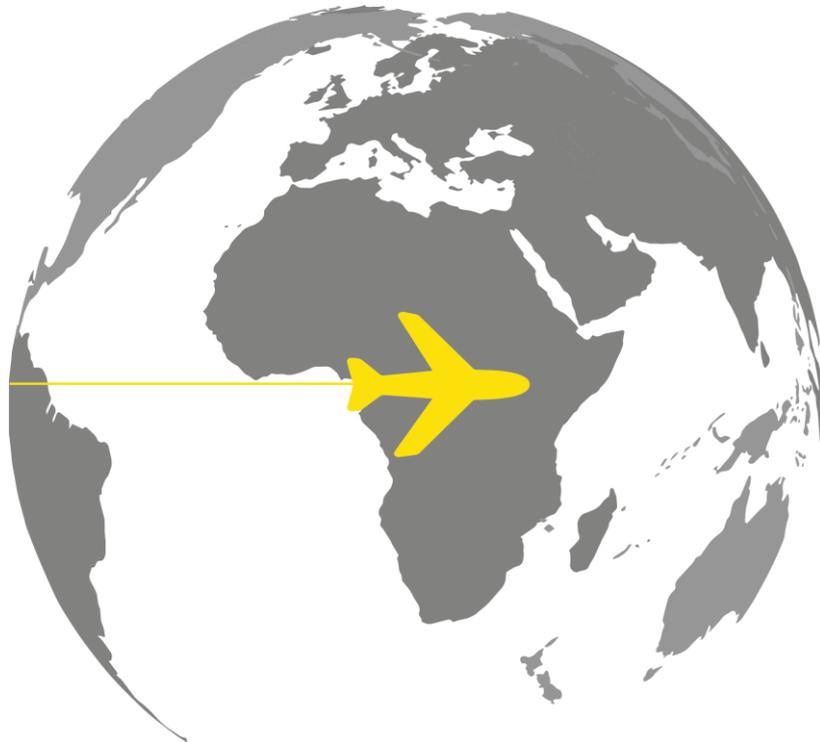




# Leeds Bradford Airport Airspace Change Proposal

## Consultation Feedback Report



# Document Details

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Reference	Description
<b>Document Title</b>	Leeds Bradford Airport Airspace Change Proposal
	Consultation Feedback Report
<b>Document Ref</b>	70818 049
<b>Issue</b>	Issue 1
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Issue 1	Initial Issue	20 June 2018

# Executive Summary

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Leeds Bradford Airport (LBA) would like to extend thanks to all organisations and individuals who took the time to participate and provide feedback to our public consultation that took place 23<sup>rd</sup> June 2017 and 29<sup>th</sup> December 2017.

LBA is the Sponsor of a proposed change to the current airspace arrangements and procedures in the immediate area surrounding the airport. The proposed change will provide enhanced protection to aircraft on the critical stages of flight on departure and on final approach.

As part of the Civil Aviation Authority's (CAA) Guidance on the Application of the Airspace Change Process (Civil Aviation Publication (CAP) 725) [Reference 1], LBA is required to submit a case to the CAA to justify its proposed Airspace Change, and to undertake consultation with all relevant aviation and non-aviation stakeholders. This ensures that all stakeholders who may be directly or indirectly affected by the proposed change have an opportunity to provide comment on the proposal.

This document is a report on the consultation carried out by LBA between 23<sup>rd</sup> Jun 2017 and 29<sup>th</sup> December 2017 in accordance with the requirements of CAA CAP 725 [Reference 1]. It includes an analysis of all submissions received throughout the consultation period, provides a summary of consultees that supported the development of a Controlled Airspace (CAS) construct and identifies the key issues raised by consultees that raised objections. It also provides LBA's views in relation to those issues and outlines post-consultation action taken, or planned to be undertaken, by LBA.

This document will form part of the Airspace Change Proposal (ACP) submission to the CAA. The ACP will detail the case for the proposed change to the current arrangements and procedures in the immediate airspace surrounding Leeds Bradford Airport.

## Subject of the Consultation

The purpose of the consultation was to gather and analyse the views of the various aviation and non-aviation stakeholders concerning a proposal to change the current airspace arrangements in the immediate airspace surrounding LBA. Fundamentally, the consultation enabled LBA to obtain or confirm views and opinions about the potential impact of the proposed airspace change.

## Conclusions

The Consultation Document was circulated to 408 organisations and individuals. The aviation consultees included the Ministry of Defence (MOD), airlines, aircraft operators, adjacent aerodromes, local airspace users and the national bodies representing all UK aviation interests who may be affected by the proposed changes. National bodies such as the Light Aircraft Association (LAA), the British Airline Pilots' Association (BALPA), and the Airport Operators Association (AOA) were represented through the auspices of the National Air Traffic Management Advisory Committee (NATMAC), sponsored by the CAA. A number of military organisations are also members of the NATMAC.

## Consultation Statistics

A total of 16 responses (3.9 %) were received from the 408 consultees contacted.

In addition, LBA received a total of 429 responses from other individual members of the General Aviation (GA) community and local residents and other organisations.

Of the total of 445 responses received; 13 consultees supported the proposal; 370 consultees objected to the proposal; and 21 consultees provided a neutral response, whereby the consultee did not object or provided no specific comments on the proposal. There were 41 consultees who asked clarification questions, but, following responses to those questions, the consultee did not provide a subsequent response.

## LBA Conclusions

The Consultation has produced significant opposition from local residents and the GA community supported by local and regional gliding clubs and the British Gliding Association (BGA).

The main emphasis of the concerns from local residents are summarised as follows:

- The introduction of new procedures will lead to an increase in noise and pollution; and
- The expansion will benefit airlines at the detriment to local residents.

The main emphasis of the concerns from the GA community are summarised as follows:

- The dimensions of the suggested CAS construct are considered disproportionate to the requirements of LBA, and the forecast growth predictions veracity have been questioned;
- The base of the proposed CAS is too low to facilitate soaring and cross-country flights;
- The new CAS design produces a funnelling effect as aircraft avoid and go around CAS rather than transit through which has safety implications including an increased risk of mid-air collision (MAC);
- The new CAS design is too complicated and will lead to more airspace infringements; and
- The impact on the sustainability of local gliding clubs generally, and specifically the impact on Burn Gliding Club's ability to continue to operate.

The Consultation raised concerns from the MOD relating to the reduction in available airspace for flying training exercises, and the need for careful consideration with regard to the delegation of CAS to military units.

NATS supports the proposal. In particular, the introduction of Performance Based Navigation (PBN) is supported as it will enable improvements in the safety and efficiency of UK airspace; however a number of concerns were raised surrounding the implementation of the new procedures and how they will be managed by LBA and NATS Prestwick.

## Next Stages

LBA will continue to engage with local communities to reassure and inform them that the new procedures will aim to reduce the overall noise footprint and that this will continue to be monitored after implementation. In addition, LBA will work with the airspace and procedure designers to optimise the final design of the airspace. This involves balancing the

requirements of the containment policy, the actual performance capabilities of modern aircraft and the needs of other airspace users. The safety case to justify the design and the usage of the airspace will also form part of the final submission. LBA will work with key aviation stakeholders to develop appropriate mechanisms to facilitate continuing access to areas of airspace identified during the consultation.

Following receipt of the formal ACP, the CAA will assess the documentation to determine if there is sufficient information presented on which to base a decision. Thereafter, a 16-week period follows during which the CAA conducts its own internal analysis of the final proposal and consultation results, before arriving at a Regulatory Decision.

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# 1 Glossary

Acronym	Meaning
ACC	Airport Consultative Committee
ACP	Airspace Change Proposal
AIRAC	Aeronautical Information Regulation and Control
AOA	Airport Operators Association
ATC	Air Traffic Control
ATM	Air Traffic Management
ATS	Air Traffic Service
ATSU	Air Traffic Service Unit
BALPA	British Airline Pilots' Association
BBAC	British Balloon and Airship Club
BGA	British Gliding Association
BGC	Burn Gliding Club
BHPA	British Hand Gliding and Paragliding Association
BMAA	British Microlight Aircraft Association
BPA	British Parachute Association
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CAS	Controlled Airspace
CAT	Commercial Air Traffic
CTA	Control Area
DAATM	Defence Airspace and Air Traffic Management

<b>Acronym</b>	<b>Meaning</b>
DGC	Darlington Gliding Club
DHPC	Dales Hang-gliding and Paragliding Club
DLGC	Dales and Lancashire and Gliding Club
DSC	Dales Soaring Club
FAS	Future Airspace Strategy
FASI	Future Airspace Strategy Implementation
Ft	Feet
GA	General Aviation
GAA	General Aviation Alliance
GNSS	Global Navigation Satellite System
HCGB	Helicopter Club of Great Britain
IFP	Instrument Flight Procedure
IFR	Instrument Flight Rules
LAA	Light Aircraft Association
LoA	Letter of Agreement
LBA	Leeds Bradford Airport
LNC	Letter Name Code
MAC	Mid-air Collision
MOD	Ministry of Defence
NATMAC	National Air Traffic Management Advisory Committee
Nm	Nautical Miles
NPR	Noise Preferential Route
PBN	Performance Based Navigation
PSC	Pennine Soaring Club

Acronym	Meaning
QC	Quota Count
RAeC	Royal Aero Club
RAF	Royal Air Force
RAUWG	Regional Airspace Users Working Group
RSAG	Regional Soaring Airspace Group
RTF	Radiotelephony
SARG	CAA Safety and Airspace Regulation Group
STAR	Standard Arrival Route
WGC	Wolds Gliding Club
YGC	Yorkshire Gliding Centre

## 2 Introduction

*This document is a Consultation Feedback Report following the Public Consultation carried out by Leeds Bradford Airport (LBA) between 23<sup>rd</sup> June 2017 and 29<sup>th</sup> December 2017, on the proposed changes to the current airspace arrangements in the immediate area around LBA. The aim of this report is to present details on the statistical data arising from the responses to the consultation, together with an analysis of the feedback received.*

### 2.1 Leeds Bradford Airport Airspace Change Proposal

LBA is the sponsor for a proposed change to the current airspace arrangements in the immediate area around LBA, which aim to provide enhanced protection to aircraft on the critical stages of flight in departure and final approach. As part of the Civil Aviation Authority's (CAA) Guidance on the Application of the Airspace Change Process (Civil Aviation Publication (CAP) 725) [Reference 1], LBA is required to submit a case to the CAA to justify its proposed airspace change and to undertake consultation with aviation and non-aviation stakeholders. This ensures that stakeholders who may be directly, or indirectly, affected by the proposed changes have an opportunity to provide comment on the proposal. LBA has engaged Osprey Consulting Services Ltd (Osprey) to project manage the Airspace Change Process on their behalf.

This document is a report on the consultation carried out by LBA between 23<sup>rd</sup> June 2017 and 29<sup>th</sup> December 2017. The background to this consultation and the methodology used are detailed in Annex A1 to this document. The aim of this report is to present details on the statistical data arising from the responses to the consultation, together with an analysis of the feedback received.

LBA would like to take this opportunity thank all the stakeholders and other individuals who took the time to participate in this consultation and for their very useful feedback.

### 2.2 Subject of the Consultation

The subject of the consultation was LBA's proposal to establish new arrival and final approach procedures, new departure procedures and Class D Controlled Airspace (CAS) to contain the new procedures.

The overall aim of the LBA Airspace Change Proposal (ACP) is to update flight procedures and airspace that will align with proposed changes by NATS under the Future Airspace Initiative (FAI) North project. This will be achieved through:

- New arrival procedures (including changes implemented by FAI North associated with LBA);
- Global Navigation Satellite System (GNSS) approach procedures that replicate current approach procedures;
- Performance Based Navigation (PBN) departure procedures that replicate current departure procedures; and

- New airspace structure to contain the new procedures.

LBA, as the sponsor of the proposed airspace change, is required to submit a case to the CAA to justify the change in airspace surrounding Leeds Bradford Airport. In addition, as part of the CAA's Airspace Change Process, it is LBA's responsibility to consult with all relevant stakeholders who may be directly or indirectly affected by the proposal.

The purpose of the consultation was to gather and analyse the views of the various aviation and non-aviation stakeholders concerned regarding the effects of the proposed airspace change.

## 2.3 Development of the Consultee List

A full list of consultees was developed with the advice of the CAA. The analysis of consultees has been derived from this list and the final list is shown at Annex A2.

At the start of the consultation, LBA sent out notification to 408 consultees, comprising:

- 34 Aviation "National Organisations" (CAA National Air Traffic Advisory Committee (NATMAC list);
- 30 Members of Parliament;
- 278 Local Councillors
- 10 Airport Operators;
- 28 Members of the Regional Airspace Users Working Group;
- 19 Local Aerodromes, Flying Schools and Flying Clubs; and
- 9 Ministry of Defence (MOD) operators.

## 2.4 Consultation Confidentiality

The CAA Safety and Airspace Regulation Group (SARG) requires that all consultation material, including copies of responses from consultees and others, is included in any formal submission to the CAA of an ACP.

LBA undertakes that, apart from the necessary submission of material to the CAA and essential use by Osprey for analytical purposes in developing this Report and subsequent ACP material, LBA will not disclose personal details or content of responses or submissions to any third parties.

## 2.5 Document Structure

This document contains six main Sections and four Annexes, outlined below for convenience:

- Section 1 provides a glossary;
- Section 2, this section, introduces the document;
- Section 3 details the consultation statistics;
- Section 4 provides an overview of the responses, support ratio and objections raised;
- Section 5 outlines the next stages with respect to the LBA ACP; and
- Section 6 provides a list of references.

Annexes:

- Annex A1 details the background to this consultation and the consultation methodology;
- Annex A2 lists the consultees;
- Annex A3 details the key themes and areas of concern arising from this consultation;
- Annex A4 illustrates the consulted airspace design;
- Annex A5 contains a synopsis of the review of proposed alternative suggestions; and
- Annex A6 has a diagram to indicate the areas that LBA is investigating to change since the consulted design.

## 3 Consultation Statistics

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*LBA circulated the Consultation Document via email to a total of 408 stakeholder consultee organisations or individuals. The Consultation Document was also posted on the Leeds Bradford Airport website. 16 of the 408 organisations responded, and a further 429 responses were received by other individuals and organisations.*

### 3.1 Overview

This section describes the categories of consultee organisations and individuals that were contacted and gives a breakdown of the responses received.

### 3.2 Consultee Organisations

The LBA Consultation Document was circulated via email to a total of 408 stakeholder consultee organisations, including 33 NATMAC organisations, and other individuals detailed in Annex A2.

The Consultation Document was also made available for general distribution online through a dedicated link on the LBA website.

Aviation stakeholder consultees included the MOD, airlines, aircraft operators, adjacent aerodromes, all local airspace users and the national bodies representing all UK aviation interests who may be affected by the proposed changes. National bodies such as the Light Aircraft Association (LAA), British Airline Pilots Association (BALPA), and Airport Operators Association (AOA) etc. are represented through the auspices of the NATMAC, sponsored by the CAA. A number of military organisations are also members of the NATMAC.

In addition, the following Local Authorities were consulted:

- Barnsley Council;
- Bradford Council;
- Calderdale Council;
- Craven District Council;
- Doncaster Council;
- Harrogate Borough Council;
- Kirklees Council; and
- Wakefield Council.

The consultee groups are detailed in Figure 1 below.

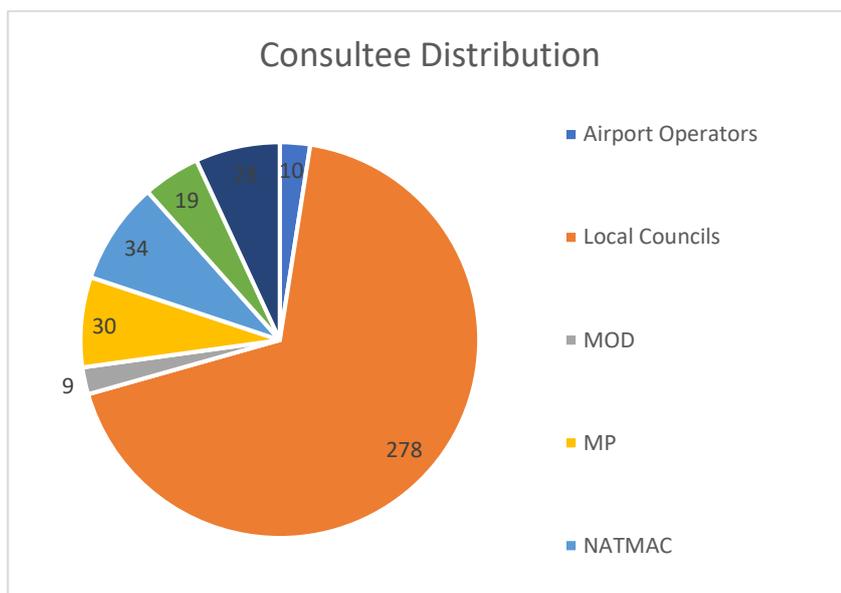


Figure 1 - Consultee Distribution

### 3.3 Consultation Responses

A total of 16 responses (3.9 %) to this consultation were received from the direct consultees. A breakdown of these responses is provided in Table 1 below.

	Consultee Group	Number Consulted	Responses	% <sup>1</sup>
1	Airport Operators	10	0	0.0%
2	Local Councils	278	3	1.1%
3	MOD Operators	9	0	0.0%
4	Members of Parliament	30	1	3.3%
5	NATMAC	34	5	15.2%
6	Other Aerodromes, Flying Clubs, Flying Schools	19	2	10.5%
7	Regional Airspace Users Working Group	28	5	17.9%
	<b>Totals</b>	<b>408</b>	<b>16</b>	<b>3.9%</b>

Table 1 - Consultee Responses

<sup>1</sup> Percentage of those originally consulted.

In addition to the 16 responses received from direct consultees (distribution shown in Table 1), a further 429 submissions were received from other individuals or organisations making the total number of responses equal to 445. The distribution of all responses is shown in Figure 2 below.

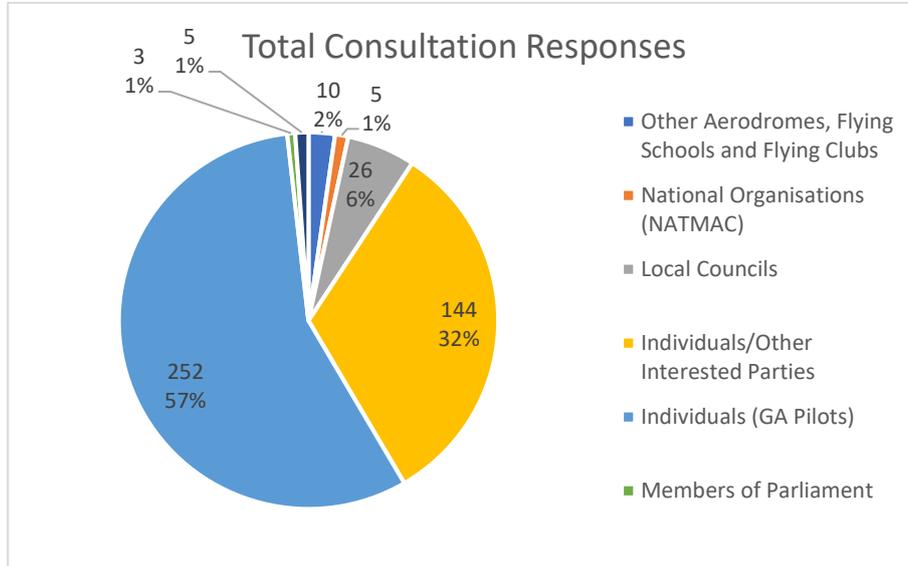


Figure 2 - Distribution of all Responses

Whilst the consultation documentation was sent to a number of local MOD operators, the MOD provided a consolidated response, through Defence Airspace and Air Traffic Management (DAATM), on behalf of all military consultees. This is standard MOD practice.

The majority of the responses received from stakeholders were from glider pilots and individuals associated with general aviation groups and organisations.

### 3.4 Meetings with Aviation Stakeholders

Prior to the commencement of the consultation period, a number of meetings were held with some of the local aviation stakeholders. The purpose of these meetings was to present the detail that would be incorporated into the Consultation Document to ensure there were no surprises for aviation stakeholders when it came to formal comment.

Details of the engagement meetings that were organised with the aviation stakeholders are given in Table 2 below.

Meeting	Meeting Date	Notes
Leeds Bradford Airport Consultative Committee	31 March 2016	Full briefing of the ACP to the meeting attendees
Regional Airspace Users Working Group (RAUWG) – RAF Leeming	11 May 2016	Full presentation and briefing of the ACP to meeting attendees
Leeds Bradford Consultative Committee	16 June 2016	Full briefing of the ACP to the meeting attendees
DAATM	20 July 2016	Full presentation and briefing of the ACP to the meeting attendees
Warton	20 July 2016	Full presentation and briefing of the ACP to the meeting attendees
Leeds East	21 July 2016	Full presentation and briefing of the ACP to the meeting attendees
LBA Consultative Committee Meeting	16 September 2016	Update on the ACP meeting
RAUWG – RAF Linton on Ouse	29 November 2016	Full presentation and briefing of the ACP to the meeting attendees
Sherburn in Elmet	30 November 2016	Update on the ACP meeting
Leeds City Council	December 2016	Full presentation and briefing of the ACP to the meeting attendees
Multiflight	12 January 2017	Update on the ACP meeting
Multiflight	18 January 2017	Full briefing on the ACP
Liverpool and Doncaster Sheffield Airports	20 January 2017	Full presentation and briefing of the ACP to the meeting attendees
Bradford City Council	27 January 2017	Full presentation and briefing of the ACP to the meeting attendees
Multiflight	16 April 2017	Update on the ACP meeting
Burn Gliding Club	17 April 2017	Full presentation and briefing of the ACP to the meeting attendees

Meeting	Meeting Date	Notes
NATS Prestwick	20 April 2017	Update of ACP to NATS Prestwick
National Police Air Service	25 May 2017	Full presentation and briefing of the ACP to the meeting attendees
RAUWG – RAF Leeming	7 June 2017	Update on the ACP meeting
Leeds East	9 June 2017	Update on the ACP meeting

Table 2 - Pre-Consultation Stakeholder Meetings

### 3.4.1 Additional Meetings

During the consultation period, additional meetings with stakeholders continued. Details of the consultation meetings that were organised with stakeholders are given in Table 3.

Stakeholder	Meeting Date	Notes
Sherburn in Elmet	30 August 2017	Full presentation and briefing of the ACP to the meeting attendees
45 Sqn RAF Cranwell	5 September 2017	Full presentation and briefing of the ACP to the meeting attendees
Members of Menston and Burley in Wharfedale Parish Councils	7 September 2017	Update on the ACP meeting
LBA Consultative Committee Meeting	16 September 2017	Update on the ACP meeting
Yarnbury Rugby Club	26 September 2017	Drop-in event for residents of the Horsforth area
Highroyds Sports and Social Club	27 September 2017	Drop-in event for residents of the Menston, Burley in Wharfedale and Baildon areas
Philip Davies MP meeting	9 October 2017	Full presentation and briefing of the ACP
RAUWG – RAF Leeming	11 October 2017	Update on the ACP meeting

<b>Stakeholder</b>	<b>Meeting Date</b>	<b>Notes</b>
Baildon Club	18 October 2017	Drop-in event for residents of the Baildon area
Horsforth Town Council	19 October 2017	Full presentation and briefing of the ACP to the meeting attendees
Burley in Wharfedale	2 November 2017	Drop-in event for the residents of the Burley in Wharfedale residents
RAF Leeming	22 November 2017	Brief to OC Operations
Members of Menston and Burley in Wharfedale Parish Council	29 November 2017	Additional question and answer session regarding ACP
Leeds East	15 December 2017	Update on the AC meeting

Table 3 - Additional Consultation Meetings

## 4 Analysis of Responses

*Of the 445 individual responses received in total, 13 supported the proposal, 370 consultees objected to the proposal and 21 provided a neutral response or had no comments on the proposal. There were 41 consultees that did not register a formal response.*

### 4.1 Overview

This section provides details on the number of responses received from the various organisations and individuals that were consulted. It also studies the percentage of stakeholder consultees that raised concerns about the proposal and explores the support ratio of consultee responses received to give a general indication on the stakeholder acceptance of this proposal.

### 4.2 Response Support Ratio

Of the 445 responses received during the consultation period:

- 13 consultees (2.9 %) supported the proposal;
- 370 consultees (83.1 %) objected to the proposal;
- 21 consultees (4.7 %) provided a neutral response or provided no comments on the proposal; and
- 41 consultees (9.2 %) provided questions for clarification purposes but did not formally provide any further response.

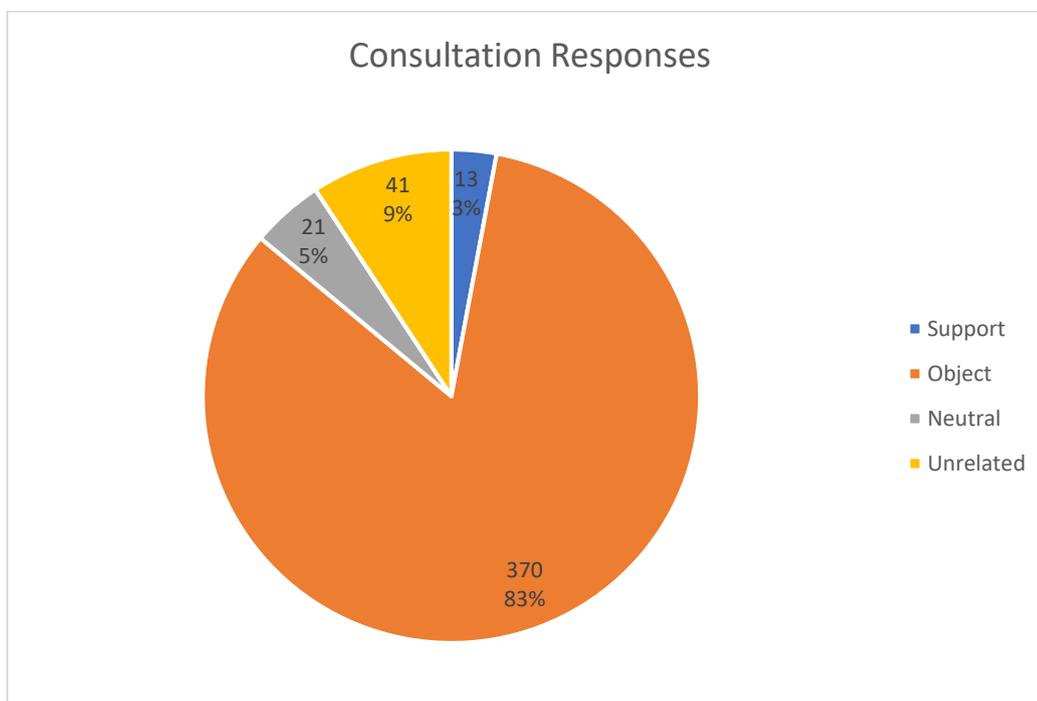


Figure 3 - Support Ratio from All Responses Received

## 4.3 Stakeholder Support Responses

A number of stakeholders have offered their support for the airspace and procedure developments. The following sub-sections outline the nature of the support received from local aviation consultees and NATMAC members.

### 4.3.1 Leeds City Council

Leeds City Council provided their support to *“a strong and growing airport to improve the City Region’s economic connectivity to the rest of the UK, access to Europe and gateways for global aviation routes”*.

Leeds City Council made positive reference to how the use of modern technology will reduce the lateral spread of aircraft resulting in a concentration of aircraft tracks and a more confined noise footprint on the ground.

### 4.3.2 Doncaster Sheffield Airport (DSA)

Doncaster Sheffield Airport is approximately 40 miles to the southeast of LBA.

The airport and air traffic controlling staff are satisfied that the proposal is compatible with their existing airspace arrangements, and do not foresee any reasons why the proposal would impede the safe and expeditious operation of either airport. Doncaster Sheffield Airport welcome the good working relationship between both air traffic control (ATC) units and believe that the proposal will allow this to continue.

### 4.3.3 NATS

NATS is the UK’s leading provider of air traffic control services. They annually manage 2.4 million flights in UK airspace and provide terminal control services at 13 UK airports.

NATS provided no objection to the proposal and supports the introduction of PBN procedures as they enable improvements in the safety and efficiency of UK airspace. NATS’ full support for the proposals is subject to LBA addressing a number of comments regarding the departure and arrival procedures that they would like to see addressed either before the proposal is submitted or as part of the proposal submission.

#### Comments Regarding Departure Procedures

- The departure procedures will impact NATS Prestwick Centre however as part of the PLAS programme, NATS are continuing to work with LBA to ensure suitable connectivity to the Network. The acceptability of the new procedures will be subject to an evaluation/validation simulation and joint HazID.
- NATS expects that LBA take responsibility for resolving any issues resulting from the interaction with Doncaster Sheffield Airport traffic and developing any procedures associated with NATS Prestwick.
- NATS expects that LBA take responsibility for securing new five letter name codes (5LNCs) for the DOPEK/LAMIX/POLE HILL SID replacements.
- LBA will need to agree network joining points and associated procedures with NATS Prestwick.

### Comments Regarding Arrival Procedures

- NATS noted that the consultation document stated that an alternate arrival route would be adopted if there was potential for conflict with departing traffic. NATS suggested that the shorter arrival route could be the default with the longer route for busy departure periods. NATS Prestwick would be happy to develop the procedure with LBA to agree a circumstance-based default route.
- NATS would prefer that LBA facilitate the new arrival routes by new standard arrival route (STAR) designs rather than existing Air Traffic Service (ATS) structure as this reduces radiotelephony (RTF) loading on NATS Prestwick sectors.
- NATS would prefer that the responsibility split between NATS Prestwick and LBA for control of traffic on the new Transitions is consistent across all routes to ensure the RTF workload remains manageable.
- LBA should adopt the Transition procedure naming convention stipulated by the CAA.
- NATS would like LBA to confirm that the holding facility for arrivals will remain the same as it is not referenced in the consultation document.
- LBA should ensure that Operators indicate the correct navigation equipage in the flight plan to avoid NATS issuing inappropriate procedure clearances.
- LBA need to develop RTF failure procedures for the pre and post Transition phase of each arrival.

### Additional Comments

- NATS recommended that to enable efficient air traffic management (ATM) proficiency, the use of 3nm separation between NATS Prestwick and LBA is likely to be needed which will require changes to the telephone system between the two units.
- A route spacing assessment for the Transitions at the operational interface will need to be conducted by LBA in accordance with CAP 1385. The spacing will need to be agreed with NATS Prestwick.
- The proposed changes will result in changes to the NATS Prestwick ATM Systems. NATS requests that LBA closely coordinate any implementation date so NATS Prestwick can ensure their internal processes are completed in a timely manner.

### LBA Actions

LBA is committed to working with NATS to ensure that these comments can be addressed prior to the submission of the ACP. Several meetings have been held at Prestwick Centre and at LBA to try to ensure that the LBA ACP can integrate effectively with, and without any detrimental impact to the FASI North project. Work is ongoing to try to align the publication of the airspace change and new procedures (if the ACP is successful) with the FASI North programme.

#### 4.3.4 West and North Yorkshire Chamber of Commerce

The West and North Yorkshire Chamber of Commerce is the region's premier business support organisation; offering partnerships, networking, intelligence, championing and business support. The West and North Yorkshire Chamber of

Commerce represents businesses of all sizes and from all sectors across the Chamber's geographic area.

The chamber supports the proposal because increasing the height and volume of local airspace allows better managed handovers between local and national airspace controllers allowing for better controlled ascents and descents to take place, using less fuel and reducing CO<sub>2</sub> and NO<sub>x</sub> emissions. These ascents and descents will be less demanding on aircraft engines, resulting in less noise experienced by local communities. The introduction of satellite based Standard Arrival Routes (STARs) will allow aircraft to follow routes more accurately, reducing the track miles flown reducing fuel consumption and therefore further reduce CO<sub>2</sub> and NO<sub>x</sub> emissions.

#### 4.4 Submissions from Individuals and Other Aviation Organisations

Of the 429 responses to the consultation received from those not in the formal consultee list, the majority were from local residents and glider or hang-glider pilots, many of whom are also members of local flying clubs.

Notwithstanding that their representative organisations may have submitted detailed responses to the consultation on behalf of their membership, all of the additional individual submissions have been documented and analysed by LBA and will form part of the ACP to be made to the CAA in due course. Any new issues identified in the individual submissions which had not already been raised by the formal consultees are embraced within the key issues (Table 4) and key themes listed in Annex A3 to this report.

Responses were received from the following flying and gliding clubs:

- Burn Gliding Club;
- Dales Hang Gliding and Paragliding Club;
- Darlton Gliding Club;
- Derbyshire and Lancashire Gliding Club;
- Derbyshire Soaring Club;
- Pennine Soaring Club;
- York Gliding Centre; and
- Yorkshire, Derbyshire and Nottinghamshire Regional Soaring Airspace Group.

#### 4.5 Key Issues Arising

The response analysis process identified a number of key themes in those responses that objected to the proposal. The themes could be subdivided into the issues of local residents and the issues of the GA community. These are outlined in Table 4 below together with the number of consultees who expressed that view in their response.

Concerned Parties	Nature of Objection	Number of Responses
Local Residents	Pollution	34
	Noise	83
	Money saving for airlines at the expense of local residents	19
	Extended operating hours	14
	Unreasonable traffic forecast / effect of Brexit / Monarch administration	74
	Proposal documentation unacceptable/ too technical / insufficient detail / process unacceptable	52
GA community	Disproportionate/unrealistic/unjustified size of proposed airspace	109
	Loss of airspace amenity for cross-country and soaring aircraft	148
	Impact on GA / Negative safety impact / funnelling effect potentially increasing risk of Mid Air Collision	234
	New airspace construct is too complicated	55
	Base of CAS too low	80

Table 4 - Nature of Objections Raised by Consultees

Table 5 highlights the specific issues raised regarding the CAS design and presents solutions proposed by some consultees.

Nature of Concerns	Proposed Solution or Redesign
Pollution	<ul style="list-style-type: none"> <li>– Creation of a wider plan to reduce carbon emissions in line with the UK's commitment to reduce carbon emissions.</li> <li>– Restrict departures over residential areas.</li> <li>– Impose statutory passenger/freight limit.</li> <li>– Provision of money for sound proofing.</li> <li>– Close LBA to save the environment.</li> </ul>

Nature of Concerns	Proposed Solution or Redesign
Noise	<ul style="list-style-type: none"> <li>– Reduce number of landings between 2300 hrs and 0600 hrs.</li> <li>– Move Noise Preferential Route (NPR) 1.5-2km to the west to reduce noise over village population whilst retaining other benefits.</li> <li>– Routes should avoid urban areas.</li> </ul>
Extended operating hours	<ul style="list-style-type: none"> <li>– Reduce number of landings between 2300 hrs and 0600 hrs.</li> <li>– Adopt night flying practices of international airports (assumed to be the institution of Night Quota Count (QC) system<sup>2</sup>).</li> </ul>
Unreasonable traffic forecast / effect of Brexit / Monarch administration	<ul style="list-style-type: none"> <li>– Close Leeds Bradford Airport, release all CAS to GA traffic and move commercial traffic to Doncaster Sheffield Airport.</li> <li>– Release airspace that is currently unused.</li> </ul>
Proposal documentation unacceptable/ too technical / insufficient detail / process unacceptable	<ul style="list-style-type: none"> <li>– Combine CTAs 1, 2 and 3 and combine CTAs 4 and 5.</li> <li>– Increase ATC staffing rather than increase size of airspace.</li> <li>– Reduce size of airspace.</li> <li>– Produce an addendum with the same level of detail as the supplementary material provided for Menston and Burley in Wharfedale for Hensall Parish and Selby District Council.</li> </ul>
Disproportionate/unrealistic/unjustified size of proposed airspace	<ul style="list-style-type: none"> <li>– Eliminate triangular “foot” of CTA 10 to meet the northern boundary of CTAs 12 and 13.</li> <li>– Put speed restrictions on inbound aircraft from the north.</li> <li>– Postpone airspace change until the ground infrastructure can support an increased number of aircraft.</li> <li>– Employ a larger number of ATC staff rather than increase airspace.</li> <li>– Postpone airspace change until the publication of the Future Airspace Initiative.</li> </ul>

<sup>2</sup> LBA operates a Quota Count (QC) system at night whereby only aircraft with a QC score of less than one may depart, and a QC score of one or below may arrive.

Nature of Concerns	Proposed Solution or Redesign
<p>Loss of airspace amenity for cross-country and soaring aircraft / base of CAS too low</p>	<ul style="list-style-type: none"> <li>- Update radar to better manage traffic.</li> <li>- Raise lower limit of each block of airspace to 5000 ft.</li> <li>- Raise the base of CAS the 4,500 ft / 5,000 ft.</li> <li>- Raise the base of CTAs 1, 2 and 3 to FL 55 when LBA is operating from runway 32.</li> <li>- Raise base of CTAs 7 and 8 to FL 55 between 0900 hrs and 1800 hrs.</li> <li>- Raise base of CTAs 7 and 8 to FL 60.</li> <li>- Raise base of CTA 8 to FL55 / 6,000 ft between 0900 hrs and 1800 hrs.</li> <li>- Exclude or raise the base of CTA 9 to FL 55 between 0900 and 1800.</li> <li>- Raise the base of CTA 10, 11, 12, 13, 14 to 5,000 ft.</li> <li>- Raise base of CTAs 8, 12, 13, 14 to FL 45 or FL 55.</li> <li>- Extension of airspace to the north and east should not be below 8,000 ft between 0900 hrs and 1800 hrs.</li> <li>- Raise altitude restriction of CTAs 8, 9, 10, 12, 13 and 14.</li> </ul>
<p>Impact on GA / Negative safety impact / funnelling effect potentially increasing risk of Mid Air Collision</p>	<ul style="list-style-type: none"> <li>- CTA 13 could be stepped diagonally from SE to NW to allow the raising of the height of the eastern sector.</li> <li>- Reduce existing size of CTA 11.</li> <li>- Aircraft approaching from the north should pass through the airfield overhead.</li> <li>- Institute a low-level corridor for Sherburn Aero Club.</li> <li>- Draft letters of agreement with local gliding clubs that allows gliders to fly through CAS without undue hindrance.</li> <li>- Remove clause to hand over control of airspace to the military.</li> <li>- Postpone the airspace change proposal until the government's consultation on shaping the UK's aviation industry for the next 30 years.</li> <li>- Make the new CAS Class E rather than Class D.</li> <li>- Complete a safety assessment of the potential greater risk of conflict or collision to VFR traffic.</li> </ul>

Table 5 - Issues Raised and Potential Solutions Articulated Regarding the Proposed CAS at Leeds Bradford Airport

It was noted that some consultees who objected to the proposal, considered that some form of Class D CAS of a smaller scale was appropriate in support of LBA operations.

Additionally, the number of objections relating to each CTA were analysed to identify the areas of CAS that are deemed to be the cause the most concern for aviation and non-aviation stakeholders. The results of the analysis are shown in Figure 4 below.

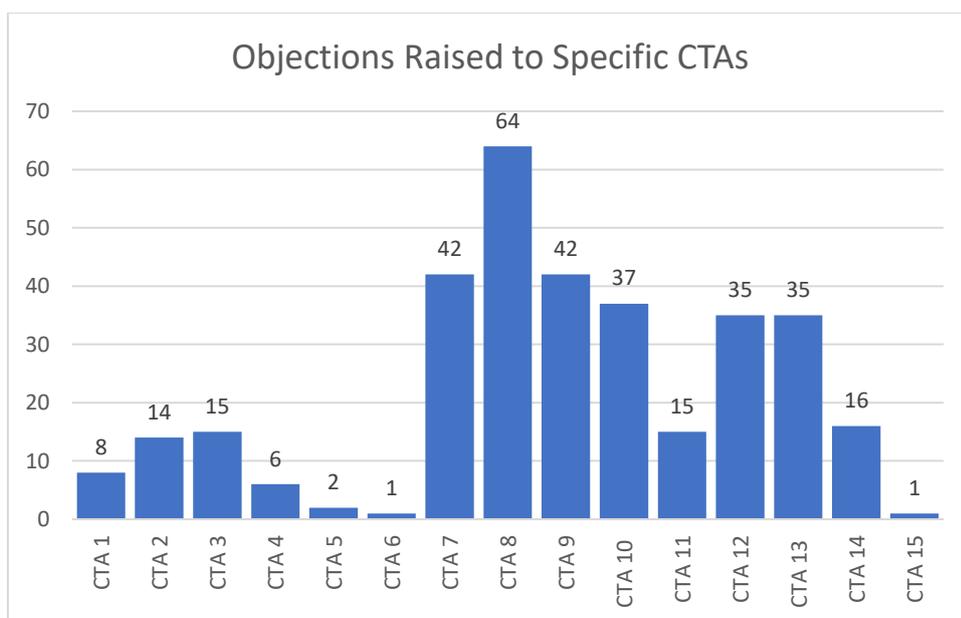


Figure 4 - Number of Objections Raised to Specific CTAs

The key themes and LBA's consideration of them, are detailed at Annex A3 to this report.

## 4.6 Stakeholder Objection Responses

A total of 370 objections to the proposal were received throughout the consultation period. The consultee types and respective numbers are given below:

- 4 objections from NATMAC consultees;
- 11 objections from local authorities;
- 255 objections from individuals within the aviation community;
- 90 objections from individuals outside the aviation community; and
- 10 objections from local aerodromes/aviation consultees.

A summary of the key themes identified are presented in more detail in Annex A3 of this report. The following sub-sections outline the nature of the objections received from local aviation consultees, NATMAC members and local authorities (listed in alphabetical order).

#### **4.6.1 Baildon Town Council**

Baildon Town Council questioned why they had not been formally consulted as an area that would be directly affected by the proposed changes and noted that some of the names of the councils within the Bradford Metropolitan District were incorrect.

Baildon Town Council objected to the proposal as the Standard Instrument Departure (SID) routes departing from Runway 32 and routing to the south overfly Baildon to a greater extent than they do now. It was also considered that the proposal document did not provide sufficient information to determine the extent of the effect changes would have on local residents. It was also considered that an increase in flights over Baildon would increase the risk of an air accident within the area.

#### **4.6.2 Burley in Wharfedale Parish Council**

The response provided by Burley in Wharfedale primarily concerned the ability of aircraft now, and in the future, to maintain their flight path within the Noise Preferential Route (NPR). The response expressed the concerns of the council that currently there is a large variance of aircraft routes through the NPR swathe and a concentration of aircraft over the northern boundary.

Whilst Burley in Wharfedale Parish Council welcomed the advantages of a GPS based system in principle, they expressed concerns that the introduction of a new system would constitute a diminution of the strict enforceable adherence to a SID which would lead to a further scattering of departure routes.

Additionally, the council expressed concerns that the new route incorporates a very sharp left turn on departure subjects the local residents to an increased  $LA_{max}$  noise.

Whilst the council agreed that the current system is due for replacement and recognised that initially the proposed route follows the aim to route over the least populated areas, they felt that there should be a waypoint equivalent to the current 3.5 DME to ensure no northward or southward creep of aircraft routing.

Burley in Wharfedale council also considered that the process has not followed the spirit of CAP 725. They stated that the format of local “drop-in” sessions was not conducive to the complexity of the proposal material.

#### **4.6.3 Menston Parish Council**

Representatives of Menston Parish Council met with LBA staff on a number of occasions to discuss the proposed airspace change. Menston Parish Council members expressed concerns that LBA were not following the CAP 725 process, and were not providing sufficient opportunities for local community members to have access to applicable information or an opportunity to voice their concerns and have their questions answered. Menston Parish Council members also considered that the current Noise Preferential Routes (NPRs) were the best solution and that any change to the existing NPRs would have a negative effect on Menston and the surround area.

#### **4.6.4 Osgoldcross Division in Selby District**

The North Yorkshire County councillor for Osgoldcross Division of Selby District objected to the proposal as Selby District had not been consulted. The councillor

considered that a reduced flight path from FL 125 to 3,500 ft would adversely impact the amenity of the residents in the local area.

*Note: As a result of this objection, and objections by other Selby District councillors and members of North Yorkshire County Council, the consultation deadline was extended by 2 weeks to allow the members of Selby District council and local residents to provide a response to the proposal.*

#### **4.6.5 Burn Gliding Club**

The Burn Gliding Club (BGC) was established to provide facilities for the sport of gliding and to promote participation in the sport of gliding. BGC maintains a membership of approximately 100 individuals and the club owns 5 gliders.

BGC states that if the proposal is introduced in its current form it will have a serious impact on cross country and wave flying which would result in a large proportion of BGC's experienced pilots and instructors reducing their ability to function and which would consequently have a negative impact on the club's income. This would result in the future viability of BGC being questioned. BGC members believe that the request for additional controlled airspace is premature, exaggerated and opportune.

BGC states that the airspace requirements cannot be justified, particularly because LBA has used a 2.5° approach path rather than a 3° glide path to plot their airspace. BGC considers that a reduced rate of descent as a result of a 2.5° approach angle would increase fuel consumption, noise at ground level and produce more CO<sub>2</sub>.

BGC states that CTAs 10, 12, 13 and 14 present a major problem for the club as the base of 4,000 ft will prevent cross country flights to the south for all except the most experienced of pilots.

BGC also indicates that the proposal documentation is misleading as the proposal's statement that CTAs 3, 4, 8 and 9 are being introduced to support circuits flown to the east of the airfield reducing in fuel costs and environmental impacts belies the infrequent use of the approaches described.

CTA 9 is of particular concern to BGC due to its proximity to their location and the proposed base altitude of 3,500 ft. BGC states that CTA 9 will hinder evening flying and late returns from cross country flights. The Club does not consider that the base altitude of 3,500 ft is necessary at any time of the day as they state that no aircraft will use this area below 5,700 ft.

BGC understands the rationale behind CTR 3 and CTA 4 but considers that the implementation should be held back until commercial air transport movements equal or exceed the 2006 level of 37,000.

Following their analysis, BGC offered a number of compromise solutions. One solution, considered as "best compromise for BGC" saw the permanent withdrawal of CTAs 9, 12 and 13; CTAs 10 and 14 raised to 4,500 ft; the eastern side of CTA 8 raised to 5,500 ft, and CTAs 4, 8 and 10, and CTR 3 opened for wave flying when required.

#### **4.6.6 Dales Hang Gliding and Paragliding Club**

The Dales Hang Gliding and Paragliding Club (DHPC) promotes and supports free flying for hang gliding and paraglider pilots in the Yorkshire Dales. The DHPC has 170 members each with their own aircraft.

The DHPC's principal objection is based on safety; their opinion is that when the new airspace was designed, the consideration of safety for those outside of controlled airspace was not considered. It is also contended that the lowering of the base level of CAS reduces decision making time and will subsequently lead to pilots devoting more of their attention to identifying safe landing areas which in turn detracts from their ability to look-out for other aircraft. The DHPC also contends that the lowering of airspace exacerbates existing choke points, concentrating traffic and increasing the risk of MAC.

The DHPC provided more general objections surrounding the lack of informal engagement prior to the consultation process. The members contend that LBA has provided insufficient justification for the airspace; they believe that the validity of growth projections is questionable and that the level of complexity of the proposed airspace is too high.

#### **4.6.7 Darlton Gliding Club**

The Darlton Gliding Club (DGC) is a sport aviation organisation located in North Nottinghamshire. Whilst some distance from LBA, DGC pilots fly cross-country to the north and south when weather allows. DGC consider that there is already a significant hazard to GA aircraft caused by the extent of controlled airspace.

DGC believes that the emphasis in LBA's airspace design is what commercial pilots wanted rather than basing the design on the absolute minimum required. DGC members also believe that LBA and Doncaster Sheffield Airport should have coordinated their ACPs; however, they acknowledge that as these two airports are in competition, this was unlikely to happen.

DGC stated that they support the objection submitted by the Yorkshire, Derbyshire and Nottinghamshire Regional Soaring Airspace Group (RSAG) and added that they have little faith in the CAA's process to review airspace changes.

#### **4.6.8 Derbyshire and Lancashire Gliding Club**

The Derbyshire and Lancashire Gliding Club (DLGC) was established in 1935 and currently has 162 members. DLGC's primary aims are to teach individuals to fly gliders and encourage solo glider pilots to fly cross country. DLGC stated that the proposed airspace change will make their cross-country flights more challenging which raises safety concerns. DLGC considers any reduction in the size of Class G airspace will compress more GA traffic into a narrow corridor which will make flying, particularly for glider pilots extremely difficult.

DLGC also questions LBA's requirement to expand their existing airspace. They consider that the claims made of increased commercial air traffic, fuel economy and safety are groundless.

#### **4.6.9 Derbyshire Soaring Club**

The Derbyshire Soaring Club (DSC) is one of the most successful hang-gliding and paragliding clubs in the UK. Located in the Peak District National Park, membership to the DSC grants one access to a number of landing sites through

agreements with farmers and landowners. The DSC has over 500 hang glider and paraglider pilot members with access to a range of sites that benefit from different wind directions.

The DSC response stated that the main effect of the proposal would be the limitation of a pilot's ability to pass through the Upton Corridor due to the lowering of the base level of CAS. They also raised concerns that previous Letters of Agreement (LoA) held with Doncaster Sheffield Airport that allow access to certain parts of CAS, are ambiguously referenced and do not provide any confidence that they will continue to be utilised. The DSC stated that they anticipated a marked decrease in safety of aircraft outside of CAS due to the lengthening and lowering of the corridor used by GA aircraft, which will lead to increased levels of traffic congestion.

The DSC also raised broader concerns about the proposal, stating that the forecast increase in traffic levels is not provided with any supporting evidence, and this justification has evolved over time to stress the requirements of safety and the need to keep commercial flights within CAS. The DSC stated that the argument later changed to one of environmental factors and fuel saving which they believe do not justify the perceived safety and proportionality sacrifices.

#### **4.6.10 Pennine Soaring Club**

The Pennine Soaring Club's (PSC) mission is to promote and encourage the sports of hang-gliding and paragliding in a safe and responsible manner throughout the Pennines and beyond. The PSC has a membership of nearly 200 hang glider and paraglider pilots based in the Penning district, each with their own aircraft.

The PSC stated that the main effect of the proposal would be a limitation of their ability to pass the Leeds Bradford Control Area (CTA) to the north, which restricts access to the Vale of York and the coast. The proposed lower limit of CAS of CTAs 7 and 8 would compromise their ability to transit this area, and the lower limits of CTAs 1, 2 and 3 would create a barrier to flights due to the narrow ground clearance.

The PSC stated that the proposal would seriously affect the safety and practicality of their sport and it would have a negative safety impact for all airspace users. Whilst PSC acknowledged that LBA has considered these concerns, they believe that not enough has been done to allay their fears, stating that no consideration has been made to the potential impact the proposal would have on their flights to the east.

PSC believes that the proposal would have a negative impact on the safety of Class G airspace users because it would squeeze existing users into a smaller block of space.

PSC also raised broader concerns that the justification for the proposal has changed several times, from increased growth, to compliance with procedures, to environmental and fuel saving concerns, and they believe that there is insufficient evidence to support these claims.

#### **4.6.11 York Gliding Centre**

York Gliding Centre (YGC) is a gliding club located at Rufforth airfield. YGC believes that the proposed airspace expansion would have a devastating impact

upon gliding in the Vale of York, and this is as a result of a proposal that is not necessary with regards to safety or operations, nor is it based on a realistic increase in traffic.

#### **4.6.12 Yorkshire, Derbyshire and Nottinghamshire Regional Soaring Airspace Group**

The Yorkshire, Derbyshire and Nottinghamshire Regional Soaring Airspace Group (RSAG) represents the views of Burn Gliding Club (BGC), the Dales Hang Gliding and Paragliding Club (DHPC), the Darlton Gliding Club (DGC), the Derbyshire and Lancashire Gliding Club (DLGC), the Derbyshire Soaring Club (DSC), the Pennine Soaring Club (PSC), the Wolds Gliding Club (WGC), the York Gliding Centre (YGC), and the York Gliding Club, which collectively constitutes over 2000 pilots. RSAG was encouraged to form by the British Gliding Association (BGA) due to the perceived scale of the contribution of GA activities to the UK economy.

RSAG stated that the proposal is undermined by the lack of clarity provided on LBA's plans to increase ground infrastructure in line with the proposed increase in airspace.

RSAG believe that the justifications for new CAS have no basis in evidence and that the requirements of the soaring community have not been fully considered. They stated that the CAS is disproportionate to any reasonable requirement and it would disadvantage other airspace users.

RSAG's principal concerns were:

- The proposed changes will increase the risk of MAC for GA traffic as the changes create significant choke points;
- The base levels of CAS is too low to allow for sufficient decision-making time, the ability to thermal, maintaining safe 'land out' options and maintaining a good look out for other aircraft;
- The proposed CAS will increase airspace infringements as it is too complicated;
- There will be a significant reduction in cross country ability, particularly north-south transits;
- CTA 9 will remove the ability to wave fly off the Pennines; and
- There will be a detrimental impact on Burn and Rufforth Gliding Clubs, Derbyshire Soaring Club, Pennine Soaring Club and the Dales Hang Gliding and Paragliding Club.

Whilst RSAG acknowledged that LBA has engaged with them, they felt that the engagement was occasional and limited during which LBA representatives did not take advantage of the opportunity to address their concerns.

RSAG states that LBA has failed to provide a consistent justification for the proposal. They also believe that the claim that LBA has made significant concessions to other airspace users is incorrect and that fuel savings predictions are exaggerated and therefore misleading.

#### **4.6.13 British Gliding Association**

The British Gliding Association (BGA) is the national governing body of sport gliding and represents all UK gliding clubs, with approximately 7,000 active glider pilots, utilising approximately 2,300 aircraft and formed into 80 clubs.

The BGA has stated that it has no objection in principle to the application of CAS in situations where a significant number of passenger carrying commercial air transport (CAT) must fly and where the needs of all users have been sought and used to create a coherent airspace design that proportionately meets everyone's needs and does not simply disregard the safety of any segment of airspace users.

The BGA states that, in general terms, the improving performance of modern aircraft should mean that steeper climbs and descents are achievable and should lead to a reduced CAS footprint.

The BGA assessment is that the new airspace design does not consider the safety of GA traffic, and stated that the design is justified by growth projections that they consider to be unsustainable. They could not understand the need for the low base levels of CAS at distances of 15-20nm from the airfield.

The BGA believes that the proposal will have a serious impact on gliding and soaring operations which will lead to economic damage to gliding clubs and affect the contribution that GA gives to the UK economy.

#### **4.6.14 British Hang Gliding and Paragliding Association**

The British Hang Gliding and Paragliding Association (BHPA) supports the UK network of recreational clubs and registered schools and provides the infrastructure in support of UK hang gliding and paragliding operations. The BHPA oversees pilot and instructor training standards, and provides technical support such as airworthiness standards, and coaching courses for qualified hang gliding and paragliding pilots.

The BHPA objects to the proposal on 6 themes:

- The BHPA believes that this proposal is part of a series of airport expansions. They felt that it is unjust that there is no funding mechanism to reduce airspace where it is no longer needed.
- The BHPA feels that they should have been invited to be part of the informal consultation process. It believes that a greater level of informal consultation would have improved the proposal which they considered to contain errors and superfluous material.
- The BHPA considers that the growth projections for LBA are unrealistic. They contend that the recent trend is for a reduction in aircraft movements, and the unpredictable nature of BREXIT, Monarch Airlines going into administration combined with LBA's ground infrastructure limitations show that the increased traffic forecast is overly optimistic.
- The BHPA believes that the increase in CAS both laterally and vertically will lead to reduced safety for GA pilots. It considers that the airspace change will lead to choke points and low ceilings which will increase the chance of MAC.
- The proposed airspace is considered to be too complicated. The BHPA suggests that the overall number of CTAs is reduced to limit the complexity.
- Based on the objectives of the Future Airspace Strategy (FAS) to allow aircraft to climb and descend more quickly, the BHPA considers that the need for airspace at lower levels should be reduced rather than increased.

#### 4.6.15 **GA Alliance (GAA)**

The GAA is a group of organisations representing the interests of many in the UK General Aviation (GA) industry and was formed in 2004 to address the need for a coordinated response to UK regulatory issues.

The GAA represents the British Balloon and Airship Club (BBAC), British Gliding Association (BGA), British Hang Gliding and Paragliding Association (BHPA), British Microlight Aircraft Association (BMAA), British Parachute Association (BPA), Helicopter Club of Great Britain (HCGB), Light Aircraft Association (LAA), PPL/IR Europe – European Association of Instrument Rated Private Pilots, and Royal Aero Club of the United Kingdom (RAeC).

Whilst the GAA understands and supports the need to modernise and rationalise UK airspace in order to create structures which are efficient, safe and proportionate for all users, they were dismayed to see that LBA is seeking increases in the size of CAS at a time when it considers that aircraft performance and technologies should permit a reduction in CAS.

The GAA understands that the primary motive for the proposal is the introduction of new arrival procedures and the CAS footprint that they require; however, it expresses astonishment that the design does not consider the safety of GA traffic. It considers that the proposed airspace design could significantly increase the likelihood of potential collisions and airspace infringements.

The GAA also considers that the growth projections used to justify the proposal are not based on evidence and are unsustainable. It does not understand why an increase in demand in traffic would lead to the creation of low levels of CAS at a distance of 15-20 NM from the airfield.

The GAA believes that, if successful in its current format, the ACP would impact GA aircraft wishing to transit in any direction, with reduced routing options without a Class D transit. It believes that transits through LBA airspace has been difficult in the past due to controller capacity levels.

#### 4.6.16 **Ministry of Defence – Defence Airspace and Air Traffic Management (DAATM)**

DAATM represents UK Defence within the Domestic and International Airspace and ATM environment. This ensures that the MOD, as a self-regulating operator of aircraft and Air Navigation Service Provider, is suitably represented in airspace and regulatory change matters.

The DAATM response stated that they acknowledge that through open and constructive dialogue with affected military units, a number of adjustments have been made to the proposal to alleviate some of the impact on operations and they welcome the opportunity to develop a LoA in order to agree and capture operational procedures.

DAATM stated that despite the adjustments made, the proposal would create some issues for the MOD. These are:

- The increase in CAS to the east of LBA will reduce the airspace available for Class G flying training sorties from RAF Linton-On-Ouse. The reduction of airspace will compress activities of all aviation types into a smaller area which will increase the Risk to Life from Mid Air Collision.

- The increase in CAS has the potential to limit or re-route aircraft transiting from the west. The MOD would like to seek assurance from LBA that the increase in CAS will not be used to segregate aircraft activity, and appropriate air traffic services (ATS) will be provided to enable the safe integration of military aircraft in transit.
- The increase in CAS is likely to introduce delayed descent profiles for high-level aircraft inbound to airfields in Yorkshire. In some cases, this may include the adjustment of Instrument Flight Rules (IFR) patterns.

Whilst the MOD supports initiatives to allow military sorties in defined areas of CAS, there are a number of factors that they would like to be taken account of:

- If ATS provision in these areas is delegated to another unit, then authorisation will be required from the CAA, in order for that unit to become an Enhanced ATSU. This requires significant analysis, and the time required should be factored in to the project;
- Careful consideration of procedures is required to avoid confusion if more than one unit is delegated with the authority for areas of CAS; and
- Careful consideration should be given to avoid overly complex procedures for the areas where ATS is not delegated but access to aircraft from more than one unit is permitted.

## 5 Post Consultation Actions

*LBA has fully considered the responses to the Consultation and has undertaken a process to attempt to modify the airspace design where possible. This will be included within the submission of the Formal Proposal to the CAA.*

### 5.1 Post-Consultation Review

Following the 23<sup>rd</sup> June 2017 to 29<sup>th</sup> December 2017 consultation period, all comments received have been thoroughly reviewed by LBA in order to identify the key issues of concern. LBA remains committed to mitigate, as far as is practicable, the principal concerns of those consultees who objected to this proposal.

The approach taken by LBA was to review the airspace design in the light of the significant points of objection raised by consultees and to continue a dialogue with key stakeholders to develop mechanisms to collaboratively manage the airspace to address the concerns raised.

### 5.2 Post-Consultation Airspace Development

#### 5.2.1 Key Issues under Consideration

Figure 5 in Annex A4 shows the design for the LBA CAS as defined for the 23<sup>rd</sup> June 2017 to 29<sup>th</sup> December 2017 consultation.

Following closure of the Consultation, and in the light of the responses received, LBA has undertaken a detailed review of the alternative suggestions proposed by stakeholders. LBA has considered the suggestions in general terms but has also considered specific alternative solutions for each element of the proposed airspace and provided reasons, where applicable, why alternative solutions could not be instigated. A summary of the review is shown at Annex A5. The key themes raised from objections were:

- Size and complexity of the CAS construct;
- Safety of GA aircraft and access to Class D; and
- Noise impact on local residents.

These themes are addressed in the Sections below.

#### 5.2.2 Size and Complexity of the Proposed CAS

LBA recognises that the GA community perceives the proposed increase in airspace to be excessive and overly complicated. In designing the airspace proposed, LBA considered both size and complexity and recognised the CAA's requirement to balance both when deciding the outcome of the ACP. Following a review of the proposed airspace and the nature of the new RNAV routes proposed, LBA considers that the airspace requested strikes the appropriate

balance between size and complexity. LBA recognises that it would be possible to design less complicated airspace but that would result in a necessary increase in volume of airspace proposed.

LBA also considers that the critical factor for a majority of GA pilots is the base level of the proposed airspace. When considering the base of the proposed airspace only, the airspace is less complex as a number of the base levels are aligned, and the proposed airspace has only been further subdivided to be coincidental with the airspace already in place above it.

### **5.2.3 Safety of GA Aircraft and Access to Class D**

A large number of objections stated that the proposed airspace reduces level of safety by forcing more aircraft into a smaller amount of airspace. It is not the intent of LBA to reduce safety levels for any airspace user and the Airport would like to stress that they have a proactive nature towards use of the proposed airspace by GA aircraft. LBA ATC intends to facilitate as much access as possible to GA aircraft whenever safety considerations allow; the Airport would like to foster relationships with local GA organisations to develop better communication so that both parties can benefit from a shared understanding of all airspace users' requirements.

### **5.2.4 Noise Impact on Local Residents**

LBA recognises that a number of local residents are concerned that the introduction of new procedures will result in an increase in noise. It should be noted that a number of these objections came from stakeholders who already consider the noise that they currently experience to be above acceptable levels.

LBA has the overall aim to be *“recognised as a pioneering organisation for the management and control of noise among airports of a comparable size, and demographic characteristics”* and therefore the airspace change proposal has been undertaken to be consistent with this aim.

The noise impact study indicates that there would be no increase in the number of residences exposed to noise at 60dB or above and a total of 600 residences would be exposed to levels below this level.

Many objections came from local residents that were concerned about a perceived increase in traffic levels. It is important to stress that this proposal concerns the introduction of new airspace and new procedures only and does not consider an increase in traffic levels.

## **5.3 Supplementary Meetings**

In conjunction with the post-consultation airspace design review detailed above, LBA will engage with appropriate stakeholders to discuss how their concerns have been addressed and to establish what further mechanisms need to be implemented to facilitate a mutually beneficial outcome.

## **5.4 LBA Conclusions**

The Consultation has produced a significant opposition from both the GA community supported by the BGA, the RSAG and the GAA, and local residents. The main perceptions of these consultees are that:

- The proposed changes will lead to an increase in noise and pollution, particularly for the residents of Menston and Baildon;
- The dimensions of the suggested CAS construct are disproportionate to the density of commercial activity at Leeds Bradford Airport now and in the future;
- The proposed airspace design is too complicated; and
- The CAS design will produce a funnelling effect as transitory aircraft avoid CAS.

## 5.5 ACP - Next Stages

The consultation process constitutes the fourth stage of the CAA's overall process detailed in CAP 725 [Reference 1] leading to an ACP.

Stage Five is the Formal Submission of the ACP to the CAA for consideration by the Group Director. The Formal Submission will include all of the responses received during the Formal Consultation and will include the Consultation Feedback Report. It is a requirement of the consultation process that LBA provides the CAA with full details of the consultation (including copies of responses and correspondence) together with all documentation necessary for the promulgation of the proposed airspace change.

Following receipt of the formal ACP, the CAA then requires a 16-week period to conduct its own internal analysis of the final proposal and consultation results, before arriving at a Regulatory Decision.

LBA would like to notify consultees that should any representative organisation wish to present new evidence or data to the Group Director, SARG for his consideration prior to making his regulatory decision regarding a Change Sponsor Proposal, the representative organisation must submit, in writing, the information to the following address:

Group Director,  
Safety and Airspace Regulation Group,  
CAA House,  
45-59 Kingsway,  
LONDON  
WC2B 6TE

In the event that the CAA accepts the ACP, without the need for further design optimisation or analysis, then it is proposed that implementation takes place on a single date. All new Instrument Flight Procedures (IFP) and new airspace would be activated simultaneously, on a double AIRAC (Aeronautical Information Regulation and Control) cycle.

## 6 References

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Reference	Name	Origin
1	CAP 725 CAA Guidance on the Application of the Airspace Change Process V4.1 dated 15 <sup>th</sup> March 2016	CAA ISBN 978 0 11790 739 3
2	Code of Practice on Consultation July 2008	Cabinet Office URN 08/1097

Table 6 - Table of References

# A1 Consultation Background and Methodology

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## A1.1 Background to the Consultation

Leeds Bradford Airport has identified the need for a change to the arrangements and procedures in the immediate airspace surrounding the airport to provide requisite protection to aircraft on the critical stages of flight on departure, arrival and final approach. The airspace delegated to LBA was established in the 1980s and LBA have never had standard arrival routes. The established airspace is insufficient in size to allow such arrival routes to be deconflicted with the departure routes, without tactical intervention by air traffic controllers.

The subject of the consultation was LBA's proposal to establish new arrival and final approach procedures, new departure procedures and Class D Controlled Airspace (CAS) to contain the new procedures.

The overall aim of the LBA Airspace Change Proposal (ACP) is to update flight procedures and airspace that will align with proposed changes by NATS under the Future Airspace Initiative (FASI) North project. This will be achieved through:

- New arrival procedures (including changes implemented by FASI North associated with LBA);
- Global Navigation Satellite System (GNSS) approach procedures that replicate current approach procedures;
- Performance Based Navigation (PBN) departure procedures that replicate current departure procedures; and
- New airspace structure to contain the new procedures.

The proposal and associated consultation are not related to the future development of Leeds Bradford Airport, or a change to operating hours.

LBA, as the Sponsor of the proposed airspace change, is required to submit a case to the CAA to justify the change in the airspace surrounding Leeds Bradford Airport. In addition, as part of the CAA's ACP, it is LBA's responsibility to consult with relevant stakeholders who may be directly or indirectly affected by the proposal.

## A1.2 Methodology

The LBA ACP consultation was conducted in accordance with the principles set out in the Cabinet Office Code of Practice on Consultation [Reference 2], as required by the CAA.

A comprehensive Consultation Document was prepared by LBA, presenting the proposal, rationale for the change, the perceived effects, and mitigation measures considered by LBA.

A link to the Consultation Document was made available on the LBA website at the address [www.leedsbradfordairport.co.uk/about-the-airport/airspace-change-proposal-consultation](http://www.leedsbradfordairport.co.uk/about-the-airport/airspace-change-proposal-consultation). LBA notified consultees by email alerting them about the consultation and explaining how to access the Consultation Document.

Local aviation stakeholders were engaged at an early stage during the design process. Prior to the preparation of the Consultation Document, meetings were conducted with the following major stakeholders:

- LBA Consultative Committee;
- Regional Airspace Users Working Group;
- Defence Airspace and Air Traffic Management;
- Warton Aerodrome;
- Sherburn Aero Club;
- Leeds East Airport;
- Leeds City Council;
- Multiflight;
- Liverpool John Lennon Airport;
- Doncaster Sheffield Airport;
- Bradford City Council;
- Burn Gliding Club;
- NATS Prestwick; and
- National Police Air Services.

The primary purpose of these meetings was to expose the stakeholders to the proposed airspace designs to ensure there are no surprises for stakeholders when it came to formal comment.

Full consultation commenced with wide circulation of the electronic Consultation Document and conceptual airspace designs to all identified stakeholders on 23<sup>rd</sup> June 2017. The required minimum period for formal consultation is twelve weeks however following the release of amendments, and the discovery that some district councils had been missed from the original consultation emails, the consultation was extended until the 29<sup>th</sup> December 2017, a total period of 27 weeks.

During the consultation period a number of consultation engagement events were held to allow local residents and local airspace users the opportunity to hear more about the proposal and to discuss the potential impact of the proposed changes. Meetings were held at Horsforth on 26<sup>th</sup> September 2018 and at Menston on 27<sup>th</sup> September 2018. The press were present at the Horsforth meeting. Articles ran in Airport Watch (<http://www.airportwatch.org.uk/2017/09/consultation-on-flight-path-changes-at-leeds-bradford-airport-ends-5th-november/>) and in the Telegraph and Argus <http://www.thetelegraphandargus.co.uk/news/15544798.Leeds-Bradford-Airport-plans-changes-to-flight-paths/>. A further meeting was held in Baildon on 18<sup>th</sup> October 2018.

Consultees were asked to consider the proposal and submit a response to LBA using a dedicated email address ([LBAconsultation@ospreyco.uk](mailto:LBAconsultation@ospreyco.uk)).

## A2 Consultee List

### A2.1 Airport Operators

Airport Operators	
Aurigny	Jet2
BH Air	Monarch
British Airways	Multiflight
Eastern Airways	Sunwing
Flybe	Stobart Air

### A2.2 District and Town Councils

Local Councils	
Barnsley Council	Doncaster Council
Bradford Council	Harrogate Borough Council
Calderdale Council	Kirklees
Craven District Council	Wakefield

### A2.3 Members of Parliament

Member of Parliament	Constituency
Andrew Jones	Harrogate & Knaresborough
Alec Shelbrooke	Elmet and Rothwell
Andrew Stephenson	Pendle
Barry Sheerman	Huddersfield
Craig Whittaker	Calder Valley
Dan Jarvis	Barnsley Central
Imran Hussain	Bradford East

<b>Member of Parliament</b>	<b>Constituency</b>
Andrea Jenkyns	Morley & Outwood
Edward Miliband	Doncaster North
Fabian Hamilton	Leeds North East
Richard Burgon	Leeds East
Alex Sobel	Leeds North West
Judith Cummins	Bradford South
Hilary Benn	Leeds Central
Thelma Walker	Colne Valley
Julian Smith	Skipton & Ripon
Jon Trickett	Hemsworth
John Grogan	Keighley
Stephanie Peacock	Barnsley East
Tracy Brabin	Batley & Spen
Nigel Adams	Selby & Ainsty
Philip Davies	Shipley
Stuart Andrew	Pudsey
Paula Sherriff	Dewsbury
Naz Shah	Bradford West
Angela Smith	Penistone & Stocksbridge
Holly Lynch	Halifax
Mary Creagh	Wakefield
Rachel Reeves	Leeds West
Yvette Cooper	Normanton, Pontefract & Castleford

## A2.4 NATMAC

<b>NATMAC</b>	
Aircraft Owners and Pilots Association	General Aviation Alliance
Airfield Operators Group	Guild of Air Traffic Control Officers
Airport Operators Association	Heavy Airlines
Aviation Environment Federation	Helicopter Club of Great Britain
BAE Systems	Honourable Company of Air Pilots
British Airline Pilots' Association	Isle Of Man Civil Aviation Administration
British Airways	Light Aircraft Association
British Balloon and Airship Club	Light Airlines
British Gliding Association	Low Fares Airlines
British Hang Gliding and Paragliding Association	Meteorological Office
British Helicopter Association	Ministry of Defence
British Microlight Aircraft Association	NATS En-Route Ltd
British Model Flying Association	PPL/IR (Europe)
British Parachute Association	The British Business and General Aviation
Civil Aviation Authority	UK Airprox Board
Euro UAV Systems Centre Ltd	UK Flight Safety Committee
Future Airspace Strategy VFR Implementation Group	US 3 <sup>rd</sup> Air Force

## A2.5 Other Aerodromes and Local Flying Schools

<b>Other Aerodrome, Flying Schools and Flying Clubs</b>	
Brighton Aerodrome	Humberside Airport Flying School
Burn Gliding Club	Humberside POM Flying Club

<b>Other Aerodrome, Flying Schools and Flying Clubs</b>	
City Airport and Heliport	LAC Flight School
Cleveland Flying School	London Luton Airport
Crosland Moor Airfield	Sandtoft Airfield
Doncaster Sheffield Airport	Sheffield Aero Club
Flight Academy Manchester	Sherburn Aero Club
Full Sutton Airfield	Warton Aerodrome
Heli-Jet Aviation	West Yorkshire Police
Humber Flying Club	

## A3 Key Themes Arising from the Consultation

No	Issue	LBA Comment
1	The forecast growth levels are unjustified therefore the amount of airspace requested is disproportionate to the requirement. In line with the modernisation of aircraft, CAS requirements should be reducing rather than increasing.	The current volume of CAS available to LBA is insufficient to meet the current aircraft numbers at LBA. Forecast growth figures indicate that the number of aircraft movements will increase in the future. This additional airspace is required for the existing numbers of aircraft but will also facilitate LBA's predicted growth.
2	The change of procedures and subsequent increase in air traffic levels will lead to an increase in noise and pollution experienced by local residents.	<p>New procedures and associated airspace will allow more efficient flight, reducing emissions and the overall noise footprint. New aircraft technology is also helping to reduce these impacts</p> <p>These procedures are able to be flown far more accurately than existing procedures, further reducing the noise footprint over the ground.</p>
3	The base altitude of the proposed airspace is too low. The lowered base will impact on pilot's ability to fly cross-country routes or conduct soaring activities.	<p>The bases are required in order to contain the procedures within prescribed limits. In some areas we are looking to reduce these containment limits by providing evidence that the flight paths will be higher due to modern aircraft performance.</p> <p>Access to the airspace can be accommodated by various means including:</p> <ul style="list-style-type: none"> <li>- LoA;</li> <li>- Low level corridors; and</li> </ul>

		- Tactical clearances from ATC.
<b>4</b>	The new airspace construct will increase the number of choke points by forcing more aircraft into the same areas, decreasing safety of GA pilots and increasing the risk of mid-air collision.	See 3. Choke points can be avoided by participating in ATC, a safer environment to fly in.
<b>5</b>	The most objected to parts of the proposed airspace are CTA 7, 8 and 9. The objections regarding these CTAs largely reflect the objections for the rest of the proposal, namely, the base of CAS is too low which will lead to choke points and restricts the ability to conduct cross country and soaring flights.	See 3 and 4.

# A4 The Consulted LBA CAS Design Proposal

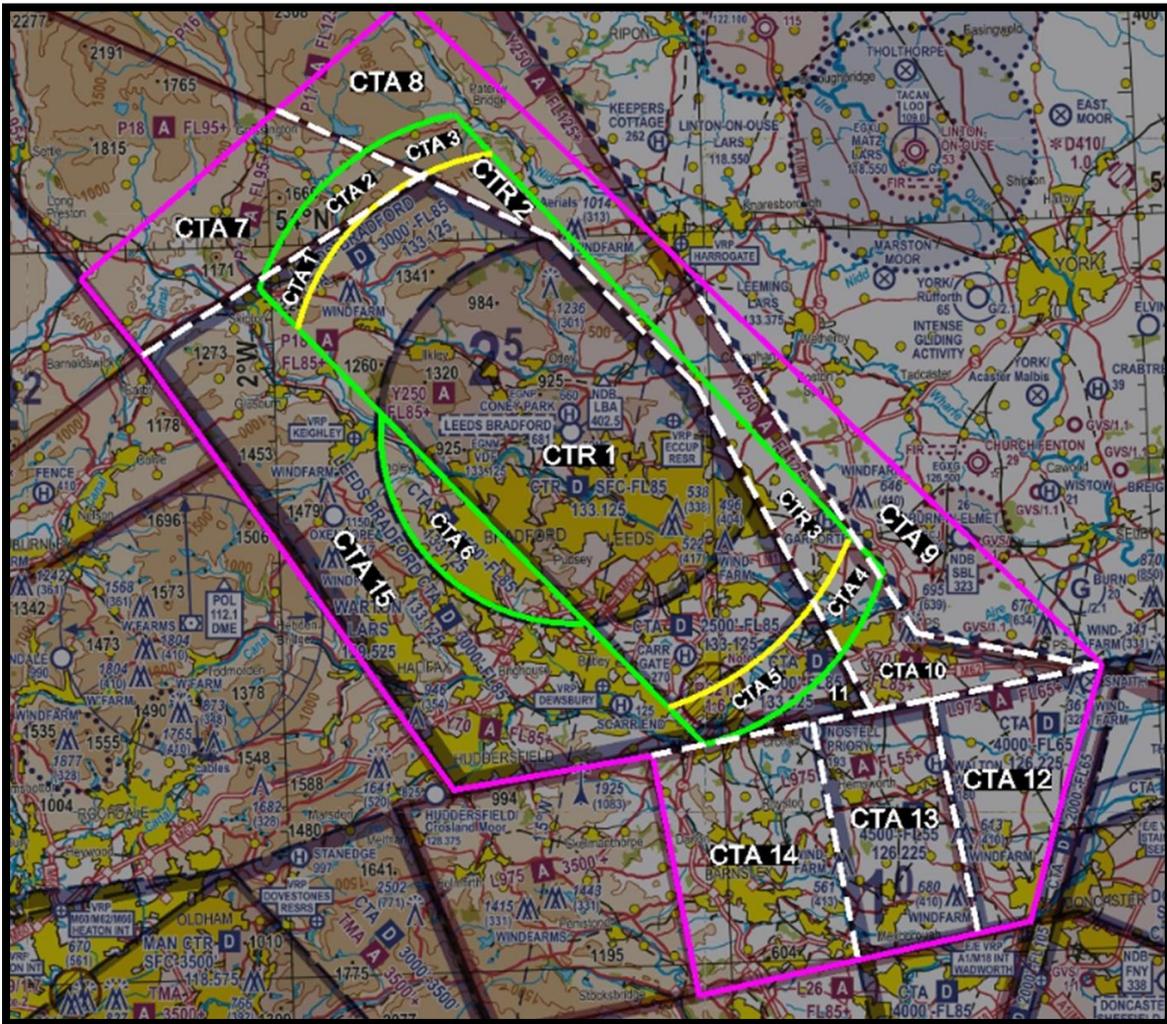


Figure 5 - Consulted CAS Design Concept

# A5 Review of Proposed Alternative Suggestions

Area	Key Response Theme/Suggested Changes to Proposed Design	Implications of Consultees' Suggested Changes	Design Modifications for CAA Submission
All	<ul style="list-style-type: none"> <li>– Reduce number of areas and levels</li> <li>– Simplify the airspace</li> <li>– Reduce all airspace</li> <li>– Institute a common base of 4,500/5,000ft</li> </ul>	<p>CAA Policy requires a balance between the volumes of airspace requested against the complexity of the resulting airspace. LBA considers that the proposed volume of airspace is the minimum required to protect its operations along these new routes.</p> <p>The airspace design needs to fit within the existing airspace structures. This includes the national airways network and the existing CAS for DSA. LBA considers that the present balance is right between competing viewpoints. Although this makes for a complex design, LBA and DSA have agreed to work together in managing this overlapping airspace effectively in the future.</p>	<p>LBA is content for pilots of powered/non-powered aircraft to call in order to facilitate access to the airspace.</p> <p>Furthermore, LBA is introducing a new control position: Radar Director. This will ensure that controllers have the capacity to speak to pilots who wish to transit the airspace.</p> <p>LBA has already introduced a 'listening squawk' and will, in the future introduce Mode S which will further enhance this capability. LBA is planning a new RDP for controllers that will support Mode S. Mode S will allow controllers to interrogate aircraft callsigns and will help when used in conjunction with the listening squawk facility.</p> <p>Each section of airspace is considered separately.</p>
	<ul style="list-style-type: none"> <li>– Reduce activation times</li> </ul>	<p>Because airspace in the UK cannot be activated and de-activated dynamically in an effective manner that provides the requisite safety assurance, we consulted on a 'hard time' activation/deactivation process for a number of the CTAs.</p> <p>The consultation stated this would allow use of these areas (or parts thereof) by the GA and other aviation stakeholders during the day between 0900 and 1800.</p> <p>The intention was to provide improved access to the GA community, but in doing so, this would constrain the arrival options for aircraft making an approach to RW 32. It would also add greater complexity to the sequencing of all arrivals to RW 32 at LBA. Aircraft would need to be vectored to the</p>	<p>Of the responses received that specifically mentioned time based activation of CTAs, there was a clear objection to this solution because it would add an unacceptable level of complexity.</p> <p>Furthermore, a much larger number of responses objected to the time based solution based upon the impact on the Upton Corridor.</p> <p>Considering the impact on the Upton corridor, complexity of this solution and the resultant environmental consequences, LBA now considers a better alternative to the time based activation/deactivation of airspace proposal</p>

Area	Key Response Theme/Suggested Changes to Proposed Design	Implications of Consultees' Suggested Changes	Design Modifications for CAA Submission
		south west of the airport increasing number of track miles flown (fuel burn) and reducing the likelihood of a Continuous Descent Approach (CDA) being flown; all of these options have negative environmental impacts.	would be publication in the UKIAIP of an agreed VFR corridor for use by the GA community, subject to agreed conditions; in effect this would be a modified and enhanced 'Upton Corridor'.  Additionally, LBA is investigating the possibility of raising the base levels of CTAs 12, 13 and 14 from 3,500 ft to 4,000 ft. In addition, LBA will seek to modify the lateral dimensions of CTA 10 to provide a consistent base level of 4,000 ft amsl within the area.
	– Utilise Class E instead of Class D	The suggested option to designate some airspace as Class E instead of Class D, was considered by LBA not to provide adequate levels of safety to the large volume of passenger flights that operate in and out of LBA. Furthermore, different rules associated with Class E airspace create additional complexity that would significantly affect the wide variety of GA traffic operating within the vicinity of LBA, as well as increasing the likelihood of infringement.	On safety grounds, LBA therefore considers that the use of Class E airspace is not suitable in this instance, given the limited volume of airspace available in the UK compared to other areas within Europe.
	– Aircraft arriving from the north should pass through the overhead	Routing aircraft through the overhead restricts the capacity of the airport because all departures would then need to be step climbed to remain vertically separated from arrivals until the required lateral separation could be guaranteed. This generates negative environmental impacts because it prevents the use of Continuous Climb Departures (CCDs) and CDAs. Additionally, this generates an additional safety risk that LBA considers to be unacceptable.	LBA does not intend to take this suggestion forward on grounds of safety.
	– Release airspace that LBA does not currently use	There are no areas of LBA current CAS that is unused.  The volume of new airspace proposed is dictated by the containment policy for the new Instrument Flight Procedures (IFPs). The airspace has been designed to encompass only the minimum volume required for containment.	An assessment of opportunities to raise the base level of some CTAs has been made and these areas are detailed in the rows below.

Area	Key Response Theme/Suggested Changes to Proposed Design	Implications of Consultees' Suggested Changes	Design Modifications for CAA Submission
CTR 1	<ul style="list-style-type: none"> <li>Remove airspace above Addingham Moorside</li> </ul>	<p>LBA was not aware of this launch site. There is no indication on the VFR map of a launch site in this location. The DHPC website indicates that this is para-gliding launch site with no permanent fixed facilities associated with it. LBA considers that an alternative launch site may need to be used.</p> <p>CTR 1 is designed to contain the proposed procedures, changing the dimensions of CTR 1 may result in the procedures not being contained. Equally, moving CTR 1 would lead to a ripple effect on other areas of proposed CAS. If the size of CTR 1 was reduced, CTAs 1, 2 and 3 would need have their bases lowered.</p>	<p>LBA remains receptive to any request to access any part of its CAS by prior arrangement and this is the case for areas of airspace used by the paragliding community.</p> <p>LBA would be pleased to engage with the paragliding community at Addingham Moorside to develop a LoA that would allow operations to continue safely within the area.</p>
CTR 2	<ul style="list-style-type: none"> <li>Avoid narrowing corridor</li> <li>Move radius of CTR 1 and 2 inward by 4km</li> <li>CTR 2 is changed to also include the portion of the current CTA 3 that is within the proposed CTR 1 (i.e. on the NE of LBA, the new CTR 2 goes from the current CTR boundary to the proposed CTA 1, 2, 3 boundary) and that this has a lower limit of 3000' when LBA is operating from runway 32</li> </ul>	<p>CTRs 1 and 2 are required to contain and protect the new procedures that LBA is proposing to introduce.</p> <p>As mentioned above, there is no mechanism for the dynamic management of airspace within the UK. Furthermore, due to the unpredictability of the weather within the LBA area, it is not uncommon for the airport to change runways frequently. This makes it difficult to communicate which runway is in use and therefore will generate a safety risk that cannot be mitigated effectively.</p>	<p>LBA is dedicated to providing access to LBA CAS for GA aircraft on a tactical basis. This would be achieved by GA pilots calling LBA to arrange access via a clearance.</p>
CTR 3	<ul style="list-style-type: none"> <li>Avoid narrowing corridor</li> <li>Introduce low-level corridor allowing a two-mile eastern band</li> </ul>	<p>CTR 3 will be used by LBA for positioning aircraft downwind right for RW 32.</p> <p>The introduction of a new low-level corridor for GA users would potentially see GA aircraft operating within a finite area of airspace also frequently used by military aircraft at low level. There is therefore a possibility that GA aircraft would need to climb to avoid the military aircraft, which could create an infringement risk.</p>	<p>The creation of a VFR corridor is agreed in principle by LBA. However, due to the high number of military aircraft that operate within this area, the preferred mechanism for access to this area to be under the positive control of LBA ATC.</p> <p>LBA remains committed to progress this option with the GA community.</p>
CTA 1	<ul style="list-style-type: none"> <li>Raise base to 4,500ft AMSL</li> <li>Raise base to FL55 when LBA is operating from runway 32</li> </ul>	<p>The base level of CTA 1 is required to protect arrivals to RW 14.</p>	<p>LBA is content to approve access to the airspace for GA on a tactical basis under specified conditions.</p>

Area	Key Response Theme/Suggested Changes to Proposed Design	Implications of Consultees' Suggested Changes	Design Modifications for CAA Submission
	<ul style="list-style-type: none"> <li>- Do not implement</li> <li>- Combine CTAs 1, 2 and 3 into one area</li> </ul>	<p>There is no mechanism for the dynamic management of airspace within the UK.</p> <p>CTAs 1, 2 and 3 cannot be merged into a single CTA since each area has a separate vertical top limit which is consistent with the existing airspace structure. If the ACP is successful, LBA will attempt to simplify how this is portrayed on the VFR chart to make it easier to interpret. However, the overall decision on how the information is to be presented lies with NATS, who publish the charts for and on behalf of the CAA.</p>	<p>LBA is undertaking a complete review of their existing VFR brief to highlight areas where pilots can expect to be routed when issued with a clearance.</p>
<b>CTA 2</b>	<ul style="list-style-type: none"> <li>- Raise base to 4,500ft AMSL</li> <li>- Raise base to FL55 when LBA is operating from runway 32</li> <li>- Raise base of CTAs 2 and 3 to make a smoother step down</li> </ul>	<p>As above.</p>	<p>The base level is consistent with CTA 1 and 3 to minimise complexity and we do not propose to alter this for the ACP submission.</p>
<b>CTA 3</b>	<ul style="list-style-type: none"> <li>- Raise base to 4,500ft AMSL</li> <li>- Raise base to FL55 when LBA is operating from runway 32</li> <li>- Do not implement</li> <li>- Raise base of CTAs 2 and 3 to make a smoother step down</li> </ul>	<p>As above.</p>	<p>The base level is consistent with CTA 1 and 2 to minimise complexity and we do not propose to alter this for the ACP submission.</p>
<b>CTA 4</b>	<ul style="list-style-type: none"> <li>- Combine CTAs 4 and 5 into one area</li> <li>- Raise base to 5,000ft</li> </ul>	<p>The base level of CTA 4 is required to protect arrivals to RW 32.</p> <p>CTAs 4 and 5 cannot be merged into a single CTA since each area has a separate vertical top limit which is consistent with the existing airspace structure. If the ACP is successful, LBA will attempt to simplify how this is portrayed on the VFR chart to make it easier to interpret. However, the overall decision on how the information is to be presented lies with NATS, who publish the charts for and on behalf of the CAA.</p> <p>The proposed base is required to ensure departing aircraft from RW 32 and arrivals for RW 14 are protected.</p>	<p>This CTA is required to protect arrivals to RW 32 and LBA does not propose to alter this CTA as part of the ACP submission.</p>

Area	Key Response Theme/Suggested Changes to Proposed Design	Implications of Consultees' Suggested Changes	Design Modifications for CAA Submission
CTA 5	<ul style="list-style-type: none"> <li>- Raise base to 5,000ft</li> </ul>	<p>The proposed base is required to ensure departing aircraft from RW 14 and arrivals for RW 32 are protected.</p>	<p>CTA 5 is currently in an area where the base is already 3,000 ft amsl and LBA does not propose to alter this for the ACP submission.</p>
CTA 6	<ul style="list-style-type: none"> <li>- Do not implement</li> </ul>	<p>CTA 6 is required to ensure proposed procedures are safely contained. This has been designed in accordance with ICAO PANS OPS containment criteria.</p>	<p>The base level of the existing CAS in this area is 2,500 ft amsl. LBA will investigate the possibility of raising this base level provided that it does not conflict with CAA containment policy.</p>
CTA 7	<ul style="list-style-type: none"> <li>- Raise base 5,000ft</li> <li>- Raise base to FL55 (between 0900 and 1800) (or 6,000ft AMSL)</li> <li>- Do not implement</li> <li>- Raise base level to FL60</li> </ul>	<p>CTA 7 in its current configuration is critical for arrival procedures for Runway 14.</p>	<p>LBA will investigate the possibility of raising the base level of this CTA provided that it does not conflict with CAA containment policy.</p>
CTA 8	<ul style="list-style-type: none"> <li>- Extension of airspace to North and East should be not below 8000ft between 0900 and 1800</li> <li>- Raise base to 5,000ft</li> <li>- Raise base to FL55 (between 0900 and 1800/2000 during the summer) (or 6,000ft AMSL)</li> <li>- Raise base to FL45/55/60</li> <li>- Apply same arrangements as those proposed for CTA 9</li> </ul>	<p>There is no mechanism for the dynamic management of airspace within the UK.</p> <p>The proposed base level of CTA 8 is 3,500 ft amsl. This is intended to protect the procedures that have been designed in accordance with ICAO PANS Ops criteria. Any base level higher than this would not provide the requisite containment and protection of the IFPs required by CAA policy.</p> <p>Raising the base of CTA 8 to 5,000 ft would mean that LBA would not be able to carry out the short or long easterly and long westerly procedures to RW 14 whilst remaining suitably contained as per CAA policy. The aircraft could drop out of CAS at PADDs and with a large difference between QNH and standard have less than 500 ft clearance at MOSSY; once passed MOSSY the aircraft could descend out of CAS.</p> <p>Raising the base level of this CTA would not be possible unless all arrivals to the east to RW 14 were stopped. The PANS-OPS primary protection area for the long arrival from the west will cross into CTA 9, so LBA would be restricted to the short west arrival to RW 14 only, unless an additional</p>	<p>LBA will investigate the possibility of raising the base level of this CTA provided that it does not conflict with CAA containment policy.</p> <p>The proposal will include a Letter of Agreement to be drawn up with the MoD to allow military controllers to have access to this area. This will mean that civil traffic (GA) under the control of the military controllers, would also have access upon request.</p>

Area	Key Response Theme/Suggested Changes to Proposed Design	Implications of Consultees' Suggested Changes	Design Modifications for CAA Submission
		<p>piece of airspace is introduced between CTA 7 and CTA 8. This would overcomplicate the airspace design.</p> <p>Additionally given the changeable weather conditions, it is not possible to assume dominance of operations to either runway end. The mixed nature of departures and arrivals to opposite end runways means that to make use of the longer west arrival an additional piece of airspace between CTA 7 and CTA 8 would be required and this further complicates an already complex airspace design.</p>	
<b>CTA 9</b>	<ul style="list-style-type: none"> <li>- Raise base to FL55 (between 0900 and 1800)</li> <li>- Remove CTA 9</li> <li>- Extension of airspace to North and East should be not below 8000ft between 0900 and 1800</li> </ul>	<p>CTA 9 is designed to protect arrivals for RW 32 as it allows arrivals to be sequenced and separated from the departures that largely route to the west of LBA.</p> <p>Because airspace in the UK cannot be activated and de-activated dynamically in an effective manner that provides the requisite safety assurance, we consulted on a 'hard time' activation/deactivation process for a number of the CTAs.</p> <p>The consultation stated that this would allow use of these areas (or parts thereof) by the GA and other aviation stakeholders during the day between 0900 and 1800.</p> <p>The intention was to provide improved access to the GA community, but in doing so, this would constrain the arrival options for aircraft making an approach to RW 32 during some of the busiest periods of the day. Aircraft would instead need to be vectored to the south west of the airport, which potentially would conflict with the departures, increasing number of track miles flown (fuel burn) and reducing the likelihood of a Continuous Descent Approach (CDA) being flown; all of these options have negative environmental impacts.</p>	<p>LBA would prefer to offer an alternative solution to providing access to this airspace to GA and other aviation stakeholders.</p> <p>This would involve a tactical clearance being requested, or by utilising a modified and enhanced version of the Upton Corridor that would be published in the UKIAIP.</p> <p>Additionally, LBA is investigating the possibility of raising the base levels of CTA 9 from 3,500 ft to 4,000 ft. In addition, LBA will seek to modify the lateral dimensions of CTA 10 to provide a consistent base level of 4,000 ft amsl within the area.</p>
<b>CTA 10</b>	<ul style="list-style-type: none"> <li>- CTA 10 should be raised to at least 4,500ft/5000ft/FL55 until 2000 during the summer</li> </ul>	<p>This CTA is designed to protect the arrivals for RW 32 which is the dominant RW used at LBA.</p> <p>To facilitate this change, LBA would be limited to the short west arrival for Runway 32 which potentially would conflict</p>	<p>LBA is investigating the possibility of raising the base levels of CTAs 12, 13 and 14 from 3,500 ft to 4,000 ft. In addition, LBA will seek to modify the lateral dimensions of CTA 10 to provide a</p>

Area	Key Response Theme/Suggested Changes to Proposed Design	Implications of Consultees' Suggested Changes	Design Modifications for CAA Submission
	<ul style="list-style-type: none"> <li>Wedge jutting out to the ease of CTA 10 could be merged with CTA 9 and the remainder with the tiny CTA 11</li> </ul>	<p>with the departures and would in turn prevent a CDA being flown with consequential negative environmental impacts.</p> <p>CTA 9, 10 and 11 have different top levels so they cannot be merged into one CTA in their current form.</p>	<p>consistent base level of 4,000 ft amsl within the area.</p>
<b>CTA 11</b>	<ul style="list-style-type: none"> <li>If CTA 11 at 3000ft is really essential, then some effort must be made to shorten or eliminate the triangular 'foot' of CTA10 perhaps by carrying the eastern boundary directly down to meet the northern point of the boundary between CTAs 12 and 13</li> <li>Raise lower altitude from 3,000ft to FL55 of the SE corner of CTA 11</li> <li>Raise base to 5,000ft</li> </ul>	<p>The proposed base level of CTA 11 is 3,500 ft amsl which is 500 ft higher than the existing airspace within this area.</p> <p>This CTA is required to contain and protect the arrivals for RW 32.</p> <p>CTA 9, 10 and 11 have different top levels so they cannot be merged into one CTA in their current form.</p>	<p>LBA has raised the base level of the airspace within this area by 500 ft and does not propose to alter this for the ACP submission.</p>
<b>CTA 12</b>	<ul style="list-style-type: none"> <li>CTA 12 should be raised to at least 5000ft/FL45/55</li> </ul>	<p>This section of airspace, although only very small, is essential for aircraft to fly the CDA for RW 32. Without it, aircraft must be 'stepped' in descent.</p> <p>This area of airspace is not LBA airspace (it belongs to DSA) and therefore cannot be altered by this ACP.</p>	<p>LBA is investigating the possibility of raising the base levels of CTAs 12, 13 and 14 from 3,500 ft to 4,000 ft. This would represent no addition below the existing DSA airspace within this area.</p>
<b>CTA 13</b>	<ul style="list-style-type: none"> <li>CTA 13 could be stepped diagonally from SE to NW to allow the raising of the height of the eastern sector.</li> <li>CTA 13 should be raised to at least 5000ft/FL45/55</li> </ul>	<p>This CTA will be the most used section of airspace available to LBA. It will be essential for sequencing arrivals to RW 32 from the east and west and therefore cannot be reduced.</p> <p>The existing CAS within this area, which belongs to DSA, has a base level of 4,500 ft amsl. LBA consulted on a proposal to introduce a layer of CAS below the existing DSA CAS to bring the base down to 3,500 ft amsl.</p>	<p>LBA is investigating the possibility of raising the base levels of CTAs 12, 13 and 14 from 3,500 ft to 4,000 ft. This would represent no addition below the existing DSA airspace within this area.</p>
<b>CTA 14</b>	<ul style="list-style-type: none"> <li>Raise base to FL 45/55</li> </ul>	<p>This section of airspace is designed to protect the westerly arrival to RW 32. RW 32 is the most frequently used runway at LBA and therefore, any reduction in this area would impact operations.</p>	<p>LBA is investigating the possibility of raising the base levels of CTAs 12, 13 and 14 from 3,500 ft to 4,000 ft.</p>

Area	Key Response Theme/Suggested Changes to Proposed Design	Implications of Consultees' Suggested Changes	Design Modifications for CAA Submission
CTA 15	<ul style="list-style-type: none"> <li>- Raise base to 5,000 ft</li> </ul>	<p>The existing LBA CAS within this area has a base level of 3,000ft. Therefore no change has been proposed.</p> <p>This area is designed to protect the current SIDS and will be required to protect the new IFPs.</p>	<p>CTA 15 is currently in an area where the base is already 3,000 ft amsl and LBA does not propose to alter this for the ACP submission.</p>

# A6 Possible Design Modifications being Considered by LBA

