review airspace classifications and to amend them where appropriate, introduced in December 2020.²⁴ We have recognised in the masterplan assessment framework (CAP 2156b) that there could be an interaction between that new procedure and the masterplan where the volume of airspace concerned is the subject of an airspace change proposal which forms part of the masterplan. The CAA would formally notify the sponsor concerned of the evidence derived as part of the classification review. The CAA would also inform ACOG as masterplan coordinator.

The co-sponsors' 2018 commissioning letter²⁵ requires that the masterplan identifies where airspace changes are needed to allow improved access to airspace for all users, for example where the existence of controlled airspace is no longer justified. The co-sponsors' assessment will consider whether such changes have been identified. The Secretary of State has stated²⁶ that ACOG's strategic aims should include reducing controlled airspace and releasing lower airspace.

²⁴ CAP 1991 *Procedure for the CAA to review the classification of airspace* www.caa.co.uk/cap1991 and www.caa.co.uk/cap1991a.

²⁵ Appendix A to CAP 1884 www.caa.co.uk/cap1884

²⁶ www.caa.co.uk/cap1889

Heading 10: Concern about airspace access or use by drones and spacecraft

- 2.68 There were nine instances (from six different categories of respondent) mentioning this theme. Concern was expressed about the need to (and how to) integrate drones and spacecraft with other types of airspace user. There was also a suggestion that drones should be granted more rather than less access to airspace. Two responses recognised the importance of commercial drones and their potential to transform supply chains and the movement of goods. They pointed to the need to work with industry to achieve balanced regulation that keeps pace with the speed of innovation as new technologies emerge, in order to support rather than impede it. There was a concern about the potential impact on General Aviation from more powerful commercial drone operators, and more generally potential impacts on those on the ground in terms of noise and privacy.
- 2.69 There were no specific points raised about spacecraft other than how they would be integrated with other users.

Quote

There is much reference to drones, and many commercial organisations are trying to create a way to use these. While I am sure they will have to avoid major and licenced airfields, there appears to be no such protection for other GA activities and no pressure to produce it. These commercial organisations will have much more legal power than the average flying club. There has to be legislative protection assumed for legitimate GA activity against Drone interference.

[response from Rattlesden Gliding Club]

Quote

As new technologies emerge, it is important that any framework is able to adapt, respond and most importantly, keep pace with the speed of development in order to support rather than impede. One example of this is around commercial drone usage.

[response from UPS]

Quote

Airspace use by drones and spacecraft: Guidelines on acceptable silent-mode and hours and place of operation must first be established to avoid infringement of the human right to the enjoyment of private spaces including one's own home.

[response from Plane Hell Action SE]

Quote

When trying to optimise the efficiency/environmental impact of commercial air transport, it is important to remember that it is not the only sector that depends on access to airspace. Military manned aviation must be able to police UK airspace, military/ government agency manned and unmanned aviation must be able to safeguard UK territory against (e.g.) terrorism, illegal immigration and illegal fishing, General Aviation must be able to conduct business travel and pilot training, civilian unmanned aviation must be able to conduct increasingly diverse and ubiquitous industrial services and emergency support roles; finally, vertical and horizontal launch space missions will also require access to, and sometimes dedicated, airspace. Airspace planning must recognise the importance of and accommodate safely and appropriately the requirements of all airspace-users; this seems unlikely if only airports and NERL propose changes.

[response from The Honourable Company of Air Pilots]

Outcome (Heading 10)

Both the CAA's legal obligations and government policy recognise the potential need to integrate new types of airspace user such as drones and spacecraft. The acceptance criteria are relevant at the framework level – to the extent that where individual airspace changes making up the masterplan seek to satisfy demand from new types of airspace user, they may potentially create conflicts requiring trade-offs, which the criteria require the masterplan to resolve, through a series of iterations. But the means for safe and efficient integration will be addressed through relevant initiatives in the Airspace Modernisation Strategy, which, as we note under Heading 9, is currently being reviewed.