London Southend Airport
Airspace Change Proposal
REPORT OF THE SPONSOR
CONSULTATION
## Document information

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<tr>
<td>Cyrrus Ltd</td>
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<td>Head of Operational Services</td>
<td>28 February 2014</td>
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<tr>
<td>London Southend Airport</td>
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<td>Operations Director</td>
<td>28 February 2014</td>
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Executive Summary

London Southend Airport is proposing to submit to the Civil Aviation Authority a case for the re-establishment of controlled airspace in the vicinity of London Southend Airport in order to enhance the safety and efficiency of operation for Commercial Air Transport flights operating to/from London Southend Airport, by safeguarding arriving and departing aircraft in the critical stages of flight, and of other flights operating in the area.

An Airspace Change Proposal is to be developed in accordance with the requirements of the Civil Aviation Authority as detailed in CAP725 CAA Guidance on the Application of the Airspace Change Process.

An essential element of the process requires that the Sponsor of the change, in this case London Southend Airport, must carry out a comprehensive consultation with both the aviation industry and the representatives of communities on the ground that may be affected by the proposed change.

This document is the Report of the Sponsor Consultation carried out by London Southend Airport between 20 September 2013 and 19 December 2013 and has been compiled with the assistance of Cyrrus Limited.

A total of 314 aviation, environmental and Local Government organisations or representatives were consulted. The aviation consultees included local airspace user organisations, national representative bodies and Air Traffic Management organisations. Environmental consultees included County, Borough, District, Town and Parish Councils over whose areas of interest the proposed controlled airspace would lay. Certain national Environmental Organisations were also included, together with appropriate Members of Parliament. Responses were received from 191 (60.8%) consultees. This is considered to be an adequate response to an airspace consultation.

In addition, the views of individual members of the public or individual aviators were welcomed and have been taken into account in this Report of the Consultation. 336 submissions were received.

Any significant issues relevant to the airspace configuration arising from the consultation have been, or are being, addressed by continuing dialogue with the Civil Aviation Authority and with the parties concerned and by a further review of the proposed airspace configuration where appropriate within the regulatory and safety management requirements for airspace and procedure design.

Having satisfactorily carried out a Sponsor Consultation in accordance with the CAAs requirements, London Southend Airport intends to continue with the preparation of a formal proposal for submission to the CAA in accordance with the provisions of CAP725.
Abbreviations

ALT    Altitude
amsl   Above mean sea level
ANO    Air Navigation Order 2010
ANS    Air Navigation Services
ANSP   Air Navigation Service Provider
ATC    Air Traffic Control
ATM    Air Traffic Management
ATS    Air Traffic Services
CAA    Civil Aviation Authority
CAP    Civil Aviation Publication (UK CAA)
CAP725 CAA Guidance on the Application of the Airspace Change Process
CAT    Commercial Air Transport
CTA    Control Area
CTR    Control Zone
FAS    Future Airspace Strategy
GA     General Aviation
ICAO   International Civil Aviation Organisation
IFR    Instrument Flight Rules
IMC    Instrument Meteorological Conditions
LAMP   London Airspace Management Programme
LSA    London Southend Airport
LTMA   London Terminal Control Area
NATS   NATS (the ANSP licenced by government to provide en route and terminal ATS)
RMA    Radio Mandatory Area
RNAV   Area Navigation
RotAR  Rules of the Air Regulations
S&R    Sport & Recreational Aviation
SES    Single European Skies
TMA    Terminal Control Area
TMZ    Transponder Mandatory Zone
VFR    Visual Flight Rules
VMC    Visual Meteorological Conditions
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1. **Introduction**

1.1 London Southend Airport (LSA) is proposing to submit to the Civil Aviation Authority (CAA) a case to re-establish\(^1\) controlled airspace in the vicinity of LSA in order to enhance the safety of commercial air transport (CAT) passenger flights in the critical stages of flight and of other flights operating in the area.

1.2 This document is the Report of the Sponsor Consultation carried out by LSA between 20 September 2013 and 19 December 2013 in accordance with the requirements of CAA Document CAP725\(^2\). As such it will form part of the formal airspace change proposal (ACP) to be submitted to the CAA.

1.3 The background to the consultation and the methodology used is detailed at Appendix A of this Report.

1.4 The consultation process requires that LSA should take a balanced view on the key issues raised by consultees and, if appropriate and feasible within the safety and regulatory requirements, adapt the proposal to address objections or concerns identified. Where appropriate, issues arising from the consultation have been, or are aiming to be, addressed by continuing dialogue with relevant parties and with the CAA.

1.5 This Report details the statistical analysis of the consultation and identifies the main issues and themes raised by consultees and by other individuals or organisations who responded to the consultation. It provides the LSA view on the issues identified and outlines post-consultation action that has been, or is planned to be, undertaken by LSA.

1.6 Throughout the airspace development process, together with the day-to-day operation of the overall Air Traffic Management (ATM) System, of which LSA ATC is a part, the safety of operation of passenger carrying CAT flights is paramount.

1.7 LSA extends its thanks to all consultees and other individuals and organisations who took the time to participate in this consultation and provided useful feedback on the potential impact of the controlled airspace proposal on their area of interest.

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\(^1\) Controlled airspace previously existed in the vicinity of LSA until 1993, when it was considered by the CAA that CAT operations had declined to the extent that controlled airspace was no longer justified.

2. Confidentiality

2.1 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.

2.2 LSA undertakes that, apart from the necessary submission of material to the CAA and essential use by our consultants for analysis purposes in developing this Report and subsequent ACP material, LSA will not disclose the personal details or content of responses or submissions to any third parties. Our consultants are signatories to confidentiality agreements to this effect.
3. Statistics

3.1 A total of 314\textsuperscript{3} Consultation invitations were sent to stakeholder consultee organisations or individuals detailed at Appendix B, comprising airlines and other local airspace users, local aerodrome operators, members of the National aviation organisations represented on the CAAs National Air Traffic Management Advisory Committee (NATMAC)\textsuperscript{4}. For non-aviation consultees, Officials of County, District, Borough, Town and Parish Councils over whose areas of interest the proposed controlled airspace would lay were consulted. Certain other representative environmental organisations were included, together with Members of Parliament. The consultee Groups are detailed in Figure 1 below.

\begin{figure}[h]
\centering
\includegraphics[width=0.6\textwidth]{figure1.png}
\caption{Distribution of consultees}
\end{figure}

\textsuperscript{3} The Initial consultee list comprised 312 organisations or individuals, 2 further consultees were added later.

\textsuperscript{4} Some NATMAC organisations field more than one representative, each of whom was copied the Sponsor Consultation invitation. In total 36 organisations are represented by 45 individuals. This analysis reflects the number of organisations, as a whole, rather than the total number of individuals representing those organisations. In some cases it was found that representation had changed from the list provided by the CAA. Where more than one response was submitted by representatives of a NATMAC organisation the points raised have been amalgamated into a single consultee view.
Responses were received from 191 (60.8%) consultee organisations as follows:

<table>
<thead>
<tr>
<th>Listed Consultee Groups</th>
<th>Number Consulted</th>
<th>Responses</th>
<th>%</th>
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<tbody>
<tr>
<td>1 Airport based operators</td>
<td>37</td>
<td>13</td>
<td>35.1</td>
</tr>
<tr>
<td>2 Off-airport airspace users and aerodrome operators</td>
<td>58</td>
<td>43</td>
<td>74.1</td>
</tr>
<tr>
<td>3 NATMAC Civil</td>
<td>29</td>
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<td>55.1</td>
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<tr>
<td>4 NATMAC Military</td>
<td>7</td>
<td>(7)*</td>
<td>100</td>
</tr>
<tr>
<td>5 County, City, Borough and District and Town Councils</td>
<td>24</td>
<td>21</td>
<td>87.5</td>
</tr>
<tr>
<td>6 Parish Councils</td>
<td>128</td>
<td>79</td>
<td>61.7</td>
</tr>
<tr>
<td>7 Other environmental organisations</td>
<td>9</td>
<td>4</td>
<td>44.4</td>
</tr>
<tr>
<td>8 Members of Parliament</td>
<td>22</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>314</strong></td>
<td><strong>191</strong></td>
<td><strong>60.8%</strong></td>
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*Note: Standard practice for NATMAC Military consultees is that DAATM submits a single response on behalf of all consultee departments. This is therefore taken to be a 100% response. The Military Regulator (MAA) is not allowed to comment.

Table 1: Responses from Consultees
3.3 In addition, submissions from individual members of the aviation community or members of the public were welcomed and have been taken into account by LSA in the analysis of responses. **336** submissions were received from other individuals or groups.

3.4 A number of enquiries were received seeking clarification about the consultation process or the proposed airspace configuration. These were addressed individually. Hard copies of the Sponsor Consultation Document were provided to consultees when requested.

3.5 Five meetings and briefings were held with individuals or groups to explain issues of concern to particular localities or organisations. Additionally two “Open Days” were held at the Airport at which members of the public or consultee organisations could discuss the controlled airspace proposal with members of the airspace development team. These were welcomed and appreciated by those who attended.

3.6 Some responses included comment about issues which were not a part of the airspace change consultation (e.g. Government Airports Policy, future development of LSA, noise abatement procedures). The Sponsor Consultation Document clearly indicated that these issues were not relevant to the airspace change process and were not covered by the consultation. These comments have therefore been noted by the airport authority but not included in the analysis.

3.7 It was stated in the Sponsor Consultation Document that individual responses, other than electronic acknowledgement, would not be sent and that this Report would represent the consolidated LSA response to consultees and the issues and themes raised by consultees and others. However, in a number of cases replies were sent giving clarification of possible misunderstandings and dealing with queries about certain aspects of the consultation.
4. **Analysis of Responses**

4.1 Of the 191 responses received from consultee organisations:

- 68 (35.6%) supported or had no objections to the proposal. Some support was conditional on resolution or clarification of some concerns: these have been addressed directly with the consultees concerned and are included within the general themes arising;

- 45 (23.6%) stated that they had no comment to make on the proposal;

- 77 (40.3%) objected to the proposal as a whole or to various aspects of the proposal;

- 1 (0.5%) response was non-committal.

![Support Ratio of Consultee Responses]

Total consultee responses = 191

4.2 It should be noted that 15 of those organisations that objected to the proposal nonetheless supported the principle of establishing controlled airspace or accepted that some measure of controlled airspace may be necessary to protect CAT flights operating to/from LSA but objected to the configuration detailed in the consultation document.

4.3 In addition to the responses from consultees detailed above, 336 submissions were received from individual pilots or aviation organisations or from members of the public. Of these responses 9 supported or had no objection to the proposal, 316 objected in whole or part to the proposal, 6 were queries which were answered by LSA but resulted in no follow up response. A number of submissions made comments that were not relevant to the airspace consultation and 5 submissions had no content pertaining to the LSA airspace proposals.

4.4 These submissions are addressed in more detail in Section 6 of this Report.
5. **Key issues arising from the consultee responses**

5.1 The consultation conducted by LSA in accordance with the CAA’s Airspace Change Process detailed in CAP725 is the fourth stage in the overall process leading to a formal request for an airspace change.

5.2 The first stage of the process involves the development of a basic airspace design by experts in this field of aviation, having extensive past experience both as Controllers and specialist airspace design in the UK and in the development of the UK and European regulatory requirements. The airspace design team, which includes members of the local LSA air traffic management team, have extensive knowledge of the likely areas of contention and take these into account in the development of the proposed airspace configuration. There follows discussions with the CAA to outline the proposed airspace development at a Framework Briefing and to confirm the CAA’s specific requirements with respect to the proposed airspace development; the promulgation that the Framework Briefing had been conducted was made in CAA Information Notice (IN) 2013/039 issued 20 Mar 13 for the action of all NATMAC Members. The second stage involves the participation of a representative cross-section of local airspace users and environmental interests through Focus Groups, following which the initial airspace design is refined and modified, where practicable within the safety and regulatory requirements, to address local issues identified through the Focus Groups. The third stage of the process covers further development of the proposal prior to undertaking the consultation proper.

5.3 Thus, by the time the sponsor consultation stage is reached there should be few, if any, new areas of contention that have not already been identified and addressed as far as is practicable within the CAA’s requirements for the design of controlled airspace. Most of the issues or objections raised by those consulted would normally be expected to fall into categories or themes already considered. However, given the strong opinions held within the aviation community it is highly unlikely that any ACP consultation would not elicit objections in the expected areas of contention. Throughout the airspace development process there is a continuing dialogue with the CAA in which points of Policy or likely areas of contention are discussed.

5.4 In analysing the responses from consultees and others, LSA has identified key themes in those responses that objected to the proposed development of controlled airspace. For each of the key themes identified LSA has taken a balanced approach in considering and responding to each issue.

5.5 The principle issues arising from the consultee responses, together with LSA consideration of them are detailed at Appendix C.
6. **Submissions from individuals or organisations**

6.1 In addition to the responses from the formal consultees detailed at Appendix B, a further 336 submissions were received from aviation organisations, individual pilots or members of the public. The majority of these submissions were from individual pilot members of the General Aviation (GA) and Sport and Recreational (S&R) aviation community, although a substantial proportion were from residents of the Hoo peninsular on the south bank of the River Thames, together with some representations from residents in various communities in Essex.

6.2 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 LSA and will form part of the airspace change proposal 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 have been included in the analysis at Appendix C.

6.3 Of the 336 additional submissions received, 9 fully supported or had no objection to the proposed airspace development. 319 submissions objected to all or part of the proposal. 5 submissions were queries about various aspects of the proposal or the consultation which were answered by LSA and for which there was no follow up submission.

6.4 Five submissions had no content pertaining to the consultation in hand. A number of the other submissions also included comments that were not relevant to the airspace consultation. These have been noted but no action can be taken on comments which are not relevant to the proposed airspace arrangements.

6.5 Many of the submissions received were from individuals or organisations allying their views to strong objections submitted by some industry representative organisations. For example, AOPA circulated its consultation response to its membership, urging individual members to submit the same or similar submissions. 82 submissions received identified themselves with the AOPA response, most simply attaching the AOPA response to their e-mail and making no other comment and raising no additional issues.

6.6 The General Aviation Alliance (GAA) submitted a strong objection to the airspace change proposal. The GAA comprises a group of nine organisations representing, in the main, S&R aviation interests. Seven of the nine member organisations are represented on the CAA’s NATMAC and were included in the formal consultee list and all had made responses in their own right as consultees. The GAA response identified no additional issues that had not been raised by its member consultee organisations. Three further submissions from individuals aligned themselves with the GAA response.

6.7 The Royal Aero Club of the United Kingdom (RAeC) is another organisation which represents the S&R sector of the GA industry and comprises twelve constituent organisations of which eight are members of both the CAA’s NATMAC and the GAA detailed above. The RAeC circulated a letter to all of the non-aviation consultees listed in
the LSA sponsor consultation document urging them to oppose the LSA proposal. The RAeC did not make a submission to LSA in its own right.

6.8 A number of responses from consultees and others reflected the arguments (in some cases using the same text) detailed in the RAeC letter in stating their objection to the airspace change proposal. These arguments are addressed in more detail in the LSA response to the themes raised by consultees in Appendix C.

6.9 One Member of Parliament made comment which reflected, inter alia, the concerns raised by the RAeC. Consequently, 46 submissions from members of the public voiced support for, or reproduced, the MP’s comments without raising any new issues. Other submissions from members of the public also reflected the same concerns but without identifiable linkage to the MP’s response.

6.10 Notwithstanding the submissions arising from the organisations detailed above, a number of aviators and members of the public articulated concerns relevant to their particular aspect of aircraft operation or community impact. These have been embraced within the LSA responses to issues raised as detailed in Appendix C where appropriate and relevant to the airspace consultation.
7. **Post consultation review and supplementary consultation**

7.1 Clearly a number of important issues have been raised in the consultation, many of which had been expected and had been taken into account as far as practicable by the LSA airspace development team in endeavouring to balance the need to protect CAT flights and design controlled airspace to the CAAs regulatory requirements with the competing needs of the GA and S&R community.

7.2 As a consequence of the issues raised, LSA is undertaking a detailed review of aspects of the proposed airspace configuration to determine whether any elements of the airspace can be adapted to alleviate, as far as is practicable within the regulatory requirements, any of the particular areas of concern. Action on this has already commenced.

7.3 Furthermore, subsequent to the end of the consultation, the CAA indicated to us that it was reviewing its regulatory requirements for IFP containment with a view to relaxing, subject to satisfactory safety assessment by the Sponsor, the volume of airspace protection required. A Policy Statement detailing the new CAA position was issued on 17 January 2014 and published on 31 January 2014. LSA will take full regard of any new opportunities in this respect when reviewing the configuration of the proposed controlled airspace.

7.4 However, it must be emphasised that the safety of operation of CAT passenger carrying flights within a managed airspace environment remains a paramount requirement of LSA. LSA has particular concerns about the mix of CAT flights with high densities of other aircraft in the congested airspace beneath the LTMA, particularly as some aircraft types do not present a good radar target. Therefore, LSA considers that an improved level of airspace protection afforded to CAT flights whilst entering or leaving the LTMA is urgent.

7.5 Now that the formal consultation is complete, and in conjunction with the airspace reviews detailed above, LSA will liaise with individual aircraft and aerodrome operators in close proximity to the proposed controlled airspace to establish access arrangements where appropriate (e.g. Letters of Agreement etc.).

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8. **Conclusions**

8.1 The Sponsor Consultation has been carried out in accordance with the requirements of the CAA as detailed in CAP725. A comprehensive cross-section of Industry, Environmental and Community consultees has been included. The Industry consultees included representation at local and national level and included both airspace users and ATS provider interests.

8.2 Provision was made for individual members of the aviation community or individual members of the public to participate in the consultation and make their views known. Due regard has been taken of such submissions received.

8.3 An adequate response rate (60.8%) has been achieved from which a balanced judgement can be made on this major change to the airspace arrangements in the vicinity of LSA.

8.4 LSA has found that no new or unexpected issues have arisen which would materially affect the fundamental case for the re-introduction of controlled airspace in the vicinity of LSA to provide for the safe and efficient conduct of passenger air transport flights in the critical stages of flight and for the safe operation of other aircraft in the vicinity.

8.5 LSA concludes, therefore, that given the safety responsibilities and accountabilities placed upon it under the Air Navigation Order and EC Regulations 550/2004 and 1035/2011, there are no material issues arising from objections to the proposal that would justify withdrawal of the proposal.

8.6 Consequently, LSA remains convinced that the case for the re-establishment of controlled airspace is sound and, following a detailed review of the more contentious aspects of the airspace design and discussions with the CAA regarding the detailed application of their regulatory requirements for airspace design, a formal Airspace Change Proposal will be submitted to the CAA.
9. **What happens next?**

9.1 As a consequence of the issues raised in the responses to the Consultation, LSA will carry out a detailed review of the proposed airspace configuration. LSA will consult the CAA, NATS and the major affected airspace user organisations in carrying out this review. Where changes can be made to the airspace configuration to the benefit of GA airspace users without compromising the safety requirements of airspace design and the safety management requirements for the overall integration of flights and IFPs into the LTMA structure, these will be incorporated.

9.2 LSA will continue to prepare its formal submission to the CAA for the re-introduction of controlled airspace in the vicinity of LSA. The CAA requires that all consultation material, including responses to the consultation and the LSA analysis are included in the formal submission. This Report, together with any follow-up correspondence and review documentation, will also form part of the submission.

9.3 It is planned that the formal ACP will be submitted to the CAA in May 2014.

9.4 Following receipt of the formal proposal, the CAA will carry out a documentation check to ensure that the LSA submission is complete and will request clarification and/or additional information if necessary. A Case Study will then be carried out by the CAA leading to a Regulatory Decision by the Head of the Safety and Airspace Regulation Group. This decision will normally be reached within a period of 6 months.

9.5 In the event that the Regulatory Decision supports the proposal then the Implementation Phase, taking a further absolute minimum of 56 days from the time that the necessary documentation is submitted to the Aeronautical Information Services (AIS) in accordance with the international requirements for the promulgation of aeronautical information.

9.6 Thus, it is anticipated that the Southend Control Zone and Control Areas could be established on 8 January 2015 (AIRAC 01/15), although this may be subject to adjustment to align with NATS System Build schedule.
A. Background to the consultation and methodology used

A.1. Introduction

A.1.1 The CAA sets out its regulatory requirements and process for applications to change the status of airspace or associated arrangements in CAP 724 “The Airspace Charter” and CAP 725 “CAA Guidance on the Application of the Airspace Change Process”. An essential element of the airspace development process is for the Change Sponsor, in this case LSA, to carry out an extensive consultation with the airspace users who may be directly or indirectly affected by the change and with organisations representing those who may be affected by the environmental impact of the change.

A.1.2 A change to the classification and configuration of an airspace is a major airspace change and, as such, falls under the scope of airspace changes detailed in CAP725 requiring a full Industry, Environmental and Community consultation.

A.1.3 Thus the airspace proposal development and Sponsor Consultation has been conducted in accordance with the CAA requirements.

A.2. Consultation Methodology

A.2.1 A comprehensive Sponsor Consultation Document was prepared by the team at LSA with the assistance of Cyrrus Ltd, a specialist airspace management consultancy company with extensive experience of managing Airspace Change Proposals (ACPs) and conducting consultation to meet the CAA requirements. The CAA also provided advice on the development of the Sponsor Consultation Document prior to its release.

A.2.2 The consultation invitation letter was distributed to Consultee Organisations by e-mail, detailing access links to the Sponsor Consultation Document via the LSA website. Electronic distribution of and website access to consultation material is acceptable to the CAA and now forms the standard method of undertaking such consultations.

A.2.3 Paper copies of the Consultation Document were available to consultees on request.

A.2.4 The Cabinet Office Code of Practice on Consultation and the CAA requirements specify a minimum period of 12 weeks for consultation. LSA carried out this Consultation between 20 September 2013 and 19 December 2013, allowing a 13-week period.

A.2.5 Within the consultation period consultees were asked to consider the proposal and submit a response to LSA, either in writing or through a discrete e-mail address (lsacas@stobartair.com).

A.2.6 It was recognised that some non-aviation Consultee Organisations may not be well versed in aviation industry terminology or the CAA consultation process. Consequently, the Sponsor gave those consulted ample opportunity to seek clarification of the terminology used or any other aspects of the Consultation or the proposed airspace design.
A.2.7. Furthermore, in order to ensure that other members of the public who may have had an interest in the proposal would be aware of the consultation, on the advice of the CAA a number of Press Releases were made through local newspapers. Additionally, a number of the consultee aviation organisations publicised the consultation on their websites. Thus a wide spectrum of individual airspace users were made aware of the consultation.

A.2.8. In order to enable consultees and others to discuss the proposal with members of the LSA team, two “Open Days” were held at the Airport. In addition, individual meetings and briefings were held with various community representatives and aviation representatives.

A.2.9. In order to promote maximum response, LSA was proactive throughout the Consultation process. A review of responses received was undertaken one month prior to the end of the Consultation and, for those who had not responded, a reminder e-mail or letter was sent. Subsequently this was followed up, where necessary, with individual telephone calls to organisations or representatives in the last two weeks to ensure that each consultee could offer a response if he/she was so inclined.

A.3. Consultees

A.3.1. Development of the “Consultee List” is very much dictated by the CAA requirements specified in CAP725 and LSA sought appropriate advice from the CAA in developing the list.

A.3.2. The CAA requires that the consultation must be addressed, inter alia, to those UK National Aviation Organisations represented on the CAA’s National Air Traffic Management Advisory Committee (NATMAC). The list of NATMAC organisations and their representatives was provided by CAA SARG. It should be noted that a number of NATMAC organisations field more than one representative. Thus, a total of 37 consultees represented 29 civil consultee organisations and 7 military departments represented the military airspace interests.

A.3.3. In addition, local airspace user groups who had previously participated in the Focus Group stage together with local airport users and off-airport airspace user organisations and local aerodromes that may be affected by the airspace change were included in the consultation.

A.3.4. With respect to Community and Environmental consultees, the CAA requires that the consultation encompasses statutory bodies and appointed Councils, down to Parish Council level, throughout the area that would be overlaid by the proposed airspace design.

A.3.5. Thus, at the start of the consultation LSA sent out consultation invitations to 312 consultee organisations. Subsequently a further off-Airport airspace user and a further Parish Council were added. The consultee list therefore comprised:

- 37 Airport users, including airlines, Flying Clubs and other based companies;
- 58 Off-Airport airspace users, including airports, aerodromes, flying schools and clubs, and commercial airspace users;
- 29 Civil NATMAC organisations represented by 37 individuals;
- 7 Military NATMAC representative Departments representing Military Airspace Users;
- 24 County, Borough, District and Town Councils, comprising 20 in Essex and 4 in Kent;
- 128 Parish Councils, comprising 101 in Essex and 25 in Kent;
• 9 Environmental and other non-aviation organisations
• 22 members of Parliament.
B. List of consultees

B.1. Airport user consultees

Airport Consultative Committee Chairman
Southend Flying Club
Seawing Flying Club
The Flight Centre
easyJet
Air Lingus (Aer Arann)
ATC Lasham
Avionicare
Inflite
Cityjet
Jet 2
Malmo Aviation
NetJets
London Executive Aviation
Kings Aviation
PDG
JOTA Aviation
VVB Aviation
24/7 Jet
Finesse Aviation
Select Plant
Helicopter Services
TUI
Thomas Cook Airlines
Flybe
Skywork Airlines
Blue Islands Airlines
Atlantic Airlines
Brussels Airlines
Air Astana
Rossiya Airlines
Gama Aviation
Acropolis Aviation
Titan Airways
Norwegian Air Shuttle
Terry Holding
BA CityFlyer
B.2. Off-airport aerodrome and airspace user consultees

Qinetiq (Shoeburyness Danger Area)
London City Airport
London Stansted Airport
Manston Airport
Biggin Hill Airport
Rochester Airport
Andrewsfield Aerodrome
Barling Aerodrome
Barnards Farm Aerodrome
Brentwood Childerditch Farm Strip
Burnham Aerodrome
Challock Aerodrome
Damyns Hall Aerodrome
Detling Hill Aerodrome (Dover & Folkestone Hang Gliding Club)
Earls Colne Aerodrome
Eastchurch Aerodrome
Egerton Barhams Mill Farm Aerodrome
Farthing Corner Aerodrome
Gerpins Farm Aerodrome
Great Oakley Aerodrome
High Easter (Bury Farm) Aerodrome
Jenkins Farm Aerodrome
Laddingford Aerodrome
Laindon (Bensons Farm) Aerodrome
Lashenden (Headcorn) Aerodrome
Linton Rankins Farm Aerodrome
Little Baddow (Retreat Farm) Aerodrome
Little Burstead Aerodrome
Maypole Aerodrome
Napps Field (Brocks Farm) Aerodrome
Nayland Aerodrome
North Weald Aerodrome
Old Hay Aerodrome
Peldon West Mersea Aerodrome
Rattlesden Aerodrome
Rayne Aerodrome
St Lawrence Aerodrome
Stapleford Tawney Aerodrome
Stoke Aerodrome
Stow Maries Aerodrome
Thurrock Aerodrome
Tillingham Aerodrome
Wethersfield Aerodrome (614 VGS)
Willingale Aerodrome (Fyfield Flying Club)
Wormingford Aerodrome (Essex & Suffolk Gliding Club)

Bond Air
Clacton Aero Club
Classic Wings (Clacton Aerodrome)
Learn to Fly (Damyns Hall)
Microlight Sport Aviation (Damyns Hall)
North Weald Flying Group
Rochester Microlights
Scott Microlights Ltd
Essex Police Air Support Unit
Essex Air Ambulance
Saxon Microlights

NATS Hd TC Operations
NATS Mgr LAMP

B.3. NATMAC consultees

Airport Operators Association (AOA)
Aircraft Owners & Pilots Association UK (AOPA UK)
Aviation Environment Federation (AEF)
British Airways (BA)
BAe Systems
British Airline Pilots Association (BALPA)
British Air Transport Association (BATA)
British Balloon & Airship Club (BBAC)
British Business & General Aviation Association (BBGA)
British Gliding Association (BGA)
British Hang Gliding & Paragliding Association (BHPA)
British Microlight Aircraft Association (BMAA)
British Model Flying Association (BMFA)
British Parachute Association (BPA)
British Helicopter Association (BHA)
Guild of Air Pilots & Navigators (GAPAN)
General Aviation Safety Council (GASCo)
Guild of Air Traffic Control Officers (GATCO)
Heathrow Airport Ltd
Helicopter Club of Great Britain (HCGB)
“Heavy Airlines”
Light Aircraft Association (LAA)
“Light Airlines”
“Low Cost” Airlines
NATS
PPL/IR Europe
Unmanned Aerial Vehicle Systems Association (UAVS Association)
UK AIRPROX Board (UKAB)
UK Flight Safety Committee (UKFSC)

B.4. NATMAC military consultees
HQ Directorate of Army Aviation (HQ DAAvn)
HQ 3rd Air Force USAFE (3AF UK/A3)
DAATM
Military Aviation Authority (MAA)
Ministry of Defence (MoD)
MoD Flight Test Regulator
NC HQ

B.5. Non-aviation consultees (County, City, District Councils)

Essex
Essex County Council
Chelmsford City Council
Brentwood Borough Council
Castle Point Borough Council
Colchester Borough Council
Southend Borough Council
Basildon District Council
Braintree District Council
Epping Forest District Council
Maldon District Council
Rochford District Council
Tendring District Council
Thurrock Council

Billericay Town Council
Brightlingsea Town Council
Burnham-on-Crouch Town Council
Canvey Island Town Council
Leigh Town Council
Rayleigh Town Council
South Woodham Ferrers Town Council
Witham Town Council

Kent
Kent County Council
Gravesham Borough Council
Swale Borough Council
Medway Council

B.6. Non-aviation consultees (Parish Councils)

Essex
Abberton & Langenhoe Parish Council
Alresford Parish Council
Althorne Parish Council
Asheldam Dengie Parish Council
Ashingdon Parish Council
Barling Magna Parish Council
Beaumont-cum-Moze Parish Council
Birch Parish Council
Blackmore, Hookend & Wyatts Green Parish Council
Bowers Gifford & North Benfleet Parish Council
Boreham Parish Council
Bradwell Parish Council
Bradwell on Sea Parish Council
Canewdon Parish Council
Cold Norton Parish Council
Danbury Parish Council
Doddinghurst Parish Council
East Donyland Parish Council
East Hanningfield Parish Council
East Mersea Parish Council
Fingringhoe Parish Council
Foulness Island Parish Council
Fratting Parish Council
Frinton & Walton Parish Council
Galleywood Parish Council
Goldhanger Parish Council
Great Baddow Parish Council
Great Bentley Parish Council
Great Braxted Parish Council
Great Burstead & South Green Village Council
Great Oakley Parish Council
Great Totham Parish Council
Great Wakering Parish Council
Hatfield Peverell Parish Council
Hawkwell Parish Council
Hazeleigh & Woodham Mortimer Parish Council
Herrongate & Ingrave Parish Council
Heybridge Parish Council
High Ongar Parish Council
Highwood Parish Council
Hockley Parish Council
Hullbridge Parish Council
Ingatestone & Fryerning Parish Council
Kelvedon Hatch Parish Council
Langford & Ulting Parish Council
Latchington Parish Council
Layer Breton Parish Council
Layer Marney Parish Council
Layer-de-la-Haye Parish Council
Little Baddow Parish Council
Little Bentley Parish Council
Little Braxted Parish Council
Little Burstead Parish Council
Little Clacton Parish Council
Little Oakley Parish Council
Little Totham Parish Council
Maldon Parish Council
Margaretting Parish Council
Mayland Parish Council
Mountnessing Parish Council
Mundon Parish Council
Navestock Parish Council
Noak Bridge Parish Council
North Fambridge Parish Council
Paglesham Parish Council
Purleigh Parish Council
Ramsden Bellhouse Parish Council
Ramsden Crays Parish Council
Rawreth Parish Council
Rettendon Parish Council
Rochford Parish Council
Runwell Parish Council
St Lawrence Parish Council
St Osyth Parish Council
Sandon Parish Council
Shotgate Parish Council
South Hanningfield Parish Council
Southminster Parish Council
Springfield Parish Council
Stambridge Parish Council
Steeple Parish Council
Stock Parish Council
Storndon Massey Parish Council
Stow Maries Parish Council
Sutton Parish Council
Tendring Parish Council
Thorpe-le-Soken Parish Council
Thorington Parish Council
Tollesbury Parish Council
Tolleshunt D’Arcy Parish Council
Tolleshunt Knights Parish Council
Tolleshunt Major Parish Council
Weeley Parish Council
West Mersea Parish Council
West Hanningfield Parish Council
West Horndon Parish Council
Wickham Bishops Parish Council
Winstread Hundred Parish Council
Wivenhoe Parish Council
Woodham Ferrers & Bicknacre Parish Council
Woodham Walter Parish Council
Writtle Parish Council

Kent
All Hallows Parish Council
Bobbing Parish Council
Cliffe & Cliffe Woods Parish Council
Cooling Parish Council
Eastchurch Parish Council
Frindsbury Extra Parish Council
Hartlip Parish Council
High Halstow Parish Council
Higham Parish Council
Hoo St Werburgh Parish Council
Iwade Parish Council
Leysdown Parish Council
Lower Halstow Parish Council
Luddenham Parish Council
Minster on Sea Parish Council
Newington Parish Council  
Oare Parish Council  
Queenborough Parish Council  
St James, Isle of Grain Parish Council  
St Mary Hoo Parish Council  
Stoke Parish Council  
Teynham Parish Council  
Tonge Parish Council  
Upchurch Parish Council  
Warden Parish Council

B.7. Non-aviation consultees (Other organisations)

Association of British Travel Agents  
National Trust  
CPRE - Essex  
English Heritage  
Natural England  
Environment Agency  
Friends of the Earth  
RSPB – Wallasea  
Stop Airport Expansion & Noise (SAEN)

B.8. Members of Parliament

Mr J Duddridge MP Southend East  
Mr D Amess MP Southend West  
Mr M Francois MP Rayleigh  
Ms R Harris MP Castle Point  
Mr J Whittingdale MP Maldon  
Mr S Metcalfe MP South Basildon & East Thurrock  
Ms J Doyle-Price MP Thurrock  
Mr E Pickles MP Brentwood & Ongar  
Mr J Baron MP Basildon & Billericay  
Mr B Newmark MP Braintree  
Ms P Patel MP Witham  
Mr D Carswell MP Clacton  
Mr R Russell MP Colchester  
Ms A Watkinson MP Hornchurch & Upminster  
Mr Rehman Christi MP Gillingham & Rainham  
Mr G Henderson MP Sittingbourne & Sheppey  
Mr H Robertson MP Faversham  
Mr A Holloway MP Gravesend  
Mr M Reckless MP Rochester & Strood
Ms E Laing MP  Epping
Mr S Burns MP  Chelmsford
Ms T Couch MP  Chatham & Aylesford
C. Issues and themes of concern arising from the consultation

<table>
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<tr>
<th>Issue</th>
<th>LSA Comment</th>
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<tr>
<td>1</td>
<td>A number of consultees expressed concern that the diagrams depicting the proposed airspace configuration were not overlaid against a recognised aeronautical chart background.</td>
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<td>Giving cognisance to the fact that the consultation document was targeted at both aviation and non-aviation consultees, LSA considered that the format of the airspace configuration diagrams, as presented, would be more readily understood by non-aviation consultees whilst providing sufficient aeronautical detail of the surrounding controlled airspace to be readily assimilated by aviation consultees. Presentation as an overlay of aeronautical charts is not required by CAP725 with respect to the Sponsor Consultation Document, although it is a requirement for the final submission of the ACP to the CAA. Nevertheless, in response to a number of requests from aviation consultees LSA commissioned an overlay onto the ¼ million aeronautical chart and added it to an updated version of the SCD on 25 September; i.e. within 5 days of the initial promulgation of the SCD.</td>
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<td>2</td>
<td>One consultee considered that the ACP did not comply with the CAAs Safety Buffer Policy in respect of UAV activity in the D138 Complex</td>
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<td>The D138 complex is not active H24. It is not currently utilised for UAV activity, although provision is made within the AIP notification. The hazardous activities which take place within the DA, together with their appropriate safety buffer areas are fully contained internally within the DA boundaries. The proposed airspace configuration is designed to enable Southend ATC to make full use the airspace when the DAs are not active, as they do now in Class G airspace. Internal ATC arrangements will exist, as they do now, to segregate LSA activity from the DA activity when the DA segments are activated. We anticipate that the introduction of controlled airspace under the jurisdiction of Southend ATC encompassing, in part, the DA airspace, will reduce the number of DA infringements by GA aircraft providing an ancillary enhancement to safe aviation operations in the region. The full details of the proposed interface between LSA operations and DA activity, including those aspects relevant to the CAAs Safety Buffer Policy will form part of the formal Airspace Change Proposal document submitted to the CAA.</td>
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<td>Issue</td>
<td>LSA Comment</td>
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<td>3</td>
<td>A large number of consultees and other aviation respondents expressed concern that the impact of the Standard European Rules of the Air (SERA) on VFR flight in controlled airspace had not been specifically taken into account in the evaluation of the impact of the proposal on VFR flights seeking to transit through or operate within the Southend CTR/CTA. One consultee organisation suggested that the consultation should be suspended due to the ongoing CAA consultation on the matter which was not yet concluded.</td>
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</table>

The CAA’s separate SERA⁶ consultation should not impede the progress of this or any other controlled airspace developments or consultations. The CAA has not indicated that controlled airspace consultations should be suspended and, indeed, CAA staff have been party to the LSA airspace development and consultation timetable and have been apprised of our Sponsor Consultation Document. The VMC minima applicable in the Southend CTR/CTA will be the same as those applied nationally in Class D airspace - whatever they may turn out to be as a consequence of the CAAs consultation. We understand that the UK is seeking derogation from the SERA requirements – which may, or may not, come about. However, the SERA debate does not detract from the operational and safety requirement to protect IFR passenger carrying CAT flights in the critical stages of flight. LSA will liaise closely with the CAA with respect to their resolution of the SERA issue and its impact on the operation of VFR flights in controlled airspace generally throughout the UK and of any changes that will be made to the UK AIP and Manual of Air Traffic Services Part 1. (NB In the event that the UK is not granted a derogation from the SERA, then VFR flights in controlled airspace will, in all circumstances, be required to remain 1000ft vertically from cloud and 1500m horizontally from cloud and in a flight visibility of 5km. In flight meteorological conditions below these minima, within a Control Zone, a Special VFR clearance may be granted by the ATC Unit, subject to the national conditions applicable to Special VFR Clearances.)

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⁶ The SERA VMC minima for VFR flight in controlled airspace reflect the minima that have been in place as an ICAO Annex 2 Standard for many years. The UK currently registers a Difference with ICAO in permitting lower VMC minima to be applied below 3000ft amsl in controlled airspace by certain categories of aircraft. (i.e. The UK historically has allowed certain flights to operate under VFR in a controlled and managed airspace environment in much poorer weather conditions than are allowed for under the ICAO Standard.) The UK is the only European State which, since the introduction of the ICAO Airspace Classification System in 1991, has registered a Difference in respect of the Annex 2 VMC minima in controlled airspace. Whilst ICAO conventions allow States to register Differences from the Standards, EU Regulations do not.
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<td>4</td>
<td><strong>Justification for the proposed controlled airspace.</strong></td>
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<td>A number of consultees and other aviation respondents challenged the whole justification for controlled airspace on the basis of the low number of CAT flights handled, comparison with other airports handling similar or greater numbers of CAT flights and the lack of reported incidents involving CAT aircraft.</td>
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<td>Some responses expressed the opinion that the existing radar services were sufficient to maintain safety.</td>
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<td>A number of consultees and other individual respondents felt that the airline operators were content to operate in Class G airspace, and therefore considered it adequately safe; otherwise they would not have started operations from LSA. Therefore, in their opinion, controlled airspace was not necessary.</td>
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<td>Some consultees considered that if the airline operators thought the operation was unsafe they should move to other airports already within controlled airspace having surplus runway capacity.</td>
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<td>The justification for controlled airspace is not based on the number of CAT aircraft operating but on “threat” and “risk” to those flights and must therefore take due regard of the nature of the overall airspace activity and the risk it poses to the operation of flights carrying fare-paying passengers.</td>
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<td>Clearly the relatively high density and nature of the uncontrolled airspace activity in the subject airspace gives cause for concern both to LSA and to the operators of CAT flights.</td>
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<td>LSA, as an Air Navigation Service Provider (ANSP), has a legal obligation under EU regulations to ensure that the services provided are safe and to take all steps necessary to enhance safety to the maximum extent practicable. Two years of operational experience of the provision of ATM to CAT flights in the Class G airspace arrangement indicates that proactive steps should be taken to reduce the risk of encounter between CAT flights and other uncontrolled airspace activity through the establishment of a fully known and managed airspace environment.</td>
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<td>It is not normal practice to discuss the detail of safety management issues in public-domain documentation because of the potential for it to be misunderstood, and consequently misreported, by individuals who may not have an aviation background. However, ANSPs must ensure that safety issues are continuously investigated and addressed and are not overlooked; mandatory reporting processes within the aviation industry are a part of this, as is an active dialogue between the CAA, ANSPs and any aircraft operators involved. Any safety concerns resulting from the existing airspace arrangements will need to be fully documented in the ACP Document submitted to the CAA, along with the rationale of what effect the introduction of the proposed CAS would be expected to have on such safety concerns.</td>
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<td>Issue</td>
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<td><strong>Justification (continued)</strong></td>
<td>Government Policy continues to support the development of Regional Airports to meet the growing needs of the air transport industry and the travelling public. It is unlikely that the Government position will change in advance of the on-going study for the future Policy for airports in the London area undertaken by the Davies Commission.</td>
</tr>
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<td>Some consultees felt that the LSA awareness campaign had been successful. As the majority of GA aircraft now contacted Southend ATC then controlled airspace should not be necessary</td>
<td>LSA ATC acknowledges that the awareness campaign through the aviation press has brought some success. However, there are still substantial numbers of non-communicating unknown aircraft, including those which do not show on radar, in proximity to the routes flown by CAT flights in the critical, high-workload stages of flight. Additionally, pilots who do notify their presence to ATC are not compelled to comply with ATC requests.</td>
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| 6 | **Growth of LSA as a Regional Airport.**  
A number of individuals who responded to the consultation were opposed to, and objected to, any further growth of LSA traffic.  
A large number of residents and consultees, particularly on the south side of the Thames Estuary, objected to not having been consulted on the LSA growth plans.  
They allege that the introduction of new CAT operations over the past two years had caused substantial community annoyance, both in terms of noise and pollution.  
It was felt that more flights would mean more noise and more pollution and an increased risk of bird-strike from aircraft operating at the lower altitudes perceived to be allowed by the proposal.  
Some consultees and respondees felt that LSA was in the wrong place for a Regional Airport and that the runway was too short to attract the sort of CAT aircraft that would justify controlled airspace.  
Planning issues and Regional Airways Policy are not matters for this controlled airspace consultation. The planned and approved growth is not conditional upon the provision of controlled airspace.  
However, LSA can state that it has complied with all of the consultation requirements under the Planning Regulations in developing its proposals for the runway extension which was introduced 2 years ago and the development of its longer term growth plans as a Regional Airport. Future growth of the Airport has been approved by the relevant Authorities and is subject to a number of Section 106 Planning Conditions.  
The controlled airspace requirement stems from LSA’s two years’ experience of operating CAT flights in airspace which has a high density of mixed GA activity including flights carrying out high energy manoeuvring and aircraft which are not visible to radar.  
As stated previously, the provision of controlled airspace will not enable or require CAT flights to operate lower than they do today.  
Extant Government Policy supports the growth of Regional Airports to meet the growth in Air Transport which will take place in the coming years. |
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<td>7</td>
<td>Some respondents felt that the Government’s Future of London Airports Study should be completed before any growth takes place at LSA. Others considered that future expansion of Manston Airport or the development of a future Thames Estuary Airport would completely block out GA operations. The Government’s Future Airports Strategy Study is not a factor in the requirement for controlled airspace to enhance the safety of current operations. The growth of LSA has been approved by the Planning Authority and is in accord with extant Government Policy which encourages the growth of Regional Airports.</td>
</tr>
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### Issue

8. **Size of the proposed Control Zone (CTR) and Control Areas (CTAs).**

Most consultees and other aviation respondees who objected to the proposed controlled airspace did so, inter alia, on the grounds that the dimensions of the of the proposed CTR and CTAs were much larger in comparison to the size of other CTR/CTAs (Gatwick, Stansted, Luton, Heathrow and others) and also against the greater number of aircraft handled by those other Airports.

Some respondents felt that the dimensions of the CTR were too big for the short runway length at LSA.

Some consultees quoted comparative airspace surface footprints.

Some consultees felt that the controlled airspace should be introduced progressively as the LSA CAT traffic grows.

Others felt that modern aircraft technology should lead to smaller volumes of controlled airspace being required.

### LSA Comment

The dimensions and size of any controlled airspace are not determined by either the number of CAT flights operating within it or by any other comparative aspects with other airspaces.

Each airspace configuration is unique and its dimensions are determined by the spectrum of Instrument Flight Procedures (IFPs) that are required to be protected within it (together with their protection areas) rather than to any target area or volume or shape.

The containment requirement is specified by the CAA and includes the Primary Areas either side of procedure nominal tracks as determined from ICAO PANS-OPS criteria together with any additional airspace required for radar directed manoeuvring (together with its necessary buffer area). The London Area CTRs/CTAs quoted by consultees are effectively only required to contain the final approach track containment areas of the IAPs and the initial stages of the SID procedures. The other elements of the holding and IAPs to those airports extend to FL140 and are embedded within the airspace structure which is designated Terminal Control Area (TMA) rather than CTA. (A TMA is a form of CTA.) Conversely, the IAPs at LSA are contained in close proximity to the Airport and are defined below the LTMA. The LSA proposal will provide a more integrated ATM operation with the overlying LTC sectors and simplify access to and from the LTMA route structure.

Some “stand-alone” CTRs quoted by consultees do not require integrated procedure linkage to a TMA route structure, unlike the LSA requirement to provide fully integrated ATM operations with the overlying LTMA sectors.

Whilst the use of RNAV IFPs may lead to smaller containment areas being required for individual procedures, the safety requirements for the lateral and vertical spacing between routes and procedures within complex terminal airspace often leads to an overall airspace volume which is greater than may initially appear to be necessary.
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<td><strong>Size of the airspace (continued).</strong></td>
<td>With respect to the previous SRZ (pre-1991) and CTR (post-1991) neither were designed to the regulatory requirements currently in place, nor were the IAPs then in place configured to the current ICAO PANS-OPS requirements. No provision was made for access to the LTMA as the CAT operation was predominantly low-level Cross-Channel flights wholly within the adjoining Cross-Channel Special Rules Airspace (pre-1991) which did not require access to the Airways or LTMA as it was then configured.</td>
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<td>Some consultees also noted that the proposed airspace would be much bigger than the previous Southend Special Rules Airspace and Control Zone and would be larger than that put in place for the Olympic Games. (NB Further specific comments relating to measures to limit the size of the proposed CTR/CTA are covered below.)</td>
<td>With respect to the Temporary Olympics airspace, the airspace was established primarily to cater for an expected large increase in demand for flights using LSA over a short period of time; it was not felt necessary by the CAA (the design authority for that airspace arrangement) to conform to their regulatory requirements for IFP containment which would have been necessary for a permanent controlled airspace configuration.</td>
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<td>LSA Comment</td>
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| 9 Airspace Classification:  
A number of aviation consultees considered that Class D controlled airspace was inappropriate. RMZ and/or TMZ would be adequate. New CAA Policy should be used which aims to provide a “known traffic environment” in uncontrolled airspace.  
The use of “listening out” squawks was also mentioned as an alternative to controlled airspace. | The emerging CAA Policies regarding RMZ and TMZ and the changes to the use of Airspace Classifications were intimated to LSA by the CAA from the outset of the project and have been taken fully into account in the determination of the proposed CTR/CTA classification.  
LSA considered in detail the options of stand-alone or combined RMZ and/or TMZ, and the combination of either or both with Class E airspace. It was concluded that none of these configurations would adequately satisfy the safety requirement for the safe integration of IFR CAT flights with other airspace use, whereas Class D airspace would provide a safe and effective airspace management arrangement available to all and which would not be dependent on the carriage of transponders.  
LSA will consider again these options in the Post-Consultation airspace review and the conclusions will form part of the formal Airspace Change Proposal to be submitted to the CAA.  
Frequency Monitoring Codes are associated with assisting pilots to avoid infringements of controlled airspace. LSA will consider application for a Frequency Monitoring Code to supplement operation of the CTR/CTA when established |
<p>| 10 Some consultees felt that LSA had been too dismissive of other options. | As stated above, all other options, including options which would not result in controlled airspace, were considered in depth at the outset of the project, and were subsequently reassessed against new and emerging CAA Policies. However, on balance, and given the two years’ experience of handling CAT flights in Class G airspace, LSA concluded that Class D airspace classification most closely met the safety and operational requirements whilst continuing to afford access to the greatest spectrum of airspace user groups. |</p>
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<tr>
<td>11 Grandfather rights</td>
<td>It was widely felt that the proposal did not serve the interests of GA pilots or the safety of GA operations. The strategic location of the airspace for GA activity had not been taken into account; A number of consultees raised issues of “grandfather rights” for unfettered GA access to use of the airspace: Unfair to regulate more airspace when most of it is over-regulated and under-utilised; Stealing airspace from others; GA operations should not be subordinate to Air Transport flights; Microlight aircraft do not need any ATC service; Gliders should be allowed unfettered access; Opposed to any proposal which removes GA right to operate freely; High fees at LSA shows they are not friendly to GA; Priority should be given to GA training and cross-country flying in “free” airspace; Impact on aerobatic flights and vintage aviation; There must be a VFR transit corridor provided for non-radio aircraft.</td>
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</table>

Airspace is not “owned” by any individual aviation faction or ANSP, nor are there any immutable grandfather rights to access to the airspace. Particular elements of the aviation community cannot be immune from changes that take place in other elements of the airspace community. The objectives for the regulation of airspace by the CAA are specified in the Transport Act 2000 and Ministerial Directions to the CAA. The designation of airspace as controlled airspace does not confer or imply “ownership” by the nominated Controlling Authority.
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<td>12 Gliding operations</td>
<td>LSA acknowledges the significant concerns of the gliding community. Cross-Thames glider flights were considered to be rare due to the low base of LTMA. However, data provided in consultee responses indicates that it may be more prevalent than expected or as apparent to LSA radar controllers from radar observation, possibly due to the poor radar signatures presented by many gliders. This suggests that the risk to IFR CAT flights from encounter with gliders in Class G airspace may be greater than previously anticipated due to their radar invisibility and lack of RT communication with ATC. Equally, glider spinning training in areas where CAT flights routinely transit in Class G airspace below the LTMA is of concern to LSA, particularly as gliders do not make good radar targets. Gliders are not, in general, equipped with transponders which would provide a measure of safety mitigation through radar visibility and the availability of TCAS. BGA noted that the majority of gliders are now radio-equipped. However, very few, if any, gliders contact Southend ATC when operating in proximity to LSA or its arrival or departure traffic flows but instead rely on their own and other pilots look-out, including pilots of CAT flights, to see and give way in accordance with the Rules of the Air. RTF access to Class D is permitted and (notwithstanding concerns expressed) will be granted by Southend ATC to the maximum extent practicable. Communication and proactive airspace management can result in effective deconfliction by means other than visual sighting of small targets or interruption of critical gliding flight profiles. Discussions have taken place with BGA and some of the affected Gliding Clubs. LSA propose to continue these discussions with a view to establishing acceptable operating agreements to facilitate glider operations in the Southend CTR/CTAs. However, LSA acknowledges that in some circumstances it is difficult for non-radio gliders to co-ordinate access to controlled airspace given that they present poor radar targets and, equally, that routing around controlled airspace may not be practicable for some flights.</td>
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<td>13 Peripheral Aerodromes</td>
<td>LSA is conscious of the proliferation of General Aviation aerodromes in proximity to the proposed Class D airspace and will take steps within the Post-Consultation Review to alleviate the impact to the maximum extent practicable within the regulatory requirements for the design of controlled airspace and the need to protect CAT passenger carrying flights from encounter with unknown and uncontrolled airspace activity in the critical stages of flight. LSA will continue to take due regard of emerging CAA policies. For example, the CAA has stated that they may look favourably on larger CTRs to alleviate low CTA base levels - which may result in some peripheral aerodromes being within the CTR (with appropriate operating procedures and agreements) rather than beneath a 1500ft amsl CTA base. Similarly the CAA has subsequently intimated to LSA, and has recently issued a new Policy Statement that indicates, a more relaxed approach to the extent of IFP containment required, subject to appropriate safety assurances. This may enable LSA to reduce the extent of some of the proposed CTR and CTA dimensions. This will be taken into full account in post-consultation airspace reviews. LSA reiterates that access to VFR and Special VFR flights and airspace activity will not be denied under normal, routine, circumstances and access to established training areas will continue in a manner which allows for appropriate ATM deconfliction for CAT flights in a more efficient manner than can be achieved in Class G airspace.</td>
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Responses objecting to the proposed airspace configuration (or justification for it as detailed above) were received from most of the peripheral aerodrome operators listed as consultees, together with submissions from aircraft operators. Each listed both general objections in principle and objections specific to their site and operation. The principle objections included: disruption and loss of training airspace; concern over access to Class D airspace; non radio aircraft operations; non-transponder aircraft; low CTA base levels overhead; proximity of concentration of traffic “avoiding” CAS; aerodromes embedded within CTR; Class G airspace safety Disruption of vintage jet and other display aircraft Specific impacts on operations at Rochester and Biggin Hill Loss of business |
### Issue | LSA Comment
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14 **Choke Points**<br>Many consultees and individual pilot submissions expressed concern about the potential “Choke Points” around the periphery of the proposed CTR/CTA within which GA flights would be required to operate if they did not wish to, or could not, operate within controlled airspace. This was considered by respondents to be a flight safety issue which had not been evaluated adequately by LSA.<br>It was considered by some that the LSA controlled airspace would block off any eastern passage around the LTMA for light aircraft.<br>Others felt that would promote longer over-sea transits to avoid the airspace.<br>Some submissions considered that there may be concentrations of light aircraft in certain areas waiting for transit clearance.<br><br>LSA is conscious of the Choke Points issue, which is one that arises with any new controlled airspace development. In proximity to the controlled airspace proposed by LSA the issue of Choke Points is of particular concern due to high density of GA and S&R operations generally within the area and to the proliferation of flying sites generating relatively high density airspace usage in their immediate proximity. The popular perception that GA flights are “forced” to operate in narrow corridors through the imposition of controlled airspace is of added concern.<br>These factors were not overlooked in the development of the LSA airspace change proposal. Indeed, LSA was able to reduce the dimensions of the controlled airspace requirement in recognition of the Choke Points issue by not meeting in full the CAAs regulatory requirements for the containment of IFPs. (Mitigation to justify derogation from the full regulatory requirements will be detailed in the Airspace Change Proposal document to be submitted to the CAA.)<br>As detailed in the body of this Report, LSA is conducting a detailed review of all aspects of the airspace configuration where Choke Points are likely to arise with a view to further reducing the controlled airspace volume if practicable. However, it must be emphasised that the safety of operation of CAT passenger carrying flights by the requisite controlled airspace containment remains paramount.<br>LSA emphasises again that access to the CTR/CTA will remain available to all GA activities appropriate to their circumstances within the general national rules for operation within controlled airspace and will not be denied as a result of any locally applied prohibitions. It remains a matter of choice, in most cases, for the GA pilot whether to transit through the controlled airspace or remain outside it. However, LSA acknowledges that in some circumstances it is difficult for non-radio aircraft or gliders to make arrangements for access.
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<td>A number of consultees and others considered that LSA had carried out no safety assessment of GA operations outside controlled airspace with increased airspace congestion around choke points and peripheral aerodromes. LSA is aware that introduction of a new area of controlled airspace will have an effect on airspace users in the area. LSA believes that, routinely, GA access to the airspace will be maintained, and thereby the establishment of controlled airspace should not cause a large displacement effect. LoAs with peripheral aerodromes will assist in this. Because the existing airspace structure is Class G airspace and uncontrolled in nature, operators within it accept that they are responsible for their own safety. “See and be seen” has to be widely adopted as the main means of ensuring safety, along with the Rules of the Air. Pilots flying in this airspace today are aware that they are exposed to a busy and challenging Class G airspace environment and take that into account in the planning and operation of their flights. LSA ATC services will still be available for pilots flying outside CAS to request an ATC service in order to enhance their awareness of other traffic in the area. Safety and Operational Assessments form part of the Airspace Change Proposal documentation submitted to the CAA and there is no requirement to submit them to public consultation.</td>
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| 16 | Similarly, a number of consultees noted that the adverse environmental impact of GA flights operating at lower levels below the controlled airspace and at higher concentrations around choke points had not been adequately assessed. A number of community consultees felt that they were already blighted by GA flights.  

The majority of GA flights operating from peripheral airfields near to LSA already typically operate the light end of the GA spectrum flying at lower levels in the areas under consideration. A good percentage of these aircraft already communicate with Southend ATC, and it is expected that these would continue to do so when CAS is introduced. When requested, access to CAS will be provided subject to safe consideration of traffic conditions, and would not result in any displacement effect or requirement to fly lower than at present.  

In the post-Consultation airspace reviews, LSA will consider how to more closely tailor the dimensions of the proposed controlled airspace wherever it is safely able to, and any such reductions will help reduce the perception of choke-points  

Communities that feel that they are blighted by GA flights are often located close to busy GA airfields, or close to where the aircraft from these airfields choose to operate when manoeuvring. In that most of these areas are already established in areas that are away from LSA (in order to minimise conflict with Southend traffic patterns and ATC intervention), it is expected that these areas will remain in use for the same reasons. |
| 17 | A number of consultees and other aviators considered that the proposal would render two small aerodromes to the north-east of LSA (both within the proposed CTR) unusable and would unreasonably restrict two others aerodrome (beneath the 1500ft base CTA).  

LSA proposes that agreed operating procedures through a LoA should be established to provide continued suitable access between these aerodromes and the nearby Class G airspace for both radio equipped and non-radio aircraft. Specimen LoAs are currently under development and will be discussed with the aerodrome operators as soon as practicable. |
| 18 | A number of small aerodrome operators noted that establishment of two-way radio communication with LSA ATC to obtain ATC clearance is not possible at surface level at their aerodromes.  

LSA ATC has not experienced any communications difficulties with low flying GA aircraft. However, LSA has conducted an RTF coverage assessment and has determined that it is adequate to below 500ft agl over the whole of the area required. Where necessary LoAs will establish any necessary pre-departure communication requirements for aerodromes embedded within the CTR. |
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<td>Some consultees and others felt that there appeared to be a breakdown in communication between NATS and LSA and that was the only reason for LSA seeking additional “independent” controlled airspace. One consultee felt that the main driver for the airspace proposal was the inability of LSA ATC to integrate traffic with NATS sectors above.</td>
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<td>There is no breakdown of communication between NATS and LSA. NATS and LSA have worked, and continue to work, closely together to develop fully integrated procedures and operations which would allow LSA departures direct climb to LTMA levels. The safety management requirements for the lateral and vertical spacing between routes and procedures, not only between LSA and LCY traffic but also Heathrow, Gatwick and Stansted traffic, has precluded the definition of levels above 3000ft for LSA traffic on a strategic (i.e. published SID) basis. Indeed, increased lateral and vertical spacing requirements within the NATS airspace safety management and airspace planning requirements (in accordance with the European Airspace Design Methodology Guidelines) has impacted upon anticipated procedure development. Similarly the routeing and levels of procedures and the transfer of control requirements between LSA and LTC must be compatible with the internal sectorisation within the LTMA, the radar manoeuvring area configuration within the TMA and the inter-sector standing agreements. Similarly NATS has taken due regard of the LSA operation in its development of LAMP Phase 1a airspace arrangements and LSA air traffic controllers have participated in NATS procedure development and operational simulations. Again, the safety requirements for the strategic vertical and lateral spacing of routes take precedence in the design of the airspace arrangements and configuration.</td>
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| 20    | **LSA traffic should be included in LAMP project without any additional CAS.**  

The LSA controlled airspace should not be introduced ahead of LAMP.  

NATS are under remit to give equitable consideration to LSA operations and requirements alongside other LTMA airport operations.  

LSA traffic has been included in the development of LTMA operations for LAMP Phase 1a. However LSA traffic is not included in the “Point Merge” concept which is being introduced for flights inbound to London City Airport.  

As noted above, the safety management requirements for spacing between crossing and converging flight paths, not only between LSA and London City Airport procedures but also across the eastern part of the LTMA, do not change as a consequence of LAMP and limit the levels and tracks that can be strategically designed into IFPs and thus, consequently, the dimensions of the controlled airspace required to contain them. Whatever the configuration of the LAMP route structure and procedures there is inevitably some portion of the flight to and from LSA which will be below 4000ft and thus require controlled airspace containment.  

At the outset of the LSA project the timescales and phasing for the introduction of LAMP were unclear, whereas the requirement for the introduction of controlled airspace protection for LSA operations is now considered to be urgent. Thus, the LSA airspace development is designed to fit in with the existing LTMA sector arrangement. As the LAMP phasing and timetable and procedures have evolved then the LSA airspace development has been adapted to ensure compatibility with both the pre- and post-LAMP phase 1a operation in the LTMA.  

Notwithstanding that NATS have now recently completed consulting separately on their LAMP Phase 1a airspace concept, the implementation timetables for the two projects cannot be aligned due to the importance of the LSA controlled airspace requirement and the uncertainty of the ultimate LAMP timetable. NATS are not consulting on the equally important airspace arrangements below 4000ft which will be necessary for the successful implementation of LAMP Stage 1a. The timetable for the development of and consultation on RNAV SID procedures for London City Airport has not yet been determined and is the responsibility of London City Airport. |
A number of consultees felt that the LSA airspace configuration was contrary to both the CAAs Future Airspace Strategy (FAS) and the London Airspace Management Project (LAMP) in that it did not provide direct climb to cruising level and continuous descent from cruising level.

Some felt that the airspace arrangements were inefficient.

Others considered that a holistic approach to the whole airspace was necessary.

Both the FAS and the LAMP are long-term evolutionary aspirations for the future airspace management arrangements for the whole of the South-east of the UK. The overriding factor in any future airspace configuration and procedure integration is, and will remain, the safety management requirements for the safe vertical and lateral spacing between adjacent and crossing/converging routes; note: Routes, not nominal tracks. Both the FAS and the LAMP will inevitably continue to require “designed-in” level segments in terminal airspace procedures to ensure the safe vertical and lateral spacing between flight profiles on a strategic basis.

The LTMA is not yet a mandated RNAV-1 (or better) ATM environment and the required spacing between routes and procedures must reflect the present-day arrangements. Notwithstanding that the future holding, approach and departure IFPs for both the proposed LSA airspace and those for LCY under development for LAMP Phase 1a, will be specified as RNAV-1 (or, ultimately, RNP-1) procedures they will exist for the time being within a background RNAV-5 LTMA and ATM environment.

Similarly, the presumption against the use of “stepped climbs” at the lower levels of the TMA, together with the recently increased vertical spacing safety management requirements between procedures in some circumstances, reduces the ability to offer higher initial levels to departing aircraft because of inbound and outbound aircraft from other airports crossing above and which, consequently, affects the base levels of the resulting CTAs.

For arriving flights, similar safety management strategic procedure spacing requirements must be “designed-into” the airspace arrangements.

For example, traffic on a radar-vectored left-hand circuit to runway 06 at LSA must– as a safety requirement – be at 2000ft at a specified point on the downwind leg in order to ensure adequate procedure separation against the opposite direction LCY SID procedure towards CLN nominally at 3000ft. Aircraft in this situation would be working different ATC Units.
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<td>22</td>
<td>Some consultees and others suggested reconfiguration of IAPs to reduce the amount of controlled airspace. At the earliest stages of the controlled airspace development LSA considered in detail the possibility of redesigning the IAPs to raise the 1500ft base turn altitude to 2000ft (or higher) in order to facilitate, possibly, a shorter CTR with a 1500ft or 2000ft altitude CTA stub beyond. However, on balance, factors mitigating against this course of action at that time was the increased overall length of the resulting IAPs; each 500ft of increased altitude extends the outbound leg of the procedure by nearly 2NM, together with its associated protection area (which extends almost 3NM beyond the nominal track as indicated in the Sponsor Consultation Document). The procedure design descent gradients and level flight segments to be applied to IFP design are specified in ICAO PANS-OPS. Thus, for example for runway 06, a base turn constructed at 2000ft ALT instead of 1500ft ALT would place the FAF at 5.4NM from Threshold and extend the IAP nominal track to approximately 10.2NM instead of 8.4NM from LSA. The associated CTA with 1500ft base altitude would extend to approximately 12NM from LSA. Thus the CTA would extend beneath the LTMA-1 (base level 2500ft), thereby exacerbating the perceived Choke Point impact and the impact on peripheral aerodromes; Therefore, LSA concluded that, on balance, the configuration of the extant IFPs should not be changed as a consequence of the airspace change proposal. However, given the new approach to procedure containment recently published by the CAA, LSA will look again at this option in some detail.</td>
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<td>A number of aviation consultees felt that LSA should not be using outdated NDB procedures. Everything should be RNAV.</td>
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<td>Notwithstanding that the CAAs Performance Based Navigation (PBN) Policy encourages the adoption of RNAV IAP, there is, as yet, no mandated RNAV aircraft equipage requirement. Thus, for the time being it is likely that LSA will need to sustain the provision of conventional navigation IAPs focussed on the aerodrome-sited SND NDB for the benefit of non-RNAV airspace users, and the controlled airspace configuration, in accordance with the regulatory requirements, must reflect that. RNAV “stand-alone” IAPs have been designed for LSA and will be implemented in 2014. The configuration of the proposed CTR/CTA reflects the necessary containment area for these procedures. At the next IFP review consideration will be given to removing the DME arc procedures. However, it should be noted that the navigational containment areas for RNAV IAPs are not necessarily smaller than those for conventional navigation IAPs. RNAV Initial Approach Procedures from the TRIPO offshore holding pattern linking directly to the RNAV IAPs will be developed within Phase 2 (post-LAMP) of the LSA controlled airspace development. The proposed airspace configuration reflects the vertical and lateral containment of these procedures. There will remain a requirement for arrival procedures to be focussed to a terminal arrival fix/waypoint at which terminal holding can take place and IAPs initiated in the non-radar (or Loss of Communications) situation.</td>
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<td>One consultee considered that areas shown for the protection of IAPs were not necessary. It was simply a red herring to get control of more airspace. It was felt that holding patterns did not require to be fully protected by controlled airspace and there was no reason why some CAT movements should not take place outside controlled airspace if they could not be held on the ground. One consultee noted that the proposed CTR extended beyond the radar vectored tracks for arriving and departing flights.</td>
<td>It is the CAA, not LSA, that specifies the requirement to contain IFPs (not only IAPs) and by how much they must be contained within the lateral and vertical boundaries of controlled airspace. Currently the CAA requires the PANS-OPS Primary Areas of IFPs to be fully contained laterally and at least 500ft vertically above the base of controlled airspace. The configuration of the airspace must take due regard of these requirements. The controlled airspace proposed by LSA in the SCD would not fully meet these requirements in certain areas and it would be necessary for LSA to present suitable mitigation to the CAA to cover the deficiencies. Radar directed traffic should be contained at least 2NM within the controlled airspace boundary (and, again, at least 500ft above the base level). Thus, the controlled airspace boundary will generally be a minimum of 2NM beyond the normal radar vectored tracks. In the light of the revised CAA Policy, LSA is reviewing the airspace configuration to determine whether there are any areas where a safety case could be developed to support any further non-compliance with the full regulatory requirements.</td>
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| 25 A number of aviation and non-aviation consultees felt that a CTA 1500ft amsl base level was too low. | LSA acknowledges that CTA base levels should be as high as practicable within the constraints of the regulatory requirements for the containment of IFPs and the ability to reconfigure IFPs and radar-directed flight profiles to higher levels. IFR flights and IFPs in controlled airspace must always be contained at least 500ft above the base of controlled airspace.  

The ICAO Standard for the minimum level of a CTA base is 700ft agl and this applies in various locations around the UK.  

CAA Policy was previously that CTA base levels should not be less than 1500ft amsl (unless overriding considerations dictated a lower level). This has now changed to not less than 1500ft above ground level wherever practicable. However, CTA base levels are expressed as altitudes and, normally, at 500ft incremental levels. The CAA has indicated that it may now prefer larger CTRs where this may eliminate the need for low-based adjoining CTAs.  

LSA will investigate the possible reconfiguration of the CTR together with CTA-1 and 2, whilst preserving the requirement to contain procedures and individual aircraft by not less than 500ft vertically and radar directed traffic not less than 2NM laterally within controlled airspace. (i.e. where a procedure or radar directed track is specified as 1500ft ALT, controlled airspace would exist down to the surface as the use of 1000ft amsl is not practicable or permitted; where a procedure or radar directed aircraft is at 2000ft ALT then controlled airspace must exist down to 1500ft amsl or lower.) |
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<td>One aviation consultee suggested that the CTR should not extend beyond 8nm from the aerodrome; CTA base levels should be not less than 1250ft aal. The CAA requires all IFPs to be contained at least 500ft above the base of controlled airspace and, equally the base levels of controlled airspace should, ideally, not be below 1500ft agl (previously 1500ft amsl). Thus any segment of an IFP (including its containment area which extends substantially beyond the nominal track) which is at 2000ft ALT must be within a CTA segment with a base level of 1500ft amsl or lower and any segment of an IFP which is at or below 1500ft amsl must be contained within a CTR. The base turns of the LSA IFPs currently require a level flight turn at 1500ft amsl in accordance with the procedure design requirements specified in ICAO PANS-OPS. (See also Serials 13 &amp; 14 above.) Thus the CTR must encompass the full extent of the base turn nominal track, approximately 8.2NM from threshold, plus the Primary Area extending beyond it, which extends beyond 10NM along the final approach track. CTA base levels are normally referenced to mean sea level in 500ft increments; thus 1250ft aal + aerodrome elevation 55ft equates to a (rounded up) base level of 1500ft amsl.</td>
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<td>One aviation consultee considered that most aircraft operators would be happy with a 4° glide slope which would reduce the extent of controlled airspace needed. The design of IFPs is dictated by the CAA requirements specified in CAP785 and ICAO PANS-OPS. ICAO PANS-OPS criteria specifies an optimum descent gradient of 3° for Precision or APV approaches and 5.2% for non-precision approaches unless a higher gradient is required for (specifically) obstacle clearance purposes (as is the case for runway 06 at LSA). Steeper than optimum approaches are not be used other than to avoid obstacles. Notwithstanding that some operators may be happy with steeper glide paths, others prefer 3° in accordance with the ICAO criteria and because it will also facilitate lower minima during Lower Than Standard Category 1 (LSTC1) operations. Airports are bound by the CAA and ICAO requirements.</td>
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| 28    | One consultee considered that ATC procedures should be limited to 150kt or less to minimise the airspace needed.  
CAP785 specifies that IFPs should be designed in accordance with the criteria specified in ICAO PANS-OPS.  
The UK Registors, in the UK AIP (GEN1.7-49), a Difference from the ICAO PANS-OPS criteria for the design of IFPs in specifying that, unless otherwise stated, procedures are speed restricted to a maximum IAS of 185kt. However this is generally no longer applied to procedure design as it is recognised as being too slow for modern day application and non-standard in procedure design terms.  
Where it is necessary to apply speed limits to procedure designs for airspace or ATM purposes then a higher limit is normally used. |
| 29    | A number of consultees objected to specific segments of the proposed controlled airspace configuration which would most affect their particular operation, e.g.  
CTA 1 & 2 not needed;  
CTA-3 not needed;  
CTA-6 not needed;  
CTA 4/7/8 should be reconfigured  
The function, regulatory requirements and inter-unit safety management route spacing requirements which led to the proposed configuration of each CTA segment were explained in some detail within the Sponsor Consultation Document.  
LSA will be reviewing again, in conjunction with NATS and the CAA, each segment of the proposed CTR/CTA configuration to determine whether any reductions can be made or whether base levels can be raised or whether compliance with the regulatory requirements can be relaxed.  
We are conscious of the interaction of CTA7 & 8 in particular on Manston operations and believe that some reconfiguration of CTA7 & 8 will be feasible, subject to consideration of the consequential impact on LAMP airspace planning of any changes in this area. |
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<td><strong>30</strong> GA “exclusion” from Class D airspace: Many aviation consultee organisations, together with most of the aviation respondees complained that in their experience ATC Units seldom allowed GA access to Class D airspace: Stansted, Southampton, Luton examples quoted. One consultee considered that there must be a cast-iron guarantee that all requests for VFR transit would be answered and must never be refused and that there must be an easy reporting system for pilots to report refusals and each refusal must be investigated. Southend Airport would cease to be a useful diversion aerodrome for GA flights.</td>
<td>The CAA does not allow ANSPs to manage Class D airspace on the basis of “exclusion” of particular airspace user categories. LSA controllers are attuned to GA operations in the area of the proposed controlled airspace and have a good working relationship with the GA community. LSA ATC intends to retain a flexible ATM environment which respects the needs of the GA community whilst facilitating the enhanced safety of CAT operations by the provision of a known and managed airspace environment. LSA has the advantage over some other ATS Units in that the ATC staff are located at the Airport, rather than remotely, and have an extensive local knowledge. LSA acknowledges that notwithstanding the assurances given there will remain a suspicion of exclusion amongst elements of the GA community. As part of the Airspace Change Process the CAA requires nominated Controlling Authorities to keep a record of refusals of access and this forms part of the Post Implementation Review (PIR) of the airspace arrangements.</td>
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| **31** Height of aircraft  
A number of respondents were concerned that a lower CAS base would allow jet aircraft to fly lower than they do today. They objected to proposals to lower the height of aircraft. (Most of these objections could be identified as attributable to erroneous information arising from the campaigns in opposition to the proposal.) | Aircraft inbound to or outbound from LSA will not fly lower than they currently fly.  
The provision of controlled airspace and the commensurate known and managed traffic environment within it will facilitate improved interface with LTC sectors and allow improved flight profiles into and out of the LTMA to be achieved.  
The provision of controlled airspace beneath the existing LTMA levels simply provides a safer operating environment for CAT flights until they reach the LTMA levels and eliminates the potential for uncontrolled encounter with other unknown aircraft. |
| **32** Many residents of the Hoo peninsular and their representatives object to overflight of Hoo peninsular below LTMA base levels and perceived the establishment of controlled airspace as enabling CAT flights to operate lower than they do today. | As the base of the LTMA is 3500ft amsl, clearly there is a period of flight when an aircraft is taking off or landing when it is inherently below 3500ft. It is for this period of flight that the controlled airspace protection is necessary at a time when cockpit workload is high and visibility from the flight deck is relatively poor and where many of the conflicting aircraft are small and are not good radar targets.  
Aircraft inbound to runway 06 at LSA which transit across the Hoo peninsular will do so at a height commensurate with their distance from the runway on, as closely as practicable, a 3½ ° descent path (approximately 370ft per nautical mile). They normally join the final approach track between approximately 7NM and 9NM from touchdown (approximately the mid-point of the Thames) at 1500ft - 2000ft amsl. Thus they cross the Hoo peninsular descending through 3000ft to 2500ft amsl. This profile will not change as a consequence of the introduction of controlled airspace.  
Outbound aircraft from runway 24, after following the noise abatement procedure, will generally follow a more easterly track climbing, initially to 3000ft. They will then be given clearance by LTC to climb into the TMA dependent on other LTMA traffic in the vicinity. Once the controlled airspace is in place it is anticipated that the improved inter-unit operating procedures will enable clearance to climb above 3000ft to be given before the aircraft levels off at 3000ft on the majority of occasions. |
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<td>A number of residents from both Essex and Kent felt that LSA traffic should be no lower than LCY and Heathrow traffic. The LTMA is divided into a number of ATC Sectors each of which has specific functions and handles particular traffic flows. For example, in the vicinity of LSA, the sectors handling LCY and LSA traffic do not handle Heathrow traffic. Sectors are vertically stacked one above the other and each has its specific operating procedures and “rules” to be applied when passing aircraft from one sector to the next. The height of aircraft as they progress from sector to sector is also related to the distance of the aircraft from their destination or departure airport. Thus Heathrow arrivals passing to the north of LSA routing towards the Heathrow holding stack will generally be above 10000ft whereas LCY arrivals and departures will generally be between 4000ft and 6000ft. The ATC sectors interfacing with (i.e. immediately above) LSA are the Thames Radar sectors which predominantly handle LCY arrivals and departures and have the task of integrating LSA arrivals and departures into their overall traffic flow and receiving or passing on flights from/to the next sector in accordance with the inter-sector Standing Agreements. Thus, in the immediate vicinity of LSA, LSA traffic will always be below traffic to/from other airports which are some distance from their landing/departure runway.</td>
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<td>34</td>
<td>Airports should be made to pay for the volume of controlled airspace they own. All airspace is a State asset which is not “owned” by any aviation faction, airport operator or ANSP. The designation of an ANSP or ATC Unit as a “Controlling Authority” of a portion of the airspace does not confer or imply “ownership” of the airspace and it attracts no commercial value. The CAA does not allow Controlling Authorities to “manage by exclusion” and access to the airspace by “the aviating community” is not denied. The passengers in the commercial airliners are equally “the aviating community” and the CAA and ANSPs have a duty to protect them from other aircrafts’ operations.</td>
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<td><strong>35</strong></td>
<td>The proposal is a vicious land-grab by Stobart organisation for its own commercial gain. The Business Plan is speculation. A number of aviation and non-aviation responses refute optimistic traffic forecasts given by LSA.</td>
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<td><strong>36</strong></td>
<td>Some residents on the Hoo peninsular considered that aircraft should not overfly chemical &amp; gas plants.</td>
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| **37** | One submission surmised that windfarms affected aircraft navigation equipment and thought that the expansion of the London Array may present a hazard.  
Another considered that windfarms were irrelevant to controlled airspace | Wind turbines do not affect aircraft navigation systems.  
However, they do cause clutter on the ATC Primary Radar display when they are sited within the radar coverage within which it is difficult for air traffic controllers to retain the identity of aircraft passing above the windfarm area. A wind turbine creates a radar reflection many times stronger than the reflection from an aircraft.  
The London Array offshore windfarm is sufficient distance from LSA that it does not interfere with aircraft operations to or from LSA.  
There is much documentation on the impact of windfarm clutter on radar vectoring operations. The CAA has indicated that a slightly larger CTR to encompass a windfarm close to the final approach track within a known traffic environment may be preferable to the need to establish a TMZ (which would exclude non-transponder-equipped aircraft) beneath a CTA. |
| **38** | Why can’t a/c follow the river and not fly over populated areas.  
The airspace should be aligned east-west over the River.  
All controlled airspace and CAT operations should be over the sea. | The runway at LSA is not aligned with the River Thames and is some distance inland. Departure and arrival procedures are designed, as far as is practicable, to avoid major centres of population but must also “fit in” with the overlying LTMA route structure and the procedure design requirements and, of course, the location and alignment of the runway.  
The new holding pattern for LSA detailed in the proposal is specifically located offshore to the north-east of LSA instead of overhead the airport for this very reason. This will take a large proportion of inbound aircraft to LSA away from the current holding pattern overhead the airport. |
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<td>39 A number of aerodrome and aircraft operators noted that the proposal took no account of the financial loss that would be incurred by other aviation businesses as a result of the controlled airspace.</td>
<td>Neither LSA nor any other aerodrome owner or aircraft operator “owns” the airspace and it attracts no commercial value. It is not LSA that will determine whether or not controlled airspace is introduced, it is the CAA. The CAA will also specify how it will be managed and by whom. The ACP is merely a process which makes a case for, and proposes to the CAA, the introduction of controlled airspace. LSA believes that controlled airspace is necessary to ensure the continuing safe operation of CAT flights, together with other flights, in the critical stages of flight immediately after take-off and prior to landing when cockpit workload is high and the ability for CAT crews to avoid other aircraft visually is not assured. Having said that, controlled airspace is not an exclusion zone and remains available for safe use by all classes of aircraft in a controlled and managed manner. There should be no airspace classification reason for other aviation businesses to suffer financial loss. The existence of controlled airspace does not impinge on land-use regulations.</td>
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<td>One respondent felt that controlled airspace would inhibit the use of the “28 day” rule for the use of unprepared airstrips.</td>
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<td>40 One aerodrome operator felt that the introduction of controlled airspace would compromise development plans at their aerodrome and would conflict with proposed IAPs.</td>
<td>LSA does not agree with this assertion. There is no intention to inhibit or compromise the operation of adjacent aerodromes. Indeed the introduction of RNAV GNSS IAPs at the neighbouring airport may enhance the co-ordination of flights between the two Airports. However, it should be noted that the proposed introduction of IAPs at the neighbouring airport would conflict with already existing IAPs at LSA and due regard of this, together with a safe ATC solution for the integration of flights would need to be addressed in the ACP which would be necessary for the proposed introduction of new IAPs at the neighbouring airport.</td>
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| 41 Pilot Training | A number of aircraft operators, flying training organisations and individual pilots objected to the loss of airspace locations traditionally used for flying training by all sectors of the GA community.  
Hanningfield reservoir, the St Marys Marsh, Sheppey and the North Kent Downs were areas identified by many consultees and others.  
Similarly the need to listen out on RTF was considered to be incompatible with carrying out training exercises if access to the controlled airspace was granted.  
Certain training exercises, and other flight activity such as air-to-air photography, particularly in vintage jet aircraft, required assured airspace availability to 5000ft. |
|              | LSA acknowledges that the proposed controlled airspace encompasses some airspace and levels traditionally used for flying training. However, of equal concern is the mix of CAT traffic in the critical stages of flight with uncontrolled flights carrying out high energy manoeuvring. The deconfliction distances that are required to be applied by ATC against unknown traffic are such that there is often not enough sky available between uncontrolled manoeuvring flights for the safe passage of CAT flights.  
However, simply being in communication with the conflicting traffic and the fact that it becomes “known” and that (through ATC instructions) the ability exists to manage the conflict effectively (with a vertical option as well as a lateral option) would significantly enhance the overall integration of traffic in what is recognised as congested airspace.  
There is no absolute requirement for training activities to be conducted outside controlled airspace when the means exists to safely integrate them with CAT airspace activity. Many flying training establishments exist and operate successfully at aerodromes inside controlled airspace.  
LSA acknowledges the special requirements of vintage (including jet) aircraft operators. LSA will be well placed to accommodate such operations within a known and managed airspace environment that would provide added security for such exercises. |
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<td>42 Controller resources. A number of consultees and others complained that LSA had insufficient controller resources to manage current traffic levels effectively and so would be unable to service the large numbers of GA flights that would require access - thus access would be denied. LSA would have no commercial incentive to provide the necessary resources. One consultee noted that currently RTF congestion was such that it was difficult to make RTF calls before coming into proximity of adjacent aerodromes.</td>
<td>LSA, like any other ANSP, is required to keep staffing levels under review and demonstrate to the Regulator that sufficient resources and facilities are in place. LSA routinely assesses the ATC operation to consider whether additional staffing is necessary or whether operating procedures and practices should be altered. In this respect the introduction of controlled airspace is no exception. Whilst the review of ATC internal operating arrangements for the controlled airspace environment is not yet complete, it will form part of the formal Airspace Change Proposal to be submitted to the CAA.</td>
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<td>43 Increased Bird Strike Risk A number of consultees and others considered that the lowering of the height of aircraft together with increasing the number of aircraft flying at lower levels over bird and nature reserves would increase the risk of bird strikes. It was felt that no account had been taken of bird migration patterns.</td>
<td>LSA emphasises again that CAT aircraft will not be flying lower than they do today. There is no reported prevalence of bird strikes occurring to CAT aircraft operating to and from LSA in the vicinity of the Isles of Grain or Sheppey or the Dengie Peninsular.</td>
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<td>44 A number of non-aviation responses felt that airlines frequently break the rules for flying over nature reserves and bird sanctuaries.</td>
<td>There are no “Rules” which prohibit the overflight of bird sanctuaries and nature reserves, only a recommendation that pilots should avoid flying below 1500ft where birds are likely to be concentrated. The Northward Hill Bird Sanctuary is not amongst those listed in the UK AIP as having a specific recommended minimum overflight level. IFR CAT flights operating to/from LSA do not overfly Northward Hill at or below 1500ft.</td>
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<td>Some respondents felt that insufficient attention had been paid to the special ecology of the Hoo peninsula and to AONB and SSSIs</td>
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<td>As noted previously, aircraft will not be flying any lower than they do today so the impact on surface ecology is, at worst, neutral.</td>
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<td>As outlined in the SCD, improved interfaces with the LTC sectors arising from a wholly controlled airspace operation are expected to improve flight profiles, which would result in aircraft being higher than today over the AONB. However, those flight profiles cannot be “built into” the procedures due to the interaction, on a strategic or airspace design basis, with the overlying route structure.</td>
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<td>46</td>
<td>A number of consultees felt that the proposed airspace configuration was too complex and would be difficult for pilots to assimilate, leading to navigational errors, particularly where there was featureless terrain below it and surface hazards such as Danger Areas.</td>
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<td>Comment was made that there were many “low hours” pilots operating in the area.</td>
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<td>One respondent felt that “airspace warning indicators” should be made mandatory on light aircraft.</td>
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<td>Some respondents felt that the airspace complexity would be a deterrent to aviation visitors from Europe.</td>
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<td>The configuration of the airspace is a balance between simplicity, thereby taking more airspace than the minimum in some areas, and trying to minimise the airspace volume at the various base levels by encompassing very closely only the required IAP Primary Areas and flight profiles.</td>
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<td>LSA has endeavoured to keep the airspace configuration as simple as possible commensurate with the balance necessary to minimise the amount of controlled airspace needed whilst, at the same time, ensuring the necessary containment of IFPs and protection of CAT flights.</td>
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<td>Wherever practicable we have taken due regard of prominent line features (such as the railway line across the Isle of Grain) in defining boundaries.</td>
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<td>Careful pre-flight briefing by pilots will ensure that they are fully aware of the controlled airspace boundaries and base levels in proximity to the aerodromes and areas in which they regularly operate.</td>
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<td>In the post-Consultation airspace reviews we will look at each airspace segment both on size and in relation to readily identifiable ground features and in relation to utilising existing airspace boundaries for commonality where possible.</td>
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<td>Firstly, a transponder does not identify an aircraft unless it is displaying a particular code allocated by a controller. Aircraft displaying conspicuity codes, for example, are not individually identified. ATC has no role in policing pilot compliance with non-ATC regulations. Similarly, ATC clearances do not give pilots an authority to violate any regulations. Transponder Mandatory Zones are one method of mitigating the effects of wind turbines on Primary Radar. However, the windfarms in proximity to LSA are relatively small and the impact can be overcome by the use of an airspace classification which does not require aircraft to carry transponders.</td>
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<td>Both the LCY CTR/CTA and the proposed LSA CTR/CTA are Class D airspace and thereby allow access to VFR flights within the controlled airspace subject to ATC clearance. LSA intends to allow access to VFR flights within the CTR/CTA. Thus any increase in traffic routing in proximity to LCY CTR/CTA would be at the pilot’s choice, rather than LSA imposition and can take place freely today. LCY IFR flights should always be contained within controlled airspace and thus adequate separation is deemed to exist between aircraft inside controlled airspace and those outside it. LSA sees no presumption of increased infringement of LCY CTR/CTA as a consequence of the LSA airspace change proposal. However LSA ATC will continue to monitor these issues in cooperation with neighbouring ANSPs.</td>
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One non-aviation consultee considered that the use of transponders should be mandatory, except for gliders, in order to identify particular aircraft in relation to complaints about aircraft flying inappropriately and to overcome the problems of windfarm effects on radar and to reduce controller workload.

One consultee considered that the introduction of controlled airspace in the vicinity of LSA would increase the risk of TCAS activation for LCY IFR traffic against VFR traffic crossing beneath Rwy 27 approach. It was also considered that funnelling an Increased number of VFR traffic would increase risk of infringement of other controlled airspace.
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<td>The proposal lacks any deconfliction of LSA northbound departures against CLN departures from LCY. LSA has worked closely with NATS to develop an integrated route structure in the lower levels of the LTMA which allows direct access into the LTMA by LSA departures to the north. The presence of LCY departures to CLN, coupled with the routing of LCY arrivals through the LSA overhead at 4000ft has precluded this. Had LCY SID procedures not been capped at 3000ft, but had retained their previous profiled climb to 6000ft, then the design of integrated and separated departure routes would have been feasible. Thus the conflict between the traffic flows must necessarily be resolved by an additional volume of controlled airspace to retain LSA departures below LCY traffic together with no “free-flow” of LSA departing traffic as enjoyed by LCY. NATS is under remit to facilitate equitable access to the LTMA for traffic to/from all Airports in the area and LSA will continue to work proactively with NATS to try and develop a resolution of the existing situation.</td>
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<td>The same consultee considered that LSA would be a potentially constraining factor on LCY growth. The growth of LSA as a Regional Airport is in accord with the extant Government Policy which supports the growth of Regional Airports to meet the increasing demand for air transport. NATS proposals to enhance the capacity of the LTMA through the introduction of new, more efficient ATM concepts and through the use of PBN concepts will allow each of the “east of LTMA” airports to grow and should allow NATS to provide equitable and efficient access to the airspace for all.</td>
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<td>A number of consultees felt that they should have been invited to join airspace design working groups at an earlier stage. LSA used the Focus Group approach in the earliest stages of developing the airspace configuration, as recommended in CAP725. It is not possible in Focus Groups to accommodate all those parties that we would have wished as simple logistics and manageability mitigate against this. Focus Groups should comprise around 8 – 10 people forming a representative cross-section of those who may be affected by the proposal. The GA and S&amp;R Focus Group was the largest Focus Group undertaken and its members fully represented the various specialisations within the GA and S&amp;R community and their utilisation of the airspace affected by the LSA proposals.</td>
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<td>Some consultees noted that the CAA had recently changed its policy on the use of 8.33KHz hand-held radios. Thus a number of currently radio equipped aircraft would become non-radio aircraft under the new CAA Rules. This is a matter for the GA and S&amp;R community to address directly with the CAA. The communication rules for the LSA Class D airspace will be the same as those applied nationally. LSA will accommodate non-radio aircraft by arrangement or by agreement to the maximum extent practicable.</td>
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<td>Some consultees felt that the consultation document was too complex and difficult to understand. It was also felt that the document did not explain in simple terms the changes that the public might see. A Planning Authority considered that the SCD had not adequately provided local communities with an understanding of the likely impact that the changes may have relative to what is experienced today. LSA takes this criticism on board. We endeavoured to explain a complex subject in as simple terms as possible for the non-aviation audience whilst providing sufficient detail for the aviation audience. Consideration had been given to producing separate documents for the disparate audiences but, on balance, it was felt that it would be best done through a single document. The SCD explained that the controlled airspace was necessary to encompass flight paths as they are flown today - but with the expectation of achieving more efficient vertical flight profiles as a consequence of the elimination of “unknown traffic” and the improved interfaces with LTMA Sectors. CAT aircraft will certainly not overfly communities any lower than they do today as was inferred by some parties opposed to the operation of CAT flights. Any changes to flight paths that become necessary in the Post-LAMP Phase 1a stage in order to develop formal Standard Instrument Departure (SID) procedures will be the subject of a separate consultation as they are developed, but the objective is to keep changes to a minimum. The Airport Noise Abatement Procedures will not change. The consultation was not about growth of LSA or the effects that growth may have on communities. Growth is not conditional upon the establishment of controlled airspace, and vice versa. The impact of any re-routing of GA flights which elect to remain outside controlled airspace rather than transit through or operate within it cannot be quantified as that choice rests with the pilot.</td>
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<td><strong>Appropriateness of the consultation list.</strong>&lt;br&gt;Some submissions from consultees felt that some important organisations had been left off the consultee list.</td>
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<td>Some consultees and others felt that more specific and detailed environmental data should have been provided, including numbers of overflying aircraft and noisiest aircraft data.</td>
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<td>Some respondents felt that there may be an adverse effect on house prices.</td>
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### Issue

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<th>Proposal is not in accordance with airspace design principles</th>
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<td>A consultee organisation considered that the LSA proposal was contrary to the Government’s requirements for the use of airspace and the principles that the CAA must take into account in assessing the proposal as outlined in the SCD. This view was also iterated in other responses in support of the consultee organisation.</td>
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#### LSA Comment

It is for the CAA to determine whether the ACP which LSA will put forward will, on balance, meet the objectives of the Transport Act 2000 and associated Ministerial Directions to the maximum extent practicable, taking due regard of the competing, and often incompatible, interests of the various elements of the aviation community and the environmental objectives. Many of those incompatible interests have been iterated by the formal consultees and others in their responses to this consultation and are identified above.

Throughout CAP725 it is emphasised that a balance must be struck between the competing objectives and requirements. LSA believes that it has taken a balanced view and due regard of the competing interests and requirements in reaching its conclusions and that, in accordance with the provisions of the Transport Act 2000, safety has remained paramount in its considerations.

It is acknowledged that not every element of the aviation community can be completely immune from changes that take place in other areas of the aviation community.

The Act recognises this in charging the CAA with applying [the objectives] “in a manner it thinks is reasonable”.

The Act also requires the CAA to impose the minimum of restrictions on the providers of air traffic services, consistent with the exercise of its air navigation functions.