



ACOG

London Airspace South (LAS)

Public Engagement Exercise

12 February – 24 March 2024

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SUMMARY

What is this public engagement exercise about?

1. This public engagement exercise concentrates on the proposal to modernise a region of the UK's airspace in the South East of England that extends south from Gatwick Airport, beyond the South Coast to the boundary with French airspace. This portion of airspace is titled London Airspace South (or LAS). The geographical region covered by LAS is illustrated in figures 2 and 3 below.
2. This engagement exercise is led by the Airspace Change Organising Group (ACOG), an independent team of specialists tasked with coordinating large scale, strategic airspace changes in the UK. The Department for Transport (DfT) and the Civil Aviation Authority (CAA) co-sponsor airspace modernisation and directed the creation of ACOG to coordinate the airspace changes. The national 2040 vision for airspace modernisation is to:

“Deliver quicker, quieter and cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace”

3. Gatwick Airport and NATS (en route) plc. (NERL) are responsible for developing detailed Airspace Change Proposals (ACPs) to modernise the airspace in the LAS region, working closely with ACOG and the other South East airports. LAS is the first phase of airspace modernisation proposed for deployment in the South East of England. Future phases of deployment, which include ACPs to modernise the airspace serving the other South East airports, are under development. More information is available on ACOG's website: www.ACOG.aero.

What is ACOG engaging on?

4. The goal of this engagement exercise is to explain the overall strategic plan (or Masterplan) for the proposed LAS deployment before stakeholders are invited to participate in formal consultations on the detailed changes, which will be led by Gatwick and NERL in Spring 2025. This engagement document explains the drivers for airspace modernisation in the LAS region and the general scope and objectives of the proposed changes. It also describes ACOG's approach to aligning the proposed LAS deployment with future plans for strategic airspace changes elsewhere in the South East of England.
5. In this engagement ACOG is seeking stakeholders' views on the approach to grouping the LAS ACPs into the first phase of deployment in the South East and on the principles that will guide how Gatwick and NERL consult on the proposed changes in a coordinated way. ACOG would also like to gather feedback on any possible gaps in, or improvement to, the strategic plan for airspace modernisation in the LAS region.

What is ACOG not engaging on?

6. ACOG is not engaging on the details of the proposed route design options and airspace structures that are being developed by the LAS ACPs. Gatwick and NERL are still working on design options and appraising their potential impacts. The formal consultations in Spring 2025 will set out the detailed design of all the routes and airspace structures included in the proposed LAS deployment, supported by a rigorous quantitative appraisal of the expected impacts (both positive and negative).

How is the information in this engagement document presented?

7. ACOG has organised the information about the proposed LAS deployment in this engagement document into the following five parts:

- | | |
|---------|---|
| Part 1. | Background to airspace modernisation and the Masterplan |
| Part 2. | Drivers and objectives of airspace modernisation in the LAS region |
| Part 3. | Description of what the proposed LAS deployment is likely to involve |
| Part 4. | Process for coordinating the overall LAS design and ACP consultations |
| Part 5. | How can stakeholders participate in the process? |

8. Part 1 describes how the strategically important airspace changes in the Masterplan are organised into regional clusters and deployment phases and outlines the geographical scope of the proposed LAS deployment. Part 1 also summarises how the LAS ACPs relate to the plans for modernisation in the surrounding South East airspace. Parts 2 and 3 describe the overall design envisaged by the proposed LAS deployment when the Gatwick and NERL ACPs are viewed as a collective (without the detail of all the routes). Part 4 explains the interdependencies between the LAS ACPs and summarises the principles for coordinating the consultations. Part 5 sets out what happens next and how stakeholders can be notified about the LAS ACP consultations so they can comment on changes that may affect them.

9. Table 1 sets out specifically what ACOG is seeking feedback on during this engagement, linked to the information in the relevant parts of the document.

Table 1: LAS deployment public engagement exercise feedback questions

#	Engagement questions	Relevant part
Q1	Please provide your comments on how the LAS ACPs have been grouped into the first proposed deployment in the South East cluster of the Masterplan.	See Part 1
Q2	Please provide your comments on any possible gaps in, or improvements to, the Masterplan for the proposed LAS deployment.	See Part 2 and Part 3
Q3	Please provide your comments on the principles for coordinating the LAS ACP consultations. The principles are organised into four themes: audience, approach, materials and length.	See Part 4
Q4	Do you understand how to engage in the development of the Masterplan and the LAS ACPs and have your voice heard?	Part 5
Q5	Please provide your comments on the clarity of the engagement information we have provided at this stage. Does the information make sense? If not, what areas require further clarification?	All Parts

How to respond?

10. Please review the information in this engagement document and submit your response online at acog.citizenspace.com. If you are unable to use the Citizen Space page, require this document to be provided in a different format or have any questions about the content, please email info@acog.aero.

How long is the engagement period?

11. This engagement exercise is running for 6 weeks from 12th February 2024 to 24th March 2024. **Please submit your feedback by 24th March 2024 at the latest.** We cannot commit to consider representations received after this date. Once the engagement period has closed, we will consider all the responses carefully.

Part 1: Background to airspace modernisation and the Masterplan

Background to airspace modernisation

12. Aviation keeps people connected and provides the commercial air transport services that the UK needs for business, tourism, and economic growth. All forms of aviation depend on access to the airspace, making it an essential but largely invisible part of our national infrastructure.
13. The basic design of the UK's airspace is predicated on an aging network of ground navigation beacons and has remained largely unchanged since the 1950s when there was a fraction of the flights that we see today. It was never envisaged that the airspace would need to cope with the current volume of flights in the UK – over 2.5 million a year in 2019 – with projections of 3 million a year by 2030. Despite this, in many cases, today's aircraft are still having to use the same outdated routes that are inefficient and reaching capacity. Aircraft often fly further than necessary at sub-optimal altitudes and speeds because the routes were originally intended to overfly the location of navigation beacons on the ground.
14. If the UK's airspace is not modernised, NERL estimates that by 2040, delays may increase by over 200% which would result in 1 in 5 flights experiencing disruption for over 45 minutes.¹ For passengers, cargo, businesses, and the wider economy that benefit from aviation, a failure to act would create significant negative impacts. Modernising airspace is also a key part of the aviation sector's plans to decarbonise. The planned airspace changes will make it easier for aircraft to fly more direct routes, with better climb and descent profiles to and from energy-efficient cruising altitudes to help reduce CO₂ emissions.

¹ UK Airspace Change Masterplan, Iteration 2, version 2.2, March 2022.

15. The Government's priorities when considering the potential environmental impacts of airspace changes are laid out in the Air Navigation Guidance 2017 [here](#). The guidance describes altitude-based priorities which should be taken into account by the CAA and ACP sponsors when considering the potential environmental impacts of proposed airspace changes. The environmental priority in the airspace below 4,000 ft. is to limit and where possible reduce the total adverse effects of aircraft noise on people. The priority is the same in the airspace between 4,000 ft. and 7,000 ft. unless this would disproportionately increase CO₂ emissions. In the airspace above 7,000 ft. the environmental priority is to reduce CO₂ emissions and the minimising of noise is no longer the priority. Where practicable, it is desirable that routes below 7,000 ft. should seek to avoid flying over Areas of Outstanding Natural Beauty and National Parks. All changes below 7,000 ft. should take into account local circumstances in the development of the airspace designs, including the actual height of the ground level being overflown, and should not be agreed to by the CAA before appropriate community engagement has been conducted by the ACP sponsors.

Who is ACOG and what is the Masterplan?

16. ACOG was formed in 2019 under the direction of the UK DfT and the CAA, who co-sponsor and regulate airspace modernisation.² The reasons for modernising the UK's airspace and the costs of not doing so are laid out in a report published by the DfT [here](#). The vision for airspace modernisation to 2040 and the ways and means of achieving it are described by the CAA in the Airspace Modernisation Strategy (AMS) [here](#).
17. The AMS explains that airspace modernisation will maintain and improve the UK's high levels of aviation safety, boost efficiency, strengthen environmental sustainability and facilitate access to a diverse mix of airspace users.
18. Airspace modernisation will be delivered, in part, through a series of linked ACPs. 20 of the UK's airports are sponsoring ACPs to upgrade the arrival and departure routes that serve their operations in the lower airspace (below 7,000 ft.). NERL, the UK's licensed Air Navigation Service Provider for en route operations, is currently sponsoring seven ACPs to upgrade the route network above 7,000 ft. The NERL sponsored ACPs focus on busy portions of airspace where there are lots of climbing and descending flights, referred to as Terminal Control Areas.³
19. ACOG is tasked with developing the UK Airspace Change Masterplan (the Masterplan) that sets out a single coordinated implementation plan for the ACPs needed to modernise the airspace up to 2040.
20. When it is finalised the Masterplan will:
- identify where and when ACPs are needed, with proposed timelines for implementation
 - describe how the ACPs relate to each other (i.e. **interdependencies**) and highlight potential **conflicts** between their designs
 - explain how **trade-off** decisions to resolve those conflicts have been made
 - demonstrate the anticipated cumulative impacts of the ACPs
21. In this context, an interdependency can be described as two or more ACPs that are linked together in some way. For example, there is a potential conflict in their design options or there is a potential cumulative impact on stakeholders on the ground. A conflict can be described as two or more ACPs that cannot both proceed in their proposed form because their design options are not compatible. A trade-off is the decision to resolve a conflict and could be between two or more separate ACPs, or between two or more objectives (such as achieving noise reduction and achieving fuel efficiency improvements).
22. The CAA set out the acceptance criteria that the Masterplan should meet [here](#). The criteria require ACOG to engage publicly to explain the approach to coordinating the ACPs and gather views from stakeholders on the development of the Masterplan at a strategic level. This engagement exercise concentrates on the proposed LAS deployment [only](#). It is one of several engagements that ACOG will conduct to describe the Masterplan and seek feedback. Similar engagement exercises will be conducted by ACOG for the other clusters and deployment phases in due course to support the Masterplan in those regions.

How is the Masterplan being developed and organised?

23. The Masterplan is being developed in iterations that will each be assessed, and if appropriate, accepted separately by the co-sponsors (DfT and CAA). The iterations broadly align with the gateways of the CAA's airspace change process (known as CAP1616), published [here](#). The Masterplan will show more detail about the ACPs as the iterations are developed. Iteration 1 of the Masterplan (2020) provided a high-level plan for airspace changes in the South of England and is published [here](#). Iteration 2 (2022) expanded the scope to provide a national view of the ACPs needed for airspace modernisation and the potential interdependencies between them and is published [here](#).

² ACOG's activities are overseen by an impartial Steering Committee of senior representatives drawn from across the aviation sector

³ The number of NERL-led ACPs to upgrade the route network may change as the programme matures.

24. Iteration 2 of the Masterplan organised the ACPs into regional clusters. A single nationwide change would be too big to manage. Each cluster is based on the interdependencies between the ACPs and analysis into areas of the existing airspace where inefficiencies and delays are expected to worsen as traffic levels grow.

25. Figure 1 illustrates the airports that are sponsoring ACPs in each Masterplan cluster, in:

- the West of the UK, also known as the West Terminal Airspace
- the North of England, also known as the Manchester Terminal Control Area
- the South of Scotland, also known as the Scottish Terminal Control Area
- the South East of England, also known as the London Terminal Control Area

Figure 1: Four clusters of the Airspace Change Masterplan and airport sponsored ACPs



The South East cluster of the Masterplan will be deployed in phases

26. The size and complexity of the airspace changes vary significantly by regional cluster. For example, the Scottish cluster, with two Airport-led ACPs and one NERL-led proposal is smaller and less complicated than the South East cluster, where 12 Airport-led ACPs and at least three linked NERL proposals are required.
27. The airspace serving the South East of England is some of the busiest and most complex in the world. The airspace in this region has remained relatively unchanged for the past 70 years. When it was originally designed, the airspace was not intended to cope with the number and complexity of the flights operating today. For example, analysis conducted by NERL for Iteration 2 indicated that traffic demand in the busiest hours of the day is likely to exceed maximum capacity by over 30% by 2040 if the airspace is not modernised. When a portion of airspace reaches maximum capacity the need to maintain safety restricts the number of flights that air traffic controllers can manage. The operation responds by:
- slowing flights down and directing aircraft onto longer, less efficient flight paths
 - directing inbound flights into airborne holds (where flights follow a racetrack pattern, waiting for clearance to begin their approach to land) delaying their arrival
 - instructing outbound flights to hold on the ground, delaying their scheduled departure and increasing ground emissions
28. Iteration 2 explained that the airspace changes required for modernisation in the South East cluster are so large that it will need to be delivered in a series of phased deployments.⁴ This is because aviation organisations participating in airspace modernisation (including the airports, airlines and NERL) do not have the capacity to design, consult on, refine and implement all 15 South East cluster ACPs as a single, integrated change. The scale of the proposed changes is too large for specialist resources (including air traffic controllers, airspace designers, pilots and regulators) to manage while simultaneously delivering a safe and efficient service to flights using the existing airspace.
29. As a result, the airspace changes required in the South East cluster will be delivered in a series of phased deployments. Each deployment is made up of a sub-set of South East cluster ACPs that are developed and implemented together. The relationship between the deployment phases will be carefully managed by ACOG through the Masterplan in the following ways.
- The scope of each deployment will be configured to minimise the risk that ACPs to redesign routes below 7,000 ft. are required to change twice in two or more deployments. Given the scale and complexity of the South East cluster, some changes to the route network above 7,000 ft. required to support an earlier deployment will need to change again to enable later deployments. This 'change on change' should be reduced as far as possible for the ACPs below 7,000 ft. where there is the potential to affect the distribution of aircraft noise.
 - The changes proposed in each deployment phase should not unreasonably constrain the design options available to the other South East cluster ACPs participating in later phases.
 - Before the CAA can decide on any of the ACPs included in a specific South East cluster deployment, it will need to conclude that the changes proposed in each phase are consistent with the delivery of airspace modernisation as described in the AMS.
30. This means that the CAA will need an understanding of the overall design for the South East cluster based on available information about the other deployments, which will be set out in the latest version of the Masterplan. Subject to this, the changes proposed in each deployment phase will be considered on their own merits, concentrating on the benefits and impacts in isolation of later phases. In the other regional clusters of the Masterplan, the ACPs required to modernise the airspace can be delivered together as a single change without the need for phased deployments.

LAS is the first proposed deployment in the South East cluster

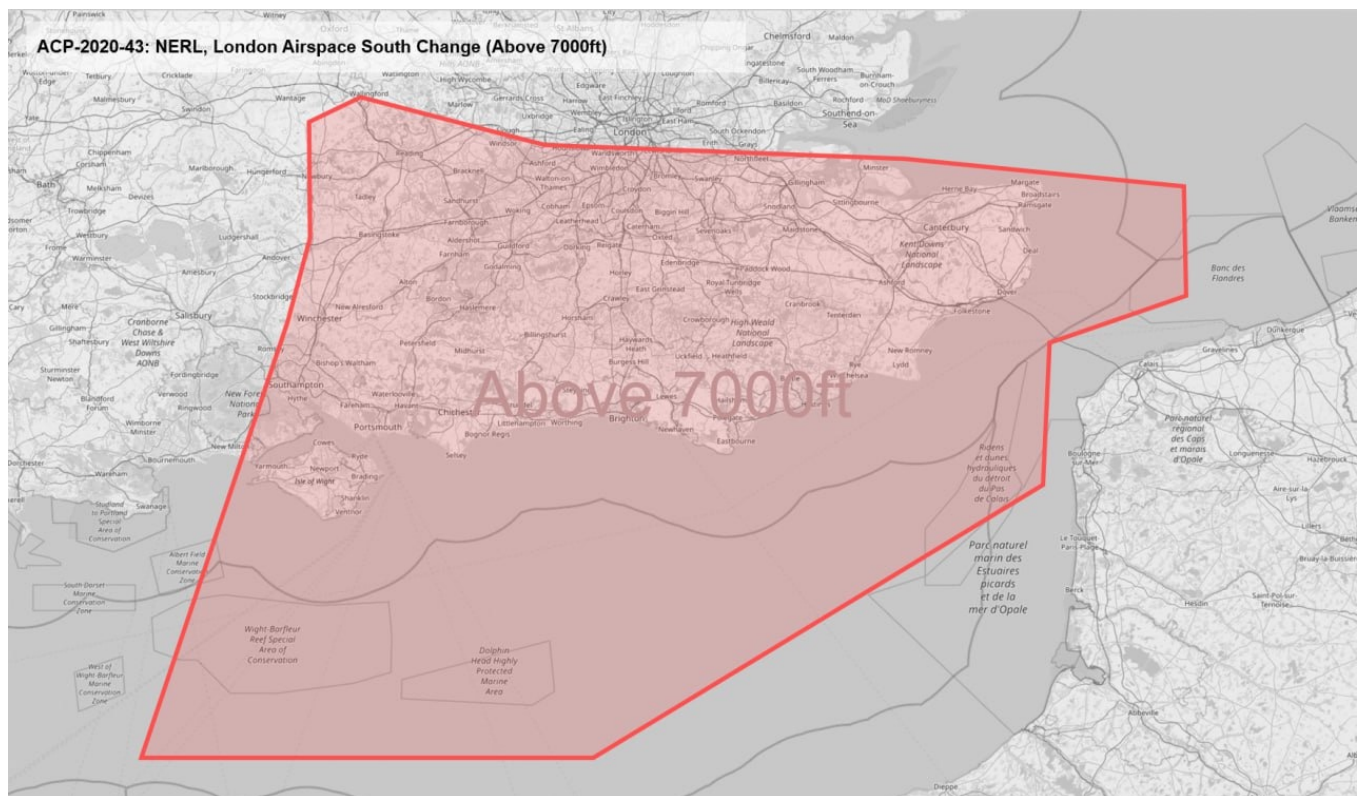
31. The proposed LAS deployment is a relatively simple airspace change that can be deployed sooner than the rest of the South East cluster, realising benefits earlier. Following the publication of the Masterplan Iteration 2, ACOG worked with the South East airports and NERL to examine opportunities for a portion of airspace modernisation in the South East to be deployed ahead of the wider cluster. Modernisation of the route network and airspace structure that extends south from Gatwick Airport, beyond the South Coast to the southern boundary with French airspace was identified as the preferred option. This is because there is strong case that modernisation can be delivered in this region ahead of the wider South East cluster and independence from the other ACPs can be assured. Other opportunities to deliver modernisation in the South East ahead of the wider cluster were discounted because of the number of different ACPs involved and the complexity of the interdependencies.

⁴ ACOG currently estimates that airspace modernisation in the South East cluster will likely require three or four phases of deployment. The exact number, scope and sequence of the deployments that follow the proposed LAS deployment will be defined together with the South East cluster airports and NERL over the next 12 months.

32. The proposed LAS deployment includes two of the South East cluster ACPs. One is sponsored by Gatwick Airport to upgrade the arrival and departure routes **below 7,000 ft. to the south of the airport**. The other is sponsored by NERL to upgrade the route network and airspace structure **above 7,000 ft.** including the airborne holds serving Gatwick arrivals. The NERL LAS ACP above 7,000 ft. covers a large area of the South East cluster. This is because the overall LAS design above 7,000 ft. is enabled by several smaller changes at higher altitudes.

33. Figure 2 illustrates the region of airspace **above 7,000 ft.** included in the NERL LAS ACP (2020-43). More detailed information about the development of the NERL LAS ACP can be found on the CAA's Airspace Change Portal [here](#).

Figure 2: Illustration of the region of airspace **above 7000 ft.** included in the scope of the NERL LAS ACP



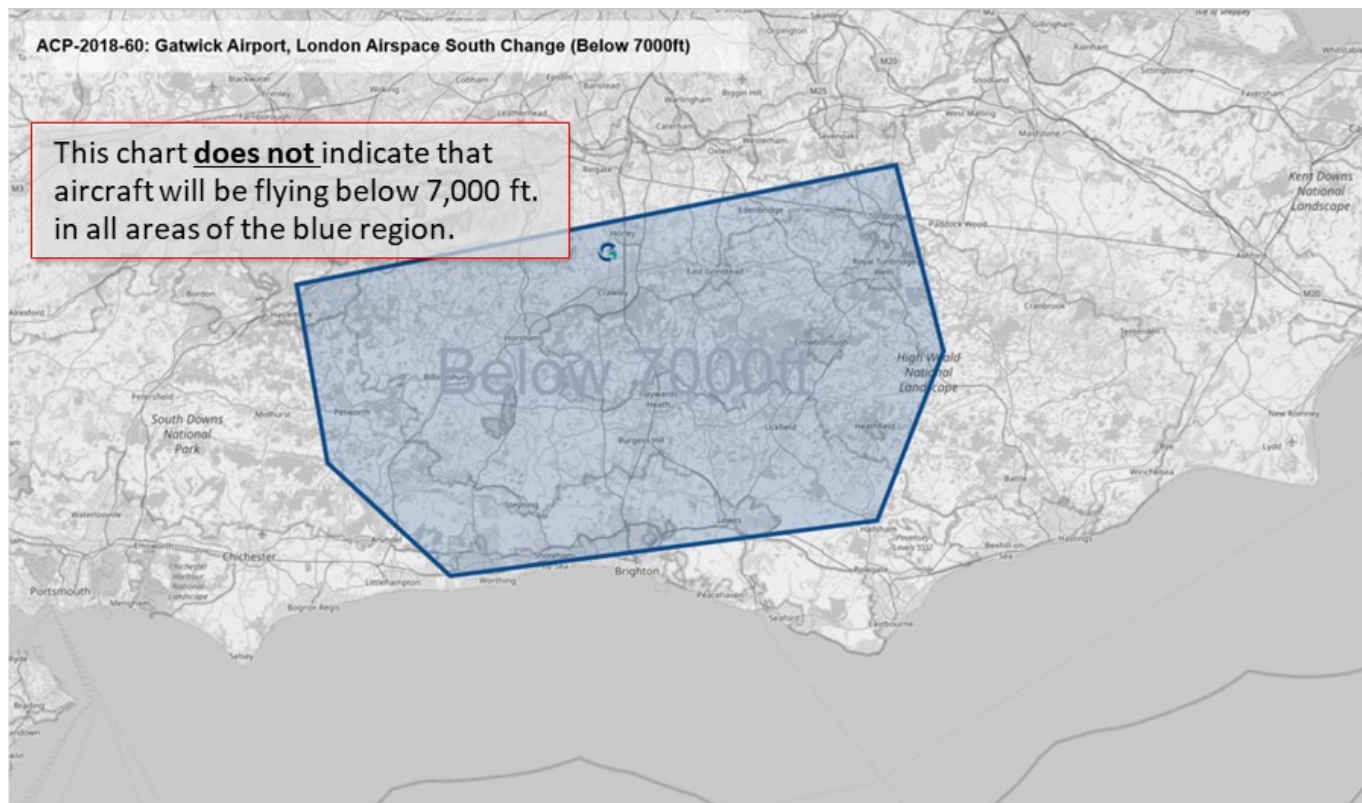
34. The current Gatwick South East cluster ACP (2018-60) included in the Masterplan Iteration 2 includes proposals to modernise all the arrival and departure routes serving the airport below 7,000 ft.

35. The proposals to modernise Gatwick's routes to the north of the airport share complicated interdependencies with other South East cluster ACPs, for example the proposal sponsored by Heathrow Airport. By contrast, the options to modernise the routes to the south of the airport are largely separated from the other South East cluster ACPs.

36. As a result, to facilitate the LAS deployment it is proposed that the Gatwick ACP would be split into two portions. The first portion of the split Gatwick ACP would form part of the proposed LAS deployment and include options to modernise the arrival and departure routes to the south of the airport below 7,000 ft. (linking with the NERL LAS ACP above 7,000 ft.). The second portion of the split Gatwick ACP would form part of a future deployment phase and include the options to modernise the routes to the north of the airport alongside the other interdependent South East cluster ACPs. The approach to managing a split to the current Gatwick South East cluster ACP is described in Part 4 below.

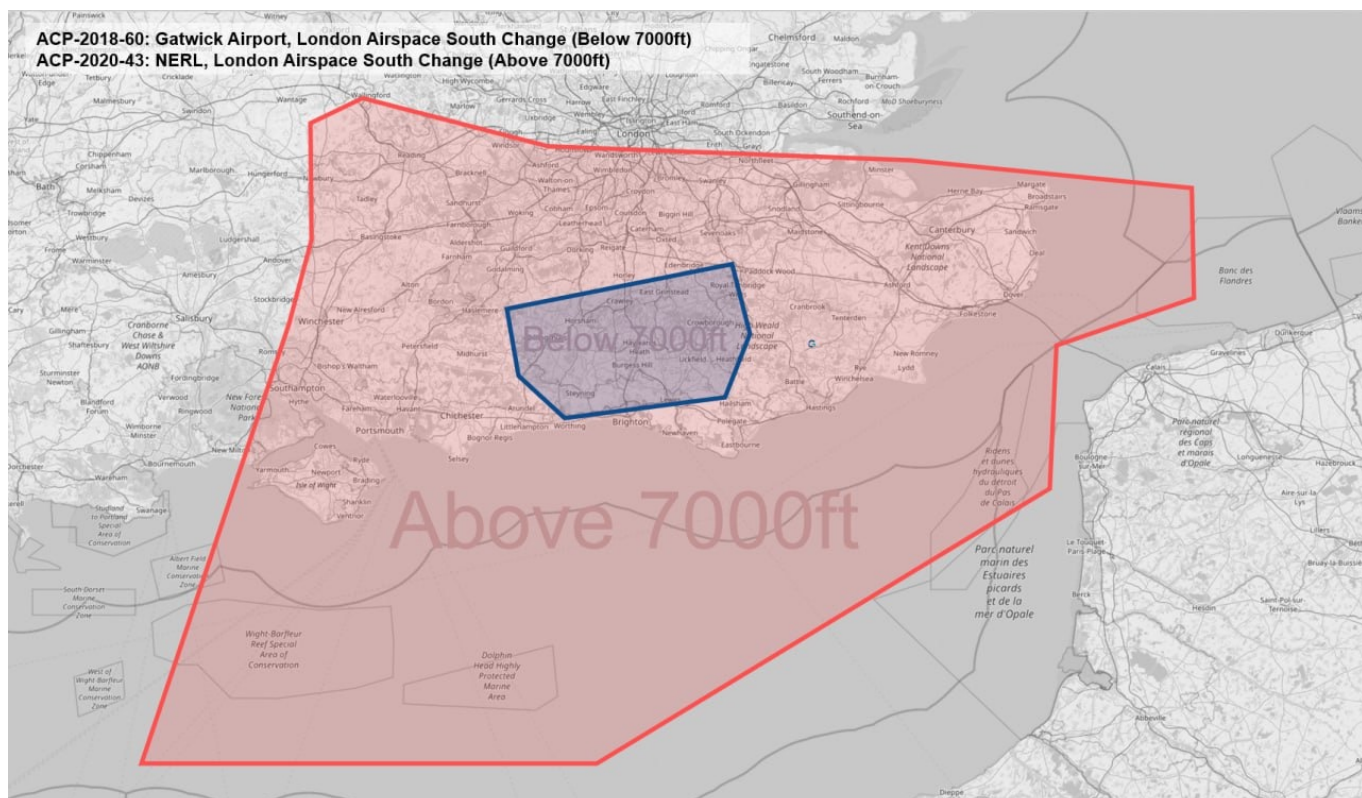
37. Figure 3 illustrates the region of airspace **below 7,000 ft.** included in the first portion of the split Gatwick ACP that forms part of the proposed LAS deployment. The blue region covers all areas where proposed arrival and departure routes may **potentially** be positioned below 7,000 ft. as part of the Gatwick LAS ACP. It **does not** indicate that aircraft will be flying below 7,000 ft. in all areas of the blue region. Gatwick Airport will consult on the detailed design of the proposed routes below 7,000 ft. and the expected environmental impacts during Stage 3 of the airspace change process in Spring 2025.

Figure 3: Illustration of the region of airspace below 7000 ft. included in the scope of the Gatwick LAS ACP



38. More detailed information about the development of the Gatwick South East cluster ACP that includes the options to modernise routes to both the north and the south of the airport can be found on the CAA's Airspace Change Portal [here](#). Figure 4 illustrates the overall region of airspace included in the proposed LAS deployment, above and below 7,000 ft. by overlaying the scope of the Gatwick and NERL LAS ACPs onto one chart so they can be viewed as a collective.

Figure 4: Illustration of the overall volume of airspace included in the proposed LAS deployment



How does the proposed LAS deployment relate to current air traffic operations and modernisation plans in the wider South East cluster?

39. ACOG, Gatwick and NERL have worked together with the South East airports to review the size and nature of the potential interdependencies arising from the proposed LAS deployment progressing ahead of the wider cluster. The review demonstrated that based on the available information:
- The impact of the proposed LAS deployment on current air traffic operations serving the other South East cluster airports **below 7,000 ft.** is either negligible or none
 - The design options included in the proposed LAS deployment to change routes and airspace structures do not constrain the design options being developed by the other independent South East cluster ACPs
40. ACOG will provide more information about the interdependencies between the proposed LAS deployment and the wider South East cluster ACPs in Iteration 3 of the Masterplan. Iteration 3 is currently being prepared by ACOG for each regional cluster and deployment. The Masterplan Iteration 3 for the proposed LAS deployment is planned for publication later in 2024. It will describe the overall airspace structure and route network envisaged by the LAS ACPs when viewed as a collective (but without the detailed design of all the routes).
41. The feedback gathered during this engagement exercise will help to inform the development of the Masterplan Iteration 3 for the proposed LAS deployment. It is important to emphasise that Iteration 3 is an overarching strategic document. Any illustrations used to explain aspects of the proposed designs will be high-level and indicative. Detailed information about the proposed design options and how they may affect stakeholders will be set out in the individual LAS ACP consultations. Iteration 3 will provide more detail on how the LAS ACP sponsors will consult on their proposals in a coordinated manner so that stakeholders are presented with a holistic view of the overall LAS design.
42. Iteration 4 of the Masterplan for the proposed LAS deployment will be created by ACOG once feedback to the consultations has been analysed and addressed by the LAS ACP sponsors.

Definition of strategically important ACPs

43. Only the ACPs that are strategically important to achieving the airspace modernisation vision are included within each Masterplan regional cluster and deployment. These ACPs were identified in the Masterplan Iteration 2. There are several main ways through which an ACP could make a significant contribution to achieving airspace modernisation and meet the definition of strategically important. For example, if the proposal is likely to improve the overall performance of the airspace at a national and/or regional level:
- from an operational perspective, in terms of safety, capacity, efficiency and resilience
 - from a consumer perspective, in terms of choice, value and the multiplied economic benefits of air connectivity
 - In terms of supporting the aviation sector to reach net zero emissions by 2050, and limit and, where possible, reduce the total adverse effects of aircraft overflight
 - In terms of integrating other airspace users including General Aviation⁵, the Military and new and emerging forms of aviation

An individual ACP could also make a significant contribution to airspace modernisation where it influences the decisions made about other strategically important ACPs. For example:

- Where an ACP forms part of a coordinated overall airspace design improving the performance of the airspace at a national or regional level
 - Where an ACP either enables or constrains other strategically important ACPs because of its location, altitude, timing or sequencing
44. Some larger airports, like Birmingham, Newcastle International, Aberdeen and Inverness are not currently included in the national scope of the Masterplan because modernising the routes that serve their operations is not expected to make a significant national or regional contribution to achieving airspace modernisation. These airports, and others (including for example Belfast International, Belfast City, Norwich and Newquay) do not form part of a coordinated overall airspace design and they do not share interdependencies with the existing Masterplan ACPs.
45. One of the goals of the ACOG-led engagement exercises that support the preparation of Iteration 3 for each cluster and deployment is to seek stakeholders' feedback on possible gaps in, or improvements to, the Masterplan, for example if ACOG has identified the strategically important ACPs.

⁵ The definition of General Aviation incorporates a wide range of operators (other than scheduled commercial air transport), pursuing a mix of different interests in a variety of different classes of aircraft, including (but not limited to) fixed-wing light aircraft, business jets, helicopters, microlights, gliders, hang gliders, paragliders, gyrocopters, balloons and large model aircraft operators.

46. The strategically important ACPs required for airspace modernisation in the South East cluster were identified by ACOG in Iteration 2 as: three linked NERL-sponsored ACPs to upgrade the route network above 7,000 ft. and 12 linked airport-sponsored proposals to modernise the routes below 7,000 ft. The airport-sponsored ACPs in the South East cluster are listed in figure 1.
47. During the development of the Masterplan Iteration 3 for the proposed LAS deployment, ACOG reviewed the strategic importance of the airspace changes required for modernisation in the LAS region. The aim of the review was to ensure that the strategically important airspace changes in this region had been identified and to consider if there were any gaps or improvements that should be addressed.
48. The proposed LAS deployment is a relatively simple airspace change that can be deployed sooner than the rest of the South East cluster. Given the relatively small geographic scope, particularly below 7000ft to the south of Gatwick no other strategic gaps or improvements have been identified. ACOG will conduct a further review into the strategically important ACPs in the wider South East cluster in preparation for the engagement exercises that will support the future phases of deployment.
49. ACOG welcomes stakeholders' views on any possible gaps in, or improvements to, the Masterplan for the proposed LAS deployment (please refer to engagement question 2 in table 1).

Strategic environmental assessment and Habitats Regulations assessment for LAS

50. The Masterplan, through the individual ACPs, may alter where aircraft fly. This could have consequential environmental impacts, including noise levels on the ground, CO₂ emissions and local air quality.
51. To ensure that environmental impact considerations are integrated into the development of the Masterplan, the CAA must ensure that the Masterplan is subject to a strategic environmental assessment (SEA) and a Habitats Regulations assessment (HRA). These assessments are a legal requirement. ACOG will show how the SEA and HRA have been taken into account when developing the Masterplan for each cluster and, for the South East cluster, each deployment.
52. The SEA is an iterative process of gathering data and evidence, assessment of environmental effects, developing mitigation measures and making recommendations to refine plans or programmes in view of the predicted environmental effects. The aim is to influence strategic decisions taken early on, to take account of alternatives and assess the cumulative effects of multiple proposals. In the case of the Masterplan, the SEA is carried out by the CAA as the 'responsible authority'. This SEA complements the more specific assessment of environmental impacts carried out by each individual ACP sponsor through the airspace change process. The SEA must be kept up to date through monitoring as the Masterplan is developed and implemented.
53. The HRA refers to the several distinct stages of assessment which must be undertaken in accordance with law on conservation of habitats and species. The HRA determines the potential effects of the Masterplan on protected sites, referred to as 'European sites', in view of the sites' conservation objectives. As the 'competent authority', the CAA must first screen for 'likely significant effects', then carry out an 'appropriate assessment' of any potential adverse effects that were not discounted at the screening stage.
54. The first stage of each of these assessments for the Masterplan is to decide what they must cover, including the methodology that the CAA proposes to use. The CAA has already completed a consultation on:
 - For the SEA, a draft scoping report that can be viewed [here](#)
 - For the HRA, a draft screening report that can be viewed [here](#)

The reports explain why the law requires these assessments to be carried out for the Masterplan. The CAA also used the consultation to seek stakeholders' views on the approach to producing, later on, the actual SEA and HRA assessments themselves. This is set out in a third document:

- The approach to the SEA and HRA that can be viewed [here](#)

55. Work has begun on the actual environmental assessments for both the SEA and HRA for the LAS deployment. The CAA intends to consult on those assessments on or around the same time as when the sponsors plan to consult on their ACPs during Stage 3 of the airspace change process (planned to start in Spring 2025).

Part 2: Drivers and objectives of airspace modernisation in the LAS region

Issues with the existing route network and airspace structure in the LAS region

56. The issues with the existing route network and airspace structure that are driving the need for airspace modernisation in the LAS region can be grouped into three themes that are summarised in Table 2.

Table 2: Issues driving airspace modernisation in the LAS region

Theme	Description of the issues
Outdated routes that are not well aligned to the general direction that traffic is travelling in	The existing routes in the LAS region were designed around the locations of ground navigation beacons rather than following shorter, more direct flight paths. As a result, the routes are not always well aligned to the general direction of the main traffic flows. In addition, the routes tend to converge at the same points over the ground (linked to the locations of the beacons) creating pinch points that constrain capacity and lead to traffic congestion at busy times.
Position of the airborne holds	The existing position of the airborne holds serving Gatwick Airport prevent the Gatwick departure routes from following shorter, more direct flight paths and achieving more efficient climb profiles. When possible, controllers' vector outbound traffic away from the existing routes to avoid the holds so that flights can climb more continuously towards the cruise. If controllers are unable to vector traffic during busy times, the climb profiles of outbound flights are restricted by the existing airspace design generating excess noise and CO ₂ emissions.
Sub-optimal Gatwick arrival and departure designs	In the existing airspace design, some of Gatwick Airport's southbound departure routes require traffic to fly straight ahead after take-off for an extended period before commencing a turn to the south. These routes create noise impacts in areas that are also affected by inbound flights on final approach when the runway is used for arrivals. In the existing route design, the combined impact of departures and arrivals overflying the same communities, limits the opportunities to mitigate aircraft noise and generates additional CO ₂ emissions (on departure).

Introduction of advanced Performance-based Navigation routes

57. The widespread introduction of advanced Performance-based Navigation (PBN) routes that rely on satellite technology rather than ground navigation beacons is a cornerstone of airspace modernisation. The use of PBN decouples the design of the routes from the location of the beacons and improves aircraft track keeping so that flight paths can be positioned more accurately and closer together if needed. As part of the proposed LAS deployment, there are options for new PBN arrival and departure routes to be separated by design, reducing the volume of converging tracks and vectoring that controllers need to manage.

58. With less crossing traffic and vectoring, controllers can manage flights without the airspace reaching capacity, reducing delays. Departure routes can be redesigned with greater precision so that outbound flights can climb more continuously towards the cruise with fewer emissions and not as much noise. Arrival routes can be redesigned in a similar way so that inbound flights descend more continuously from the holds to the final approach with as little noise as possible. New route options can also be included within the design, offering additional capacity, more efficient connections and opportunities to better manage environmental impacts.

Objectives of the proposed LAS deployment

59. The proposed LAS deployment aims to deliver four main objectives in line with the vision for airspace modernisation. The objectives are to:

- **Maintain and where possible improve the high levels of aviation safety**, simplifying the airspace design and reducing the complexity of the flight paths. Maintaining a high standard of safety has priority over all other airspace modernisation objectives.
- **Improve the environmental sustainability of aviation**, reducing CO₂ emissions through more direct flight paths and enabling aircraft to climb and descend more continuously and reduce the total adverse effects of aircraft noise on people.

- **Increase the airspace capacity to accommodate reasonable growth in demand** for commercial air transport whilst minimising delays, enhancing global connections, giving better value and more choice for businesses and individual travellers and helping to stimulate economic growth.
- **Satisfying the requirements of operators and owners of all classes of aircraft** by minimising the volume of controlled airspace to deliver an efficient airspace design, taking into account the needs of all airspace users.

60. The objectives of the proposed LAS deployment reflect the overarching ends of the Airspace Modernisation Strategy that can be viewed [here](#). They also align broadly with the Design Principles for the LAS ACPs that were developed during Stage 1 of the airspace change process.

Expected benefits of the proposed LAS deployment

62. The expected benefits of airspace modernisation in the proposed LAS deployment are summarised by stakeholder group in table 3.

Table 3: Expected benefits of airspace modernisation in the proposed LAS deployment by stakeholder group

Stakeholder	Benefits description
For passengers and the wider economy	Fewer flight delays and service disruptions are expected to save time and improve the passenger experience. Also, the capacity to accommodate new flights will lead to more choice, better value, and enhanced global connections that drive economic growth.
For airlines	More airspace capacity will reduce delays while maintaining high levels of safety. Modernisation will also improve flight efficiency, punctuality and costs per flight, enabling the airlines to capitalise on the performance of their modern fleets of aircraft.
For airports	Modernisation is expected to strengthen resilience against adverse weather conditions, reduce delays on the ground pre-departure caused by capacity constraints in the airspace and potentially increase runway throughput during busy periods.
For local communities	The priority for airspace modernisation at lower altitudes is to limit and, where possible, reduce the total adverse effects of aircraft noise on people. Modernisation is expected to deliver a reduction in noise levels per flight, but the redistribution of noise between different areas may lead to disruption for communities living under new flight paths.
For other airspace users	Modernisation offers the opportunity for other airspace users to access more volumes of airspace that are not required by commercial air transport by minimising the required Controlled Airspace.
For the Military	Airspace modernisation will continue to ensure that military operators have access to suitably sized and sited areas of airspace to fulfil defence and national security objectives, recognising that new military aircraft and weapons platforms often require larger volumes of airspace in which to train and maintain operational readiness.

Part 3: Description of what the proposed LAS deployment is likely to involve

As part of this public engagement exercise ACOG is required to provide a description of the overall LAS design when viewed as a collective, but without the detailed designs of all the routes.

Overview of the proposed changes considered by the LAS ACPs

63. The proposed changes considered by the LAS ACPs can be organised into five themes:

- Separating the existing southbound departure routes in the network (above 7,000 ft.) so that they do not converge and redesigning routes so they are aligned with the general direction of the main traffic flows.
- Laterally separating the Gatwick departure routes to the south of the airport from the locations of the airborne holds serving Gatwick arrivals.
- Optimising the southbound Gatwick departure routes to the south of the airport to improve environmental performance and better manage aircraft noise.
- Opportunities to optimise the position of the flight paths serving inbound traffic from the airborne holds to final approach for landing at Gatwick.
- Minimising the total volume of Controlled Airspace required for commercial air transport operations.

64. A simple illustration of the existing air traffic flows in the LAS region, offers a basis from which to describe the strategic changes considered by the LAS ACPs when viewed as a collective. **ACOG is not seeking feedback on the features of the existing air traffic flows in the LAS region during this engagement exercise.**

65. Figure 5 illustrates the existing airspace in the LAS region. It shows the current location of the airborne holds serving Gatwick Airport and the position of the main inbound and outbound traffic flows when the prevailing wind is from the west.

66. Figure 6 shows the current location of the airborne holds and the position of the main inbound and outbound traffic flows when the prevailing wind is from the east. The blue arrows indicate the general position of the current departure flows. The green arrows indicate the general direction of the current arrival flows into the existing airborne holds. The green and blue shaded areas, indicate the broad swathes of airspace where inbound and outbound flights are currently vectored by controllers on arrival and departure.

67. Aircraft usually take-off and land into the wind. The prevailing wind in the LAS region is from the west for approximately 70% of the time. Figure 5 shows flights departing and arriving in a westerly direction (known as westerly operations), illustrating the most common case for Gatwick flights. When the prevailing wind is from the east (for the remaining 30% of the time), flights arrive and depart in an easterly direction using a different configuration of routes and procedures (known as easterly operations) as shown in figure 6.

68. In the existing airspace (during both westerly and easterly operations) outbound flights follow one of several departure routes immediately after take-off and are then vectored (in the shaded blue areas) by controllers as they climb towards the cruise. Inbound flights follow one of several arrival routes that terminate at the airborne holds. Inbound aircraft are then vectored (in the shaded green areas) from the hold or the end of the arrival route onto the intermediate and final approach for landing.

Figure 5: Simple illustration of the current Gatwick airspace and air traffic flows during westerly operations



Figure 6: Simple illustration of the current Gatwick airspace and air traffic flows during easterly operations



Separating the southbound departure routes (above 7,000 ft.) so they do not converge and creating new routes that are deconflicted from the arrival routes (above 7,000 ft.)

70. The airspace in the LAS region is some of the busiest and most complex in the world. The existing routes typically converge at the same points over the ground creating pinch points that constrain capacity and lead to traffic congestion at busy times. The airspace in the LAS region is required to manage frequent interactions between the flows of outbound traffic departing from multiple South East airports in the network **above 7,000 ft.** The LAS region airspace must also handle the interactions between these outbound flows with the flows of arriving traffic **above 7,000 ft.** inbound to multiple South East airports.
71. As part of the proposed LAS deployment the NERL LAS ACP is considering options to deconflict the outbound and inbound flows of traffic in the LAS region **above 7,000 ft.** using PBN routes to optimise the use of the available airspace. These options do not affect current air traffic operations **below 7,000 ft.** at other South East airports (or the ACPs to modernise them). The proposed PBN routes would be positioned **above 7,000 ft.** so they are broadly parallel and safely separated by design (rather than multiple routes converging and creating pinch points as they do today). This is expected to reduce controller vectoring and help to ensure that the de-parture flows heading south cross the arrival flows heading north in a simpler more ordered way, adding capacity and improving environmental performance.
72. The southbound departure routes will also be designed to better align with the southbound flows of departing traffic en route to Europe and beyond, further reducing the controllers' work-load and increasing capacity.

Separating Gatwick departure routes (below 7,000 ft.) and the airborne holds (above 7,000 ft.)

73. Flights inbound to Gatwick Airport currently route towards one of two airborne holds above 7,000 ft. The Gatwick holds are used by controllers to manage the flows of inbound traffic, especially during busy periods. As part of the proposed LAS deployment the NERL LAS ACP is considering options to change the position and orientation of the holds serving Gatwick Airport so that they are better aligned with the main flows of traffic. Changing the position and orientation of the airborne holds also creates opportunities for the Gatwick LAS ACP to redesign some of the departure routes **below 7,000 ft.** to the south of the airport, so they are separated from the holds, offering more opportunity for flights to climb continuously in the most efficient way possible.

Opportunities to optimise southbound Gatwick departure routes to improve environmental performance.

74. Some of Gatwick's southbound departure routes (below 7,000 ft.) currently fly straight ahead for an extended period before turning to the south. These routes create noise impacts in areas that are also affected by inbound flights on final approach when the same runway is used for arrivals. As part of the proposed LAS deployment, the Gatwick LAS ACP is considering redesigning the southbound departure routes to better mitigate noise impacts and CO₂ emissions. These proposals would also enable improved departure separations, potentially offering greater run-way throughput and fewer delays at busy times.

Opportunities to introduce new arrival routes from the holds to final approach

75. The existing airspace in the LAS region (below 7,000 ft.) is not served by defined arrival routes that guide inbound flights from the airborne holds to the final approach to land at Gatwick. In today's operation, aircraft rely on vectoring instructions from controllers leading to high workloads and inefficient flight paths during busy times. As part of the proposed LAS deployment the Gatwick LAS ACP is considering the options to introduce new PBN arrival routes to the south of the airport. If taken forward, the arrival routes would form part of the overall arrangements for managing approaches to Gatwick Airport from the south and would be used alongside vectoring procedures to optimise the environmental performance of the overall LAS design.

Minimising the total volume of Controlled Airspace in the LAS region

76. The proposed LAS deployment includes a comprehensive review of the existing structure of Controlled Airspace affected by the LAS ACPs (both above and below 7,000 ft.). The objective of the review is to minimise the volume of Controlled Airspace, avoid introducing additional Controlled Airspace where possible and if portions of Controlled Airspace are no longer required, incorporate proposals to convert them to uncontrolled airspace (Class G) that is accessible to other airspace users.

Part 4: Process for coordinating the overall LAS design and ACP consultations

As part of this public engagement exercise ACOG is required to demonstrate where trade-offs have been proposed between the LAS ACPs to create their respective designs, provide more information about the cumulative impacts of different design choices (where they may exist), and describe the methods used to calculate them.

Treatment of the Gatwick and NERL ACPs for the proposed LAS deployment

77. Gatwick Airport intends to split its current South East cluster ACP after the acceptance of the Masterplan Iteration 3 for the proposed LAS deployment. The first portion of the split will continue through the airspace change process as ACP 2018-60 with the scope confined to the routes south of the airport below 7,000 ft. The second portion will continue through the process with an updated ID (e.g. ACP 2024-XX) and a linked scope, covering the modernisation of routes to the north of Gatwick below 7,000 ft. The proposal to split the Gatwick ACP is subject to the CAA's approval.
78. It is envisaged that the two Gatwick ACPs will share the same outputs from Stages 1 and 2 of the airspace change process, and progress as separate but linked proposals from Stage 3 onwards. The first portion of the split is expected to move quicker through the airspace change process and deploy sooner than the second because it is simpler, with fewer interdependencies. This will mean that Gatwick Airport will conduct two separate but linked airspace consultations (one for proposals to modernise the routes to the south of the airport as part of LAS and another for modernising the routes to the north as part of a future South East cluster deployment phase).
79. ACP 2020-043 is one of NERL's three aligned ACP proposals (in addition to ACP 2020-044 and ACP 2020-045) to deliver the network changes required in the South East cluster. In Stage 2 of the airspace change process, NERL brought forward a shortlist of options containing network concepts and proposed arrival structures for the proposed South East cluster airspace designs above 7,000 ft. The arrival structures were assessed separately for each South East cluster airport ACP. It is proposed that ACP-2020-043 adopts the scope of the network design options and the arrival structures in the region of airspace covered by the proposed LAS deployment.

Overview of interdependencies, design conflicts and trade-offs

80. The Masterplan Iteration 3 will help sponsors, stakeholders and the CAA understand how the options in each LAS ACP relate to each other and therefore make better informed choices about any design conflicts and proposed trade-offs. In doing so, any proposed trade-offs are to be made transparently with the coordination of ACOG and assessed by the DfT and CAA.
81. Gatwick and NERL each developed and assessed a shortlist of airspace design options for the scope of the LAS ACPs during Stage 2 of the airspace change process. In Stage 3, Gatwick and NERL are working together, in coordination with ACOG, to further refine and integrate their options into an overall design for the proposed LAS deployment. The ACP sponsors must consider their options from a cumulative and collective basis to properly reflect the expected impacts on the overall LAS design.
82. The Masterplan requires the ACP sponsors to identify the interdependencies between their options and examine any specific design conflicts. In this context, an interdependency can be described as an area where the options from the different ACPs are linked together in some way. A design conflict may arise from an interdependency if the options cannot both proceed in their current form. When this happens, the LAS ACP sponsors, coordinated by ACOG, must make joint design choices to modify one or more of the options (or to remove options altogether). In this case, the LAS ACP sponsors will explain in detail any such modifications which will form part of their Stage 3 documentation required by the airspace change process.
83. These choices result in trade-offs being made between the alternative designs, which each create a different mix of positive and negative impacts (noting that safety remains the priority above all else). The phrase 'trade-off' is typically used to refer to the compromises made by ACP sponsors to deliver benefits in one area, at the expense of improvements elsewhere.

Overview of the methods used to calculate cumulative impacts

84. ACOG sets the process that the ACP sponsors apply and the evidence required when identifying interdependencies and proposing trade-offs to resolve any design conflicts. This information is described in the ACOG Cumulative Analysis Framework (CAF) that will be published as part of the Masterplan Iteration 3.
85. The CAF considers where *cumulative* impacts from interdependent design options below 7,000 ft. may affect stakeholders on the ground and the *collective* impacts of the ACPs in a cluster or deployment when they are added together.

86. **Cumulative impacts** only arise when two or more routes from different ACPs are positioned in the same portion of airspace **below 7000 ft.**, creating cumulative adverse effects for people on the ground in a specific location. For example if:

- ACP 1 positions route A in a certain area below 7,000 ft., which results in 5 overflights an hour impacting people in a specific location; and
- ACP 2 positions route B in the same area below 7,000 ft., which results in a further 10 overflights an hour impacting the same location; then
- The cumulative impact generated by ACP 1 and ACP 2 is the total adverse effects of 15 overflights an hour for people on the ground in that location.

87. There is only one airport-sponsored ACP modernising routes below 7,000 ft. in the proposed LAS deployment (the Gatwick LAS ACP). As a result, there are **no cumulative impacts** arising from more than one linked change proposed in this deployment.

88. **Collective impacts** on the other hand, incorporate all the impacts (both positive and negative) of the ACPs contributing to the overall design when they are added together consistently, regardless of their effects on specific stakeholders or locations. In other words, specific areas of cumulative impact within the design can be described as a subset of the overall collective impact. When considering solutions to resolve a design conflict, ACP sponsors examine both cumulative impacts below 7,000 ft. (affecting people in specific locations) and the overall collective impacts.

89. The CAF incorporates the outputs that are available from the Initial Options Appraisals conducted by ACP sponsors on their design options in Stage 2 of the airspace change process, the Full Options Appraisals conducted in Stage 3 and the Final Options Appraisals in Stage 4. This is why the CAF methodology is organised into three parts. The Full Options Appraisals are a more rigorous quantitative analysis of the options than the qualitative Initial Options Appraisals. The Final Options Appraisals update the Full Options Appraisals, taking into account modifications to the design as a result of the consultations.

90. Importantly, the CAF does not tell the ACP sponsors what the outcomes of different conflicts and trade-offs should be. Rather, it steps the sponsors through a three-part method they should follow to ensure they gather the necessary evidence in a robust, coherent and transparent way as the airspace change process progresses. Table 4 summarises the three parts of the CAF methodology.

Table 4: Summary of the three-part CAF methodology

#	Title	Summary
CAF part 1 (linked to the Initial Options Appraisals)	Review of route interdependencies, design conflicts and trade-offs	ACOG coordinates a joint ACP sponsor review of the interdependencies between the shortlisted options from the Initial Options Appraisals to identify design conflicts, consider the potential solutions and where required describe the proposed trade-offs.
CAF part 2 (linked to the Full Options Appraisals)	Full cumulative analysis	ACOG collates the performance data from the individual Full Option Appraisals carried out by the ACP sponsors in the cluster and makes this information available (in the Masterplan Iteration 3) for sponsors to describe in their public consultations.
CAF part 3 (linked to the Final Options Appraisals)	Final cumulative analysis	ACOG collates the performance data from the individual Final Option Appraisals undertaken by the ACP sponsors in the cluster and makes this information available (in the Masterplan Iteration 4) for sponsors to describe in their ACP submissions.

Outputs of the CAF part 1 review for the proposed London Airspace South design

91. Gatwick and NERL conducted the CAF part 1 review for the proposed LAS deployment during the summer of 2023. The review examined the potential interdependencies, design conflicts and trade-offs arising between the Gatwick and NERL LAS ACPs. Both ACP sponsors had conducted an Initial Options Appraisal on a shortlist of design options and completed Stage 2 of the airspace change process.
92. The review was coordinated and recorded by ACOG for inclusion in the Masterplan Iteration 3 for the proposed LAS deployment. It identified three specific interdependencies across the overall LAS design where conflicts may arise between the options developed by the LAS ACPs (i.e. areas where one sponsor's design choice had the potential to affect the options included in the other sponsor's ACP). Once examined in detail, two of the three interdependencies did not result in design conflicts.
93. The CAF part 1 review identified that the third interdependency did generate a design conflict between the options included in the NERL and Gatwick LAS ACPs. The conflict concerns the options to position an airborne hold serving Gatwick arrivals in the NERL LAS ACP above 7,000 ft. and the interdependent departure route options included in the Gatwick LAS ACP below 7,000 ft.
94. ACOG coordinated a qualitative assessment of the potential solutions available to resolve the design conflict, working with subject matter experts from both NERL and Gatwick Airport. The qualitative assessment was sufficient to demonstrate that one solution was clearly preferable, because the chosen design delivered better outcomes than the alternative options when considering the collective impacts across all categories (Noise, CO₂ emissions, Capacity, Airspace Access etc.).
95. More detail about the three interdependencies, the design conflict, the potential solutions considered, and the proposed trade-off will be set out in the Masterplan Iteration 3 for the LAS deployment. Following acceptance of the Masterplan, the LAS ACP sponsors will set out the design conflict, preferred solution and proposed trade-off as part of their coordinated consultations, clearly highlighting them so that stakeholders can comment on the final proposed design.

Coordinated consultation principles for the LAS ACPs

As part of this public engagement exercise ACOG is required to ensure that stakeholders are aware of how they can be notified of the LAS ACP consultations, enabling them to comment on trade-off decisions that will affect them.

96. The consultations at Stage 3 of the airspace change process are the opportunity for stakeholders to provide feedback on the LAS ACPs and comment on the final designs. As part of the consultations, the LAS ACP sponsors will set out the proposed changes in detail, including the outputs of the Full Options Appraisals that provide the evidence for the chosen designs. Stakeholders should be consulted in a coordinated way on the proposed LAS deployment, its collective impacts, design conflicts and trade-offs.
97. ACOG has worked with Gatwick and NERL to develop guiding principles for coordinating the delivery of the LAS ACP consultations. The degree of coordination is largely dependent on the size and nature of the interdependencies between the LAS ACPs and will be explained in detail in the sponsors' consultation strategies that will be set out in their Stage 3 Consult Gateway submissions. The principles are summarised in table 5 and organised into four themes: audience, approach, materials and length, in line with the airspace change process.

Table 5: Principles for coordinating the delivery of the LAS ACP consultations

Theme	Principles for coordinating the LAS ACP consultations
<p>Audience</p>	<p>The ACP sponsors have already conducted audience identification and analysis in Stages 1 and 2 of the airspace change process and engaged with a mix of representative stakeholders. Further analysis of the stakeholder groups that are potentially affected by the London Airspace South ACPs will be drawn from the sponsors' Full Options Appraisals.</p> <p>The ACP sponsors propose to build on this by:</p> <ul style="list-style-type: none"> • Combining their analysis of potentially affected stakeholders to understand where coordination is most important and streamline the delivery of consultation activities • Integrating their shared stakeholder mapping to minimise the risk that they are contacted multiple times by different sponsors and reduce duplications of effort • Identifying and coordinating the use of potential intermediaries, for example local authorities and environmental interest groups.
<p>Approach</p>	<p>The LAS ACP consultations will be undertaken through the CAA's Airspace Change Portal where all the information will be available</p> <p>The sponsors will coordinate how they will present common information about the proposed LAS deployment including the collective impacts and any proposed trade-offs regardless of which consultation stakeholders participate in.</p> <p>The sponsors will coordinate how they consult with shared audiences using a range of channels, including both online and in person activities.</p>
<p>Materials</p>	<p>All common information about the proposed LAS deployment will be developed in coordination by the sponsors to ensure its accuracy, consistency and completeness, including:</p> <ul style="list-style-type: none"> • The context and background to the proposed changes, using consistent language about the airspace modernisation programme • The collective impacts, presented in the same format, with consistent language to explain the methods used to calculate them • Proposed trade-off decisions with questions for feedback • A common glossary for the LAS ACPs covering all technical terms
<p>Length</p>	<p>The airspace change process explains that the accepted standard for the duration of a consultation exercise is 12 weeks. Gatwick and NERL will consider the following points when coordinating their consultation timelines:</p> <ul style="list-style-type: none"> • Any major holidays within the locality of the proposed changes, allowing extra time if appropriate • Ensuring that the same launch date and close date is chosen for both consultations • Review points to enable the coordinated approach to be refined if required to consider responding to any common challenges • Managing responses will be undertaken collaboratively - sponsors will consider the relevance of feedback to the other sponsors and share responses as appropriate. • Working collaboratively so that in the event of an extension being required, all sponsors have considered the impact this will have on their consultation activities

Part 5: How can stakeholders participate in the process?

98. Having considered the information in this document about ACOG's approach to coordinating the Masterplan for the proposed LAS deployment, stakeholders are requested to offer feedback on the questions summarised in table 6.

99. Table 6: (a repeat of table 1) LAS public engagement exercise feedback questions

#	Engagement questions	Relevant part
Q1	Please provide your comments on how the LAS ACPs have been grouped into the first proposed deployment in the South East cluster of the Masterplan.	See Part 1
Q2	Please provide your comments on any possible gaps in, or improvements to, the Masterplan for the proposed LAS deployment.	See Part 2 and Part 3
Q3	Please provide your comments on the principles for coordinating the LAS ACP consultations. The principles are organised into four themes: audience, approach, materials and length.	See Part 4
Q4	Do you understand how to engage in the development of the Masterplan and the LAS ACPs and have your voice heard?	Part 5
Q5	Please provide your comments on the clarity of the engagement information we have provided at this stage. Does the information make sense? If not, what areas require further clarification?	All Parts

What will happen next?

100. Stakeholders will be able to see how their views have been captured and considered during the preparation of the Masterplan Iteration 3 for the proposed LAS deployment. ACOG will analyse the feedback received at the end of the engagement period and produce a response document setting out how the exercise has informed the preparation of the Masterplan. The response document will be published on ACOG's website and submitted to the CAA and DfT alongside the Masterplan Iteration 3 for the proposed LAS deployment in Q2 2024. The Masterplan will then be assessed, and if accepted, published later in 2024. Following acceptance of the Masterplan, Gatwick will split their South East cluster ACP. The LAS ACP sponsors will submit their consultation strategies and draft materials to the CAA for a Consult Gateway review planned in January 2025. If the CAA approves the gateway submissions, the sponsors will launch the LAS ACP consultations on the details of the proposed changes in Spring 2025.

If you would like to remain actively engaged in the development of the proposed LAS deployment and receive notifications about the LAS ACP consultations so that you can comment on the proposed changes and trade-offs that may affect you, please subscribe to the ACOG newsletter [here](#) and visit the CAA Airspace Change Portal [here](#). ACOG will publicise when the LAS ACP consultations are taking place in the newsletter.

Term	Description
Air Navigation Service Provider (ANSP)	An Air Navigation Service Provider is an organisation that provides navigation services to aircraft in the airspace
ACP Sponsor	An ACP Sponsor is the organisation (usually an airport or Air Navigation Service Provider) that owns and develops an Airspace Change Proposal to make a change to the notified airspace design in accordance with the CAA's airspace change process (CAP1616).
Airspace Change Organising group (ACOG)	ACOG is a separate and impartial body set up on the direction of the Department for Transport and Civil Aviation Authority to coordinate the Airspace Change Proposals required to deliver airspace modernisation.
Airspace Change Proposal (ACP)	A proposal (usually from an airport or air navigation service provider) to change the design of UK airspace, in line with the CAA's CAP1616 guidance.
Airspace Modernisation Strategy (AMS)	The AMS sets out the 'ends, ways and means' of modernising airspace through a series of 'delivery elements' for the future design, technology and operations of airspace.
ATS route	An ATS route is a specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services.
Civil Aviation Authority (CAA)	The Civil Aviation Authority (CAA) is UK's specialist aviation regulator responsible for the regulation of aviation safety in the UK, determining policy for the use of airspace, the economic regulation of designated airports and ANSPs, the licensing and financial fitness of airlines and the management of the ATOL financial protection scheme for holidaymakers. The CAA co-sponsor airspace modernisation. CAA is a public corporation of the Department for Transport.
Collective impact	Collective impacts incorporate all the impacts (both positive and negative) of the ACPs contributing to the overall design when they are added together consistently, regardless of their effects on specific stakeholders or locations.
Conflict	A conflict can be described as two or more ACPs that cannot both proceed in their proposed form because their design options are not compatible.
Controlled airspace	Controlled Airspace (CAS) is the defined dimensions within which air traffic control service is provided in accordance with the airspace classification.
Cumulative impact	Cumulative impacts are where two or more routes from different ACPs are positioned in the same portion of the airspace below 7000ft, creating culminative adverse effects for people on the ground in a specific location.
Cumulative Analysis Framework (CAF)	The CAF considers where cumulative impacts from the interdependent design options from conflicting ACPs below 7,000ft may affect stakeholders on the ground and the collective impacts of all the ACPs in a cluster when they are added together. The CAF incorporates the outputs that are available from the Initial Options Appraisals conducted by ACP sponsors on their design options in Stage 2 of the CAP1616 process, the Full Options Appraisals conducted in Stage 3 and the Final Options Appraisals in Stage 4.
Department for Transport (DfT)	The Department for Transport (DfT) along with the Civil Aviation Authority (CAA) co-sponsor airspace modernisation and oversee ACOG's work. The Department for Transport (DfT) work with agencies and partners to support the transport network that helps the UK's businesses and gets people and goods travelling around the country. DfT is a ministerial department, supported by 24 agencies and public bodies.

Term	Description
Design Principle	Design Principles encompass the objectives that the airport seeks to achieve through an airspace change, including safety, policy, environmental and operational factors. Design Principles are set through engagement with stakeholders at Stage 1 of the process, and they guide the airspace designers to create suitable flight path options at Stage 2.
Hold/holding stack	A published airborne hold, sometimes referred to as a holding stack, is a structure for arriving aircraft to fly in a racetrack pattern at assigned altitudes and speeds waiting for instructions from controllers to begin their approach for landing.
Habitats Regulation assessment (HRA)	Habitats Regulation assessment (HRA) is a process that determines whether or not development plans could negatively impact local plans on a recognised protected European site beyond reasonable scientific doubt. This is required by all competent authorities.
Interdependency	An interdependency can be described as two or more ACPs that are linked together in some way. For example, there is a potential conflict in their design options or there is a potential cumulative impact on stakeholders on the ground.
London Airspace South	London Airspace South, the first phase of airspace modernisation proposed for deployment in the South East of England.
NATS	NATS is the UK's main navigation service provider for en route operations and is sponsoring airspace change proposals to modernise the network that sits above 7000ft.
NATS En-Route Plc (NERL)	NATS En-Route Plc (NERL) provides Air Traffic Control services to aircraft flying in airspace above 7,000 feet over the UK and eastern part of the North Atlantic.
The Masterplan	The Masterplan, developed by ACOG, is the single coordinated implementation plan for the ACPs needed to modernise airspace up to 2040.
Performance-based Navigation (PBN)	Performance-based Navigation (PBN) improves the accuracy of where aircraft fly by using satellite technology rather than ground navigation beacons. It is a cornerstone of airspace modernisation as it decouples routes from the location of the beacons and improves aircraft track keeping.
Regional cluster	The Masterplan ACPs are organised into four regional clusters based on the interdependencies between the ACPs and analysis into areas of the existing airspace where inefficiencies and delays are expected to worsen as traffic levels grow.
Route	A specified lateral track and vertical profile designed for channelling the flow of traffic as necessary for the provision of air traffic services.
Strategic environmental assessment (SEA)	A Strategic environmental assessment (SEA) is a systematic process for identifying, reporting, proposing mitigation measures and monitoring environmental effects of plans, programmes and strategies.
Terminal Control Area/ Terminal Manoeuvring Area (TMA)	Terminal Control Area is designated area of controlled airspace surrounding a major airport or airports where there is a high volume of traffic.
Trade off	A trade-off is the decision to resolve a conflict and could be between two or more sponsors of separate ACPs, or between two or more objectives (such as achieving noise reduction and achieving fuel efficiency improvements).

Term	Description
Uncontrolled airspace	Uncontrolled airspace is airspace where aircraft are able to fly freely without being constrained by instructions in routeing or by air traffic control, although they may request information or a service.
Vector	A vector is a specific instruction given by a controller to a pilot to fly a particular compass heading and altitude to keep aircraft safely separated and maintain an expeditious flow of traffic.
