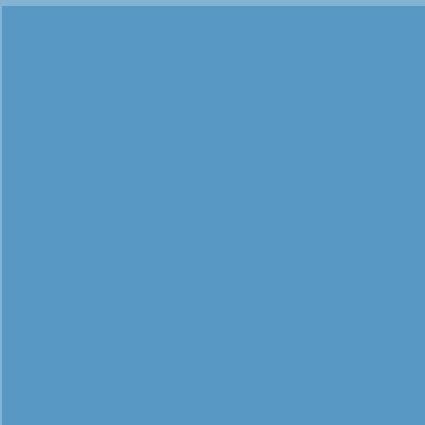
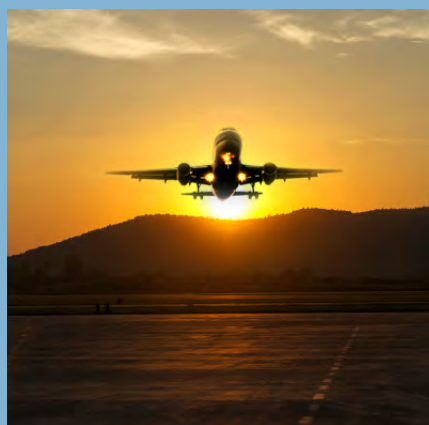
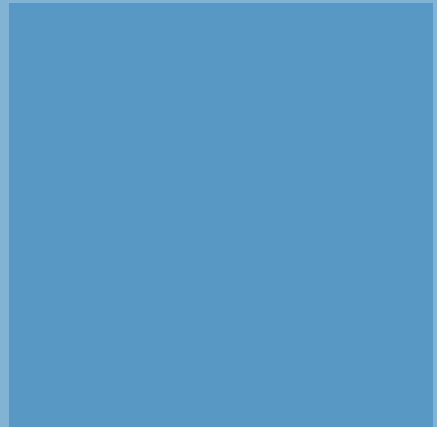
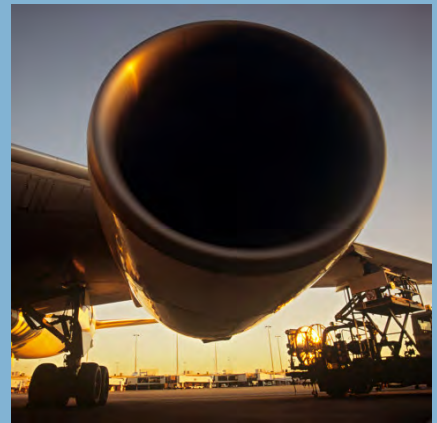
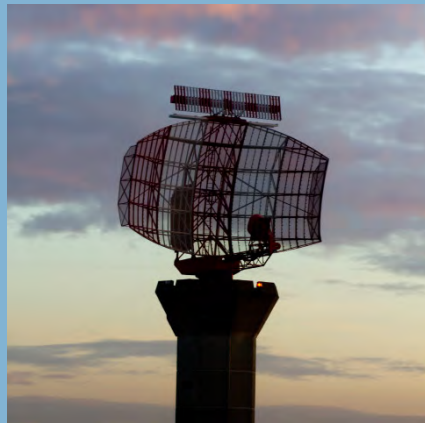


April 2014

London Airspace Management Programme (LAMP)

Stakeholder Organisations and General Public Consultation

Final Report



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Executive summary

Consultation overview

The London Airspace Consultation (LAC), part of the wider London Airspace Management Programme (LAMP), was scheduled for a period of 14 weeks, and ran from 15 October 2013 to 21 January 2014.

The supporting Consultation documentation described the airspace swathes within which potential corridors might be placed, defining potential impacts, volumes of air traffic, height and noise, focussing on areas of routes at varying altitudes from 0-4,000ft, 4,000-7,000ft and above 7,000ft.

The Consultation sought views on nine areas; in particular NATS and Gatwick Airport Ltd wanted to understand respondents' views on:

- Departure route changes to make best use of Gatwick Airport Runway 26;
- Respite Routes for Gatwick Airport below 7,000ft;
- Places or areas that may need special consideration in the ongoing design process;
- Balancing local impact against increased CO₂ emissions;
- Point Merge proposals for Gatwick, London City (shared with London Biggin Hill) airports;
- Accommodating non-compliant operators;
- Point Merge fuelling policy;
- Fuel burn efficiency for specific routes;
- Controlled airspace boundaries; and
- Any additional information respondents felt was of importance to the Consultation.

The Consultation asked focussed open questions to ascertain as much information and feedback as possible.

Stakeholder organisations across a spectrum of sectors were encouraged to engage with and respond to the Consultation, including:

- Local Government;
- Specialist interest groups;
- Transport industry bodies; and
- Aviation sectors (e.g. airport operators and airlines).

The general public was also actively invited to participate in and respond to the Consultation and so the Consultation material was designed to be as transparent as possible for a non-specialist audience whilst still providing detailed information for those who wished to see it.

The Consultation was owned and managed by NATS and Gatwick Airport Ltd who contracted a number of private organisations to perform specific roles. BAE Systems Applied Intelligence (formerly known as Detica Ltd) and Ipsos MORI partnered to form the External Support Team (EST), which was contracted to prepare and manage the Consultation process. This remit included the data capture and analysis of all Consultation responses received before the closing date. The consultation process followed the requirements documented in the CAA's guidance on airspace change (CAP725) and was agreed with the CAA prior to launch.

Purpose of the Final Report document

This report was compiled by the EST to provide an independent and objective analysis of the Consultation's responses. The EST applied an impartial approach to the capture of the Consultation responses, the analysis and reporting of the findings. The report excludes interpretation and opinion, instead reporting all views and statements as received from the individual respondents.

The report provides a detailed themed analysis of the responses received to the subject areas posed in the 11 Consultation questions. It should be noted that while many of the responses directly answered the Consultation questions, there were also a large number of more general comments received. For the purpose of completeness, this report also reflects these additional comments.

NATS/GAL will take the findings presented in this report into consideration in the ongoing development of the airspace design. This process will be documented in a follow-on feedback report to be published by NATS and GAL later this year; this will also describe the next steps in the airspace change process. For further details of the feedback process see:

www.londonairspaceconsultation.co.uk

Summary analysis

The total volume of responses received to the Consultation within the deadlines was 883 with:

- 170 stakeholders from stakeholder organisations; and
- 713 members of the general public.

The Consultation questions covered a range of subject areas and therefore the responses varied in terms of volume and originator depending on the question being answered.

Consultation Question – making best use of Gatwick Airport Runway 26

This question asked to what extent respondents supported or opposed the proposal to realign Gatwick Runway 26 departures routes below 4,000ft in order to help make better use of the existing runway.

There was a fairly even split of stakeholder organisations who either supported or opposed the proposals. Those in support said that the proposals were sensible and would improve efficiencies of the runway, as well as permitting better use of the navigation capabilities of the aircraft. Others said that noise would be mitigated due to uninterrupted climbs.

Those stakeholder organisations who were opposed voiced concerns about an increase in air traffic in the local area, the impact of noise on protected areas, on students' ability to learn, and impacts on tourist areas.

The majority of the public responses to this question opposed the proposal; whilst the comments in support said that there would be a positive impact on noise, efficiencies in air traffic and that the proposals may negate the need for a second runway at Gatwick. Those opposing the proposal, offered a large number of comments about the adverse impact of noise on, for example, new areas not previously overflown and that increased noise will impact on National Trust properties, rural areas and the countryside more generally. Other negative comments related to quality of life issues (including people's health and well-being) as well as concerns over an increase in air traffic and safety risks associated with increased air traffic in an already busy airspace. Pollution was also raised as a concern in addition to comments about route realignment harming the tranquillity of protected areas, Areas of Outstanding Natural Beauty (AONBs) and Sites of Special Scientific Interest (SSSIs).

Consultation Question – respite routes for Gatwick Airport

This question was regarding a proposal for extra routes to enable periods of respite and would mean implementing two routes in a particular direction instead of one which would increase the geographical area regularly exposed to noise.

Stakeholder organisations responding to this question were broadly evenly split between supporting and opposing the proposals for respite routes below 4,000ft and between 4,000ft-7,000ft. Those who supported the proposals said that the system would manage noise more efficiently and that the burden of noise would be spread out. Those who opposed, among others raised concerns that noise would be spread over a wider area and that the number of people affected would be increased, as well as saying that there was a lack of scientific evidence into the effect of noise disturbance.

Those members of the public who supported both height proposals narrowly outnumbered those who were opposed.

Consultation Question – places or areas that may need special consideration

This question asked respondents to indicate places or areas that may need special consideration in the ongoing airspace design process.

A large number of places and areas were mentioned by those stakeholder organisations who responded. Areas of Kent were mentioned most frequently followed by locations in Suffolk. A range of reasons were provided but the most frequently mentioned were that areas were protected or sensitive, concerns about the effects on tranquillity, general concerns about noise issues and impacts on cultural heritage.

Other less frequently cited reasons included concerns about visual impact, impact on businesses and concerns about emissions and pollution as well as impact on the quality of life.

Members of the public also mentioned a large number of places for consideration due to the impact from noise and visual intrusion, but also cited pollution, emissions, the community, the environment and quality of life, as other areas impacted by the proposals.

Consultation Question – respite criteria

This question asked about geographic and time criteria for respite routes should they be adopted.

As with the previous question on areas which may need special consideration, many different areas were discussed with locations in Kent attracting the most mentions. From those stakeholder organisations who responded, no individual reason stood out but comments included that tourist attractions should be avoided where possible, that historic houses require tranquillity and that the location of AONBs and schools should also be taken into account and considered.

Many different areas were mentioned for consideration by the members of the public who responded along with a number of comments about the criteria for altering routes for respite including an equitable spread of flight paths, that there should be no increase in night flights or early morning flights, to keep flights at altitude for longer and that the frequency of flights should not be increased. Other related comments included concerns about noise and pollution in terms of the impact of fuel burn and CO₂ emissions.

Consultation Question – flight paths over environmentally sensitive areas

This question asked whether minimising overflight of sensitive areas by flying a longer route around them, or flying a shorter direct route overhead to minimise fuel burn and CO₂ emissions, should be the preferred method of operating.

Of those stakeholder organisations that responded, the majority said that flying longer routes should generally have greater precedence than flying overhead on shorter routes. The most common reason to give precedence was that environmentally sensitive areas should simply be avoided, the effect of noise and visual disturbance, and that heavily populated areas should qualify as environmentally sensitive and so should also be avoided.

Those who supported direct flights tended to be airlines who favoured the possibility of reducing fuel and emissions.

Most members of the public who responded said that avoidance of environmentally sensitive areas should always come first. When considering flights over sensitive areas, the most commonly cited factor was air traffic, including that flight paths should avoid urban areas, and that aircraft altitudes would have a noise impact. Other comments related to concerns about the frequency and timings of flights, including that there were too many night flights or that they should be reduced or stopped.

Far fewer members of the public said that direct flights should take priority.

Consultation Question – Point Merge

This question covered the proposal to change the way aircraft use airspace by developing an approach for managing aircraft arrivals based on a method called Point Merge, using arcs to delay aircraft when necessary to minimise use of holding stacks/vectoring.

The majority of stakeholder organisations responding said they supported the proposed Point Merge systems for both Gatwick and London City Airports. Supportive comments mentioned an improvement in efficiency and emissions, overall performance and an overall reduction in delays. Those who voiced concerns mentioned the additional fuel that might be required to fly the Point Merge arcs or that the proposals would lead to higher concentrations of flights.

More members of the public opposed the Point Merge proposal for Gatwick Airport but there was more support for the proposal at London City Airport. Those who responded positively said that the system was a good idea and that it would reduce the noise for those under the flight path. There was a greater range of opposing comments including that flight paths would be more concentrated, that more aircraft would be flying at lower altitudes, or that there would, in general, be an increase in the amount of air traffic. Noise and the potential impact on businesses and the local economy, as well as quality of life were also included as reasons to oppose the system.

Consultation Question – accommodation of non-compliant operators

This question sought responses about the extent to which aircraft that are non-compliant with the RNAV1 operating standard should be accommodated.

The majority of stakeholder organisations responding to this question said that non-compliant operators should not be accommodated at all and only a small number of respondents said they should be accommodated without any restrictions. The most commonly favoured restriction was one with a potential delay followed by restricted route availability.

Similarly, the majority of the members of the public responding to this question said that non-compliant operators should not be accommodated and other comments received said that there should be a timeline for the exclusion of all non-compliant aircraft or that a deadline should be set for compliance to be achieved.

Consultation Question – Point Merge Fuelling Policy

This question asked about a fuelling policy for flying Point Merge arcs and whether fuel should be part of the contingency fuel uplift or the flight plannable route fuel uplift.

There were relatively few responses to this question from either stakeholder organisations or the general public. Stakeholders were quite evenly split between saying that the Point Merge fuel should be part of the contingency fuel or part of the flight plannable route fuel uplift. The most common response was that they did not know and that a fuelling policy for Point Merge would be required. Other comments received said that fuelling plans would be for the entire length of the Point Merge arc to be flown with potential inefficiencies arising should a lesser part of the arc be flown.

Similarly, most members of the public who responded said that they did not know what the Point Merge fuelling policy should be. Of those that did respond, more said that the fuelling should be part of the flight plannable route fuel uplift than contingency. Other comments received mentioned that the question was too complicated or confusing.

Consultation Question – Fuel Burn

This question covered a proposal seeking to reduce overall fuel burn across the fleet by as much as possible even if it means routes may be less fuel efficient as a consequence,

Most respondents to this question provided conditional support to the proposals if fuel emissions were reduced. Other comments mentioned that environmentally sensitive areas would need to be protected and that the issue of fuel and system efficiency would need to be viewed holistically.

Consultation Question – controlled airspace boundaries

This question asked for responses to proposals for lowering controlled airspace to accommodate arrival flows and to what extent the proposed changes might affect General Aviation (GA) operations.

Relatively few responses were received to this question particularly from the general public. Whilst there were no common or frequently occurring comments, those that did respond said that the proposed lowering of controlled airspace boundaries would have a large impact on GA operations with concerns voiced about the impact on Visual Flight Rules (VFR) operations, on the level of noise and fuel burn. Others objected to any reclassification of airspace and if required should be to Class C or Class D airspace, i.e. a less restrictive classification with more flexibility for GA operations.

Consultation Question – general comments

Being general in nature, this section offered respondents the opportunity to provide responses to the Consultation which were more general in nature or which were outside the scope of the Consultation.

The comments and responses were wide-ranging and included comments on the proposals themselves both in terms of being supportive or opposed to the proposals as well as saying that changes are overdue and necessary. Other comments included that more research is needed to understand the cumulative impact of the various phases of the proposed programme of change. Similarly, taking advantage of modern technology to provide optimal benefits for both the environment, business and aviation should be a key focus.

There were also comments on the Consultation or the Consultation process with a common theme being that the Consultation was too premature, and that it would be better to wait for the outcome of the Airports Commission report on runway capacity in the south east. Also, comments were made saying that further consultations are required, or that not enough information was available as part of the Consultation to be able to provide an informed response.

The subject of compensation was also raised saying that affected residents and businesses should be compensated.

A number of responses discussed airport expansion as part of their answer with the most common relating to a second runway at Gatwick and references to the London City Airport planning application.

Coverage maps

A series of interactive maps has been compiled to show a geographical representation of response coverage for each of the Consultation questions. The maps can be found on the Consultation website at: www.londonairspaceconsultation.co.uk

1 Methodology

Background

The London Airspace Consultation (LAC) is the first stage in a wider programme of proposed changes to deliver the UK's Future Airspace Strategy (FAS), developed by the Civil Aviation Authority (CAA) with the support of the aviation industry.

Implementing the FAS requires change throughout UK airspace – the network of routes that connect the UK's airports with one another and neighbouring states, are managed by NATS under a licence issued by the CAA. For this reason NATS is working on an extensive programme of modernisation centred on London's airports and the surrounding airspace, beyond the southern and eastern coasts, and as far northwest as the Midlands. The programme is referred to as the London Airspace Management Programme (LAMP). The changes being presented in this Consultation cover the first phase of LAMP which focusses on the network connections for Gatwick and London City airports.

In addition to changes to the network of routes, the FAS requires changes to the low altitude routes into and out of major airports; these low level routes are the responsibility of the airports in question. For this reason NATS collaborates with airports in the design process where appropriate.

NATS and Gatwick Airport Ltd have undertaken the LAC in partnership, covering both network and low altitude changes in one consultation. Note that low altitude changes (below 4,000ft) for London City airport are largely independent of the network changes being progressed by NATS, therefore whilst NATS and London City continue to work closely together on airspace issues, the airport was not a partner in this consultation exercise.

LAC covered proposed changes to the following:

- Arrival routes for Gatwick and London City airports above 4,000ft;
- Some departure routes at Gatwick and London City airports to complement the changes to arrivals above 4,000ft;
- All routes below 4,000ft in the immediate vicinity of Gatwick Airport (but not at London City Airport); and
- Changes to some routes for traffic to/from London Biggin Hill and London Southend airports that share some of the same airspace as London City Airport.

The process being followed by NATS and Gatwick Airport Ltd, including this Consultation, is in line with the CAA's CAP 725 airspace change guidance. As part of this process NATS and Gatwick Airport have liaised with the CAA at all stages to ensure that the strategy and execution of the design and consultation processes are in line with this guidance.

Media coverage

Prior to start of the Consultation there was media and press coverage to provide information on the Consultation and how to respond. The Consultation was available via the NATS and Gatwick Airport websites (www.nats.co.uk and www.gatwickairport.com) with a link to the dedicated LAC website (www.londonairspaceconsultation.co.uk). Media outreach continued through the Consultation period, with press releases at the midpoint, and further press releases issued and advertisements placed in the final month.

In total there were 156 media coverage items through the Consultation (either business to consumer that targeted a public audience, or business to business through trade publications that targeted a specific audience) which were split as follows:

- Broadcast - a total of 45 items broken down as:
 - 12 TV items;
 - 33 radio items;
- Print - 52 printed items; and
- Online - 59 items.

The regions covered by the media activity included Essex, Hampshire, Kent, Suffolk, Surrey and Sussex.

Social media coverage

There was traffic about the Consultation on social media sites where posts primarily alerted people to blogs or Consultation timings.

The Consultation website had two embedded YouTube videos, 'Making Airspace Changes' and 'How Airspace Works', which had a total of 2,466 views and 9,667 minutes watched.

The business networking site, LinkedIn, was also active where posts were shown to 247,891 people who in turn 'clicked through' to Consultation material resulting in 501 engagements (primarily 'Likes' supported by a small number of comments).

Activity on the social networking site, Facebook, was limited to Facebook Posts, totalling 11 which resulted in a further 113 'Shares', 'Likes' and 'Comments'.

As with Facebook, Consultation activity on another social networking site, Twitter, was also limited, resulting in 168 'Tweets' which themselves resulted in an additional 145 'favourites' being saved.¹

Consultation web presence

The Consultation had a total of 12,522 unique² visitors to the LAC website during the course of the Consultation itself. The top five visitor countries were:

- UK;
- USA;
- Germany;
- France; and
- Australia.

Similarly, the towns and cities showing most interest in the Consultation's website were:

- London;
- Brighton;
- Crawley;
- Royal Tunbridge Wells;
- Guildford;
- Hastings; and
- Horley.

¹ None of the unstructured social media responses were included in the coding activity.

² This figure excludes 1,433 visits that were assumed to be accessing the Consultation web site for demonstration/checking purposes.

As expected there was a peak of interest at the start of the Consultation in October 2013, which then reduced over time but increased as a result of additional media coverage at approximately the Consultation's mid-point in December 2013. Traffic then reduced over the Christmas period and then increased significantly just prior to the Consultation closing date of 21 January 2014.

Briefings

A number of briefings were held as part of the preparations for the start of the Consultation and also during its course:

- Parliamentary briefings:
 - Portcullis House – 8 October 2013;
 - Portcullis House – 9 October 2013; and
 - Portcullis House – 8 January 2014.
- Collective briefings:
 - Gatwick Consultative Committee (GATCOM) (Gatwick) – 17 October 2013;
 - Councils briefing (London) – 5 November 2013;
 - Department for Transport External Oversight Group (London) – 19 November 2013;
 - Councils briefing (Gatwick) – 28 November 2013;
 - Councils briefing (Suffolk) – 9 December 2013;
 - Councils briefing (Maidstone) – 17 December 2013; and
 - Noise and Track Monitoring Advisory Group (NATMAG) briefing (Gatwick) – 13 January 2014.

A number of briefings on the LAC were also conducted as part of the agendas for standard (routine quarterly meetings), of the following committees:

- GATCOM – 17 October 2013;
- Flight Operations and Safety Committee (FLOPSC) – 27 November 2013;
- NATMAG – 28 November 2013; and
- Additional GATCOM Steering Group meeting on the Consultation strategy – 13 December 2013.

Two 'design sessions' with key stakeholder organisations were also held as follows:

- NATS/GAL/NATMAG Design Meeting – 13 January 2014; and
- Airline Requirements Capture from Point Merge – 29 November 2013.

GAL conducted a series of separate briefings to parish councils as follows:

- Felbridge Parish Council – 8 January 2014;
- Nutfield Parish Council – 9 January 2014; and
- Dormansland Parish Council – 15 January 2014.

The Consultation communications were part of an ongoing process of engaging with key stakeholder organisations in the airspace development process. This included two council briefings held on 14 September 2012 and 23 July 2013 in central London and a number of engagements with aviation stakeholder organisations, either specifically focussed on LAMP or as part of FAS engagements.

Consultation process

The Consultation opened on 15 October 2013 and closed at midnight on 21 January 2014. During this time responses to the Consultation were received via an online Response Form and also via free-text letters and e-mails (referred to as whitemail).

On receipt by the EST, each response was assigned a unique ten digit identifier and was then logged and stored securely. In order to analyse the responses received to the Consultation and allow effective comparisons of responses, the analysis team identified response themes from which a number of 'codeframes' were developed to facilitate a detailed analysis of the Consultation responses.

The analysis performed on this database was focussed on extracting information relevant to each of the Consultation questions; the results of this analysis are presented in this report.

Responding to the Consultation

Respondents were able to respond to the Consultation via the primary method of an online Response Form via a link on the LAC website. To facilitate ease of use, the online Response Form contained automatic routing to those sections of the form that were of direct relevance or interest to the participant (based on their response to an initial question about their areas of interest).

The EST hosted the online Response Form on a secure website. The website and Response Form went live as scheduled at midnight on 14/15 October 2013 and closed at 2359 on 21 January 2014, a total of 14 weeks.

Respondents could also respond to the Consultation with their own free-text letters, e-mails and reports. A dedicated Freepost address was provided to support the sending of postal responses, and a standard e-mail address was provided for those wishing to respond electronically, but not via the online Response Form.

Respondents were directed to send their responses to the dedicated postal and e-mail addresses advertised on the Consultation materials and website. However, a number of responses were sent directly to NATS or other addresses. These responses were forwarded to NATS, GAL and the EST and were then processed in the same way as all other responses.

Cut-off date for receipt of responses

The Consultation ran for 14 weeks from 15 October 2013 to 21 January 2014. Any responses dated and received within these dates were treated as valid consultation responses.

In addition, to make allowance for any potential delays within e-mail systems, all e-mailed responses time stamped as either on 21 January 2014 or before would be accepted as 'on time'.

To allow for time taken by the postal system, all postal responses with postmarks that were dated on or before 21 January 2014, were also accepted up to five working days after the final day of the Consultation, namely 28 January 2014.

Late responses

Responses that were received after the above deadline and therefore outside of the Consultation period, were logged and passed on to the NATS/GAL design teams, but have not been analysed for this Consultation report.

Ten responses were received after the cut-off date and were logged and stored as stated. One of these responses was subsequently formally withdrawn by the sender.

Scope of analysis

This report provides a thorough analysis of the answers and key points raised by respondents during the Consultation. The responses and analysis sections of this report are broken down as follows:

- **Section 2 – Volume, types and locations of responses.** This provides a high level summary of the volume, types and locations of responses, and the channels through which the responses were received; and
- **Sections 3 to 13 – Question by question analysis of responses.** These sections provide a detailed quantitative and qualitative analysis of responses received from both stakeholder organisation groups and the general public.

Given the nature of the Consultation and the response structure, it was inevitable that some respondents did not reply in a structured way to the individual questions posed in the Response Form.

A number of respondents' responses took the form of free-text/e-mail (whitemail) responses without any reference to a particular question number, even though some of the information may have been relevant to one or more of the Consultation questions. Similarly, other respondents provided a response under a particular question number without actually answering the question posed, providing general comments instead. The analysis of the Consultation response sought to collate all relevant information under the appropriate questions/subject areas.

2 Volume, types and locations of responses

Responses in summary

In total, **883 responses** were received within the Consultation period. Responses were received via a number of different response channels, the breakdown of which is set out in Table 2.1 below:

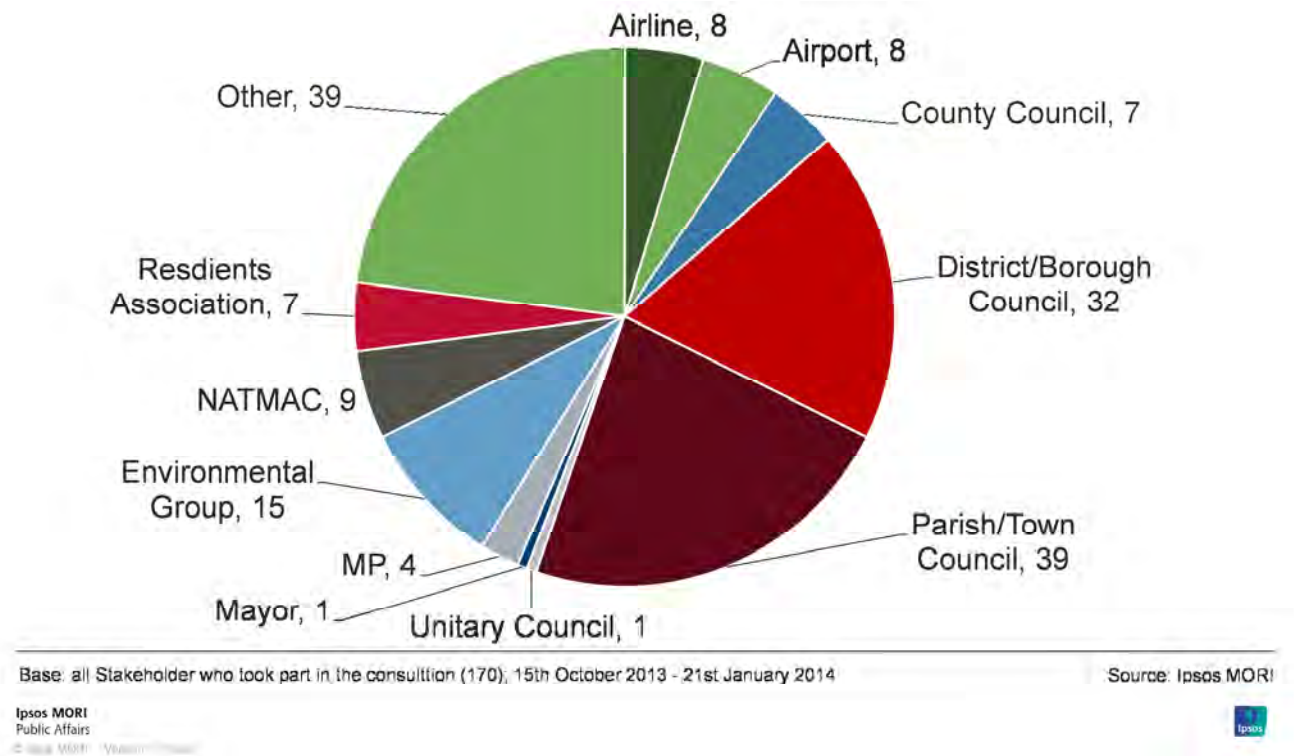
Table 2.1 Channels used by respondents to reply to the Consultation			Count
Stakeholder organisation responses (170)	<i>Online response form</i>	Responses submitted via the response form on the Consultation website	60
	<i>E-mails sent to the Consultation address</i>	Responses submitted by e-mail not using the response form structure (letters, reports etc)	103
	<i>Whitemail sent to the Consultation postal address</i>	Responses submitted by post not using the response form structure (letters, postcards, reports etc)	7
General public responses (713)	<i>Online response form</i>	Responses submitted via the response form on the Consultation website	602
	<i>E-mails sent to the Consultation address</i>	Responses submitted by e-mail not using the response form structure (letters, reports etc)	90
	<i>Whitemail sent to the Consultation postal address</i>	Responses submitted by post not using the response form structure (letters, postcards, reports etc)	21
Total			883

At the data processing stage, a number of duplicate responses were identified, where an individual or organisation had submitted more than one identical response via the same response channel. Where these instances were identified, the duplicate was removed from the final dataset and excluded from the final tally of responses. Responses continued to come in after the close of the Consultation – these responses have been classified as ‘late returns’. Each of these responses has been logged and forwarded on to NATS/GAL for their consideration. As of 10 March 2014, a total of 10 late responses have been received since the close of the Consultation period. A total of eight responses were received by e-mail and two via post.

Stakeholder organisations

The number of stakeholder organisations who responded to the Consultation was 170 and were from the following categories as shown in Figure 2.1 below:

Figure 2.1 Categorisation of Stakeholder Responses



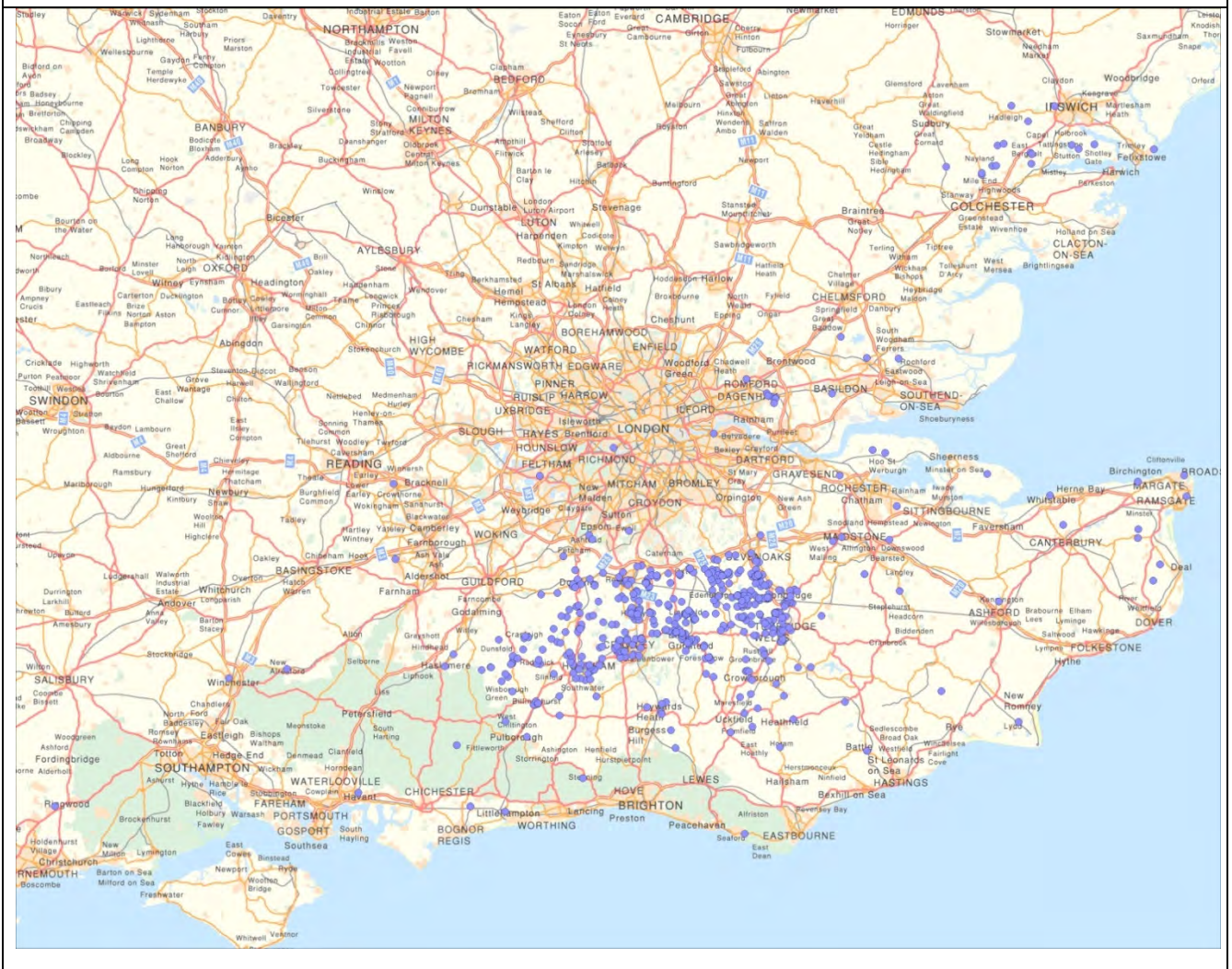
A full list of stakeholder organisations that responded to the Consultation can be found in Appendix A.

General public

The total number of responses received from members of the general public was 713.

Figure 2.2 below shows the geographical distribution of general public responses. Please note a map for stakeholder organisations has not been provided because the responses have not necessarily come from an address relating to the areas of interest (e.g. council responses come from council offices but may reference an area of interest some distance away). Stakeholder organisation postcodes are therefore not necessarily reflective of consultation issues, nor are they directly comparable.

The map shows responses were received from throughout the Consultation area, with a high response rate in the vicinity of Gatwick.

Figure 2.2 General public respondents by postcode

Bespoke responses

Some respondents chose not to use the response form and sent in bespoke written comments via letter or e-mail. Respondents using the online response form were directed to the relevant sections of the Consultation document and answered specific questions about the proposals being consulted upon. It is not known to what extent respondents submitting bespoke letters or e-mails read the Consultation document or whether they were aware of the wording of the questions on the Consultation proposals. Some of these responses made specific reference to the Consultation questions, but many did not. The figures provided in the text of the main body of this report combine comments from response forms and letters/e-mails. They take into account those responses which may have been providing a more general response as opposed to responding to one of the actual Consultation questions.

Analysis of responses

Analysis of the responses that lacked reference to specific questions and/or to the open-ended questions required coding. Coding is the process by which responses are matched against themes (referred to as codes). Each of these codes represents a discrete theme or viewpoint raised by a number of respondents in their verbatim responses. The codes were identified through analysis of the complete set of responses.

Allocating responses to these codes enables individual content to be classified and tabulated. The complete codeframe is comprehensive in representing the whole range of themes or viewpoints given in the responses, and was continually developed throughout the Consultation period as further responses were coded to ensure that new themes or viewpoints that emerged were captured and no nuances lost. Any one response may have had a number of different codes applied to it if a participant made more than one point, or addressed a number of different themes or viewpoints.

The coding and data handling procedures are set out in more detail in Appendix B and the list of codes against which responses were classified (together with the number of responses falling into each) is given in the separately published Appendix D (available at www.londonairspaceconsultation.co.uk). Separate codeframes were developed for analysing both the online response form and the free text whitemail responses (i.e. the unstructured letters/e-mails).

Throughout the main body of this report, analysis of the Consultation responses received was based upon these codeframes. It should be noted that the coding of responses ensured that broadly similar responses were not sub-divided too finely. Some of the responses were to some extent ambiguous and intended to make any one of a number of related but distinct points.

In each response chapter, reporting is based on an analysis of key themes, whilst ensuring that important points (even if just put forward by one or a few individuals) are taken into account and reported accordingly.

Interpreting findings

Two key points need to be made when considering the analysis of responses to this Consultation.

Firstly, it should be noted that the analysis was primarily qualitative in nature as the Consultation questions were mainly open, free-text response questions which were asked alongside a number of short pre-coded questions that identified respondent sentiment.

As this was a qualitative thematic analysis, the numbers (where reported on) cannot be treated as the complete picture. Where numbers are provided (e.g. the number of respondents who say whether they support or oppose the proposal airspace changes), these need to be treated with appropriate caution. Many respondents have not expressed support or opposition or have not commented on specific issues raised by other respondents. Where this is the case, it is not possible to infer levels of support or opposition or what their views might be. Some responses were not related specifically to a geographical area and were interpreted based on the postcode of the respondents.

Secondly, it is important to bear in mind that this report can only document the responses given to the Consultation and cannot be extrapolated to measure how widely particular views and opinions are held. Responses were received from a wide range of individuals and organisations. These included very long, detailed technical responses from aviation industry experts and local authorities as well as much shorter, more personal responses from members of the general public.

The Consultation does not comprise the responses of representative samples of stakeholder organisations, the general public, or indeed other interested parties. There can be a tendency for responses to come from those more likely to consider themselves affected, particularly negatively, and more motivated to express their views.

It must be understood, therefore, that the Consultation as reflected through the report can only catalogue the various opinions of stakeholder organisations and members of the public who have chosen to respond to the proposals. It should not be taken as a definitive statement of public and business opinion.

NATS/GAL will consider all the information presented herein during the ongoing design process. Furthermore, feedback to the stakeholder organisations will be provided by NATS/GAL as the design matures. In particular this will include a description of how the issues identified in the report here have been considered through the design process, alongside the generic design requirements such

as safety, operational efficiency and objectives relating to the FAS and government guidance on environmental priorities.

Note that questions 1-10 on the consultation form related to personal information which is not covered in this report, hence the question numbers discussed in the remainder of this report start at 11.

3 Analysis of Consultation Question – Making best use of Gatwick Airport Runway 26

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 11 in the Consultation document.

Question 11 wording

PART A (CLOSED QUESTION):

Gatwick Airport is seeking to realign all runway 26 departure routes below 4,000 feet to help make best use of the existing runway. Please indicate the extent to which you support or oppose this objective to realign all Runway 26 departure routes below 4,000ft to help make best use of the existing Runway.

PART B (OPEN QUESTION)

Please state the reasons why you support or oppose this objective to realign all Gatwick Airport Runway 26 departure routes below 4,000ft to help make best use of the existing runway.

a) Stakeholder organisation responses

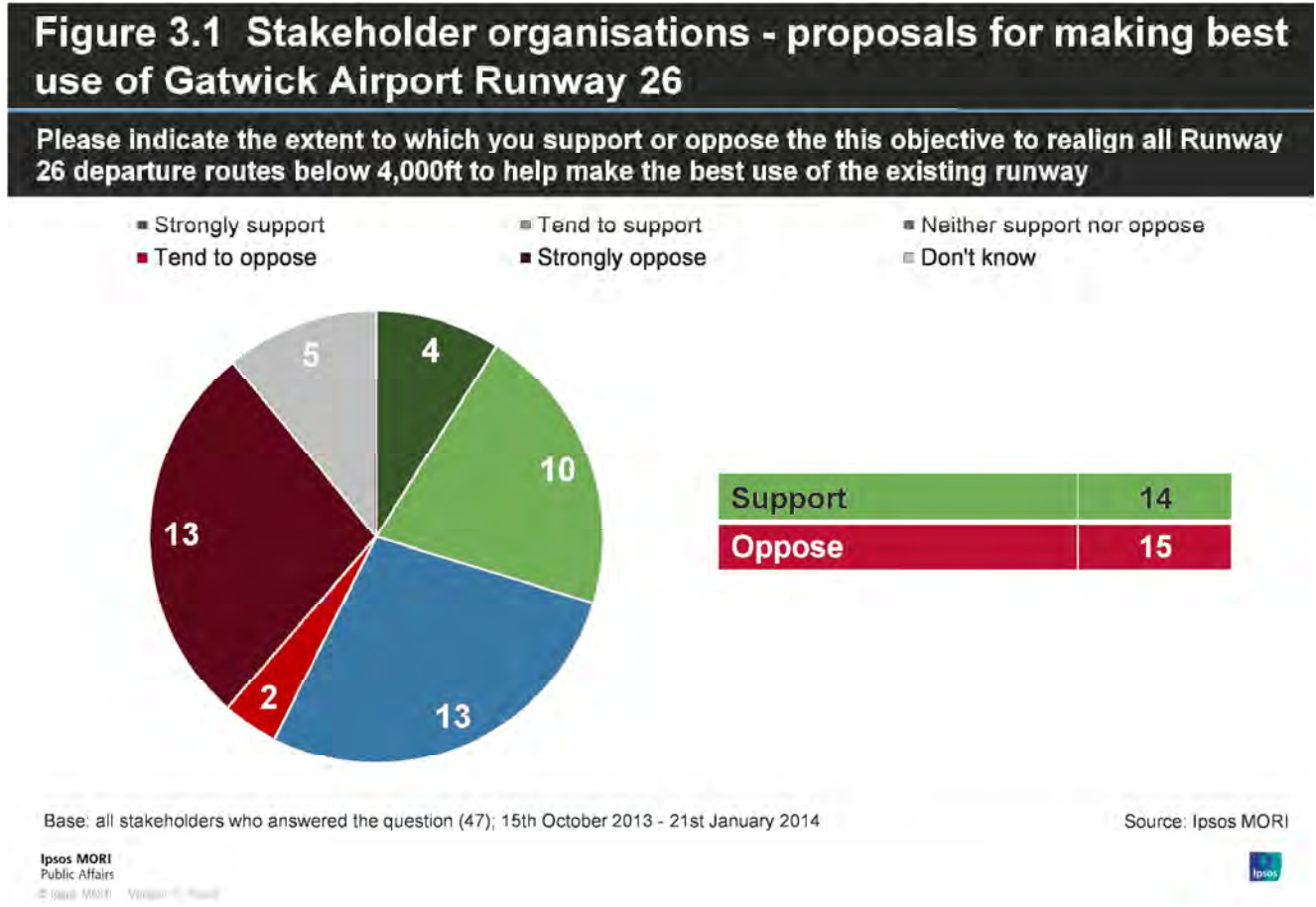
Summary

There were 47 stakeholder organisations who answered the closed Question 11A in the response form, relating to the proposal to realign all Runway 26 departure routes below 4,000ft to make best use of the existing runway. Of those who responded, support for the proposal, and opposition to the proposal was evenly matched – 14 respondents supported the proposal, and 15 respondents opposed the proposal. There were also 18 stakeholder organisations that neither supported nor opposed the proposal, or did not know.

Thirty-three stakeholder organisations provided comments about the proposal (12 provided positive comments and 14 provided negative comments). Positive comments included support for the objectives as set out in the Consultation document (two comments), and that proposed changes are sensible (two comments). Negative comments included concerns about increased air traffic (three comments).

There were also 33 stakeholder organisations who responded by e-mail and post who provided comments about the proposal. Half (16) provided positive comments, and a third (11) negative comments. Positive comments included four comments about improved efficiency of the runway, and three comments relating to support for the proposals provided an increased number of departures can be realised. There were also three comments about supporting the proposal provided noise levels do not increase. Negative comments included comments about blight from aircraft (three comments), and about impacts caused by increases in air traffic (two comments).

Responses received on the online response form



By stakeholder type or category, the majority of aviation groups supported the proposal (eight supported and one opposed the proposals). On the other hand, of the five action groups³ who responded using the online response form, four opposed the proposal, and one was neutral. Of the 17 environmental and heritage groups who responded using the online response form, eight opposed, seven of whom strongly opposed. Just two environmental and heritage groups said that they tended to the support the proposals. Out of 11 local authorities who responded to the proposal, seven were neutral, three were opposed, and one did not know.

Overall, there were four stakeholder organisations who said they *strongly* supported the proposal and 11 stakeholder organisations who said they *strongly* opposed the proposal. These organisations are listed below:

³ 'Action groups' were self-defined using a response category listed in the online response form.

Table 3.1 Stakeholder organisations – views on proposals for making best use of Gatwick Airport Runway 26	
Strongly Supportive of the Proposal	
British Airways Guild of Air Traffic Control Officers (GATCO)	easyJet Guild of Air Pilots and Air Navigators
Strongly Opposed to the Proposal	
Weald Community Primary School Godstone Village Association Nutfield Conservation Society Sevenoaks Weald Parish Council Penshurst Place and Gardens Holmwood Lodge Estate Residents' Association	Westerham Town Council Bradfield Village Air Defence League Riverhill Himalayan Gardens Minster-on-Sea Parish Council Chiddingstone Castle

Positive comments about the proposal

There were 12 stakeholder organisations that provided positive comments about the proposal. Comments included support for the objectives as stated in the Consultation document; that the proposed changes are sensible; and support provided there is a balance between the impact of realignment and noise in sensitive areas. There were also a number of comments around improved efficiencies of the runway, including that realignment of routes permits better use of the navigation capabilities of aircraft. Other positive comments included that noise would be mitigated due to uninterrupted climbs.

There were supportive comments from **British Airways** who said that they would support the proposal provided it would not interfere with their operations at Heathrow Airport. **Dunstable Aerodrome** also said they would be supportive of the proposal, provided the changes did not compromise their operational needs.

BA would support this course of action, on the understanding that any developments or changes in this area do not negatively impact current LHR operations, nor prejudice or preclude any optimal future airspace changes for the LHR airspace redesign in Phase 2.

British Airways

We tend to support making the best use of Gatwick Runway 26 but always on the basis that it does not interfere or prejudice the operational needs of Dunstable Airport whose flight needs and frequencies will increase in the near future.....

Dunstable Aerodrome

Negative comments about the proposal

There were 14 stakeholder organisations that provided negative comments about the proposal. A number of negative comments and concerns were raised, including concerns about an increase in air traffic in the local area; the impact of noise on protected areas, on students’ ability to learn, and impacts on tourist areas.

Weald Community Primary School strongly opposed the proposal. The school said that “*The adverse impact on the school of increased noise levels will put students learning at risk as well as interrupting lessons if the noise levels are high enough to drown out the teacher’s voice.*” The school

also raised concerns about effects of pollution on children, particularly those who suffer from the effects of asthma.

Godstone Village Association said that economic benefits of the proposed changes were outweighed by costs to local people and the environment.

Bradfield Village Air Defence League questioned in whose interests the proposals were, stating that they weren't in their interests.

Nutfield Conservation Society was concerned that there would be an increased number of aircraft likely to fly over the South Nutfield area, and that this would have a detrimental impact on the greenbelt, as well as impact on smaller aircraft that use Redhill airspace. The organisation stated that as departing aircraft from Gatwick Airport have been recorded flying below the existing 3,000ft threshold, it puts these aircraft closer to the smaller planes flying through Redhill airspace. *“These smaller planes rely on visual viewpoints as [they have] no radar fitted - which makes the situation very dangerous.”*

Other organisations commented that whilst it would make sense to realign runway 26 departures to reduce noise impact, the changes could impact negatively in other ways. **Hever Festival Productions Ltd** said that the changes might mean there are more flights over Hever Castle, affecting their long-established open air theatre.

Suggestions

There were a number of suggestions made by eight stakeholder organisations in relation to the proposal to realign all runway 26 departures below 4,000ft. Suggestions included that the impact on the local area should be taken into account before the next stages of the proposal are undertaken; that the impact on local residents should be examined and reviewed; and that departing aircraft should make tighter right-hand turns to avoid populated areas of Imberhorne and East Grinstead.

Responses not received on the online response form

There were 33 stakeholder organisations who responded by e-mail and post that provided comments about the proposal to realign all Runway 26 departures below 4,000ft. Of these stakeholder organisations, 16 provided positive comments about the proposals, and 11 made negative comments. There were also a number of general comments made by eight organisations, and 15 organisations put forward a number of suggestions about the proposals.

Supportive comments about the proposal

Supportive comments very much mirror those of stakeholder organisations who responded on the online response form. These comments included comments about improved efficiencies, and that noise could be reduced. **Burstow Parish Council** supported the proposal because of lower population density to the west of the airport, meaning less noise for residents living further away from the airport. **Kent County Council** supported the principle, if it helps achieve better utilisation of the existing runway, whilst **Monarch Airlines** supported the proposal if the outcome is an increase of up to 5 departures per hour.

Some stakeholder organisations were supportive of the proposals, provided certain conditions were met. Local authorities in particular were concerned that the proposed changes could impact on local residents and communities. **Tandridge District Council** said that while they supported the objective to make best use of the runway, *“...any realignment should consider the impacts on locations where there are dwellings immediately under the flight path.”*

Negative comments about the proposal

There were 11 stakeholder organisations that provided negative comments and, or, concerns about the proposal. Concerns included impact of increased air traffic on local areas and people; noise pollution; and general blight from aircraft. There were also two mentions about lack of information about the proposal.

Among those who raised concerns, was **Edenbridge Town Council** who said they have raised objections to a process they “*believe to be opaque and which provides no opportunity for discussion post hoc by those who will be affected by the changes.*” The Council added that they failed to see how the stated objectives of balancing airspace efficiencies would be achieved, and the impact the changes would have for local communities.

Penshurst Parish Council also raised concerns and said that the primary concern should be to minimise noise disturbance. The Council requested more detail about new flight paths, and suggested that if the proposals could cause more anxiety and nuisance to those overflown, or if people could be newly affected, then the proposals should be abandoned.

Protect Kent questioned the need for airspace change, on the basis that they believe that further capacity is not required. They also suggested that any changes (should they happen) should be delayed until after 2017 to coincide with changes to transition altitudes.

Other comments and suggestions

A considerable number of other comments and suggestions were provided by stakeholder organisations. Fifteen organisations provided suggestions about the proposal. These included that local people should be considered; and that efforts should be made to minimise noise. **Sevenoaks District Council** said that the objective must be to “*...balance this with reducing the number of people and businesses significantly affected by aviation noise and the impacts on those people and businesses that will remain affected.*”

Peter Brett Associate LLP mentioned three different developments (in Copthorne, North Horsham, and Kilnwood). The organisation said that they support the proposal assuming that noise levels around their development sites will not be elevated. In their submissions, the organisation gave details about their developments, and that they included a number of noise sensitive receptors. The organisation went on to say that the locations for these developments have been carefully chosen in order to maximise the viability of the developments, and that existing noise was an important factor in the decision to develop the sites.

Other suggestions included that whilst optimal design is encouraged, it should integrate with the entire route network, and that changes should not impose design constraints on Heathrow Airport. Responses here included those from **International Air Transport Association (IATA)** and the **London Heathrow Airline Consultative Community (LACC)**.

Optimal design of departure routes is encouraged but should integrate effectively and efficiently within the entire route network. Any changes to routings from London Gatwick may have an impact on the efficiency of existing or future improvements in and out of other airports in the London area, such impact must be carefully avoided.

IATA

The Heathrow Airline Community support this course of action to improve the efficiency of the departure routes from Gatwick and thus to maximize the usage of the Gatwick runway. The design of the Gatwick routes needs to be fully integrated with NATS overall airspace concept for the UK and must not impose any design constraints on Heathrow’s future airspace developments which are under active consideration and may be accelerated in order to enhance the special resilience requirements for the UK’s only hub airport

LACC

b) General public responses

Summary

There were 492 members of the general public who answered the closed question (Part A) in the response form, relating to the proposal to realign all runway 26 departure routes below 4,000ft to make best use of the existing runway. There were 69 respondents who supported the proposal and 323 respondents opposed to the proposal. Sixty-four respondents neither supported nor opposed the proposal, and 36 respondents did not know.

Four hundred and forty respondents provided comments about the proposal. This included 48 respondents who provided positive comments and 295 respondents who provided negative comments. Positive comments included that noise would be reduced and that the proposal would allow for improved runway efficiencies. Of those providing negative comments and concerns, a key concern was about noise (mentioned by 201 respondents), and quality of life issues (mentioned by 102 respondents). Most of the negative comments and concerns are inter-related through perceived noise, visual impacts and pollution (e.g. 38 respondents said that realignment of runway 26 departures will affect the tranquillity of AONBs and protected sites, and 33 respondents said that the proposals would affect people’s health and well-being).

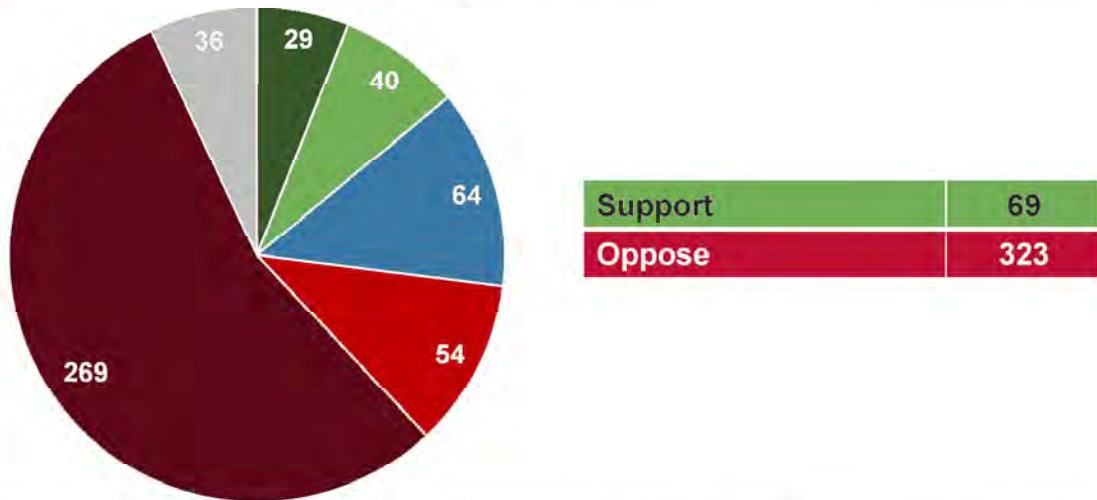
Of those who sent a response by e-mail or post, eight respondents commented on the proposal. Comments included concerns about noise, and concerns about new areas being overflowed.

Responses received on the online response form

Figure 3.2 General public - proposals for making best use of Gatwick Airport Runway 26

Please indicate the extent to which you support or oppose the this objective to realign all Runway 26 departure routes below 4,000ft to help make the best use of the existing runway

■ Strongly support ■ Tend to support ■ Neither support nor oppose
■ Tend to oppose ■ Strongly oppose ■ Don't know



Base: all members of the public who answered the question (492); 15th October 2013 - 21st January 2014

Source: Ipsos MORI

Ipsos MORI
Public Affairs



There were 48 members of the public who made positive comments about the proposal. The most common theme was that noise would be reduced or mitigated. In total, 21 members of the public who responded to Consultation Question 11a on the online response form made positive comments about the impact of **noise**. Positive comments about noise included:

- Departures will help areas affected by aircraft noise by sharing the impact across a wider area (nine mentions);
- Steeper climbs/descents will reduce the number of people affected by noise (seven mentions); and
- The introduction of noise preferential routes (NPRs) along the route will minimise noise impact (three mentions).

The current practice is for planes leaving Gatwick to the west to curve north directly over our property - this goes beyond the recommended route for these planes and creates incredible noise throughout the day. I support the proposal to tighten this curve to utilise the greater technical capabilities of modern planes, so that departures on this trajectory would rise faster and in a tighter curve, significantly reducing the impact to our property...

Member of the public

There were 18 members of the public who made positive comments about **air traffic** as a result of the proposals. The most frequently cited positive comment here included that realignment would

improve efficiency given that the proposal will allow for three to five additional departures per hour in peak periods (10 mentions). Other positive comments included that there would be fewer flights passing over respondents' homes, and areas such as Bletchingley Village.

There were positive comments about **flight paths** from six members of the public. Other less frequently mentioned positive comments included that steeper climbs and departures would reduce aviation impact on Leith Hill (one mention).

Negative comments about the proposal

Negative comments and concerns were received from 295 members of the public. Key themes that emerged were concerns about noise, impacts of quality of life, and concerns about impact of air traffic, air pollution, and impact on rural areas, on AONBs and the countryside.

The theme that attracted most negative comments was that of **noise**. A large number of noise-related comments were received, including:

- Realignment will generally cause more noise (68 mentions);
- Those who have chosen to live away from existing flight paths would be blighted by noise as a result of the proposals (33 mentions);
- Realignment will bring noise to new areas, not previously overflowed (24 mentions);
- Increased noise will impact on National Trust properties, rural areas and the countryside (16 mentions);
- Elevated or hilly areas will suffer more from noise (11 mentions);
- Noise from aircraft affects people's health/well-being and quality of life (11 mentions);
- Increased noise will affect local businesses that rely on peace, quiet and tranquillity (nine mentions); and,
- Concerns that increased efficiencies will allow for further flights, hence more noise (eight mentions).

The noise pollution that we experience here in TN11 is already of sufficient level to be disturbing. We accept there has to be some noise pollution (we can't be hypocrites- we fly sometimes ourselves) but there has to be a limit on the noise level...this is our home and our neighbourhood and our children are schooled here in the local village. A further increase in noise pollution from planes would be devastating to us as a family and to the village as a community.

Member of the public

Of those who cited concerns about the impact of noise in hilly or elevated areas, specific areas of concern were the Kent Downs, and in particular, Ide Hill, Crockham Hill, and Toys Hill.

I strongly oppose the proposal to route flights over the areas of Ide Hill, Toys Hill and Crockham Hill and the surrounding area. The reason the vast majority of people live in these areas is the rural peace and tranquillity that is enjoyed here...

Toys Hill itself is some 750ft at its highest which substantially increases the impact of any flight path over it.

Member of the public

Other less frequently cited negative comments about noise included concerns about the accuracy of noise measurement (five mentions); and that increased noise would have an adverse impact on local schools in the area (five mentions). A number of comments were made by members of the public about the impact of noise on specific locations.

Comments relating to **quality of life issues** were received from 102 members of the public. Issues raised included the suggestion that proposals will have a negative impact on people's lives (36 mentions); that proposals will affect people's health and well-being (33 mentions), and that realignment will devalue homes/make them harder to sell, thus impacting on local people's lives (31 mentions).

The proposed changes will greatly impact my ability to enjoy my house and outside space. Due to the nature of my disability increased noise will have an adverse impact on my health

Member of the public

Other less frequently cited comments about quality of life included that Runway 26 departures will have a detrimental impact of people's enjoyment of the countryside (12 mentions), that proposals will blight the lives of people in populated areas (12 mentions), and proposals will force people to move away from the area where they currently live (five mentions).

There were 95 members of the public who made negative comments about **air traffic** as a result of the proposal. Negative comments included that proposals will increase the number of flights over AONBs and protected areas (11 mentions); that it would increase the number of flights to and from Gatwick (nine mentions); and concerns about safety risks of increased air traffic in an already crowded airspace (nine mentions). Other less frequently cited comments included concerns about the accuracy of departure swathes; that proposals will conflict with VFR traffic; and increases in air traffic will impact on local towns and villages, including East Grinstead, Sevenoaks, Tonbridge and Royal Tunbridge Wells. Negative impact of air traffic over East Surrey Hospital was also mentioned.

My concern is for the increase in traffic turning east. This traffic will bring an increase in noise over East Surrey Hospital, possibly causing distress to sick people and affecting health professionals.

Member of the public

Sixty-five members of the public raised concerns about **air pollution**. Concerns included a general increase in air pollution as a result of more flights (32 mentions); and that there would be specific emissions such as fuel residues and other contaminants (19 mentions). Less frequently cited concerns about pollution included air quality regulations would be breached if flights are routed near the M25 at Westerham (four mentions); that Horley is already subjected to air pollution from aviation (three mentions); and that air pollution will be increased in places such as East Grinstead, Ifield Mill Pond, and Redhill (all two mentions).

Concerns were raised by 72 members of the public about the **impact of the proposal on the countryside, and on rural and protected areas**. Concerns included that realigning departures will harm the tranquillity of protected areas, AONBs (38 mentions) and that aircraft should avoid AONBs altogether (10 mentions). Other less frequently cited points included concerns about low flying

aircraft on farms and livestock (seven mentions); that proposals will put off visitors to the countryside/rural areas (seven mentions); and that realignment will blight the countryside (seven mentions).

We live in an Area of Outstanding Natural Beauty; the Greensand Way, a major countryside footpath runs through the village; the Greensand Ridge is home to protected flora and fauna. We have several SSSIs on our doorstep, and the village is characterised by its fields, farms and rural charm...the proposals would greatly harm the amenities and quality of life of villagers and visitors

Member of the public

There were 37 members of the public who raised specific concerns about **flight path changes** as a result of the proposal. Concerns included that flight paths could mean that flight paths will go over AONBs, SSSIs and other protected areas (11 mentions); that proposals could interfere with flights from / to Redhill Aerodrome (five mentions); and that AONBs such as Box Hill could be affected, as well as attractions such as Denbies Vineyard (two mentions). A small number of other flight path implications were cited, which are listed in Appendix D.

You seem to be seriously considering repositioning the flight path to follow the North Downs ridge. This is ridiculous! Do you realise that the area around Dorking, Brockham and Betchworth includes Box Hill - an area of outstanding natural beauty - and Denbies Vineyard. Both attract thousands of visitors - many from London - seeking quiet peace and relaxation. Please don't do it.

Member of the public

A number of specific towns and places were mentioned as being impacted in some way by the proposal. Please see the Appendix D for further details of each specific town/area mentioned.

Suggestions

There were a number of suggestions made by 100 members of the public who had submitted a response on the online response form. Suggestions were made about **air traffic** by 41 members of the public, including that impact of aircraft should be reduced by widening the flight path swathe (eight mentions), and that there should be no early morning or night flights (six mentions)

There were 24 members of the public who made suggestions about **noise mitigation**. Comments included that change should be avoided if it will lead to an increase in noise (six mentions); that the primary objective should be to reduce noise for local people (five mentions); and that aircraft should operate more quietly (four mentions).

Eight members of the public made suggestions about reducing **air pollution**. Suggestions included that efforts should be made to reduce air pollution (one mention); and that research is needed into the effects of air pollution on health (one mention). A number of other comments and suggestions were made by small numbers of respondents which are listed in Appendix D.

Responses not received on the online response form

Of those who sent a response by e-mail or by post, just eight members of the public provided comments relating to Consultation Question 11. Three members of the public provided negative comments which were concerns about noise pollution, that new areas could be overflowed, and that the new flight paths would cut across the Kent Downs AONB. There was also one comment about lack of detail about the proposal, and four respondents made suggestions, including that the number of flights should not be increased, and that departing aircraft should continue to cross West Kent.

4 Analysis of Consultation Question – Respite Routes for Gatwick Airport

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 12 in the Consultation document.

Question 12 Part A wording

PART A (CLOSED QUESTION)

This proposal is considering extra routes to enable periods of respite. This would mean implementing two routes in a particular direction instead of one, with a schedule for using each route to provide periods of relative respite for people living in the area beneath the routes. While this would provide respite, it would also increase the geographical area regularly exposed to noise.

Please indicate the extent to which you support or oppose this objective of providing respite routes, given that it potentially impacts more people in order to offer respite. Please consider this for respite routes below 4,000ft, and/or respite routes between 4,000ft and 7,000ft.

PART B (OPEN QUESTION)

Please state the reasons why you support or oppose the objective of providing respite routes below 4,000ft and/or between 4,000ft and 7,000ft.

a) Stakeholder organisation responses

Summary

There were 47 stakeholder organisations who answered the first part of Question 12A in the online response form – this is the proposal to provide respite routes below 4,000ft at Gatwick Airport. There were 29 stakeholder organisations who answered the second part of Question 12A in the response form – this is the proposal to provide respite routes between 4,000ft and 7,000ft at Gatwick Airport.

Of those who answered the closed question to provide respite routes below 4,000ft, 18 supported the proposal and 18 opposed the proposal. More stakeholder organisations strongly opposed the proposal (14) than strongly supported the proposal (four).

Of the 29 stakeholder organisations who answered the question about providing respite routes between 4,000ft and 7,000ft, 11 supported the proposal, and 10 opposed the proposal. Of those who supported, none strongly supported the proposal.

Overall, 35 stakeholder organisations who responded to the Consultation using the online response form provided comments about the proposals. There were 12 stakeholder organisations that provided positive comments and 14 stakeholder organisations provided negative comments about the proposals. Most comments were centred around it being a good idea in principle for noise management reasons.

There were 14 stakeholder organisations that provided negative comments and concerns via the online response form. There were six comments that noise would be spread over a wider area, thus affecting more people. Other concerns included that house prices would be devalued in areas that would be newly overflowed, and that there could be safety issues given that arrival and departure routes would become more complex for pilots and air traffic controllers to manage.

By type or category of organisation, six aviation groups supported the proposal for respite below

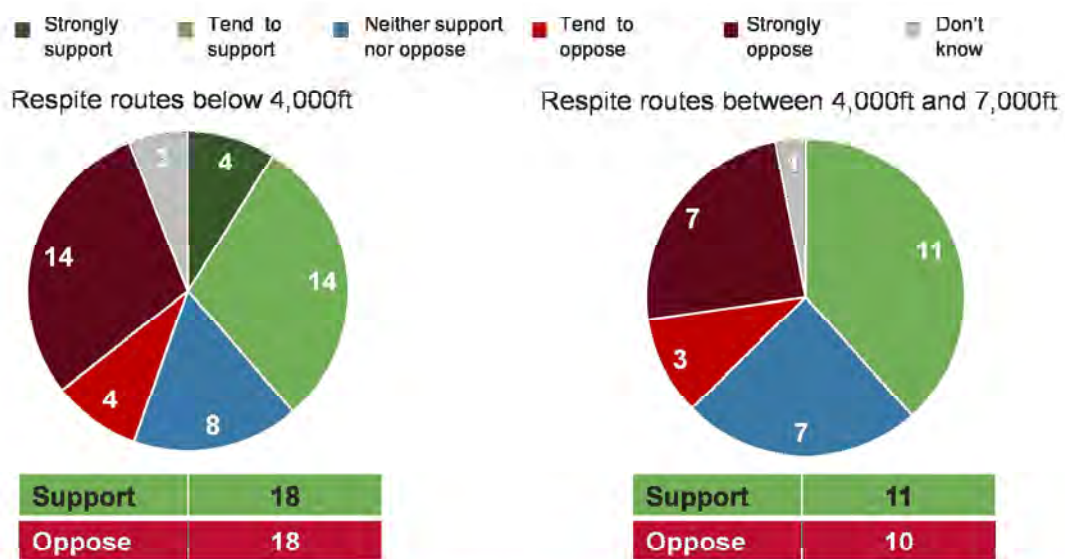
4,000ft, and three opposed the proposal. There were five environment, heritage and community groups who supported this proposal, but ten who opposed it. Whilst one action group supported the proposal, four were opposed and support among local authorities who responded was mixed. Two local authorities supported the proposal, and three were opposed – the others were neutral (3) or did not know (2). Support for and opposition to the proposal for respite between 4,000ft and 7,000ft was broadly mirrored by responses about the proposal for respite below 4,000ft, albeit that fewer stakeholder organisations responded to this question.

There were 50 stakeholder organisations who responded by e-mail and post who provided comments about the respite proposals. Many of these organisations did not specify clearly which proposal or proposals about respite they were referring to in their submission. There were 23 stakeholder organisations that made positive comments, and six stakeholder organisations that made negative comments. A number of stakeholder organisations also made general comments and suggestions which were neither positive nor negative. The most common positive comment was that respite would allow for improved noise management (13 comments). Of negative comments, there were three comments made about new areas being overflowed, and two comments about a general lack of information about where the new respite routes would be.

Responses received on the online response form

Figure 4.1 Stakeholder organisations - proposals for respite routes for Gatwick Airport

Please indicate the extent to which you support or oppose this objective of providing respite routes, given that it potentially impacts more people in order to offer respite.



Base: all stakeholders who answered the questions (47 for question on respite below 4,000 feet and 29 for the question on respite between 4,000 and 7,000 feet); 15th October 2013 - 21st January 2014

Source: Ipsos MORI

Ipsos MORI
Public Affairs



Overall, 48 stakeholder organisations who responded using the online response form answered at least one of the two closed questions about respite – those who answered about below 4,000ft were also most likely to answer about the proposal for respite between 4,000ft and 7,000ft. There were 27 stakeholder organisations who answered both closed questions about the proposals, and 20 who answered about the proposal for respite below 4,000ft, but not between 4,000ft and 7,000ft. Lewes District Council was the only stakeholder organisation to answer about the proposal for respite between 4,000ft and 7,000ft, but not the proposal for respite below 4,000ft.

The table below lists the stakeholder organisations that strongly supported and strongly opposed proposals for respite.

Table 4.1 Stakeholder organisations – views on proposals for respite routes for Gatwick Airport	
Strongly Supportive of the Proposal	
Below 4,000ft	Between 4,000ft and 7,000ft
Godstone Village Association Chiddingstone Castle Hever Parish Council Hever Festival Productions Ltd	
Strongly Opposed to the Proposal	
Below 4,000ft	Between 4,000ft and 7,000ft
Minster-on-Sea Parish Council Teynham Parish Council Bradfield Village Air Defence League Guild of Air Pilots and Air Navigators Weald Action Group Against Noise Dedham Vale Society Riverhill Himalayan Gardens Weald Community Primary School Furnace Woods Road Fund Association Ltd Nutfield Conservation Society	Minster-on-Sea Parish Council Teynham Parish Council - Kent Bradfield Village Air Defence League Guild of Air Pilots and Air Navigators Weald Action Group Against Noise Dedham Vale Society

Positive comments about the proposal

There were 12 stakeholder organisations that provided positive comments about proposals for respite. Positive comments included that proposals would manage noise more effectively (four mentions); and that the burden of noise is spread out (four mentions).

Among those who supported the proposals was **Chiddingstone Castle** and **Hever Parish Council**. Chiddingstone Castle said that it supports identifying as many respite routes as possible as the current level of noise underneath a single one flight path is intolerable for residents, staff and the visitors to the Castle. The organisation also said that a single flight path is detrimental to the heritage building; the local economy; employment sustainability and the health and wellbeing of all members represented. It concluded by saying that that being subjected to occasional noise would be preferable and more tolerable.

Hever Parish Council said that parts of Hever Parish are currently overflowed by aircraft flying at between 3,000ft and 4,000ft. The Council said it strongly supported the idea that respite routes are introduced so that local communities does not have to suffer the full burden of disturbance caused by arriving aircraft. The Council also said that it felt it would be more equitable if noise is shared.

Other positive comments were received about the proposals provided no new areas were overflowed, and that the benefits of respite could be proven.

Negative comments and concerns about the proposal

There were 14 stakeholder organisations that raised a number of issues and concerns about the proposal. In particular, there were six comments that, as noise would be spread over a wider area,

the number of people affected would be increased. There were also comments linked to this such as negative effect on house prices.

Colne Stour Countryside Association said that *“We fear that the proposal at altitudes...will potentially double the impact if twice as many people are to be exposed, albeit for half the time...it may mean that if twice as many people are adversely affected, it could have an adverse effect on the value of many more properties.”*

Other concerns and comments included a lack of scientific evidence into the effect of noise disturbance, and that impact will not be lessened for those who live under flight paths.

We have serious misgivings about the proposal, plausible as it may appear at first sight. It seems likely that total disamenity increases when twice as many people are exposed to the same noise for half the time. Each time the switch of routes takes place, those freshly exposed will be acutely conscious of it. Doubling the area exposed reduces the opportunity for people more sensitive to noise to avoid it. Doubling the number of people and places exposed, doubles the number of homes and other places to which to apply eg soundproofing, while halving the average benefit from unit investment in such measures, therefore making it more difficult to justify. To the extent that the without-respite routeing minimised the number of people exposed, respite routeing would more than double the number exposed.

Dedham Vale Society

Other organisations were against the proposals for a number of reasons as follows:

- **Southdown Gilding Club** said that they were against the proposals because of an assumption that controlled airspace below 7,000ft would be required, thus impacting on their activities;
- **Riverhill Himalayan Gardens** were concerned about loss of revenue caused by noise pollution, given that this was already an issue due to their proximity to the A21. The organisation said that any change in flight path would have a disastrous impact on their open-air drama and music programme, leading to loss of business revenue and loss of arts opportunities for local people. They requested that the proposed flight paths are changed; and
- **Weald Action Group Against Noise** were opposed to the proposals as they did not want any additional flights over Weald Village AONB. The organisation also added that they considered respite routes would merely spread noise and inconvenience over a greater area thereby affecting a lot more people, escalating the problem.

While airlines were broadly supportive of the proposals, a number of issues and concerns were raised, including:

- **easyJet** said that while it supported the use of respite routes, it did so on the proviso that proposals do not lead to any increase in flight path length or have negative impact on climb or descent profiles (the length and profile of flight paths determine fuel and CO₂ efficiency). The organisation added that while it did wish to accommodate the needs of the community as far as possible, it stated that complexity must be minimised to avoid additional workload and potential ambiguity in the flight deck (workload and flight complexity are safety issues). Some concerns were raised about numerous routes and procedures which consume database memory in the Flight Management System (FMS), which easyJet said could be a limitation for some aircraft types. easyJet also said that multiple routes with similar names could increase the risk of error in selection;
- **Aer Lingus** said it would be willing to support the proposals in principle to improve noise management provided this did not introduce system inefficiencies. The airline raised similar

concerns as easyJet did about potential for significant extra miles to be flown. It concluded by saying that this could lead to additional fuel burn, which must be avoided; and

- **British Airways** said that given the economic value of aviation in the UK, it is imperative that operational resilience is maintained and improved, and that any provision of respite should be managed around that requirement. The airline raised a similar concern as residents groups, parish councils and action groups in that respite would increase the number of people exposed to aviation noise. British Airways said that this would be unnecessary.

While most of those who were strongly opposed to the proposals comprised of action groups and residents' associations, there was one pilots' association (Guild of Air Pilots and Air Navigators) who were very much against the proposals for a number of reasons. This contrasts with most airlines who responded who were generally more supportive of the proposals.

We are totally against the objective of respite routes at any altitude for the following reasons: a) They add complexity to departure and arrival routes that increases the probability of mistakes being made by air traffic controllers and pilots that could degrade aircraft safety. b) Only one of the 'respite' routes will provide the optimum route in terms of minimizing fuel burn and CO2 emissions. c) Existing technological and operational improvements (some of the latter are included within this proposal) have already reduced considerably the noise impact of modern aircraft. d) The fewer people who are exposed to noise, the fewer need to consider either relocation or sound insulation measures. It also minimizes locations where new arrivals to the area need be concerned about airport-related noise.

Guild of Air Pilots and Air Navigators

Suggestions

There were 11 stakeholder organisation groups who made suggestions about the proposals. Suggestions were made that more research or even a trial would be needed to assess the benefits of respite routes (two mentions). There were also suggestions that flight paths should not be routed over areas not previously overflowed, and that flight paths and periods of respite should be predictable. Suggestions from a number of organisations included:

- **Hever Parish Council** – the organisation said it would like to emphasize that for respite routes to be of any benefit to Hever they must pass over the area to the west of the community, at the very western edge of the "Consultation swathe for Gatwick Airport Runway 26 Arrivals below 4,000ft" shown on Figure B9 within the consultation document;
- **Mid Sussex District Council** – the Council said that if new residents are affected then it would be expected that a generous noise insulation scheme would be provided;
- **Natural England** – recommend that protected landscapes are classified as noise sensitive areas, and therefore that the application of respite routes to relieve the overflying of protected landscapes is explored further to see if it could have a beneficial impact on the experience of noise by residents and visitors in these landscapes. They also recommended that national and international sites, particularly those designated for their bird interest are classified as 'noise sensitive areas' and assessed accordingly;
- **The Three Woods Group** – supported respite as long as it did not cover new areas, or areas that were previously overflowed and are now currently clear from aircraft;
- **Association of Imberhorne Residents** – said that keeping closer to the West of the Seaford departing Standard Instrument Departure (SID) rather than the East side which is over the

most populated areas, is definitely the preferred route. With the alternative respite route being the centre line of this SID departure route;

- **Westerham Town Council** – said that the principle of respite is laudable provided it does not have an adverse and inappropriately worse impact on other areas damaged by new noise and air pollution; and
- **West Sussex County Council** – mentioned that it supports the notion of enabling periods of respite. However, before decisions are made further the Council stated that research is required into whether people affected by overflight benefit from such measures and to what extent.

Responses not received on the online response form

There were 50 stakeholder organisations who responded by e-mail and post who provided comments about the respite proposals. Many of these organisations did not specify clearly which proposal or proposals about respite they were referring to in their submission. There were 23 stakeholder organisations that made positive comments, and six stakeholder organisations that made negative comments. A number of stakeholder organisations also made general comments and suggestions which were neither positive nor negative.

Positive comments about the proposal

The most common positive comment suggested was that respite would allow for improved noise management (13 comments). Organisations that made comments about this included Monarch Airlines Ltd, IATA, Bar UK, and Speldhurst Parish Council.

- **Monarch** said it recognises the noise impact of its operations can have on local communities located near airports, and that it seeks to be a good neighbour. The airline regarded the implementation of respite routings as an ideal way of sharing the noise impact between areas overflowed;
- **IATA** said that it is willing to support in principle the proposal to consider the design of two routes in a particular direction instead of only one to improve noise management, where feasible and deemed appropriate, as long as respite route design does not introduce significant inefficiencies. This echoed responses from easyJet and Aer Lingus who had responded using the online response form. **BAR UK** supported the IATA stance; and
- **Speldhurst Parish Council** said respite routes would be essential, and that it would be highly desirable to have more than one respite route as the noise intrusion of anyone living, working or staying under a flight path would be significant, so spreading the load would be fairer.
- **Virgin Atlantic** supported the introduction of respite routes, but highlighted the potential fuel and CO2 implications. They also noted that the principle of respite routes is challenged by the variable nature of an individual's response to noise exposure and that until this is better understood it will be difficult to judge if respite routes will offer improvement to local people.

Other positive comments included that respite is generally a good idea as it spreads the burden of aviation impact (four mentions); that modern aircraft navigation capabilities allow for accurate tracking and routing away from population centres (four mentions); and that respite is provided for those overflowed (two mentions).

...it may be appropriate to explore options for respite which share noise between communities on an equitable basis, provided that it does not lead to significant numbers of people newly affected by noise.

Kent County Council

...Tunbridge Wells Borough Council is supporting a multi-route method so that the pain can be shared and increasing everybody's stake in ensuring that aircraft noise is addressed so that it does not become marginalised as a problem for those overflown and therefore "ignorable".

Tunbridge Wells Borough Council

As you would expect for a community beneath the flight path, we subscribe to the idea of respite and challenge the Government's adoption of the policy of flight path concentration as being a fairer alternative to increasing the number of flight paths.

Edenbridge Town Council

Negative comments about the proposal

Six stakeholder organisations cited negative comments about the proposals for respite. Of negative comments, this included three comments about new areas being overflown, and two comments about lack of information about the new routes.

It appears that as far as arrivals are concerned Gatwick Airport Limited is intent on changing the current tactically vectored flight paths across a broad swathe to a single flight path (depending on wind direction) from a new so-called Point Merge and suggesting this could be supported by a respite flight path. As there are no indications as to where these would be we cannot support this concept. It would be grossly unfair on those whose lives would be devastated with a continuous stream of overhead flights from a Point Merge when they previously had substantial relief from the tactically vectored flight paths across a broad swathe. The current system is a proven, safe and a fairer distribution of incoming flights.

Penshurst Parish Council

Respite routes can only be commented on by providing a second consultation once the proposed routes are known.

Protect Kent

Other comments and suggestions

There were 21 stakeholder organisations that provided general comments about the proposals. Comments included support for respite routes at London City Airport albeit that this is not what is being proposed at London City Airport (four mentions); that a narrow flight path would be good for some people, but not for others overflown (three mentions); and that it will have to be judged if respite routes will be an improvement or not (one mention).

We would support respite routes for London City, but it appears this option is not available. Point 8.5 states that the consultation is "not considering respite options for London City routes in intermediate airspace", because of "a complex interaction with Heathrow arrivals". Since the consultation on Heathrow airspace changes is not due for another two years, there is no

information in this consultation about Heathrow arrivals or the possibility of changes to Heathrow routes... we would nonetheless support further investigation into this matter.

Heathrow Association for the Control of Aircraft Noise (HACAN) East

Most stakeholder organisations who responded to the Consultation by e-mail and post made suggestions about proposals for respite (42 out of 50 stakeholder organisations made suggestions). The suggestions made included: further research is needed to assess the impact of respite routes (eight mentions); that there should be multiple respite routes on a rota system (six mentions); and that flight paths should avoid areas not previously overflowed (six mentions).

Concern is raised about new routes over peaceful areas and proper research is needed into any potential health and well-being impacts, noise impacts and the impacts of annoyance caused by increasing the frequency of flights.

Tandridge District Council

Other suggestions included similar comments to those received from stakeholder organisations via the online response form. These included concerns about significant miles flown if respite was implemented; that routes should be varied so nobody is disturbed more than a few days a week; and that predictable respite would be beneficial.

b) General public responses

Summary

There were 495 members of the general public who answered the first part of Question 12A in the online response form – this is the proposal to provide respite routes below 4,000ft at Gatwick Airport. In addition, 215 members of the public answered the second part of Question 12A in the response form – this is the proposal to provide respite routes between 4,000ft and 7,000ft at Gatwick Airport. Of those who completed a response form, 217 members of the public supported respite routes below 4,000ft, and 201 members of the general public opposed the proposal. Of those who answered the closed question about respite routes between 4,000ft and 7,000ft, 98 members of the public supported respite routes between 4,000ft and 7,000ft, and 80 opposed the proposal.

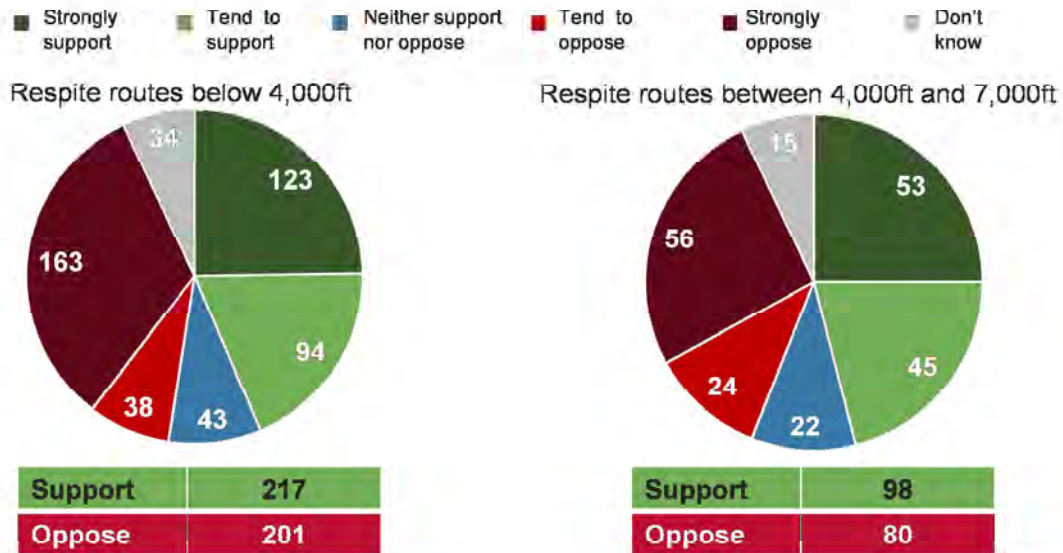
There were 467 members of the public who provided comments about the proposals to provide respite routes below 4,000ft and/or between 4,000ft and 7,000ft. There were 195 respondents who provided positive comments about the proposals, over half of whom (116) provided comments about noise, including that the proposals will share impact across a wider area, and will give relief to those who are under existing flight paths. On the other hand, there were 209 members of the public who provided negative comments and concerns about the proposals. Noise pollution was a concern, and was mentioned by 122 respondents, including that the proposals will mean more people are affected if new areas are overflowed (48 mentions). Many other comments were received relating to air traffic, flight paths, and other impacts such as visual impacts on the countryside, and pollution.

There were 16 members of the public who provided comments on the proposals via e-mail and postal responses. There were 10 who provided negative comments and concerns, and 11 who made suggestions including that multiple respite routes are needed, and that flight paths for departures/arrivals should be as steep as possible to minimise impact on the local area.

Responses received on the online response form

Figure 4.2 General public - proposals for respite routes for Gatwick Airport

Please indicate the extent to which you support or oppose this objective of providing respite routes, given that it potentially impacts more people in order to offer respite.



Base: all members of the public who answered the questions (495 for question on respite below 4,000 feet and 215 for the question on respite between 4,000 and 7,000 feet); 15th October 2013 – 21st January 2014

Source: Ipsos MORI

Ipsos MORI
Public Affairs



Positive comments about the proposals

A total of 195 members of the public provided positive comments about the proposals. Of these, 116 respondents made positive comments about **noise** which would be a result of the proposals being implemented. Many of the positive comments were similar in nature. There were 76 comments suggesting that respite routes will help people affected by aviation noise as it will spread impact across a wider area. Other frequently cited positive comments included that respite routes will generally provide relief from noise pollution (30 mentions) Less frequently cited comments included that local people should be given relief from aircraft noise (five mentions) and that a constant noise below 4,000ft is annoying or unfair (three mentions).

Although more people would be affected it is fairer to share the noise disturbance than to force it solely on one group of people. I know when flights were suspended for the Icelandic ash cloud, the peace and quiet for a few days was blissful. Everyone should be able to experience that now and again.

Member of the public

There were 19 members of the public who provided positive comments about **air traffic and flight paths**. Comments included that respite routes will help to alleviate overflying of towns and residential areas (five mentions); that respite routes will reduce the intensity of overflying the same area (four mentions); and that there should be as many respite routes as possible (three mentions).

There were also 19 members of the public who provided positive comments about **quality of life issues** as a result of the proposals. Comments here included that a constant noise from aircraft can or does affect people's health and well-being (nine mentions); that respite routes will help improve people's health and well-being (five mentions); and that respite routes will be especially useful in

summer months when more people might be outdoors (five mentions). There were also two specific mentions that respite routes would provide welcome relief over respondents' houses.

We have arrivals well below 4,000ft passing over us very regularly including at night and it would give us a welcome break especially in the summer months when being outside e.g. in the garden or enjoying the rural surroundings is especially blighted by the regular passage of low flying aircraft approaching Gatwick.

Member of the public

Negative comments about the proposals

There were 209 members of the public who provided negative comments about the proposals to provide respite routes.

Of those who provided negative comments about proposals to provide respite routes, 122 members of the public provided negative comments about **noise** impact. The main comment was that respite routes could or will increase areas overflown, thus affecting more people (48 mentions).

Respite routing would spread the misery over a wider area and blight housing. The flight paths should be clear and known to people when they select an area to live in.

Member of the public

Other comments included concerns about an increase in flights as a result of respite routes (18 mentions); and that there should be no increase in noise levels (12 mentions). Other less frequently cited comments included that aircraft noise affects people's health (nine mentions); that spreading noise over a wider area should be avoided (eight mentions); that providing respite routes emphasise the unacceptable burden of flights and aircraft noise (six mentions); and respite routes are not a solution to noise levels (five mentions). For all comments about noise impact, please see Appendix D.

There were 57 members of the public who made negative comments about **air traffic** as a result of the proposals to provide respite routes. There were comments from 27 members of the public who made comments about the effect of flight paths on the countryside and protected or sensitive areas.

Whilst the concept of respite routes sounds a sensible one as the amount of air traffic continues to increase, the primary focus for determining any potential routes below 4,000ft should be the relative environmental impact of the areas in question. The currently tranquil rural area around Sevenoaks Weald would be noticeably impacted by such a respite route. It would fundamentally change the environment and would impact the Area of Outstanding Natural Beauty and its wildlife, flora and fauna...

Member of the public

Other comments about flight paths included that the existing flight path system is sufficient and that there is no need to change it (13 mentions); that the proposals are more about adding more flights than providing respite for local people (nine mentions); that people will suffer more at non-respite times as a consequence of having respite at other times (three mentions); and that elevated areas suffer more as a result of their elevated position (two mentions).

There were 53 members of the public who made negative comments about **quality of life** issues. The two main areas attracting most comments were that people who have chosen to buy property and/or who live in an area away from existing flight paths could now be affected by the new respite routes (23 mentions); and that respite routes will negatively affect people's health and well-being (17

mentions). Other comments about impact on quality of life included that respite routes will devalue property prices and amenities (nine mentions); and that narrow flight paths will concentrate air traffic which would impact on the health and well-being of local people (five mentions).

Under 4,000ft: I can understand the rationale for this but in practice you will be negatively affecting a larger area. The main concern will be house prices (the main asset a person / family has). The current flight routes have resulted in house prices being set along these routes accordingly. Changing the route will have a negative impact on all those houses under the new route. Rather than affecting more areas, why not pick routes that have little going for them and maximise that. 4,000ft – 7,000ft: The impact will be less here as the noise and visual disturbance is less. However the principal remains the same. I doubt anyone bought a house in the hope that one day a flight path would be overhead

Member of the public

There were 25 members of the public who made negative comments about **air pollution** as a consequence of the proposals to provide respite routes. Comments included that respite routes would spread pollution over a wider area (12 mentions); that air traffic would be increased causing increased air pollution (five mentions); and general concerns about pollution from overflying aircraft (four mentions). Other less frequently cited comments included that more research is needed into the effect of pollution from aircraft, and that proposals will lead to more pollution in areas such as Weald Village, Westerham and Tonbridge. There was also one comment about the Kent Downs being an air quality management area which should have protection against pollution from overflying aircraft.

Other comments included about the proposals was that there could be a negative impact on **wildlife** (seven mentions); that the proposals are more about **profiteering** than providing respite for local people (six mentions); and that proposals have **negative repercussions for businesses** such as those based in tourist areas and AONBs (three mentions).

Suggestions

There were 127 members of the public who made suggestions about the proposals. These included 101 members of the public who made suggestions about air traffic. Comments under this theme included comments about **flight paths** (66 respondents); **night flights** (six respondents); and **aircraft height** (five respondents). Specific comments about flight paths included that respite routes should not cover new areas (nine mentions); that respite routes should be changed frequently (eight mentions); and that respite routes should be spread over a wide area to ensure that no area experiences a high frequency of over-flying (six mentions). There were five mentions about not having any night flights. A few members of the public also made comments about looking to other airports to find alternative solutions, and about looking to build an alternative airport elsewhere. Some of these comments were outside the scope of this Consultation.

There were 20 members of the public who made comments about **noise**, including that noise should be addressed as the main issue (five mentions); that there should be a known schedule of respite so that people can plan for noisy periods (three mentions); and that new measures should be used to measure/assess noise (two mentions).

There were 11 members of the public who made suggestions about towns and residential areas. The main comment was that residential areas should be prioritised over protected areas and AONBs (five mentions).

Other comments and suggestions included that there should be a reduction in emissions (five mentions), and that rural areas and AONBs should qualify for greater respite (two mentions). Four members of the public made suggestions about quality of life issues, including that respite routes

could be beneficial if used late at night and or early morning (two mentions); and one member of the public suggested that flights over Penshurst Place should be reduced as it is blighted by aircraft noise.

Responses not received on the online response form

There were 16 members of the general public who provided comments via e-mail and by post about proposals for respite. Most of those who provided comments did not make clear about which height or heights they were referring to. There were ten members of the public who provided negative comments about the proposals. These included comments about the application of the 57 decibel (dB) noise contour (two mentions); and general comments about noise pollution (two mentions).

In the Summary of Responses to the Draft Aviation Policy Framework Consultation, recently published by the Department for Transport, the consensus of public opinion was: “The 57dB LAeq, 16h contour is the wrong means of measurement because it is outdated / represents an average / is ineffective. In summary, there is no confidence in this contour as the (sole) basis for taking decisions regarding aviation noise.” In addition there is solid evidence that the Leq57dBa Contour has failed to recognise the tonal effects of airframe noise from so-called quiet aircraft such as the Airbus A319/320/321 series.

Member of the public

Of those who responded by e-mail or post, eleven members of the public provided suggestions. Suggestions included that multiple respite routes are needed (four mentions); that flight paths should be steeper on departure/arrival (two mentions); and that meaningful respite routes should be implemented (two mentions).

5 Analysis of Consultation Question – Places or areas that may need special consideration

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 13 in the Consultation document.

Question 13 wording

Please indicate which, if any, place(s) or area(s) within the consultation swathes you think require special consideration in the on-going design process. Please describe the characteristics of these locations, stating whether they should be considered due to concerns about noise impact, visual impact and/or any other impact.

Please refer to the consultation swathes highlighted in the following maps, in the London Airspace Consultation document, depending on which part(s) of the consultation you are answering this question for.

Please provide any additional information you feel is relevant.

a) Stakeholder organisation responses

Summary

There were 45 stakeholder organisations who answered Question 13 in the response form. The question was about places or areas within the Consultation swathes that might need special consideration in the ongoing design process. A large number of different locations were mentioned. This included a range of locations across Kent, Surrey, Sussex, London, Essex and Suffolk. Reasons put forward as to why areas need special consideration include protection of AONBs such as at Dedham Vale; and protection of cultural heritage assets such as Hever Castle.

There were sixty-seven stakeholder organisations who replied to the question via e-mail and post. While a large number of areas were mentioned, it was not always clear if many of these respondents were talking specifically about the specific question that was asked, or if they had mentioned areas in general. A number of respondents mentioned areas that could have been more relevant at Question 14, but in some cases it was not possible to tell. Many areas were mentioned across the South East and East Anglia and can be seen in Appendix D. Noise was a main reason or issue and was mentioned by 39 stakeholder organisations. This was followed by the area is an AONB (14 mentions); and impact on visitors in tourist areas (14 mentions).

Responses received on the online response form

Forty-five stakeholder organisations mentioned a place or area within the Consultation swathes that might need special consideration in the ongoing design process. A large number of places and areas were mentioned. By county, areas of Kent were most often mentioned. In total, 18 stakeholder organisations mentioned areas in Kent that might need special consideration. Specific areas in **Kent** included Hever Castle (four mentions); Sevenoaks/Sevenoaks Weald (four mentions); and Penshurst (three mentions). The next most frequently mentioned county location was Suffolk – 10 stakeholder organisations named places in Suffolk in need of special consideration. Dedham Vale was the most frequently mentioned location in Suffolk with seven mentions. Other areas of note were High Weald (five mentions), and the Surrey Downs (three mentions).

The table below shows the number of stakeholder organisations who mentioned an area or areas by county (please see Appendix D for full details). Ten stakeholder organisations also mentioned non-

geographically based locations such as national trust properties, community facilities such as schools and hospitals, wildlife and biodiversity. All of the locations were collated and included in Appendix D.

Table 5.1 Areas and locations that may need special consideration
(note – main mentions by county area)

Area	Number	Area	Number
KENT	(18)	ESSEX	(5)
Sevenoaks/Sevenoaks Weald	4	Manningtree	2
Hever Castle	4	Other Essex locations receiving one mention each	12
Penshurst / place / gardens	3	EAST SUSSEX	(3)
SUFFOLK	(10)	Ashdown Forest	1
Dedham Vale	7	Chailey	1
Shotley Peninsula	3	LONDON AREA	(1)
Suffolk Coasts and Heaths	3	Downham area (SE London)	1
SURREY	(8)	OTHER (NOT LIMITED TO ONE AREA)	
Surrey Downs/Hills	3	High Weald	(5)
Other Surrey locations receiving one mention each	10	Kent Downs	(2)
WEST SUSSEX	(6)	South Downs	(1)
East Grinstead	2	OTHER	(10)
Crawley Down	2		
Imberhorne	2		

Reasons for special consideration

There were thirty-five stakeholder organisations that provided reasons as to why areas might need special consideration. Reasons included concerns about noise impacts (11 mentions); that **areas are protected or sensitive areas** (nine mentions); and **impacts on cultural heritage** (four mentions).

AONBs need special consideration, in view of their statutory designation. The Dedham Vale AONB especially, given that tranquillity is explicitly part of the rationale for its designation.

Dedham Vale Society

Hever Castle is a Grade 1 listed building and heritage site of great interest and importance to many living and working locally, and visiting from all over England and the World. It is set in an AONB in the Kentish Countryside situated away from any major roads or towns. The noise and disturbance caused by the overhead aircraft seems that much greater to those who visit the Castle...when they do so, they are expecting the opposite, tranquillity and calm rather than the roar of overhead planes.

Hever Festival Productions Ltd

I am the MP for Suffolk Coastal. I welcome the opportunity to provide my views on the London Airspace changes and am broadly in favour of the overall changes proposed in the consultation such as moving from vectoring to point merge. However, I am concerned at the prospect of further flights over the coast of Suffolk. I recognise the change consulted upon will be relatively minor but believe it needs to be considered in the context of all aircraft flight paths, as included in your own consultation. Felixstowe and its environs are already heavily overflowed by over 30 arrivals at Luton and Stansted per day, as is Woodbridge. The latter is also an area for low-level military training flights by the Army Air Corps and USAF. This is despite the unique combination in this part of the consultation area of 2 Areas of Outstanding Natural Beauty (AONBs) as well as densely populated towns (in particular Felixstowe and Ipswich). It would seem strange to me to add further overflights to an area which combines both dense populations with areas rightly protected for their natural beauty and cultural heritage.

Therese Coffey, MP

Other reasons included concerns about **visual impact** (four mentions); impact on **businesses**, including those in tourist areas (four mentions); and concerns about **emissions** (two mentions).

In contrast to the views of business and action groups, some other stakeholder organisations stated that they might not be best placed to answer questions about local areas. However, British Airways submitted a note of caution by saying that airspace design cannot be compromised on safety to benefit environmentally sensitive areas.

With regards to locational decisions, BA is not best placed to state what these places are...it requires local knowledge best provided by local government and directly impacted parties. However, any airspace design cannot compromise on safety to effect change for the benefit of an environmentally sensitive area.

British Airways

Suggestions about areas in need for special consideration

Eight stakeholder organisations made a suggestion or suggestions about areas in need of special consideration. Suggestions included:

- There should be more aviation routing over water / the sea;
- Nationally recognised/protected sites within the Consultation swathes should be considered due to noise impact;
- Protected landscapes should be classified as noise-sensitive sites;
- Aircraft should stay above 5,000ft over Sevenoaks;
- The area to the north of Brentwood, Billericay and Wickford should be excluded from the corridor; and
- Approach and departures routes should remain south of Dunsfold Aerodrome.

Responses not received on the online response form

There were 67 stakeholder organisations that provided comments via e-mail and by post about areas that could require special consideration.

Table 5.2 Areas and locations that may need special consideration

Area	Number	Area	Number
KENT	(14)	WEST SUSSEX	(4)
Hever Castle	7	Ifield Village Conservation Area	2
Chiddingstone / Castle / Causeway	7	Wakehurst Place	2
Penshurst / Place / Gardens	6	Ardingly South of England Showground	2
SURREY	(14)	ESSEX	(1)
Surrey Downs / Hills	6	Redbridge	1
Bletchingley Village	3	GUILDFORD	(1)
Lingfield	2	Cranleigh Village	1
EAST SUSSEX	(6)	OTHER (NOT LIMITED TO ONE AREA)	
Ashdown Forest	4	High Weald AONB	(10)
Crowborough	3	South Downs	(7)
Uckfield	2	Kent Downs	(6)
SUFFOLK	(5)	OTHER	(33)
Dedham Vale	5		
South Suffolk AONB / Coasts / Heaths	4		
Other Suffolk locations receiving one mention each	3		

Locations in Kent and in Surrey were most likely to be mentioned as places that might need special consideration, or which might be impacted by the proposals in some way. **Kent County Council** provided a detailed response setting out a large number of urban and rural areas that require special consideration.

CPRE proposes that those responsible for this consultation should visit Hever and other beauty spots in the AONB such as Leith Hill which are most affected by air traffic disturbance from Gatwick. What is required is a proper assessment of how to avoid the loss of peace and tranquillity of some of our most valued countryside before it is too late. CPRE and the Surrey Hills AONB will be happy to make the necessary arrangements on request. CPRE also believes that it is essential for a second consultation to be held on the new flight paths that are proposed before any final decisions are reached. Further research is required on the impact of air traffic noise disturbance. It is essential in our view that a more sophisticated approach is followed in future to find a satisfactory way forward.

CPRE Surrey Aviation Group

There were 11 stakeholder organisations that made general points. General points included reference to government guidance relating to AONBs and national parks (five mentions), and the Countryside and Wildlife Act (two mentions).

Suggestions about areas in need for special consideration

There were 36 stakeholder organisations that made a suggestion or suggestions about areas in need of special consideration. Suggestions included:

- Over flying of urban areas should be avoided (four mentions);
- There should be a fairer spread between urban and rural areas (four mentions); and
- Protection from air traffic noise should take precedence over the protection of greenbelt, parks, and AONBs (three mentions).

Areas that need special consideration are Southdowns National Park, High Weald AONB & Surrey Hills. Much of these areas are high ground, with thousands of visitors visiting for peace and relaxation every year bringing considerable income to the rural economy. Many of the rural businesses within these areas rely on tranquillity. Aircraft are deliberately flown over these areas avoiding towns. A fairer spread of all aircraft would present a fairer balance. Including over flight of urban areas.

Dormansland Parish Council

In my view, future flight paths should be positioned to avoid residential areas so far as possible, although wherever placed I recognise that there will be some properties under or close to the flight paths. I therefore support investigation into the use of respite routes in cases where there is disturbance from overflying. Such routes should be positioned to minimise noise disturbance to residential areas, and sufficiently wide apart.....

Reigate and Banstead Borough Council

There was also comment about the boundaries of AONBs:

We do note that NATS should not take the boundaries of the AONBs too rigidly; it is quite evident that any aircraft flying in the proximity of, but outside, the boundary of the AONB will have an impact on the AONB;.....

Suffolk County Council

b) General public responses

Summary

A total of 142 members of the public who answered Question 13 in the response form mentioned a location or locations that may need to have special consideration. A large number of different places and areas were mentioned across the South East, London and East Anglia. Included were a number of AONBs including the Surrey Hills, Kent Downs, and Dedham Vale in Suffolk, with a number of comments raised that these areas should be protected from aircraft noise and visual intrusion.

Of those who responded by e-mail or by post, 75 members of the public mentioned a place or area that may need special consideration. Again, a large number of areas and locations were mentioned. The three most frequently suggested locations were in the Kent Downs. There were 28 mentions of Crockham Hill, 27 mentions of Toys Hill, and 24 mentions of Ide Hill. There were also 10 mentions of the Kent Downs as a whole. Sixty-eight members of the public who responded by e-mail and post gave reasons for why areas require special consideration. The most common reasons related to concerns about general noise pollution (38 mentions) in tranquil environments, that proposals would affect AONBs (34 mentions), and that noise is more intense in hilly or elevated areas (30 mentions).

Responses received on the online response form

There were 142 members of the public who cited a location or locations that may need special consideration due to impact from noise, visual impact and other impact at the first part of Question 13. More than 80 different locations were mentioned which means that not all of the locations can be listed individually here. However, please refer to Appendix D for details of each location mentioned, and reasons for needing special consideration.

Impacts on specific areas

One hundred and forty-two members of the public who answered Question 13 in the response form cited impacts, including noise impacts and visual impacts as a result of the proposals. Those who provided verbatim comments about additional impacts at the first part of this question have been categorised by theme and area and listed in the following table:

Table 5.3 Locations that would or could be impacted by the proposals

Area	Responses	Area	Responses
KENT	(53)	<u>East Sussex</u>	(8)
Health impacts	2	Impact on AONBs	2
Impact on AONBs	10	Economic impact	3
Pollution (unspecified)	14	Heritage	1
Noise pollution	6	Pollution (unspecified)	2
Air pollution	8	Air pollution	2
Light pollution	1	Noise pollution	4
Fuel/emissions	9	Fuel emissions	1
Impact on community	4	SURREY	(34)
Visual impact	2	Impact on AONBs	1
Impact on heritage	2	Impact on community	1
Economic impact	7	Environmental impact	1
Impact on SSSIs	3	Visual impact	2
Flight paths	1	Impact of emissions	2
Environmental impact	9	Impact on health	1
ESSEX	(4)	Impact on heritage	1
Impact on community	1	Impact on property prices	2
Environmental impact	1	Concerns about safety	2
Noise pollution	1	Pollution (unspecified)	9
Light pollution	1	Air pollution	11
West SUSSEX	(25)	Noise pollution	1
Impact on AONBs	1	SUFFOLK	(2)
Economic impact	3	Impact on AONBs	1
Impact on community	2	Impact on heritage	1
Impact on health	1	Impact on community	1
Pollution (unspecified)	6	LONDON	(1)
Air pollution	6	Disturbance to sleep	1
Noise pollution	3	Impact on tranquillity	1
Impact on property prices	5	Other (unspecified)	(7)
Concerns about safety	2	Location (wide area)	3
Impact on heritage	1	Location (reference)	3
		Location (unspecified)	1

Specific impacts – Kent

There were 53 members of the public who mentioned an area or areas of Kent that may require special consideration. A summary of the perceived impacts is given below:

- **Pollution:** 14 members of the public mentioned pollution in general, while eight members of the public cited air pollution, and six cited noise pollution. Specific areas mentioned included noise pollution in Chiddingstone (two mentions); general pollution in Sevenoaks (four mentions); air pollution in Tonbridge (four mentions); and air pollution in Bidborough (four mentions);
- **Emissions:** there were 9 members of the public who provided comments about emissions. A number of areas in Kent were mentioned, including Sevenoaks, Edenbridge, Ide Hill, and Westerham;
- **AONBs:** there were also 10 members of the public who made comments about AONBs. Comments included five comments about Sevenoaks Weald, two comments about Crockham Hill, and one comment about Chiddingstone Castle;
- **Economic impact:** seven members of the public mentioned economic impacts, including loss of revenue in Bidborough, and Speldhurst;
- **Environmental impact:** eight members of the public mentioned environmental impact, including impact on wildlife and plants at Toys Hill (two mentions), Sevenoaks (two mentions), and Sevenoaks Weald (two mentions);
- **Community impact:** four members of the public mentioned community impacts and disturbance in Bidborough, Chiddingstone, High Weald, and Tunbridge Wells (each location was mentioned by one participant); and
- **Other impacts:** other comments included impact on **quality of life** in Speldhurst and Sevenoaks; **visual intrusion** in Poundsbridge and High Weald, and cultural heritage issues including adverse effects on Chiddingstone Castle.

Specific impacts – Surrey

There were 34 members of the public who mentioned an area or areas in Surrey that may need special consideration. A summary of the perceived impacts is given below.

- **Pollution:** 11 respondents mentioned air pollution across a number of areas in Surrey, including Bletchingley, Felbridge, Horley, Redhill and Reigate (all two mentions) Nine respondents also mentioned pollution in general, in areas including Capel, Coldharbour, Lingfield and Meath Green (one mention each); and
- **Other impacts:** a number of other impacts were mentioned by a small number of respondents. Other impacts included negative effects on Bletchingley; impact on quality of life in Smallfield; impact on property prices in Smallfield and Reigate; impact on patients attending East Surrey Hospital; and impact on populous areas in Felbridge.

Specific impacts – West Sussex

There were 25 members of the public who mentioned an area or areas in West Sussex that may need special consideration. A summary of the perceived impacts is given below.

- **Pollution:** six members of the public mentioned impacts from pollution in general in areas including Copthorne, East Grinstead, and Horsham. Six members of the public also cited air pollution which would affect East Grinstead, Horsham, and Warnham. There were three members of the public who mentioned noise impacts in Pulborough, Durfold Wood and East Grinstead.
- **Other impacts:** other impacts mentioned included the effect on property prices in East Grinstead, Warnham and Loxwood; negative effects on Ruser AONB; impact on the communities of Copthorne and Durfold Wood; cultural heritage issues at Warnham; and safety considerations in Billingshurst, and East Grinstead.

Specific impacts – East Sussex

There were eight members of the public who mentioned an area or areas in East Sussex that may need special consideration. Perceived impacts included loss of revenue in Ashdown Forest and Nutley (both two mentions); issues with pollution in Ashdown Forest including noise pollution (three mentions) air pollution (two mentions) and general pollution (two mentions); and impact on cultural heritage sites at Sedlescombe (one mention).

Specific impacts – Suffolk, Essex and London

Four respondents mentioned impacts in Essex. These included effects of **aircraft lights** at night on residential properties in Langdon Hills, and **environmental impact** on animals and plants in the Colchester area. One comment was also made about **light pollution** in general in Boxted, and impact of **noise** in Stock Village, in the south of the county.

In Suffolk, just two respondents made comments about impact on local areas. Comments included negative impact on Felixstowe AONB; impact on world heritage sites at Dedham Vale; and impact on the populous area of Felixstowe.

In London, just one participant mentioned sleep disturbance in Upminster, and general impact on tranquillity.

Specific impacts – other

A small number of other comments were made, including references to the maps in the consultation documents. Comments included impacts on farming in B8 and B9 (one mention); pollution in Part B (one mention); and impact on property prices in B9 (one mention).

Additional Information

At the second part of **Question 13**, respondents were asked to provide any additional information they felt was relevant. In total, 217 members of the public provided further comments and additional information. This included 201 members of the public who opted to answer questions about Gatwick Airport, and 30 members of the public who opted to answer questions about London City Airport (please note - the reason why this adds to more than the total is that some members of the public answered questions about both Gatwick Airport and London City Airport).

- **Noise:** There were 130 members of the public who provided comments about noise. This included 120 members of the public who chose to answer questions about Gatwick Airport, and 18 members of the public who chose to answer questions about London City Airport. The most frequently cited comments included that noise is the main issue and should be

reduced (18 mentions); the effects of noise are more pronounced in rural areas, and areas with low background noise (17 mentions), and that the proposals will generally increase noise (seven mentions). Other comments about noise included Weald AONB will be spoilt by noise (six mentions); East Grinstead is affected by noise from easterly departing flights (five mentions); and towns/urban areas are best able to cope with noise (four mentions). Full details on specific response regarding noise can be found in Appendix D;

- **Air traffic:** Ninety-nine members of the public made comments about air traffic. This included 89 members of the public who chose to answer questions about Gatwick Airport, and 17 members of the public who chose to answer questions about London City Airport. Overall, 47 members of the public provided comments about flight paths, and 38 members of the public commented about aircraft height/altitude. While many different comments were made, no single aspect stands out as being more likely to be mentioned. There were nine comments about effect of aircraft on hilly or elevated areas; seven comments about flight paths not being adhered to; and five specific comments about the effects of Ide Hill, Crockham Hill and Toys Hill in the Kent Downs being overflown or more frequently overflown as a result of the proposals;
- **Rural areas/the countryside:** There were 39 members of the public who made comments about rural areas / the countryside. This included 30 members of the public who chose to answer questions about Gatwick Airport and 13 members of the public who chose to answer questions about London City Airport. The most common mentions were that national parks and sensitive areas will be blighted if overflown, or overflown at low altitudes (seven mentions); that overflying of AONBs spoils their very nature; and that Dedham Vale is in an AONB (six mentions);
- **Business:** Thirty-seven members of the public made comments about impact on business. This included 34 respondents who chose to answer questions about Gatwick Airport, and six respondents who chose to answer questions about London City Airport. The most frequently cited comment was that proposals will generally have a negative impact on businesses and the tourism industry (seven mentions). There were a number of specific locations mentioned, the details of which can be found in Appendix D;
- **Air Pollution:** There were 20 members of the public who made comments about the impact of pollution as a result of the proposals. This included 18 respondents who chose to answer questions about Gatwick Airport, and six respondents who chose to answer questions about London City Airport. While a large number of comments were made, including specific impacts on settlements, no more than a few comments were made about each point or settlement;
- **Quality of life issues:** There were 19 members of the public who made comments about quality of life issues as a result of the proposals. All nineteen of these respondents had answered questions about Gatwick Airport, while just one respondent who had answered questions about London City Airport made mention of quality of life issues. The most frequently made comment was that the proposals will have a negative impact on health (five mentions). There were also three mentions about the effect of noise being detrimental to quality of life; and three mentions about the effect on people's enjoyment of visiting Ashdown Forest; and
- **Towns and residential areas:** There were 14 members of the public who made comments about towns and residential areas. All fourteen of these respondents had answered questions about Gatwick Airport. One respondent who mentioned towns and residential areas had answered questions about London City Airport. Comments included criticism about the proposals as they will, or could, direct flights over new areas (three mentions); Chiddingtong Village and Chiddingtong Castle will be impacted (three mentions); and that Cowden should be avoided (two mentions).

A number of other comments were made about issues including visual impact, and impact on cultural heritage. Full details can be found in Appendix D.

Suggestions

Seventy members of the public provided suggestions in response to Question 13. This included:

- **Flight paths:** 24 respondents made suggestions about flight paths. Suggestions included that flight paths should be re-routed to avoid towns, villages, and residential areas (four mentions); and conversely, that flight paths should be re-routed to avoid national parks and AONBs (three mentions);
- **Noise:** 20 respondents made suggestions about noise impact and noise pollution. The most frequently cited mentions were that there should be a 10 decibel noise allowance in AONBs and rural areas (four mentions); that aircraft landing at Gatwick airport should use/employ a continuous descent approach (three mentions); and that noise should be considered in terms of how it impacts on health (three mentions);
- **Rural areas and the countryside:** 13 respondents made suggestions about rural areas and the country side. This included that more consideration should be given to AONBs, national parks and tranquil areas (seven mentions); that aircraft should avoid overflying of AONBs and national parks altogether (six mentions); and that specifically, flights under 5,000ft or low altitude should be excluded from overflying sensitive and protected areas (four mentions); and
- **Other suggestions:** a number of other suggestions were made including about towns and residential areas, aircraft height/altitude, night flights, air pollution, and suggestions about business. Full details can be found in Appendix D.

Responses not received on the online response form

Of those who responded to the Consultation by post and e-mail, the majority were concerned about local areas that would or could be affected by the proposals. There were seventy-five members of the public who responded by these methods and mentioned areas that could be impacted by the proposals. As responses by e-mail and post are unstructured (i.e. they don't follow the format of the response form) it is not always possible to distinguish between locations mentioned that may need special consideration and locations that have been mentioned in general that could be affected by proposals.

Many different locations were mentioned. Kent Downs AONB was the most frequently mentioned location. The most frequently cited locations were Crockham Hill (28 mentions), Toys Hill (27 mentions), and Ide Hill (24 mentions). A large number of other locations were also mentioned. All of the locations mentioned are listed in Appendix D.

The London Airspace Consultation maps show that the proposed north east flight path would cut across the Kent Downs AONB flying over the west of Sevenoaks; over Ide Hill, Toy's Hill, and Crockham Hill; joining the main flight path between Blindley Heath and Lingfield. Flights would be under 4,000ft above sea level. Ide Hill is 704ft; Toy's Hill is 770ft, and Crockham Hill is 706ft. The effect of noise, CO2 emissions, and visual intrusion would be magnified from these hills.

Member of the public

The most common reasons put forward as to why area/s should have special consideration was because of general **noise impact** (38 mentions); because areas have **protective status** (34 mentions); because **elevated and hilly areas** suffer more from noise due to their position (30 mentions); and concerns about **air pollution** (28 mentions). Other comments included negative impact on the **tourist industry** (22 mentions); impact on **wildlife** (14 mentions) and **birdlife** (12 mentions).

My daughter goes to Ide Hill primary school and it has come to my attention that you are proposing a new flight path over this area...we live in an area of outstanding natural beauty which will be affected and damaged but the additional pollution and noise and it will affect my children's health and wellbeing as well as the natural wildlife and birds which live and migrate across the high hills every year.

Member of the public

6 Analysis of Consultation Question – Time sensitive routes and procedures

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 14 in the Consultation document.

Question 14 wording

In what, if any, geographic locations should options be considered for altering routes for respite purposes?

What should the criteria be?

Please refer to the 'Time sensitive routes and procedures' section in Part B and Part C of the London Airspace Consultation document.

Please state what you think the criteria should be.

a) Stakeholder organisation responses

Summary

A total of 19 stakeholder organisations responded to the first part of the question on the online response form mentioned geographical locations that should be considered for altering routes for respite purposes. A number of different areas were mentioned which are included in Appendix D of this document. Locations in Kent received the most mentions (9 mentions). A number of respondents tended to mention specific locations at Question 13 rather than at Question 14, and others viewed the two questions as one and the same.

There were 16 stakeholder organisations who commented on what the criteria should be. Reasons have been coded and can be found in Appendix D. No individual reason stands out, with comments including that tourist attractions should be avoided where possible, and that historic houses require tranquillity.

Some 28 stakeholder organisations responded by e-mail and by post. Of these, 11 mentioned specific areas including Hever Castle, Chiddingstone Castle, and Penshurst Place. Nine stakeholder organisations commented about the criteria, including four comments that tourist attractions should be avoided, and that noise is greater in rural areas and the countryside.

Responses received on the online response form

There were 19 stakeholder organisations who answered Question 14 in the response form. Of these, locations in Kent received the most mentioned (9), followed by West Sussex (3). Five stakeholder organisations also mentioned other places that were not easy to define by county geography (including airspace West of Gatwick Airport, and the area between Gatwick Airport and Tonbridge).

There were sixteen stakeholder organisations who provided comments about the criteria. Comments included that tourist attractions should be excluded where possible. **Dunstable Aerodrome** said they would not be time sensitive before 7:00am, or after 7:30pm in winter and 8:30pm in the summer months. **Lewes District Council** said that night flights should avoid populated areas, whereas day flights should possibly avoid tranquil areas.

Table C1 of Part C of the consultation states that there are proposed to be on average 2 flights per hour between 23.00 and 07.00. Table C2 states that 1.5% of all flights are B747-400 or equivalent, does this include nighttime

flights? If so these should avoid the more populated areas detailed above during nighttime arrivals and departures. A noise level of 67 to 69 dB(A) is a significant increase on the noise levels (59-60dB(A)) generated by the vast majority of flights. However 59-60dB(A) at 6,000 to 7,000ft could still represent a loss of amenity during the 23.00 to 07.00 period if directed directly over the three areas above. Conversely during the 07.00 to 19.00 period it may be more appropriate to avoid the more tranquil rural areas as the background noise in these areas remains relatively low throughout the 24 hour period.

Lewes District Council

Hever Castle frankly should if possible be avoided at all times as it is a popular visitor attraction during the day and at night it has plays and concerts outside in the summer.....Flying overhead in January and early February would be less of a problem but then again it precludes the castle from receiving filming work.

Hever Castle Ltd

Other comments about the criteria included comments from:

- **The Association of Imberhorne Residents** said that early morning flights should be avoided;
- **Godstone Village Association** said that there should be periods in each day which are not subject to the noise and disturbance of overflying particularly in the evenings and early mornings; and
- **Weald Community Primary School** said areas of outstanding natural beauty and areas of population, plus schools, should be avoided.

Responses not received on the online response form

There were 28 stakeholder organisations who responded by e-mail and by post, 11 of whom mentioned specific locations. This included Hever Castle, Chiddingstone Castle and other tourist attractions, including Penhurst Place. There were nine stakeholder organisations that provided comments on the criteria, including that tourist attractions should be avoided, and that Surrey Hills AONB may be less sensitive after dark, and during the working week.

Cranleigh Parish Council considers the Cranleigh/Rowly/Ewhurst Villages area is sensitive at all times of day and night since it is a centre of population. The Surrey Hill AONB to the North East of Cranleigh may be less sensitive after dark and during the working week when it is less used by visitors.

Cranleigh Parish Council

b) General public responses

Summary

A total of 204 members of the public who responded on the online response form mentioned geographical locations that should be considered for altering routes for respite purposes. Many different areas were mentioned which are included in Appendix D (separate document). By county, Kent received the most comments – 83 members of the public mentioned locations in Kent, while 51 respondents mentioned areas in West Sussex, and 44 respondents mentioned areas in Surrey.

Just nine members of the public who responded by e-mail and post made comments specifically related to Question 14. It should be noted, however, that it was not always possible to distinguish between Question 13 and Question 14 unless respondents made that clear in their response – many did not do so.

Responses received on the online response form

There were 204 members of the public who mentioned geographical locations that should be considered for altering respite routes. Locations are shown in the table below:

Table 6.1 Locations that should be considered for altering respite routes

Area	Responses	Area	Responses
Kent	(83)	East Sussex	(12)
Tunbridge Wells	20	Ashdown Forest	4
Penshurst	12	Crowborough	2
Bidborough	11	Hartfield	2
Tonbridge	11	London	(4)
West Sussex	(51)	Hampshire	(1)
East Grinstead	20	South Downs	(3)
Rusper	3	High Weald	(3)
Rudgwick	3	Suffolk	(1)
Surrey	(44)	Area not defined by geography	(28)
Leigh	7	Reference to Consultation document	(4)
Felbridge	5		
Dormansland	3		
Redhill	3		

Criteria to be considered for altering respite routes

A total of 246 members of the public provided comments about the criteria to be considered for altering routes for respite as follows:

- **Air traffic:** there were 206 respondents who provided comments about air traffic, including **flight paths** (140 respondents), the **height / altitude** of aircraft (34 respondents), and **night flights** (38 respondents). Many different comments were received. The main comment was that there should be an equitable spread of flight paths to reduce the burden on any one area overflown (25 mentions). There were also 15 comments about respite routes being a bad idea or that there should not be respite routes at all. Other comments included that there should be no increase in night flights or early morning flights (14 mentions); to keep flights at higher altitudes for longer or to reduce low altitude flights (11 mentions); that the frequency of flights should not be increased (six mentions);
- **Noise:** there were 85 members of the public who made comments about **noise**. The main comments regarding noise were general concerns (32 mentions); and to reduce or eliminate noise on respite routes (31 mentions);
- **Towns / residential areas:** there were 34 members of the public provided comments about towns and residential areas. The main comment was that there should be consideration for residential areas (18 mentions);
- **Rural / countryside:** there were 27 members of the public who provided comments about rural areas and the countryside. Comments included that AONBs, national parks and other environmentally sensitive areas need to have proper consideration (eight mentions); and that AONBs, national parks and sensitive areas should be avoided altogether (eight mentions);
- **Quality of life:** there were 26 members of the public who provided comments about quality of life issues. The main comments were about concerns about sleep disturbance (15 mentions), and about general concerns about health and well-being (also 15 mentions).
- **Air pollution:** there were 14 members of the public who made comments about air pollution. The main comment here was around concerns about the impact of fuel burn and consequences for CO₂ emissions (nine mentions).

Sixty members of the public also made other general comments. This included that there **is not enough information to make a decision** (17 mentions).

Not enough information has been given to be able to give consideration to respite paths. Would this mean that some places would effectively become no-go zones on some days of the week?

Member of the public

Responses not received on the online response form

Nine members of the public who responded to the Consultation by e-mail made comments about the criteria to be considered for altering respite routes. Six respondents mentioned areas that should be considered, with suggestions including that it would make sense to avoid AONBs, and that residential areas and rural areas should share an equal burden of overflying.

7 Analysis of Consultation Question – Flight paths over environmentally sensitive areas

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 15 in the Consultation document.

Question 15 wording

PART A (CLOSED QUESTION):

Altering routes to fly around environmentally sensitive areas rather than overhead is likely to mean more fuel burn and more CO₂ emissions because the altered route would usually be longer. In general, which should take precedence – minimising overflight of sensitive areas by flying a longer route around them, or flying the direct route overhead the area to keep the route shorter and minimise fuel burn and CO₂?

PART B (OPEN ENDED QUESTION):

What, if any, factors should be taken into account when determining the appropriate balance of flying around environmentally sensitive areas versus overhead (for instance the altitude, frequency or timing of flights may be a factor)?

a) Stakeholder organisation responses

Summary

There were 37 stakeholder organisations who answered the closed question (Part A) in the response form, which asked about the balance between avoidance of environmentally sensitive areas and direct flights with lower fuel burn and CO₂ emissions. Of those who answered, more believed that avoidance of sensitive areas should take precedence (18 responses) than believed priority should go to direct flights (five responses).

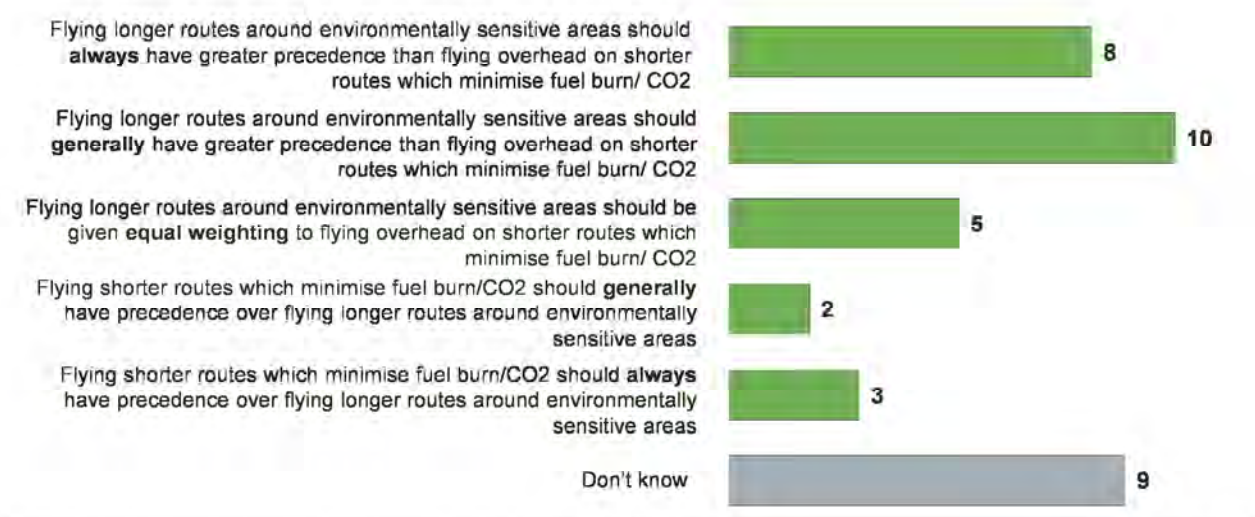
Twenty-nine stakeholder organisations provided comments about the proposal. There were 10 responses which offered reasons why the avoidance of sensitive areas should take precedence. The most common of these comments was simply that the avoidance of these places should be a priority. Only three responses made points in favour of direct flights as priority.

There were also 46 stakeholder organisations which responded by e-mail and post who provided comments about the proposal. Thirteen gave reasons for sensitive areas to be avoided, and only three made comments in favour of direct flights as the priority. Twenty organisations gave responses in which they made suggestions about this part of the Consultation, and 21 made general comments on the balance between environmentally sensitive areas and direct overflights.

Responses received on the online response form

Figure 7.1 Stakeholder organisations - Avoidance of sensitive areas vs. direct flights with lower fuel burn and CO₂ emissions

In general, which should take precedence – minimising overflight of sensitive areas by flying a longer route around them, or flying the direct route overhead the area to keep the route shorter and minimise fuel burn and CO₂



Base: all stakeholders who answered the question (37); 15th October 2013 - 21st January 2014
 Source: Ipsos MORI
 Ipsos MORI Public Affairs

Of the organisations that answered the question, all of the 10 environment, heritage or community groups wanted sensitive areas to be avoided generally or all the time. Only among aviation groups was there some support for direct flights to take precedence (four of the nine aviation groups that provided a response).

Overall, eight organisations said environmentally sensitive areas should always be avoided and three said that precedence should always be given to direct flights. These organisations are listed below:

Table 7.1: Stakeholder organisations - views about flying over, or avoiding environmentally sensitive areas	
Avoidance of environmentally sensitive areas should always have greater precedence	
Minster-on-Sea Parish Council East Bergholt Parish Council Godstone Village Association Colne Stour Countryside Association	Horsham District Council Bradfield Village Air Defence League The Shelley Parish Meeting Mid Sussex District Council
Direct flights should always take precedence	
Jet2.com easyJet	Aer Lingus

Reasons to give precedence to sensitive areas

There were 10 responses which gave reasons why priority should be given to flights around environmentally sensitive areas. The most common of these comments was simply that precedence should be given to the avoidance of these places (four responses). Other reasons included the view that any fuel saved by a direct flight would be minimal, the effect of noise and visual disturbance, and

also the argument that heavily populated areas should qualify as environmentally sensitive and therefore be avoided. The tranquillity of AONBs was also seen to be an important point:

Areas of Outstanding Natural Beauty are so designated to protect them and so no flights at any level should go over such areas.

East Bergholt Parish Council

If the preservation of this tranquillity requires aircraft to adopt a route which is longer than would be experienced with a "Direct to" routing, then that is generally considered to be a price worth paying.

Stour and Orwell Society

Reasons to give precedence to direct flights

Three organisations gave comments in favour of priority for direct flights. The reasons that they gave included the reduced use of fuel and also the view that cuts to emissions should have priority.

The main environmental challenge facing aviation is climate change. So we believe that overall emissions savings should be the priority for airspace redesign.

easyJet

Departure fuel consumption is considerably more than on arrival and therefore, extending departure routes (to avoid environmental sensitive areas) would be more penalising and is not preferred from an airline point of view.

Aer Lingus

Suggestions

Seventeen organisations made suggestions on the balance between direct flights and longer journeys around sensitive areas. Several noted the importance of altitude, and that flights above 7,000ft had relatively little effect on areas below.

We would suggest that below 7,000ft, and definitely below 4,000ft, the emphasis should be on reducing noise. Above 7,000ft the emphasis should be on reducing emissions, but consideration will need to be given to mitigating impacts on noise sensitive areas such as protected landscapes

Natural England

It was argued in one response that, because of this, the main goal for flights above 7,000ft should therefore be to cut fuel burn and CO₂. Another response made the same point and said the priority should be noise reduction when aircraft went below 4,000ft. There was a further suggestion about the timing of flights over AONBs:

If flight paths are to be over the AONBs we consider they should be at a maximum height. It should be noted that most recreation in the AONB occurs at the weekends and summer evenings and flight paths should seek to avoid these periods

Suffolk Coast and Heaths AONB

In addition there was comment about the need to prioritise safety:

GATCO believes that safety must be the first consideration.....

GATCO Guild of Air Traffic Control Officers

Responses not received on the online response form

There were 46 organisations which responded by e-mail or post and made comments about this part of the Consultation. Of these responses, 13 had comments in favour of flights around sensitive areas, and only three gave reasons in favour of direct flights. Twenty organisations made suggestions on the matter, and 21 made more general comments on the balance between direct and indirect flights.

Reasons for sensitive areas to get precedence

Of the 13 responses with comments in favour of flights around sensitive areas, the most common was that additional fuel burn would be minimal (four responses) and that noise disturbance had to be kept to a minimum (three responses). The importance of tranquillity and the effect of direct overflights featured prominently in the reasons given for sensitive areas to be bypassed.

Compared to the overall length of journeys the extra detours are a very small percentage of fuel used. Fuel burn as an expense for the operators should not be a consideration. Linking it to a commendable target like CO2 reduction is a bit disconcerting as a genuine attempt to reduce CO2 from the aircraft industry would focus on less flights and making people take alternative forms of transport particularly for domestic routes.

Tunbridge Wells Borough Council

CO2 burn can be offset, noise cannot. All environmental impacts should be considered. The Group would welcome an idea of the extra fuel required and would support GAL offsetting this extra fuel burn with a compensating measure.

High Weald Parish Council Aviation Actions Group

Reasons for direct flights to take precedence

Only three comments that were sent by e-mail or post had comments in favour of direct flights as the priority. These comments were about how direct flights would burn less fuel and that reductions in stepped descents would reduce the effect on environmentally sensitive areas.

Flying a longer route to avoid a particular area should only be considered when it outweighs the cost in terms of fuel and CO2. The consumption of fuel on departure is considerably more than on arrival and therefore, extending departure routes (to avoid environmental sensitive areas) is not preferred.....

CityJet

Members would obviously like to minimise fuel burn/CO2, and therefore view shorter routings as an effective way of achieving this. This coupled with a reduction in stepped descents and other benefits of the proposed redesign, would mean that any over flying of environmentally sensitive areas would be mitigated against by these benefits overall.

European Regions Airline Association

Other comments and suggestions

A broad range of comments and suggestions were made by organisations through e-mail or by post. Although no single idea or view predominated, many recognised the importance of altitude to the matter, and suggested differing goals according to the height of travel.

.....flying shorter routes to save fuel burn and CO2 should be made the priority above 4,000ft. For operations close-in to airports we would agree that below 4,000ft noise and emissions should both be considered in the planning of airspace.

Functional Airspace Block

Quite a number of the comments recognised that it was a question of balance between different considerations. However, there were also concerns about the need to reduce the effect on heavily populated areas, such as Crawley.

We understand the need to fly longer routes to avoid particular areas but would expect fuel and CO2 emissions to be taken account of within the design parameters.

Monarch Airlines

Below 7,000ft, the priority should be given to avoiding residential areas where practicable.

Crawley Borough Council

b) General public responses

Summary

There were 263 members of the general public who answered the closed question in the response form (Part A). There were 211 respondents who commented on the factors that should be taken into account in flights over environmentally sensitive areas (Part B).

Of those who completed the closed question, 180 respondents believed that avoidance of environmentally sensitive areas should take precedence over direct overflights, either generally or always. A smaller number, 28 respondents, believed that direct flights with a lower fuel burn and CO₂ emissions should take precedence over the avoidance of environmentally sensitive areas.

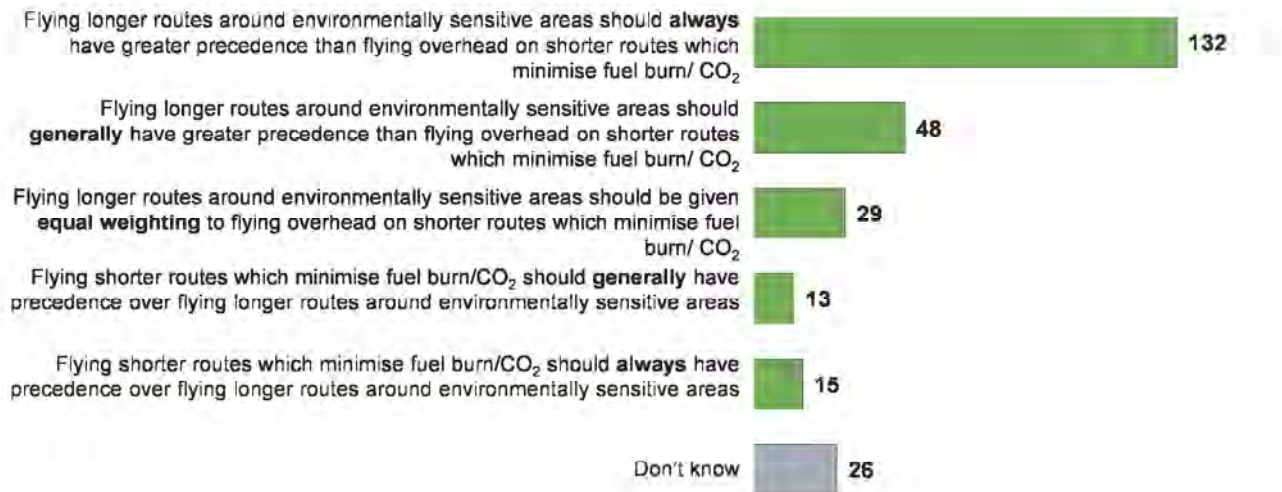
Among the factors that ought to be taken into account in this decision, the most commonly mentioned were air traffic-related (131 comments).

There were nine respondents who provided comments by e-mail and by post. Of these, six said that flying longer routes should take precedence, while just one respondent said that shorter routes should take precedence.

Responses received on the online response form

Figure 7.2 General public - Avoidance of sensitive areas vs. direct flights with lower fuel burn and CO₂ emissions

In general, which should take precedence – minimising overflight of sensitive areas by flying a longer route around them, or flying the direct route overhead the area to keep the route shorter and minimise fuel burn and CO₂



Base: all members of the public who answered the question (263); 15th October 2013 - 21st January 2014.

Source: Ipsos MORI

Ipsos MORI
Public Affairs



Factors to consider

Of those who responded on the online response form, 211 members of the public commented in Part B on the factors to consider in flights over environmentally sensitive areas. By far the most commonly cited factor was **air traffic** (131 responses). These comments about air traffic broke down into a number of sub-categories:

- Sixty-three were specifically about **flight paths**, for example that these should avoid urban areas or at least give priority to the avoidance of them (18 comments);
- Sixty-two comments were about **aircraft height**, and the most common of these was about their altitude and the effects of their noise on the ground (34 comments);
- Twenty-four comments showed concern about the **frequency of flights** and the need to make this a priority;
- Eighteen comments were about **night flights**, mainly that there were too many or that they should be reduced or stopped.

Flights overhead do have nuisance impact on the ground below. I think it is important to take account of the degree of change (in terms of change in experienced flight frequency and height) as one of the factors for assessing impact

Member of the public

The next most frequent comments related to the **environment** (73 responses), and mainly expressed concern about the effect of overflying aircraft on wildlife and on specific villages, towns and areas of countryside. The most common single comment was that Areas of Outstanding Natural Beauty should be avoided, respected, or given proper consideration i (35 responses).

A total of 64 responses mentioned the impact or importance of **noise**. The most frequent observation was that noise pollution from aircraft needs to be a priority or given proper consideration (24 responses).

Factors cited less often included concerns about air pollution (52 responses), the effect on people's quality of life (39 responses), the impact on business or the economy (30 responses), upon residential areas (24 responses), and about night flights (18 responses).

Responses not received on the online response form

In addition to the comments made through the online response channel, nine comments on this part of the Consultation came through either by e-mail or a written submission through the post.

Most of the comments (six out of the nine) gave priority to the avoidance of environmentally sensitive areas rather than to more direct flights. Among the reasons given were that noise is more noticeable in the countryside, the need to protect the High Weald AONB, and that sensitive areas generally should be avoided.

8 Analysis of Consultation Question – Point Merge

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 16 in the Consultation document.

Question 16

PART A (CLOSED QUESTION):

This proposal is seeking to change the way aircraft use airspace by developing a system for managing arrivals based on Point Merge, rather than the holding stack/vectoring currently in use. Please indicate the extent to which you support or oppose our objective of providing a future system based around Point Merge for each of the airports.

PART B (OPEN ENDED QUESTION):

Please state the reasons why you support or oppose the objective of a system based around Point Merge.

a) Stakeholder organisation responses

Summary

Twenty-six stakeholder organisations answered the closed question in the response form, relating to the proposal to managing arrivals based on a Point Merge system at Gatwick Airport. Thirty stakeholder organisations answered the closed question in the response form about the Point Merge system at London City Airport.

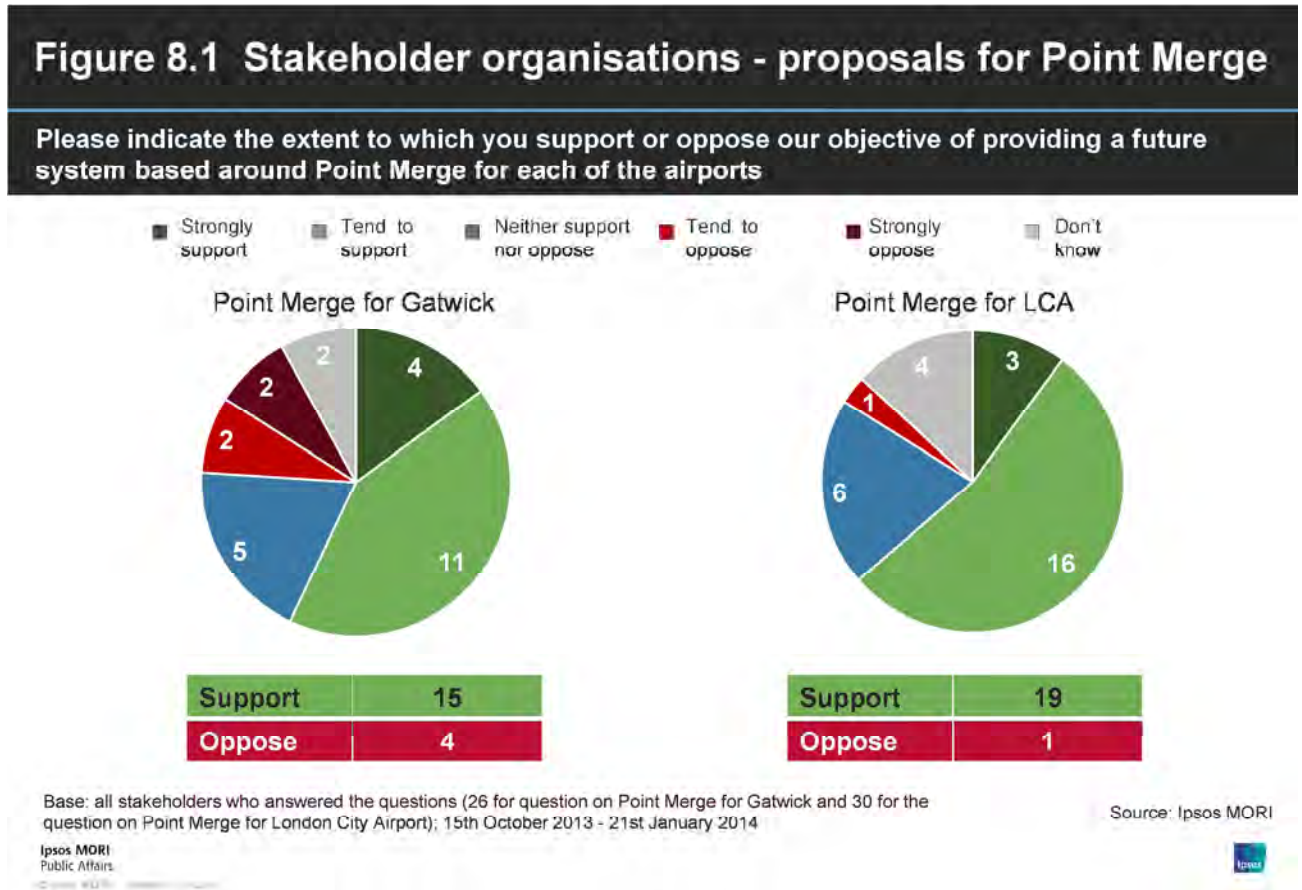
Of those who responded, 15 supported the proposals for Gatwick and 19 for London City. Conversely a total of five opposed the proposal (four for Gatwick and one for London City).

Positive comments included the view that the proposed Point Merge system would improve efficiencies, improve overall performance, reduce overall delays and that it would reduce the environmental impact of the aircraft (in terms of noise, visual impact and emissions). Many of the stakeholder organisations were broadly supportive of the Point Merge system, however, they expressed concern over the need to carry more fuel on board the aircraft or they required more information before formulating a view.

There were few overtly critical comments of the Point Merge proposals. Most negative stakeholder organisation comments related to the potential location of the Point Merge arcs.

There were also 54 stakeholder organisations who responded by e-mail and post who provided comments about the proposal. Just under half (26) provided positive comments, and 28 provided negative comments (respondents could provide both given the unstructured nature of the responses). Positive comments included eight comments about reduced CO₂ emissions and eight making the point that inefficient stacking and vectoring is eliminated. Negative comments included the fear that Point Merge will lead to higher flight concentration (10 mentions) and that there is an inadequate explanation of how Point Merge will lead to reduced CO₂ emissions (four mentions).

Responses received on the online response form



Overall, of those who responded using the online response form, the Point Merge proposals were broadly supported. For Gatwick, 15 supported the proposal and four opposed it. For London City Airport there was a similar response (19 supported with one opposed).

Positive comments about the proposal

There was a mix of stakeholder organisations that provided positive comments about the Point Merge proposals. Comments included the view that the proposed Point Merge system would improve efficiencies, overall performance, reduce overall delays and that it would reduce the environmental impact of the aircraft (in terms of noise, visual impact and emissions). The general principle that aircraft would be climbing more quickly and staying higher for longer was welcomed by many stakeholder organisations, both regarding Gatwick and London City:

Given the predicted benefits as noted in the report, the change to a point merge for arrivals is supported; the fact that departures will be able to climb higher quicker as a result is particularly welcomed.

Horsham District Council

It was however noted that the Point Merge arcs should be located over the sea where possible.

It is accepted that changes in navigation technology allow for this more efficient arrival structure and the removal of stacks are welcomed. Given that planes arrive from the east the PM for London City Airport should be located over the Thames Estuary. The PM should not be located over land and should avoid environmentally sensitive areas.

Chelmsford City Council

There were supportive comments from British Airways who acknowledged that the current system of vectoring aircraft to sequence the arrival stream can cause delays, more fuel burn and inefficient flight profiles:

Many other European cities are planning to deploy the Point Merge concept in their airspace and a small number have already done so. The brief summary of benefits outlined.....combined with the widespread intent to deploy, is a sound measure of the potential benefits that are at stake, and an indicator of the importance that NATS should place on pursuing this.

British Airways

Many of the stakeholder organisations were broadly supportive of the Point Merge proposals; however they expressed concern over the need to carry more fuel on board the aircraft, the challenges this presents in terms of planning and the impact this may have in terms of fuel burn/cost. There was also a need for more information to be provided on the scheme before full support could be provided.

easyJet supports the Point Merge concept as it provides a more efficient means to absorb delays than conventional racetrack holding but has concerns that that the potentially longer routings will result in carriage of more fuel than is necessary in reality. Point Merge systems should include the shortest practical “No Delay” route for flight planning purposes. The Point Merge arcs should be treated in the same way as current racetrack holding in terms of flight and fuel planning. It is expected that, as a norm, there will be minimal routine use of the full arc procedure.

easyJet

We feel that emphasis should be placed on departure, en-route speed and arrival management techniques that avoid the need for holding in the first place. However, we support in principle any system that seeks to reduce holding and improves flow rates into the airport but do not yet understand enough about the detailed operational impacts of Point Merge to endorse the NATS proposal without reservation. These reservations focus primarily on the continuing need for stack holding, the specification of reciprocal approach paths and the speed control accuracy necessary.

Guild of Air Pilots and Air Navigators

Negative comments about the proposal

There were few overtly critical comments on the Point Merge proposals. Most negative comments related to the potential location of the Point Merge arcs:

We strongly oppose Point Merge unless it is off the south coast at a height in excess of 7000ft and then follows a prescribed route to Gatwick, which must be the subject of a further consultation. There is no good reason why any stacking should occur over land. We consider that the whole of this area of

West Kent deserves special consideration and that far could be done to mitigate the impacts of noise over this area. We consider that all approaches should maintain the maximum altitude to minimise noise and contaminate pollution.

Weald Action Group Against Noise

Aer Lingus made the point that there has not been a widespread introduction of Point Merge at other airports and so judgements should be reserved until more is known. Their view is that any benefits of Point Merge needs to be set in the context of the additional fuel required which would impact on operational costs and the environment.

.....Aer Lingus wants to express some concerns with PM next to the fuel load requirements. These concerns are related to the flying the flat segment of the arcs at the low altitudes and the amount of airspace required to be reserved for the arcs. In this sense we would like to ask the UK CAA and NATS to look into the availability of any alternatives for PM that may require more efforts and capability for metering (ground or speed techniques) rather than path stretching to deliver the aircraft to a point in space and time prior to Top of Descent from which a Continuous Descent Operation can be accomplished.....

Aer Lingus

Another stakeholder organisation noted that whilst London City and London Biggin Hill were considered together for Point Merge it might not be appropriate to do so.

While it is convenient for NATS to put City and Biggin Hill in the same box, as they share SIDs and STARs at present, from a usage point of view they are quite different. We have no issue with Point Merge for City - we leave that to City operators - but applying Point Merge, and therefore RNP1, to Biggin Hill is not acceptable for the reasons given above.

PPL/IR Europe

Responses not received on the online response form

There were 54 stakeholder organisations who responded by e-mail and post who provided comments about the Point Merge proposals. Of these stakeholder organisations, 26 provided positive comments about the proposals, and 28 made negative comments. Please note that given the unstructured nature of the responses, organisations could provide a combination of positive and negative comments.

Supportive (conditional) comments about the proposal

Supportive comments very much mirror those of stakeholder organisations who responded on the online response form. Stakeholder organisations are broadly supportive of the proposals in principle; however there is a feeling that more information is required until a firm view can be arrived at.

In principle the adoption of a 'point merge' system for aircraft arrivals is supported as a means of minimising fuel burn and CO2 emissions in view of the contribution it would make to addressing climate change issues. While the adoption of 'point merge' principles for London City, London Biggin Hill and London Southend arrivals are predicted to have a very marginal impact

upon South Suffolk and North Essex at this stage, the potential cumulative effects with the proposals for Heathrow, Luton and Stansted (Phase 2) need to be fully understood before unqualified support can be offered. The tranquillity of the Dedham Vale and Suffolk Coasts and Heaths AONBs should be safeguarded in the design processes for Phases 1 and 2 but this should not be at the expense of creating unintended consequences for other towns and villages nearby.

Babergh and Mid Suffolk District Councils

.....the council strongly supports the proposal for a point merge arc over the outer reaches of the Thames Estuary as indicated...and an associated primary approach to London City/Biggin Hill that follows the centre of the estuary.....

Medway Council

Some stakeholder organisations were supportive of the proposals, provided certain conditions were met. Additionally others felt that alternatives should also be considered.

Despite the recognised benefits that it may bring in terms of enhanced safety, reduced delays, and improved recovery from service disruption, we do have some concern with regards to fuel uplift requirements and have some reservations with regards to the estimated calculated average fuel burn.

Virgin Atlantic recognises that airports such as Dublin and Oslo have implemented Point Merge based on RNAV1 for their arrival streams. However, there have been implications on airlines costs and the environment due to additional fuel burn. Point Merge does have its advantages over existing holding patterns which are highly inefficient and environmentally unfriendly. However, it is also worth pursuing other alternatives in addition to Point Merge in order to find the most efficient solution possible.

Virgin Atlantic

We recognise holding patterns and vectors as being outdated solutions.....Point Merge is one answer but we believe that further work could be undertaken to ensure that all possible options are considered. We appreciate too that the most efficient solution – that of metering flights whilst in the cruise to arrive at the TOD point at a time from which a Continuous Descent to the runway may be undertaken – may not be achievable within the London TMA.

Monarch Airlines

Negative comments about the proposal

There were 28 stakeholder organisations who provided negative comments and/or concerns about the proposal. Concerns included impact of increased air traffic on local areas and people.

We are concerned that the Point Merge System proposed will lead to a concentration of flights as the aircraft descend from 7,000 to 3,000 feet in altitude to join the final approach path. The increased concentration of flights will become unbearable for the residents most affected and for visitors to the nationally important countryside below with its tourist attractions such as Hever Castle. We support the recommendation that air traffic controllers are

required to ensure the timely arrival of consecutive aircraft in such a manner that they merge only on the final approach path and not before.

CPRE Surrey Aviation Group

Perhaps the major disadvantage of the proposed system is that it will create considerably more disturbing noise for people on the ground, especially those under the 'super-highway' from the merge point to the localiser. This seems to be recognised by those making the proposals since they feel obliged to talk about respite!

Tunbridge Wells Study Group

Similar responses were provided by Leigh Parish Council, Crawley Borough Council and Speldhurst Parish Council.

There were also a number of mentions regarding the lack of information about the Point Merge proposals. Specifically, that not enough information was provided in order to adequately explain how Point Merge leads to reduced levels of CO₂.

We understand the requirement under the European Union's SESAR programme to reassess airspace so that more efficient use is made of it by allowing for more aircraft to use the airspace, but also to ensure that the CO₂ emissions from each individual aircraft are reduced. However, we have not found an adequate or understandable explanation of the amounts of CO₂ that would be "saved" by using the "Point Merge" process.

HACAN East

There was also suggestion about how Point Merge may be adapted to reduce noise concentration:

...there should be seven routes from the merge point to the glideslope, each joining the glideslope at a different point. Aircraft would use one route on Mondays, one route on Tuesdays and so on.....everyone affected would know that they would only have aircraft overhead on one day of the week

Gatwick Area Conservation Campaign

b) General public responses

Summary

A total of 211 members of the general public answered the closed question (Part A) in the response form on Point Merge at Gatwick. Ninety-eight answered the respective question for London City Airport. A total of 173 members of the public gave reasons for their support for, or opposition to, Point Merge (Part B).

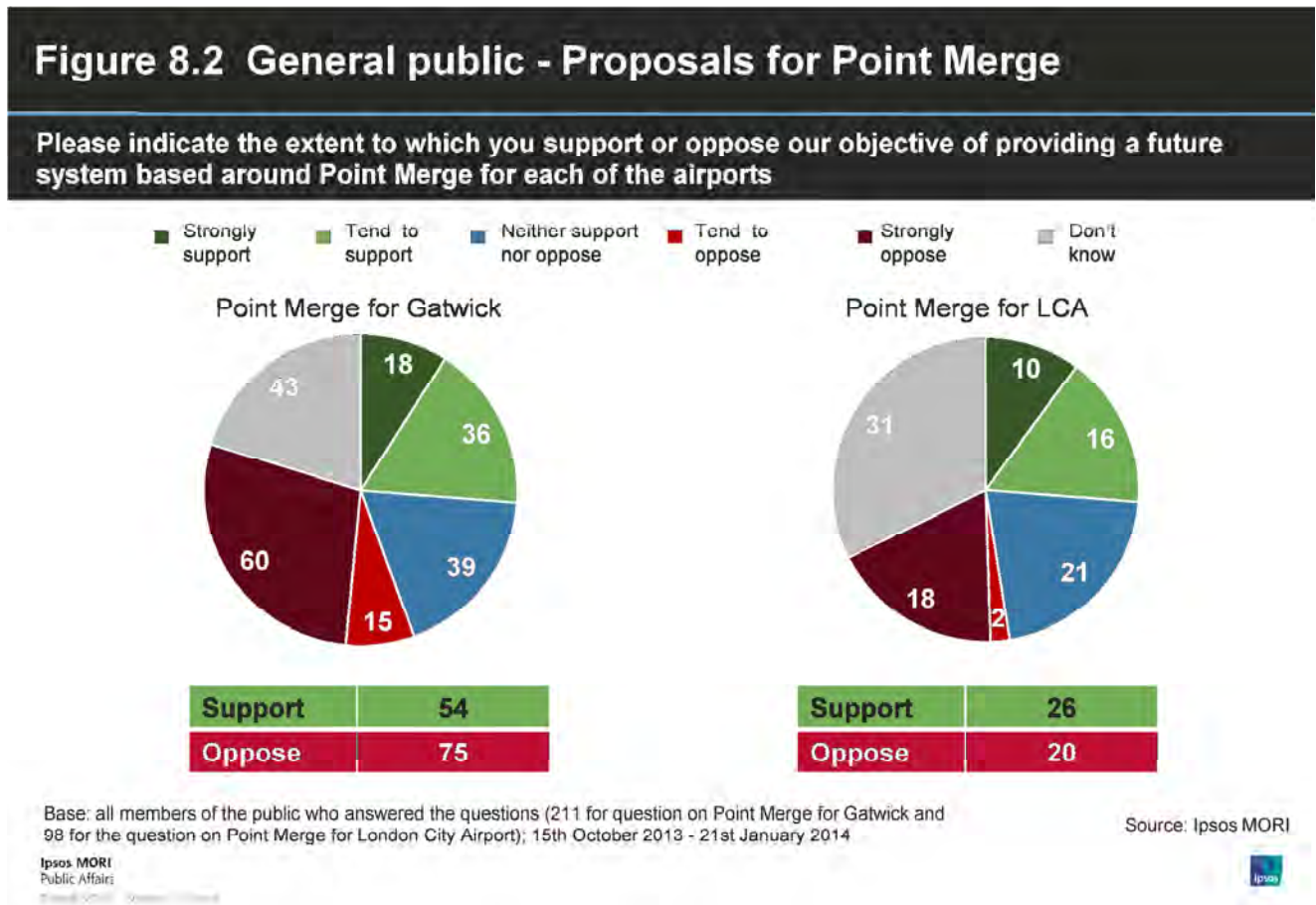
Of those who answered the question, more members of the public opposed Point Merge at Gatwick (75 respondents) than supported it (54 respondents). The balance was broadly even for Point Merge at London City Airport, with 26 respondents who supported the proposal and 20 respondents who opposed it.

In total, 73 members of the public gave a reason for their opposition to Point Merge, compared with 52 who gave a reason why they supported it. The most common reasons for opposition related to air traffic (36 responses), and the most common reasons for support were that it was simply a good idea (13 responses) or had a positive effect on the level of noise (11 responses).

In addition, 14 members of the public who responded by e-mail and post made comments about

Point Merge. This included 11 respondents who mentioned Point Merge at Gatwick Airport. Just one respondent mentioned Point Merge at London City Airport. It was not possible to tell from the other two respondents which airport or airports they were referring to. Four respondents made positive comments and 11 respondents made negative comments. It is important to bear in mind that a respondent can make both positive and negative comments. Positive comments included that there would be reduced emissions, and improved efficiency. Negative comments included that aircraft merging to a single point will make life unbearable for those overflown (four mentions), and that the proposals are too vague (two mentions).

Responses received on the online response form



Comments about the proposals

Of those who responded through the online response form, 173 members of the public commented in Part B on the reasons for their opinion on Point Merge. The comments in opposition to the proposals (73) were more common than those in support (52). Forty-nine comments also included a suggestion about the proposals.

Positive comments about Point Merge included that it was a good idea or made sense (13 responses). This was followed by the view that Point Merge would reduce the noise impact on those under the flight path (11 responses).

There was a wider range of negative comments about Point Merge. The most common related to air traffic (34 responses), and these fell into several sub-categories.

- A total of 22 related to **flight paths**. In particular, there were 12 comments that Point Merge would concentrate the paths more narrowly and increase the negative effects on the people and the environment directly below;
- Seven comments related to **aircraft height**, such as concerns about an increased number of flights at a low altitude; and
- Three comments expressed the view that Point Merge would just increase the **amount of air traffic**.

This sounds as if even more aircraft would be concentrated over certain areas. If this disturbed a large population, then I would be totally against it, although I understand it would be better for air traffic controllers.

Member of the public

After air traffic, the next most common reasons for opposition were to do with **noise** (24 responses), in particular the view that Point Merge would create more noise for those who lived under the flight paths (13 responses).

Other reasons to oppose Point Merge related to the effect on **businesses and the local economy** (nine responses) and the consequences for the **quality of life** of local people (nine responses).

Suggestions about Point Merge

There were 49 comments which made suggestions about the Point Merge proposals. The most common related to **air traffic** (36 responses), and in particular the suggestion that the Point Merge system should be located over the sea to reduce the effect on people and the environment (14 comments). Within the air traffic context, five comments were also made that the Point Merge system should be spread over a wider area to spread the burden.

The next most common suggestions related to **flight paths** (15 responses), including that existing flight paths be used or that flight paths should be spread over a broader area in order to disperse the effect.

Responses not received on the online response form

As well as the comments made through the online response channel, 14 responses about this part of the Consultation came through either by e-mail or a written submission through the post.

Positive comments

Only four responses contained comments favouring Point Merge. Among the positive comments that were made, these included that it would reduce noise, remove a need for stacks, make airspace safer and reduce delays.

Negative comments

Eleven responses made an argument against Point Merge. Four comments argued against the idea because a single flight path at the merge point would make life harder for those beneath it. There were two comments that the proposals were vague.

9 Analysis of Consultation Question – Accommodation of non-compliant operators

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 17 in the Consultation document.

Question 17 wording

PART A (CLOSED QUESTION):

Procedures for accommodating operators who are not compliant with the RNAV1 standard are yet to be finalised. Accommodating non-compliant operators will reduce overall system efficiency for the majority of the fleet which is RNAV1 approved. To what extent should non-certified aircraft be accommodated?

PART B (OPEN ENDED QUESTION):

What, if any, comments do you have on accommodating non-certified aircraft?

a) Stakeholder organisation responses

Summary

Twenty-two organisations answered the closed question (Part A) about how non-certified aircraft should be handled. Fifteen gave comments on how, if at all, these aircraft should be accommodated (Part B). A further 27 organisations made comments by e-mail or through the post.

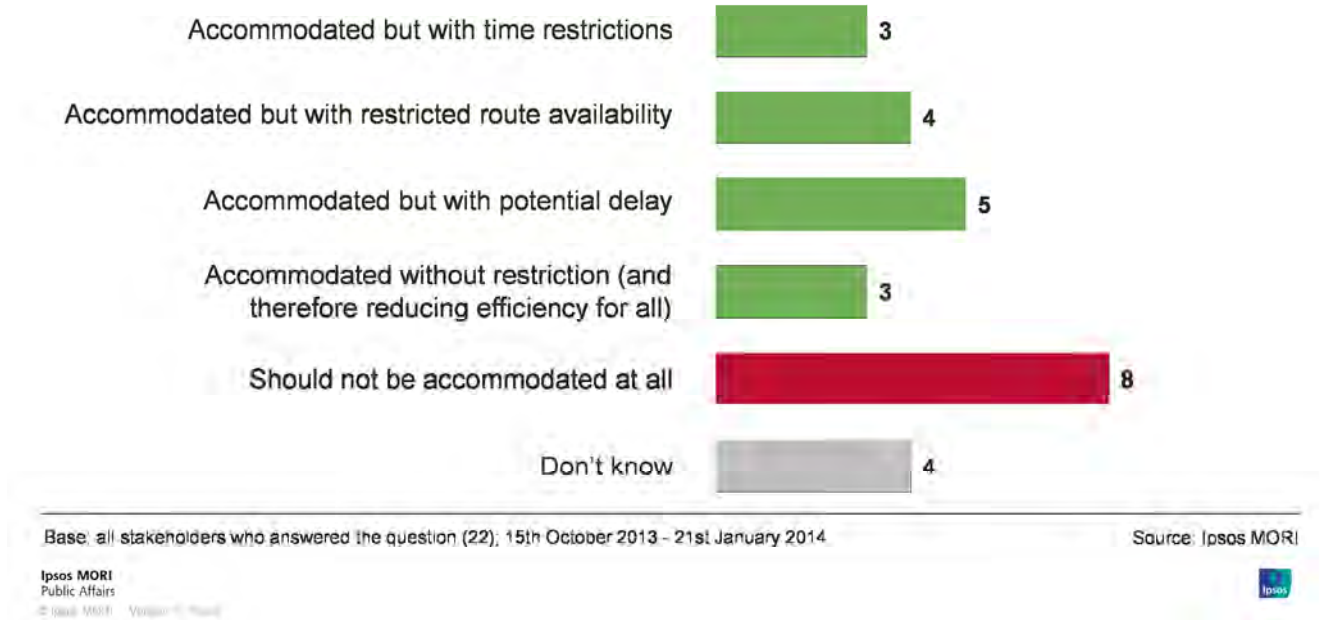
Of the 22 organisations which answered Part A, more than a third (eight) wanted accommodation refused to all non-certified aircraft, and only three would not have any type of restriction on them. The most commonly chosen type of accommodation is one with potential delay (five responses).

Of the comments made through the online channel and by e-mail and post, most were general comments and suggestions. However, there was a general degree of support for some type of restriction on non-certified aircraft, although several organisations considered the impact of these to be small because few such aircraft existed.

Responses received on the online response form

Figure 9.1 Stakeholder organisations - Accommodating non-certified aircraft

Procedures for accommodating operators who are not compliant with RNAV1 standard are yet to be finalised. Accommodating non-compliant operators will reduce overall system efficiency for the majority of the fleet which is RNAV1 approved. To what extent should non-certified aircraft be accommodated?



Shown below are the seven organisations that wanted no accommodation of non-certified aircraft and the three that wanted no restrictions:

Table 9.1 Stakeholder organisations – views on accommodation of non-certified aircraft	
Non-certified aircraft should not be accommodated	
Minster-on-Sea Parish Council Bradfield Village Air Defence League Godstone Village Association British Airways	WAGAN Weald Action Group Against Noise easyJet Mid Sussex District Council
No restrictions on non-certified aircraft	
Direct Flight Ltd Jet2.com	PPL/IR Europe

Comments on accommodation of non-certified aircraft

Fifteen organisations made comments on the accommodation of non-certified aircraft. Many of the comments expressed varying degrees of support for restrictions on accommodation for non-compliant aircraft.

Given the national importance of this airspace, and the negative impact on the collective from failure to comply, we believe that any non-RNAV certified aircraft should not be accommodated at all after 31 Dec 18, which is the point at which all airspace design programs after 2018 assume use of PBN procedures.

British Airways

However, not all organisations that made a comment were happy with the idea of restricted accommodation.

We do not accept such a mandate for arrivals and departures from the minor airports that share routes with them. The vast majority of GA aircraft operating in the TMA that are not technically RNAV1 compliant are nevertheless capable in practice of flying RNAV1 routes to a high level of precision without ATC intervention and therefore without a significant practical impact on ATC workload.

PPL/IR Europe

The need to make allowance for emergencies also received some comment.

It is accepted that arrangements will have to be made for specialised operations such as police and air ambulance helicopters etc.

easyJet

Responses not received on the online response form

Twenty-seven organisations made comments on the accommodation of non-certified aircraft. The most commonly made comment was that these aircraft were small in number and that even fewer would operate in the future.

Existing Eurocontrol evidence has indicated that the vast majority of commercial aircraft are already equipped to the minimum RNAV 1 standard. Maximum benefit of the new procedures, and the airspace redesign, will only be reached when the entire fleet wishing to use this airspace has been certified.

London (Heathrow) Airline Consultative Committee

The next most common comment, made by four local authorities, was that this was a highly technical subject that was relevant only to airspace specialists. Although no single comment or suggestion was predominant among the other answers made, there was frequent discussion of the restrictions needed.

Non-compliant aircraft will have to be managed tactically and their presence can have some form of knock-on effect to approved aircraft operating in the same airspace. Therefore, the accommodation of such aircraft should be subject to some form of restrictions in favour of RNAV1 compliant aircraft.

Virgin Atlantic

A particularly detailed response to this question was given by Skylines UK Ltd, who argued in favour of unrestricted (but conditional) access as a further option for consideration by the LAMP Development team.

.....it is considered that those aircraft which are not approved for RNAV1 operation within European terminal airspace but which are, nonetheless, RNAV5 capable, should be accepted into terminal airspace on RNAV1 specified routes/procedures with only a need for enhanced controller monitoring and tactical intervention...

Skylines UK Ltd

b) General public responses

Summary

Seventy members of the general public answered the closed question (Part A) about how non-certified aircraft should be handled. Forty-six gave comments on how, if at all, these aircraft should be accommodated (Part B).

Of the 70 people who answered Part A, half (35) wanted accommodation refused to all non-certified aircraft, and only two would not have any type of restriction on them. The most commonly chosen type of accommodation is one with restricted availability of route (22 responses).

Just two respondents who responded by e-mail or post made comments about the accommodation of non-certified aircraft. Both of these respondents made comments about a timeline for non-certified aircraft to become compliant.

Responses received on the online response form

Figure 9.2 General public - Accommodating non-certified aircraft

Procedures for accommodating operators who are not compliant with RNAV1 standard are yet to be finalised. Accommodating non-compliant operators will reduce overall system efficiency for the majority of the fleet which is RNAV1 approved. To what extent should non-certified aircraft be accommodated?



Base: all members of the public who answered the question (70); 15th October 2013 - 21st January 2014

Source: Ipsos MORI

Comments on accommodation on non-certified aircraft

Forty-six members of the public gave comments on how, if at all, non-certified aircraft should be accommodated.

There were seven comments that these aircraft should be accommodated. There were 20 comments against this view, which included 12 comments that there should be no accommodation at all for non-certified aircraft. Other comments against accommodation were that this should be only be allowed in emergencies (four responses) or that restrictions or disadvantages should be there to make it harder for operators to use non-certified aircraft (four responses).

If they are not compliant then refuse them. This is the approach being taken in other areas regarding noise and pollution. Very simple - if you can't do it to the criteria then don't allow it. It could reduce demand at the same time and you will find that it does not result in the end of anything, other than that a non-conformist operator either adjusts or goes out of business.

Member of the public

Of the other comments that were made, the most common were that there should be a push to ensure all aircraft were compliant or that operators should work to a timetable to ensure total compliance (10 responses).

Responses not received on the online response form

As well as the comments made through the online response channel, two responses about this part of the Consultation came through either by e-mail or a written submission through the post.

One comment was that a short timeline should be given for the exclusion of all non-compliant aircraft. The other comment was that it seemed reasonable to set a deadline for non-compliant operators to become compliant.

10 Analysis of Consultation Question – Point Merge fuelling policy

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 18 in the Consultation document.

Question 18 wording

PART A (CLOSED QUESTION):

Should fuel for the Point Merge arcs be considered part of the contingency fuel uplift or part of the flight plannable route fuel uplift?

PART B (OPEN ENDED QUESTION):

Please state the reasons why you believe fuel for the Point Merge arcs should be considered part of the contingency fuel uplift or part of the flight plannable route fuel uplift.

a) Stakeholder organisation responses

Summary

Twenty-one organisations answered the closed question (Part A) about Point Merge fuelling policy. Twelve gave comments on whether fuel for the Point Merge arcs should be part of the contingency fuel uplift or the flight plannable route fuel uplift (Part B). Twenty-one organisations also made a comment by e-mail or by post.

Of the 21 organisations which answered Part A, the most common response was 'don't know' (12 responses). Five said the fuel should be considered part of the flight plannable route fuel uplift. There were four who preferred it to be part of the contingency fuel uplift.

Among the 12 comments made through the online channel, the most common was a simple statement of support for categorisation under flight plannable route fuel uplift (five responses) and that there needed to be a fuel policy to cope with Point Merge (three responses). A wider range of comments was made by e-mail or by post. Chief among them were that this was a question for technical specialists (five responses), but also that users would plan their fuel uplift for the whole length of the arc, which would potentially cause inefficiencies and increase emissions if a smaller part of the arc was flown due to low traffic demand (four responses).

Responses received on the online response form

Of the 21 organisations which answered the closed question (Part A), over half of them said they did not know (12). Of those who had a view, almost equal numbers said that fuel for Point Merge arcs should fall under the flight plannable route fuel uplift (five responses) or the contingency fuel uplift (four responses).

Table 10.1 Stakeholder organisations – views on the categorisation of fuel for Point Merge arcs

Organisations	21
Part of the contingency fuel uplift	4
Part of the fuel for the flight plannable route fuel uplift	5
Don't know	12

Shown below are the four organisations that preferred fuel for Point Merge arcs to be considered contingency fuel uplift and the five that wanted it to be categorised as part of the flight plannable route fuel uplift.

Table 10.2 Stakeholder organisations – views on the categorisation of fuel for Point Merge arcs	
Part of the contingency fuel uplift	
Directflight TAG Farnborough Airport	easyJet Aer Lingus
Part of the fuel for the flight plannable route fuel uplift	
Guild of Air Pilots and Air Navigators Southdown Gliding Club Dedham Vale Society	Stour and Orwell Society Jet2.com

Comments on the Point Merge fuelling policy

Twelve organisations gave comments on how fuel for Point Merge arcs should be categorised. The most common comment was simply that fuel for the arcs should be seen as part of the flight plannable route fuel uplift (five responses).

No single idea or suggestion prevailed among the other comments made, except that three responses stressed the need for a fuel policy to cope with Point Merge.

At this moment a fuel policy to coop with Point Merge is non-existent and must be developed as a matter of priority

Aer Lingus

Two responses made the comment that the Point Merge arc (e.g. 50% of arc length) should be used for planning purposes. Two responses also made the comment that the final decision lay with individual carriers. **easyJet** made a related comment that it is a decision to be made by the crew based on the information available to them at the time of planning,

Responses not received on the online response form

Twenty-one organisations gave comments through e-mail or the post on how fuel for Point Merge arcs should be categorised. The most common comment was that this was a technical question for airspace specialists (five responses). However, there was also comment about the fuel efficiency in the Point Merge arcs (four responses).

Therefore, it could be expected that airlines will plan for their fuel uplift for the whole length of the arc, but this could easily lead to fuel inefficiencies when a small part of the arc is flown or the arc is not flown at all due to low traffic demand.

IATA

Three responses also suggested that structures be promulgated as linear holds rather than STARs, as this would allow uplift to cooperate with PM arcs to be related to contingency fuel. For this reason, a PM fuel policy needed to be established (three responses).

Consider promulgating Point Merge structures as 'Linear Holds' rather than STARs, which would allow uplift to coop with Point Merge arcs to be related to contingency fuel. For this reason a Point Merge fuel policy needs to be established.

European Regions Airline Association

Among other comments made were that any decisions should not compromise on safety (two responses) and that any flight planning system must comply with the European Aviation Safety Agency (EASA) approved AIR-OPS requirements (two comments).

Each airline needs to satisfy itself that EASA's requirements are taken into account for any change to the airspace design as a result of the Point Merge or any variation of the concept.

LACC

b) General public responses

Summary

Sixty-nine members of the general public answered the closed question (Part A) about Point Merge fuelling policy. Thirty-five gave comments on whether fuel for the Point Merge arcs should be part of the contingency fuel uplift or the flight plannable route fuel uplift (Part B).

Of the 69 members of the public who answered Part A, the most common response was 'don't know'. Twenty-five said the fuel should be considered part of the flight plannable route fuel uplift. There were nine who preferred to it to be part of the contingency fuel uplift.

Just three members of the public who responded by e-mail or post made comments about Point Merge fuelling policy. Two of which said it should be considered as part of the flight plannable route for safety reasons.

Responses received on the online response form

Of the 69 members of the public who answered the closed question (Part A), half of them said they did not know (35). Of those who had a view, more said that fuel for Point Merge should fall under the flight plannable route fuel uplift (25 responses) rather than the contingency fuel uplift (nine responses).

Table 10.3 general public – views on the categorisation of fuel for Point Merge arcs

Members of the public	69
Part of the contingency fuel uplift	9
Part of the fuel for the flight plannable route fuel uplift	25
Don't know	35

Comments on the Point Merge fuelling policy

Thirty-five members of the public gave comments on how fuel for Point Merge arcs should be categorised. The most common comment was that enough fuel for Point Merge should be considered as part of the flight plannable route fuel uplift (10 responses).

Sufficient fuel for the Point Merge arcs should be specifically planned for. Therefore it should be part of the plannable route fuel uplift.

Member of the public

The most common other response was that this question was too complicated and confusing (eight responses).

Responses not received on the online response form

As well as the comments made through the online response channel, three responses about this part of the Consultation came through either by e-mail or a written submission through the post.

There were two comments that, on safety grounds, the fuel should be considered as flight plannable route fuel uplift. It was said that the other option might lead to insufficient fuel uplift.

There was one other comment that there should be contingency fuel in addition to flight plan uplift, because there should be no compromises when safety was at stake.

11 Analysis of Consultation Question – Fuel burn

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 19 in the Consultation document.

Question 19 wording

PART A (CLOSED QUESTION):

This proposal seeks to reduce overall fuel burn across the fleet by as much as possible even if it means some individual routes may be less fuel efficient as a consequence. Please indicate the extent to which you support or oppose this objective.

PART B (OPEN ENDED QUESTION):

Please state the reasons why you support or oppose the proposal seeking to reduce overall fuel burn across the fleet by as much as possible, even if it means some individual routes may be less fuel efficient as a consequence.

a) Stakeholder organisation responses

Summary

Twenty-five organisations answered the closed question (Part A) about proposals to prioritise system wide fuel efficiency over individual routes. Sixteen gave comments on why they supported or opposed the fuel burn proposals (Part B). There were also 29 organisations that provided comments on the fuel burn proposals through e-mail or the post.

Of the 25 organisations which answered Part A, nearly half (12) supported them, compared with only three which opposed them. The most widespread comment through the response form was a conditional statement of support if emissions were brought down (four responses).

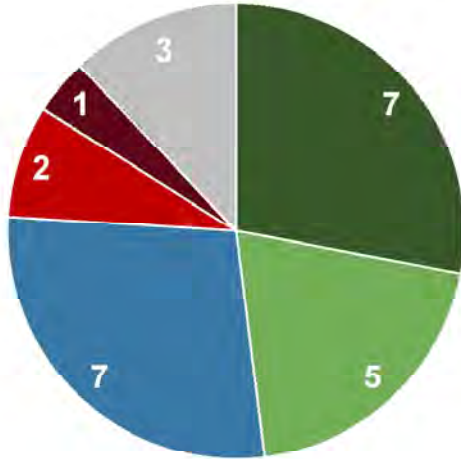
A wider range of comments came through e-mail or the post. The most common of them was that, as the objective was to reduce fuel use, the relevant metrics would need to be monitored by independent third parties such as Eurocontrol's Performance Review Commission (three comments).

Responses received on the online response form

Figure 11.1 Stakeholder organisations - Fuel burn efficiency for specific routes

This proposal seeks to reduce overall fuel burn across the fleet by as much as possible even if it means some individual routes may be less fuel efficient as a consequence. Please indicate the extent to which you support or oppose this objective.

- Strongly support
- Tend to support
- Neither support nor oppose
- Don't know
- Strongly oppose
- Tend to oppose



Support	12
Oppose	3

Base: all stakeholders who answered the question (25); 15th October 2013 - 21st January 2014

Source: Ipsos MORI

Ipsos MORI
Public Affairs



Shown below are the seven organisations that strongly supported the fuel proposals and the one organisation which strongly opposed them:

Table 11.1 Stakeholder organisations – views on fuel burn proposals	
Strongly supported fuel burn proposals	
Guild of Air Pilots and Air Navigators Jet2.com British Airways Natural England	easyJet Dedham Vale Society Guild of Air Traffic Control Officers
Strongly opposed fuel burn proposals	
Bradfield Village Air Defence League	

Comments on the fuel burn proposals

Among the 16 comments made through the online response form, nine contained reasons to support the proposals. The most common of them was conditional support for the proposals, provided they actually reduced emissions (four responses).

Minimising fuel burn by the maximum should be considered the best aim. ATC works to the principal of Safe, Orderly and Expeditious. Under the header of orderly we would like to see the best solution for everyone, which means minimal fuel burn where possible.

Guild of Air Traffic Control Officers

easyJet supports the objective in principle but overall savings must be demonstrated. There must be evidence of overall reduction in fuel burn that is equally available to all operators from all London airports and that no one operator or airport is disadvantaged.

easyJet

BA considers that the issue of fuel efficiency must be viewed holistically with the end game of reduction viewed in totality. We accept that in order to see overall improvements, there will be some gains and some losses, and we therefore support this objective

British Airways

We would support this objective. There is good scientific evidence to show climate is changing because of emissions of greenhouse gases resulting from human activityNATS and the airport operators should therefore seek to reduce overall fuel burn as much as possible to ensure a reduction in CO2 emissions overall.

Natural England

Among others, more neutral comments were that the proposals were desirable but needed to take account of adverse environmental effects that might arise, the need to give protection to environmentally sensitive areas, and also the need for a holistic approach to the final goals of fuel and system efficiency.

Only two responses gave reasons to oppose the proposals. These were namely a lack of information and the view that environmentally sensitive areas should be protected even if more fuel was burnt.

Responses not received on the online response form

A wider range of comments on the proposals came through e-mail or by post. Ten of them offered reasons to support the proposals. These ranged from the positive effect of the proposals on fuel consumption and CO₂ levels, to the importance of climate change as a reason to make cuts in fuel burn and emissions.

One response also noted that departures and arrivals from the south and south-east of London City Airport would make a positive difference to fuel efficiency.

Five responses contained comments against the proposals. These included a lack of information on the proposals, and a refusal to support a policy that would make life harder for communities below the flight paths.

It is about time the aviation industry started to consider the people on the ground and the effects of the noise nuisance on them. We have demonstrated in the foregoing responses that these proposals are not about saving fuel burn but increasing air traffic movements overall with a substantial uplift in CO2 emissions.

Penshurst Parish Council

Two responses in criticism of the proposals also said that the environmental and economic advantages needed to be set against negative impacts the proposals would have.

.....the environmental and economic benefits of lower fuel burn need to be understood and managed in the context of a greater noise impact and economic blight on house prices and other businesses under the shortest flight path. Furthermore fuel burn will increase with the greater number of flights into Gatwick. Chiddingstone Parish Council supports reducing fuel burn through greater fuel efficiency by aircraft.

Chiddingstone Parish Council

The need to bear in mind side-effects figured in other comments, such as the impact on people's quality of life generally, the effect on environmentally sensitive areas and the difference the proposals might make to other airports. The most frequently made other comment (three responses) was about the need for independent third parties to monitor the relevant fuel metrics if the objective was to reduce emissions.

In principle terms, the overall objective is a reduction in the fuel use to meet national and international obligations. The relevant metrics will need to be monitored by independent third parties such as Eurocontrol's Performance Review Commission who advise the European Commission on the implementation of the Single European Sky.

BAR UK

b) General public responses

Summary

A total of 69 members of the general public answered the closed question (Part A) about proposals to reduce fuel burn. Thirty-nine gave comments on why they supported or opposed the fuel burn proposals (Part B).

Of the 69 people who answered Part A, 25 supported the proposals, and 12 opposed them. Of the comments made in Part B, there were 14 respondents in favour of fuel burn, and 19 were opposed.

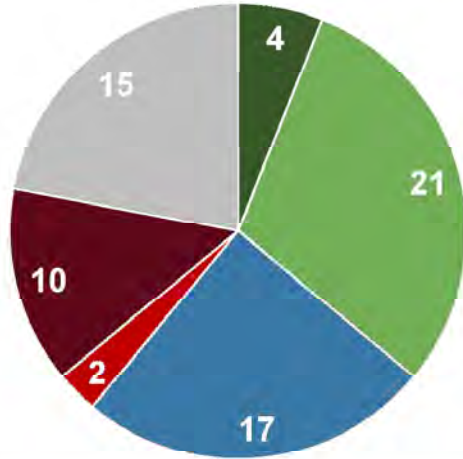
Of the five members of the public who took part in the Consultation by e-mail or post. General comments included that all routes should be made more fuel efficient, and that the aviation industry should consider people on the ground/below flight paths. Comments were generally not related to the question.

Responses received on the online response form

Figure 11.2 General public - Fuel burn efficiency for specific routes

This proposal seeks to reduce overall fuel burn across the fleet by as much as possible even if it means some individual routes may be less fuel efficient as a consequence. Please indicate the extent to which you support or oppose this objective.

- Strongly support
- Tend to support
- Neither support nor oppose
- Tend to oppose
- Strongly oppose
- Don't know



Support	25
Oppose	12

Base: all members of the public who answered the question (69); 15th October 2013 - 21st January 2014

Source: Ipsos MORI

Ipsos MORI
Public Affairs



Comments on fuel burn proposals

A total of 39 members of the public gave comments on why they supported or opposed the fuel burn proposals. In total, there were 14 positive comments in favour of the proposals. The most common was a simple statement of support (seven responses). Nineteen comments were made against the fuel burn proposals. The most common of these were that fuel burn caused too much noise and that this would badly affect those who lived on the flight path (five responses).

Fuel efficiency is only one part of the puzzle. It should not be used where sacrifice of quality of life is apparent i.e. noise or visual impact when PRNAV has become so much more accurate!

Member of the public

Responses not received on the online response form

As well as the comments made through the online response channel, five responses about this part of the Consultation came through either by e-mail or a written submission through the post. Two comments were made against the fuel burn proposals, on the grounds that all routes should become more efficient and that no support could be given to proposals that would make life harder for those overflown. Three other comments made more general observations, namely that longer routes should take precedence and that the aviation industry must bear in mind those who live in affected areas.

12 Analysis of Consultation Question – Controlled airspace boundaries

This chapter provides a summary of responses to the Consultation which address the issues relating to Question 20 in the Consultation document.

Question 20 wording

PART A (CLOSED QUESTION):

This proposal is seeking to lower controlled airspace to accommodate arrival overflows. To what extent will the proposed changes affect General Aviation (GA) operations? Will they have a large impact, a medium impact, a small impact or no impact at all?

PART B (OPEN ENDED QUESTION):

If you believe it has an impact, please describe the operation(s) that would potentially be affected.

a) Stakeholder organisation responses

Summary

Twenty-one stakeholder organisations answered the closed question (Part A) about proposals to lower controlled airspace boundaries. Thirteen gave comments on the aviation operations that they believed would be affected by this (Part B). Twenty-one organisations also made comments on this part of the Consultation either by e-mail or by post.

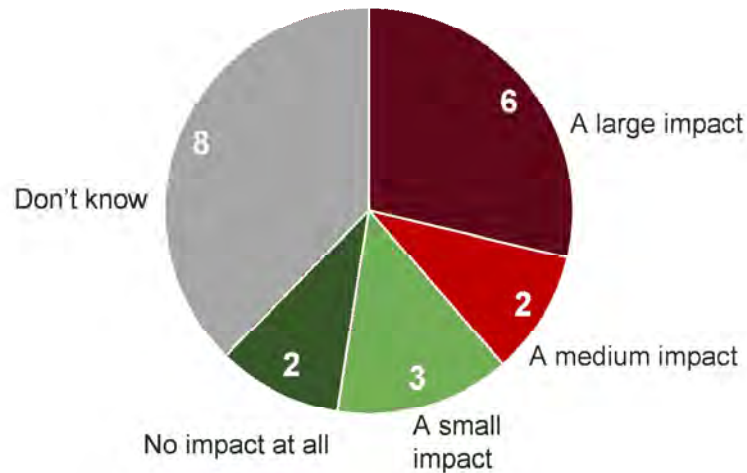
Of those who answered Part A, eight organisations thought the proposals would have a large or medium effect on general aviation operations, and five said there would be little or no impact. The remaining eight organisations said they did not know.

No single comment predominated, either among those submitted through the response form or by e-mail or post. They included concerns about the possible impact of lower airspace boundaries on VFR operations, on the level of noise, fuel burn, and on other airports.

Responses received on the online response form

Figure 12.1 Stakeholder organisations - Controlled Airspace Boundaries

This proposal is seeking to lower controlled airspace to accommodate arrival overflows. To what extent will the proposed changes affect General Aviation (GA) operations? Will they have a large impact, a medium impact, a small impact or no impact at all?



Base: all stakeholders who answered the question (21); 15th October 2013 - 21st January 2014

Source: Ipsos MORI

Ipsos MORI
Public Affairs



Shown below are the five organisations that thought the effect on general aviation operations would be large, and the two that expected no impact at all.

Table 12.1 Stakeholder organisations – views about controlled airspace proposals	
Large impact on general aviation operations	
PPL/IR Europe Minster-on-Sea Parish Council Bradfield Village Air Defence League	WAGAN Weald Action Group Against Noise Godstone Village Association
No impact at all on general aviation operations	
Guild of Air Pilots and Air Navigators	easyJet

Comments on proposals

No single idea was dominant among the comments made on lower controlled airspace boundaries. Among them were the following:

- IFR commercial traffic should not be disadvantaged;
- Objection to any reclassification of airspace and if it had to be re-classified then it should be to Class D or Class C;
- Any increased traffic would have a considerable impact which would be made worse if the flights came in on a lower path. Any impact must be subject to further consultation;

- Lowering controlled airspace boundaries meant effectively adding another layer to an already cramped space;
- Disappointment that the aim of providing more continuous climbs and descents has not resulted in the raising of the base of the TMA in areas where it is much lower and restrictive;
- There were flights operating outside controlled airspace and routing within controlled airspace to and from precise points out of scientific necessity. Maritime patrol and atmospheric research could be affected; and
- Concern that lowering some areas of controlled airspace should not impact on the potential for other airports to grow, specifically Manston Airport, Kent.

Responses not received on the online response form

Twenty-one organisations made a comment by e-mail or post on the lowering of controlled airspace boundaries. As with those made through the online response form, no one comment was predominant. There were two comments apiece on the lack of information made available, and also that this was a technical question that was relevant only for specialists.

Among the points made, there were comments on the effect on fuel burn and noise, and points about the need not to disadvantage general aviation (GA) operations, IFR operations or commercial operations.

We would not want or expect commercial operations to be impacted by GA activity but would expect the airspace design to take account of VFR operations.

Monarch Airlines

b) General public responses

Summary

A total of 71 members of the general public answered the closed question (Part A) about proposals to lower controlled airspace boundaries. Thirty-eight gave comments about the aviation operations that they believed would be affected by this (Part B).

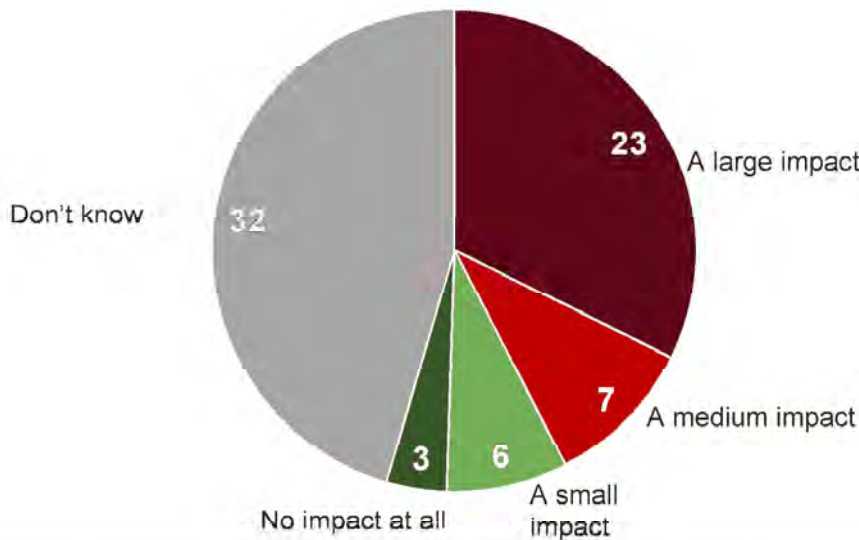
Of those who answered Part A, 30 respondents thought the proposals would have a large or medium effect on general aviation operations, but the most common response was that they did not know (32 respondents).

Six members of the public responded by e-mail and post. General comments included that airspace should not be lowered, and that there could be safety issues for VFR traffic.

Responses received on the online response form

Figure 12.2 General public - Controlled Airspace Boundaries

This proposal is seeking to lower controlled airspace to accommodate arrival overflows. To what extent will the proposed changes affect General Aviation (GA) operations? Will they have a large impact, a medium impact, a small impact or no impact at all?



Base: all members of the public who answered the question (71); 15th October 2013 – 21st January 2014

Source: Ipsos MORI

Ipsos MORI
Public Affairs



Comments on the impact of changes to controlled airspace boundaries

Thirty-eight members of the public gave comments on the impact on general aviation operations of the proposals to lower controlled airspace boundaries. The most common single response was simply that the changes to the boundaries might interfere with or have an effect on general aviation activities.

GA is an important part of our aviation heritage and economy and all attempts to introduce controlled airspace is a massive restriction on the ability to continue to enjoy this.

Member of the public

There were also eight comments that the question was too complicated, or that there was too little information to make an informed answer.

Responses not received on the online response form

As well as the comments made through the online response channel, six responses about this part of the Consultation came through either by e-mail or a written submission through the post. Most of the comments were negative, with criticism of the changes to airspace boundaries because, for example, Class A airspace significantly affected VFR flights or because the changes might lead to more low-level arrivals at Gatwick.

13 Analysis of Consultation Question – General comments

This chapter provides a brief overview of responses to the Consultation which were general in nature, or which were outside of the scope of the Consultation. This included comments about the Consultation itself, about compensation, and about other airports.

a) Stakeholder organisation responses

Responses received on the online response form

Twenty-four stakeholder organisations provided a number of general comments about the ongoing development of the airspace covered by the Consultation.

General comments about the proposals

The comments were wide-ranging and included:

- Being supportive of the work of LAMP and the proposals (two mentions);
- That development of the airspace is supported as London is congested (two mentions);
- That the priority should be to reduce noise, visual impact or emissions those being more important than profit or efficiency (one mention);
- That the proposals will negatively affect residents' health and well-being (one mention);
- That airspace changes have a significant effect on large population centres (one mention);
- That there is the potential for peace and tranquillity to be affected (one mention);
- That sensitive conservation areas would be affected (one mention);
- That the overall objective of increased fuel efficiency, minimising CO₂ emissions while managing noise impacts is supported (one mention);
- That aviation brings with it economic or social benefits that cannot be ignored (one mention); and
- That the intention to improve safety is welcomed (one mention).

Thirteen stakeholder organisations provided a number of suggestions which again were wide-ranging and included:

- That it is important to have some indication of the cumulative impact of the various phases of the airspace programme (two mentions);
- That more research is needed to understand the impact on the environment including noise and pollution (one mention);

- That reducing the health impact of noise from overflying aircraft should be a priority in the redesign of airspace management (one mention); and
- That the emphasis must remain focussed on taking advantage of PBN together with concerted action to introduce Continuous Climb Operations (CCO) and Continuous Descent Operations (CDO) (one mention).

Comments on the Consultation or Consultation process

Eighteen stakeholder organisations provided a number of comments about the Consultation itself or the Consultation process, the most common of which were:

- That the organisation wishes to be included in future consultations (five mentions);
- That there is a need for further consultations (two mentions);
- That there is not enough information to be able to comment (two mentions).
- That the Consultation and the opportunity to comment is welcomed (one mention);
- That the Consultation is not understandable to those outside the aviation industry and could affect the ability to comment (one mention);
- That aspects of the Consultation were confusing and that technical terms were not used correctly (one mention);
- That the Consultation is too early or premature and should wait for the Airports Commission to report about runway capacity in the south east (one mention);
- Concern that not all those affected have been properly consulted (one mention); and
- That it is good to show that future decisions will be based on overall and not individual benefits and shows that all stakeholder organisations are being treated in the same manner (one mention).

Other comments

Four stakeholder organisations commented on the subject of compensation saying that affected residents and businesses should be compensated (three mentions).

Three stakeholder organisations commented about airport expansion with two mentions about a second runway at Gatwick Airport and objecting to further expansion at Gatwick (one mention).

Responses not received on the online response form

Seventy-eight stakeholder organisations provided a number of general comments about the ongoing development of the airspace covered by the Consultation.

General comments about the proposals

The comments were wide-ranging and the more common included:

- Concern about noise or the threat of increased noise (ten mentions);
- There were no objections to the proposals (nine mentions);

- That some people or areas will be more affected and others less affected by the proposals and others will be affected for the first time (seven mentions);
- Concern about changes in flight paths and flight path concentrations as well as routes and altitudes (eight mentions);
- Agreement of the need to change and for airspace redesign (eight mentions);
- Positive comments on the Continuous Descent Approach (CDA) or steep approach as this would help to reduce noise (five mentions);
- Support to the proposals as they seek to minimise carbon emissions (four mentions);
- Support to the proposals as they increase fuel efficiency (three mentions);
- Concern that new areas and properties will be overflowed and blighted (three mentions);
- That the work of LAMP and the proposals is supported (three mentions);
- That priority should be to reduce noise, visual impact and emissions and that these are more important than profit or efficiency (three mentions);
- That there is a need to carry out further research on flight paths, respite routes and health effects (three mentions);
- That the intention to improve safety is welcomed (three mentions);
- That the ability for planned descent profiles rather than stepped descents are welcomed as this increases efficiency and reduces noise (two mentions);
- That it is not possible to assess noise impact and there needs to be an understanding as to whether there will be an increase or decrease in noise levels (two mentions); and
- That narrow flight paths are welcomed but not at the expense of the peace and quiet of the countryside (one mention).

Suggestions

Thirty stakeholder organisations provided a number of suggestions with the more common including:

- That research is needed to weigh up the impact of noise (eleven mentions);
- That research is needed for a greater understanding of the impact of pollution as well as noise on the environment (five mentions); and
- That airspace changes and profits should not come before safety (two mentions).

Comments on the Consultation or Consultation process

Sixty-eight stakeholder organisations provided a number of comments about the Consultation itself or the Consultation process, the most common of which were:

- That there is a need for further consultation or would like to be consulted again (thirty-four mentions);

- That not enough information is available or was incomplete to be able to respond (twenty mentions);
- That the Consultation and the opportunity to comment is welcomed (twenty mentions);
- That the organisation would want to be included in future consultations (sixteen mentions);
- That the organisation would like more information and to be kept informed as proposals develop (ten mentions);
- That the Consultation was inaccessible or difficult to understand (six mentions);
- Concerns that not all those affected have been properly consulted (four mentions);
- That it was not possible to determine new flights paths or heights from the Consultation material (three mentions); and
- That the Consultation was disjointed and not linked to other consultations (two mentions).

Endorsements and references to maps or other papers and correspondence

Thirteen organisations provided a number of endorsements with the most common being that they agreed with or endorsed GACC's response (eight mentions). There were 14 references to other papers or correspondence and five references to maps provided with the responses.

Compensation

Seventeen stakeholder organisations commented on compensation as part of the proposals. There were thirteen mentions that residents and business affected by the proposals should be compensated. There were four mentions of the compensation being financial and noise amelioration such as double or triple glazing.

References to other airports

Fourteen stakeholder organisations made reference to other airports which included:

- Heathrow Airport (eight mentions);
- Southend Airport (four mentions);
- Thames Estuary (four mentions);
- Luton Airport (one mention);
- Stansted Airport (one mention);
- Manston Airport (one mention); and
- Lydd Airport (one mention).

Airport expansion

Seventeen stakeholder organisations commented on airport expansion as part of their responses. The most common comments were about a second runway at Gatwick (ten mentions) and references to the London City Airport expansion planning application (four mentions).

Other related comments were that aviation should grow but that there needs to be a balance to deliver environmental goals and protect the quality of life in local communities affected by aviation noise (one mention). Similarly, there was one mention about something having to be done to facilitate the growing levels of air traffic (one mention).

b) General public responses

Responses received on the online response form

There were 351 members of the public who answered the final open question in the response form – this was Question 21 which allowed respondents to provide further information which they felt was relevant to the ongoing development of airspace covered by the Consultation. As is usual with a final open question in any Consultation or survey, many respondents tend to repeat comments which they have made at earlier questions – for example – 59 respondents made comments about noise. All of these comments were coded and can be found in Appendix D.

A small number of respondents said they supported or agreed with Chiddingstone Parish Council's response.

There were 150 members of the public who provided comments which were deemed to be beyond or outside the scope of the Consultation. These included comments about noise and pollution not related to aviation, about other airports, including Heathrow, Stansted and Luton airports, and about a second runway at Gatwick airport. These comments have been analysed and can be found in Appendix D.

As with all consultations – while it is good practice to provide an open question for respondents to provide further information, it is common for respondents to respond to the first open question with many comments/suggestions which may not always be related to the question being asked. For example, 146 respondents who answered Question 11 in the online response form made comments about the Consultation. This included 49 mentions about a lack of information; that there should be a further round of consultation once more details become available (13 comments), and that that the Consultation was too complicated (12 comments).

There were 20 respondents who answered Question 11 in the online response form who made comments about **compensation**. All general and out-of-scope comments have been coded and can be found in Appendix D.

Responses not received on the online response form

There were 89 members of the public who responded by e-mail and post who made additional comments. An aspect that attracted most comments was about the Consultation itself (from 47 respondents). There were nine comments about the Consultation being too early and that it would be better to wait for the outcome from the Airports Commission on runway capacity in the south east. There were also nine comments about insufficient information, and eight comments that the Consultation should be carried out again when more detail about flight paths becomes available. There were also a number of comments including, about other airports (from 11 respondents); five respondents mentioned a need for compensation, and four respondents made references to maps and diagrams.

Ten members of the public also endorsed a response from an organisation. Seven members of the public said they agreed or supported the response from GACC. Two other respondents supported the submission from Leigh Parish Council, and one respondent said they supported the response from Westerham Parish Council. Finally, ten respondents asked a question or questions, some of whom wanted a direct response from NATS and/or Gatwick Airport. Questions from respondents were forwarded to NATS when received throughout the Consultation period.

Appendix A List of stakeholder organisations who responded to the Consultation

The following is a list of stakeholder organisations who responded to the LAC; those who requested anonymity have not been included: (Note that the categorisation of organisations has been undertaken to demonstrate the breadth of the response; the categorisation is not definitive and has no bearing on the way in which the responses were dealt with):

Airlines

Aer Lingus
BA City Flyer
British Airways
CityJet
easyJet
Heathrow Airline Community
Jet2.com
Monarch Airlines
Virgin Atlantic Airways

Airports

Biggin Hill Airport Consultative Committee
Dunsfold Aerodrome Ltd
Heathrow Airport Ltd
London Southend Airport
Manston Airport
Rochester Airport Ltd
SATCO London Ashford Airport Ltd
TAG Farnborough Airport Ltd

County Councils

East Sussex County Council
Hampshire County Council
Kent County Council
Suffolk County Council
Surrey County Council
West Sussex County Council

District / Borough Councils

Adur and Worthing Councils
Ashford Borough Council
Babergh and Mid Suffolk District Councils
Basildon Borough Council
Braintree District Council
Brentwood Borough Council
Chelmsford City Council
Colchester Borough Council
Crawley Borough Council

Dover District Council
Eastbourne Borough Council
Gosport Borough Council
Gravesham Borough Council
Hastings Borough Council
Horsham District Council
Ipswich Borough Council
Lewes District Council
Medway Council
Mid Sussex District Council
Reigate and Banstead Borough Council
Sevenoaks District Council
Southend on Sea Borough Council
Suffolk Coastal District Council
Tandridge District Council
Tendring District Council
Thanet District Council
Tonbridge and Malling Borough Council
Tunbridge Wells Borough Council
Waverley Borough Council
Wealden District Council

Groups with Environmental Focus

Bradfield Village Air Defence League
Colne Stour Countryside Association
Campaign to Protect Rural England (CPRE) Kent
CPRE Surrey Aviation Group
Dedham Vale AONB and Stour Valley Project
Dedham Vale Society
Friends of the Earth Havering
Friends of the Earth Wanstead & Woodford
Gatwick Area Conservation Campaign (GACC)
Gatwick Anti-Noise Group
Heathrow Association for the Control of Aircraft Noise (HACAN) East
Kent Downs Area of Outstanding Natural Beauty (AONB) Unit
Natural England
Nutfield Conservation Society
South Downs National Park Authority
Stop City Airport Masterplan
Stour and Orwell Society
Suffolk Coasts and Heaths AONB
Surrey Hills AONB
Sustainable Aviation
Weald Action Group Against Noise (WAGAN)

Independent Consultative Committee

Gatwick Consultative Committee (GATCOM)

London Government

London Borough of Havering
London Borough of Redbridge
Mayor of London

Miscellaneous

Association of Electrosensitive People
Board of Airline Representatives (UK)
Chiddingstone Castle
Coast to Capital
Directflight Ltd
English Heritage
European Regions Airline Association (ERA)
Functional Airspace Block (FAB)
Furnace Woods Road Fund Association Ltd
Hever Castle Ltd
Hever Festival Productions Ltd
Lord and Lady Harris
Penshurst Place and Gardens
Peter Brett Associates
Riverhill Himalayan Gardens
Skylines UK Ltd
Southdown Gliding Club
TGC Renewables Limited
The Ashdown Forest Centre
The Three Woods Group
Tunbridge Wells Study Group
Vantage Air Traffic Services
Vintage Aircraft Club
Weald Community Primary School

Member of Parliament (MP)

MP for Reigate
MP for Sevenoaks and Swanley
MP for Suffolk Coastal
MP for Tonbridge and Malling

NATMAC

Aircraft Owners and Pilots Association (AOPA)
Guild of Air Pilots and Air Navigators (GAPAN)
Guild of Air Traffic Control Officers (GATCO)
International Air Transport Association (IATA)
Light Aircraft Association
Ministry of Defence (MOD) Airspace & Air Traffic Management
PPL/IR Europe
UK Flight Safety Committee (UK FSC)

Parish / Town Council

Abinger Parish Council
Bletchingley Parish Council
Burstow Parish Council
Canterbury City Council
Capel Parish Council
Charlwood Parish Council

Chiddingstone Parish Council
Cowden Parish Council
Cranleigh Parish Council
Crowborough Town Council
Dormansland Parish Council
East Bergholt Parish Council
East Grinstead Town Council
Edenbridge Town Council
Forest Row Parish Council
Hampshire ALC
Hever Parish Council
High Weald Parish Council
Horley Town Council
Horsmonden Parish Council
Leigh Parish Council
Manningtree Town Council
Minster-on-Sea Parish Council
Ockley Parish Council
Penshurst Parish Council
Salfords and Sidlow Parish Council
Sevenoaks Town Council
Sevenoaks Weald Parish Council
Slinfold Parish Council
South Woodham Ferrers Town Council
Speldhurst Parish Councillors
Teynham Parish Council - Kent
The Shelley Parish Meeting
Turners Hill Parish Council
Warnham Parish Council
Westerham Town Council

Residents' Association

Association of Imberhorne Residents
Cotchford Lane Residents Association
Elmbridge Village Residents Association
Godstone Village Association
Holmwood Lodge Estate Residents' Association
Ifield Village Association
Westcott Village Association

Unitary Council

Thurrock Council

Figure A.1 LAC GAL District Council Coverage

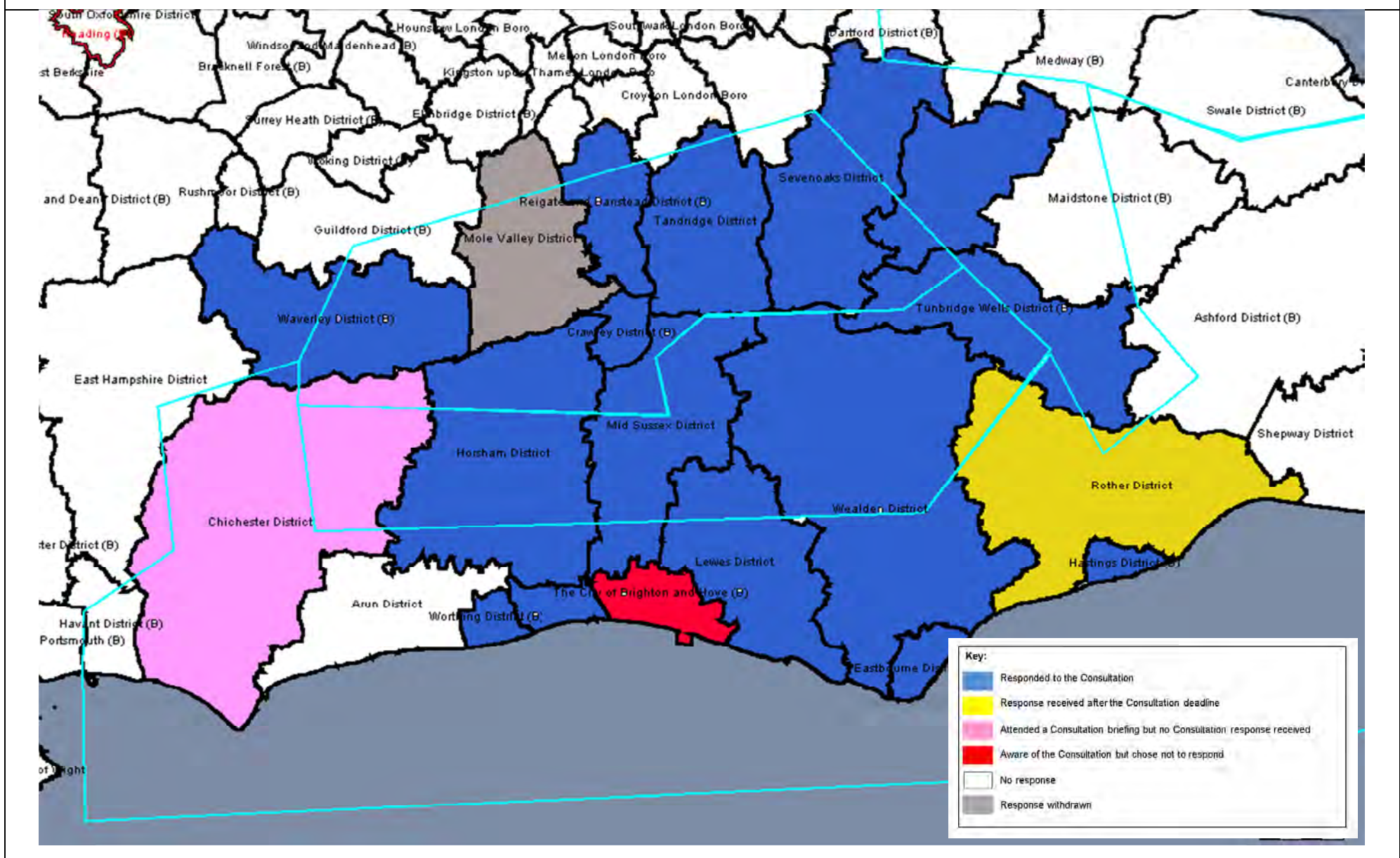


Figure A.2 London City Airport - District Council Coverage

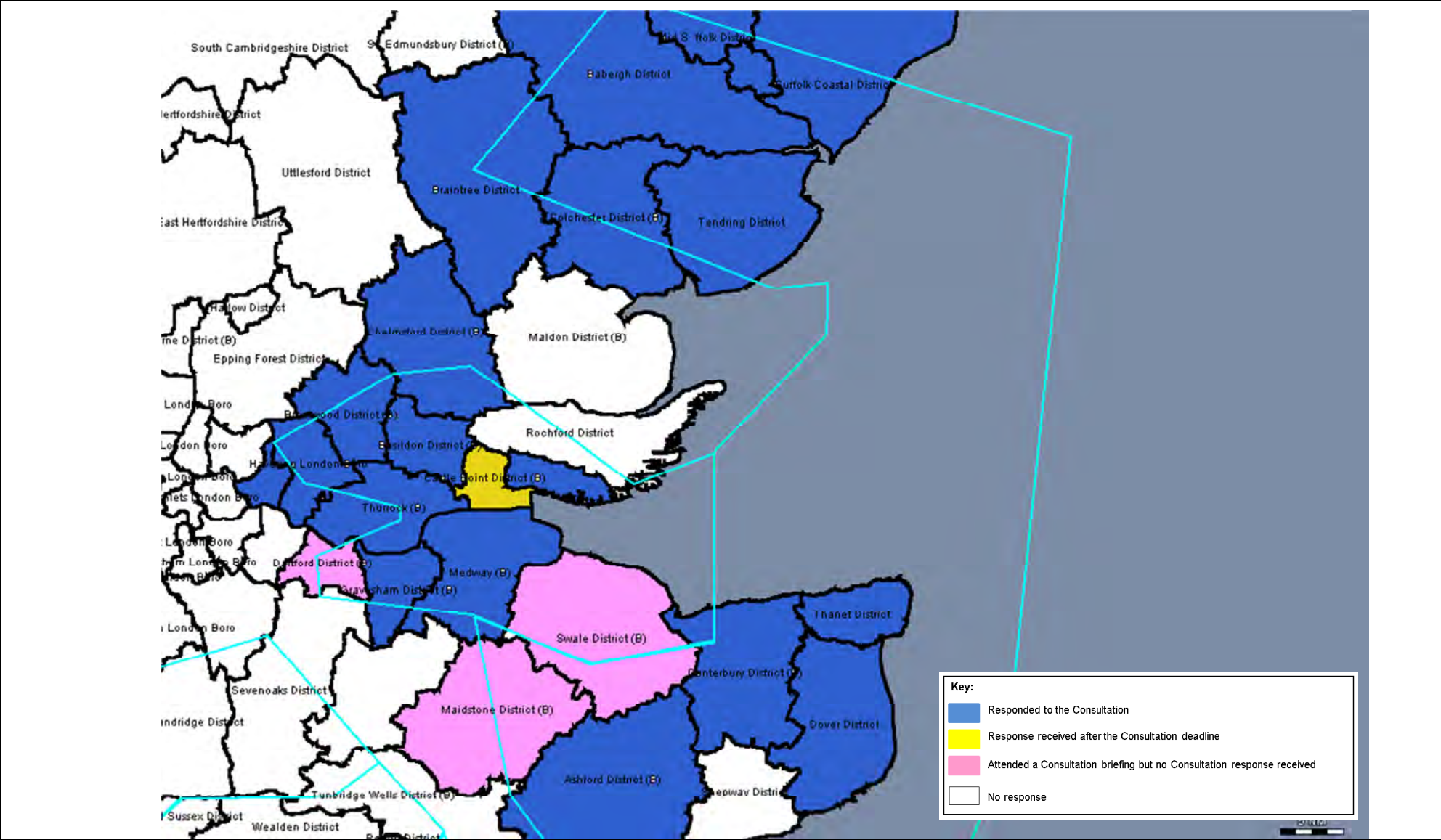


Figure A.3 London City Airport - County Council Coverage

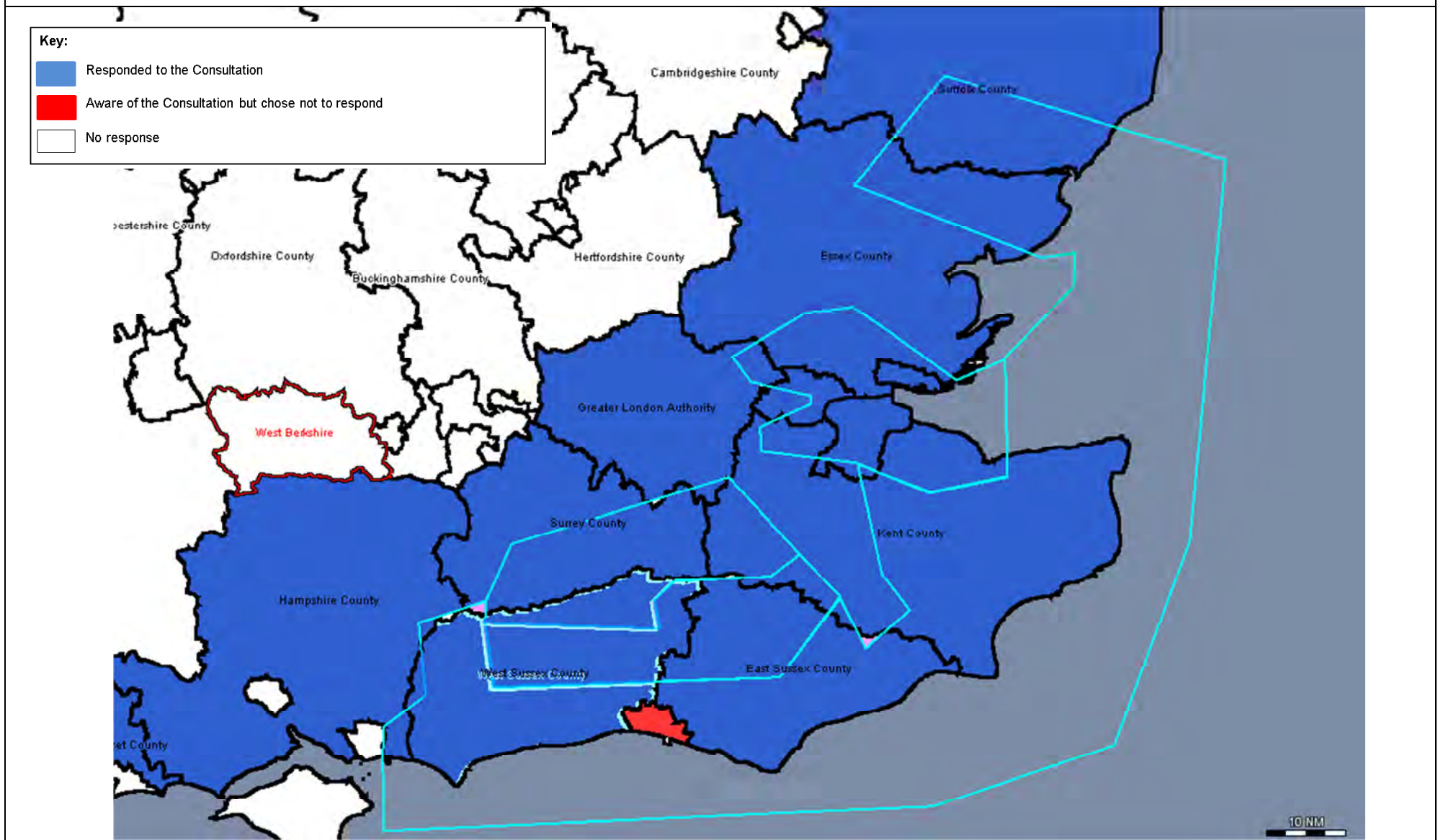


Figure A.4 London City Airport - MPs' Coverage

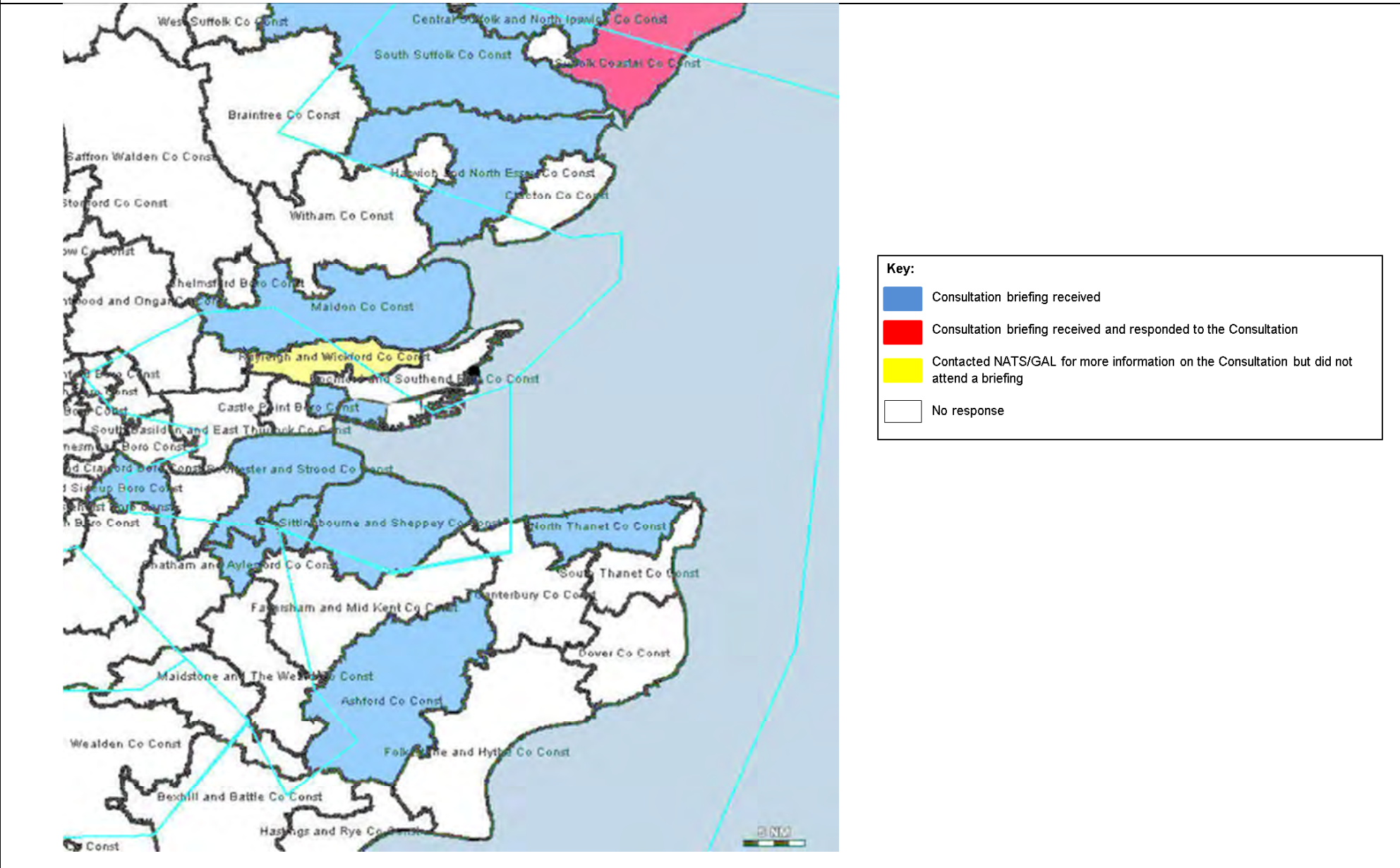
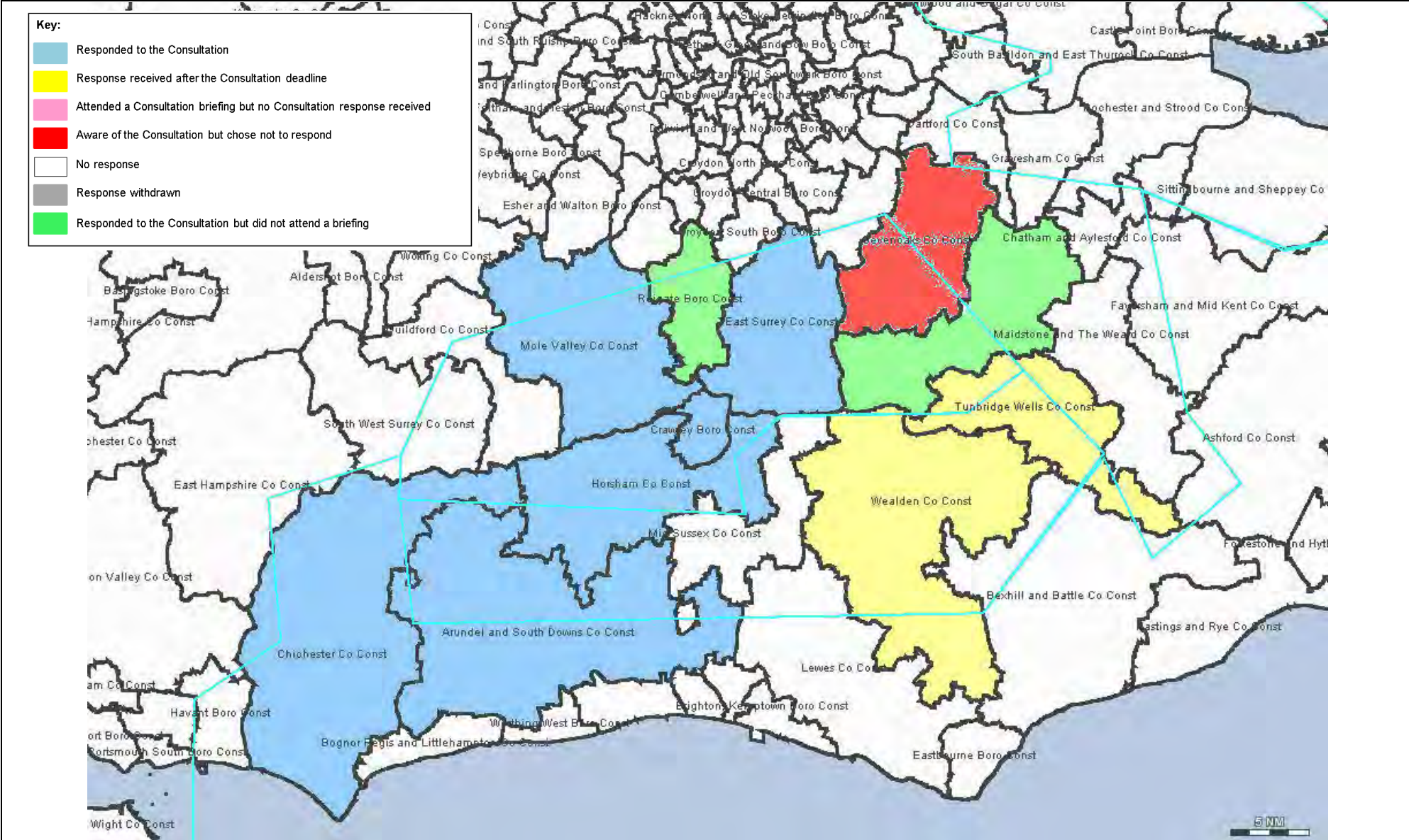


Figure A.5 Gatwick Airport MPs' Coverage



Appendix B Technical note on the coding process

Receipt and handling of responses

Responses received on the web-based electronic response form were also logged, and the verbatim comments loaded into the Ascribe coding package. All non-response form responses, such as e-mails, letters and reports were also logged and registered on arrival at Ipsos MORI. Each response was assigned a unique ten-digit serial number.

During each working day a tally of the total number of each format of response received was maintained and logged.

Where appropriate, longer and/or more technical responses were photocopied before being sent to the project management team for manual coding and/or reading and digesting before being reported upon.

The handling of responses was subject to a rigorous process of checking, logging and confirmation in order to minimise document loss and to support a full audit trail. All original electronic and hard copy responses remained securely filed within Ipsos MORI, catalogued and serial numbered for future reference.

Development of initial coding frame

Coding is the process by which free-text comments, answers and responses are matched against standard codes from a coding frame Ipsos MORI compiled to allow systematic statistical and tabular analysis. The codes within the coding frame represent an amalgam of responses raised by those registering their view and are comprehensive in representing the range of opinions and themes given.

The Ipsos MORI coding team drew up an initial codeframe for each open-ended free-text question using the first thirty to forty response form responses, and ten to fifteen responses for whitemail responses. An initial set of codes was created by drawing out the common themes and points raised across all response channels by refinement. Each code thus represents a discrete view raised. The draft coding frame was then presented to the Ipsos MORI/Detica project team and NATS/GAL project team and fully approved before the coding process continued. The codeframe was continually updated throughout the analysis process to ensure that newly emerging themes within each refinement were captured.

During the coding process, the analysis team went through each response in detail, applying the codes appropriate to the comment or issue being raised. During this process any new codes required were added to the codeframes. In undertaking the coding a degree of judgement was required by the analysis team in order to ensure that responses were fully and fairly coded.

Once each response was coded it was handed to a central coding 'gatekeeper' who would then check the code and apply the code to the central codeframe to ensure that the correct and most up-to-date codes were being used.

While developing the codeframe, logical themes emerged that related to specific areas of opinion, or in answer to the specific questions posed in the Consultation materials. These themes are listed below:

- General support;
- General opposition;
- Noise;
- Pollution;
- Impact on the environment;

- Climate change / carbon emissions;
- Impact on the economy/ tourism;
- Consultation process and related issues;
- Safety issues;
- Operational/aircraft issues;
- Compensation;
- Miscellaneous comments; and
- Out of scope comments.

Coding using the Ascribe package

Given the scale and complexity of the airspace management proposals, Ipsos MORI used the web-based Ascribe coding system to code all open-ended free-text responses found within completed online response forms and from the free-form responses (i.e. those that are not sent in via the online response form and in another format such as letters, e-mails and reports, etc.).

Ascribe is a proven system which has been used on numerous large-scale projects. The electronic verbatim responses from the online form were uploaded into the Ascribe system, where the coding team worked systematically through the verbatim comments and applied a code to each relevant part(s) of the verbatim comment. All free-form responses were coded manually, on paper and then the serial numbers and relevant codes were loaded into Ascribe.

The Ascribe software has the following key features:

- Accurate monitoring of coding progress across the whole process, from scanned images to the coding of responses;
- An ‘organic’ coding frame that can be continually updated and refreshed; not restricting coding and analysis to initial response issues or ‘themes’ which may change as the Consultation progresses;
- Resource management features, allowing comparison across coders and question/issue areas. This is of particular importance in maintaining high quality coding across the whole coding team and allows early identification of areas where additional training may be required; and
- A full audit trail – from verbatim response to codes applied to that response.

The online responses were coded by the Ipsos MORI Coding team in Harrow. The more complex free-text stakeholder organisation responses were coded by core members of the Ipsos MORI and BAE Systems Detica Consultation teams.

Online coders were provided with an electronic file of responses to code within Ascribe. Their screen was split, with the left side showing the response along with the unique identifier, while the right side of the screen showed the full codeframe. The coder attached the relevant code or codes to these as appropriate and, where necessary, alerted the supervisor if they believed an additional code might be required.

If there was other information that the coder wished to add they could do so in the ‘notes’ box on the screen. If a response was difficult to decipher the coder would get a second opinion from their supervisor or a member of the project management team. As a last resort, any comment that was illegible was coded as such and reviewed by the Coding Manager.

Briefing the coding teams and quality checking

A core team of twenty coders worked on the project, all of whom were fully briefed and were conversant with the Ascribe package. This team also worked closely with the project management team during the set-up and early stages of codeframe development.

The core coding team took a supervisory role throughout and undertook the quality checking of all coding. Using a reliable core team in this way minimises coding variability and thus retains data quality.

To ensure consistent and informed coding of the verbatim comments, all coders were fully briefed prior to working on this project. The Coding Manager undertook full briefings and training with each coding team. All coding was carefully monitored to ensure data consistency and to ensure that all coders were sufficiently competent to work on the project.

The coder briefing included background information and presentations covering the fourteen proposed design refinements, the consultation process and the issues involved, and discussion of the initial coding frames. The briefings were carried out by one of Ipsos MORI's executive team members, with the initial briefing involving personnel from BAE Systems Detica, NATS and GAL. This briefing took place on 4 December 2013.

All those attending the briefing were instructed to read, in advance, the Consultation Document and go through the response form. Examples of a dummy coding exercise relating to this Consultation were carefully selected and used to provide a cross-section of comments across a wide range of issues that may emerge.

Coders worked in close teams, with a more senior coder working alongside the more junior members, which allowed open discussion to decide how to code any particular open-ended free-text comment. In this way the coding management team could quickly identify if further training was required or raise any issues with the project management team.

The Ascribe package also afforded an effective project management tool, with the coding manager reviewing the work of each individual coder, having discussion with them where there was variance between the codes entered and those expected by the coding manager.

To check and ensure consistency of coding, 100% of coded responses from the response forms were validated by the coding supervisor team, who checked that the correct codes had been applied and made changes where necessary.

Updating the codeframe

An important feature of the Ascribe system is the ability to extend the codeframe 'organically' direct from actual verbatim responses throughout the coding period.

The coding teams raised any new codes during the coding process when it was felt that new issues were being registered. In order to ensure that no detail was lost, coders were briefed to raise codes that reflected the exact sentiment of a response, and these were then collapsed into a smaller number of key themes at the analysis stage. During the initial stages of the coding process, meetings were held between the coding team and Ipsos MORI executive team to ensure that a consistent approach was taken to raising new codes and that all extra codes were appropriate and correctly assigned. In particular, the coding frame sought to capture precise nuances of respondents' comments in such a way as to be comprehensive.

A second key benefit of the Ascribe system is that it provides the functionality of combining codes, revising old codes and amending existing ones as appropriate. Thus, the coding frame grew organically throughout the coding process to ensure it captured all of the important 'themes'.

Checking the robustness of the datasets

All open-ended free-text responses were coded twice, the first time by the coder and the second time by a senior coder to verify that the correct code or codes had been applied to the open-ended free-text responses and to make amendments as necessary. This second verification occurred once the coding frame had been extensively developed, enabling the most appropriate codes to be applied and the back-coding of 'other' codes into newer codes where appropriate, using codes which may not have existed at the time the response was originally coded.

Once coding was complete, and all data streams combined, a series of checks were undertaken to ensure that the data set was comprehensive and complete. The initial check was to match the log files of serial numbers against the resultant data files to ensure that no responses were missing.

In the case of any forms logged that could not be found in the dataset, the original was retrieved from the filed storing boxes, captured then coded and verified as appropriate. A check was then run again to ensure records existed for all logged serial numbers. During this process it was also possible to identify any duplicate free-format responses (e.g. where two cases for the same serial number appeared). Where this was detected, one form was noted as a duplicate (using the corresponding code) to identify that it was not missing data and the information was not double counted.

Appendix C Glossary

The following table details the glossary of terms and abbreviations used throughout this report:

Abbreviation / Term	Meaning
ACP	Airspace Change Proposal
AONB	Area of Outstanding Natural Beauty
ATC	Air Traffic Control
CAA	Civil Aviation Authority
CAP 725	CAA Airspace Change Process Guidance document
CCO	Continuous Climb Operations
CDA	Continuous Descent Approach
CDO	Continuous Descent Operations
DAP	The CAA's Directorate of Airspace Policy
EST	External Support Team (BAE Systems Detica and Ipsos MORI)
FAS	Future Airspace Strategy – a strategy developed between the CAA and the UK's aviation industry to achieve a number of efficiencies in the airspace system over the UK, encompassing advancing aviation and aircraft technologies.
GA	General Aviation
GAL	Gatwick Airport Limited
IFR	Instrument Flight Rules
LAC	London Airspace Consultation
LAMP	London Airspace Management Programme Phase 1a
PBN	Performance Based Navigation
RNAV-1	A navigation standard, part of the Performance Based Navigation (PBN) system
SID	Standard Instrument Departure (ATC procedure)
SSSI	Site of Specific Scientific Interest
Stakeholder organisation	An association, organisation and others that represent the views of a number of people including parish, town and borough councils, airlines and airports, environmental groups, MPs and residents' associations.
STAR	Standard Arrival (ATC procedure)
TMA	Terminal Manoeuvring Area
VFR	Visual Flight Rules