

Safety and Airspace Regulation Group



All NATMAC Representatives

23 January 2015

Dear Colleagues,

CAA DECISION LETTER

INTRODUCTION OF LONDON SOUTHEND AIRPORT (LSA) CLASS D CONTROL ZONE (CTR) & ASSOCIATED CONTROL AREA (CTA)

1. INTRODUCTION

- 1.1 During the 1960s, Southend was London's third-busiest airport. It remained London's third-busiest airport in terms of passengers handled until the end of the 1970s, when the role of "London's third airport" passed to Stansted. Following its purchase by Stobart Group in 2008, there has been an ongoing programme of development at London Southend Airport (LSA), with a newly built terminal and control tower, an extended runway, and a regular rail service running from Southend Airport station to Liverpool Street station in central London.
- 1.2 easyJet began operating services by opening a base at LSA in April 2012, and Irish carrier Aer Lingus Regional began regular flights to Dublin in the May. As a result, the airport has seen a rapid increase in passenger numbers. Around 617,000 passengers used the airport during 2012 with 721,661 passengers in the 12 months following the commencement of these services. Passenger numbers grew to around 970,000 in 2013 and the total for 2014 was 1,098,598. The airport operator hopes to increase passenger numbers to five million per year by 2020.
- 1.3 This substantial growth in passenger numbers has resulted in Air Transport Movements (ATMs) increasing significantly since 2011. Commercial Air Traffic (CAT) being reintroduced at LSA has resulted in ATMs rising from a figure of about 1000 per year in 2009/10, to 8086 in 2012, 9475 in 2013 and 11,456 in 2014. Overall traffic figures for 2012 were 30,280; for 2013 the figure was 31,624 and the 2014 figure was 36,309. Non-CAT movements consist of maintenance, repair & overhaul traffic, (MRO), as well as GA, military, business and private aircraft.

2. PROPOSAL OVERVIEW

- 2.1 On 27th February 2013, LSA met with members of the CAA's Safety & Airspace Regulation Group (SARG) to conduct an Airspace Change Proposal (ACP) Stage 1 Framework Briefing on a plan to implement a Class D CTR and CTA in the vicinity of the airport. The airspace in the vicinity of Southend had previously given cause

for concern due to five Airprox¹ incidents in recent years including two recent Category A incidents. In both of these cases the UK Airprox Board concluded that the aircraft proximity meant that a serious risk of collision existed. The LSA CAS ACP is intended to enhance the protection of passenger-carrying CAT flights in the critical stages of flight and of other aircraft operating in the vicinity of LSA. At the Framework Briefing and over the course of the project, CAA experts have provided assistance to LSA in terms of helping them to understand the requirements of the airspace change process including the need for the appropriate level of consultation. Between 20th September and 19th December 2013, LSA conducted a sponsor consultation based on an airspace design which LSA believed at that time to be the minimum needed to meet their safety requirements; (see Enclosure 1).

- 2.2 In February 2014, LSA produced a Consultation Report demonstrating that it had taken account of stakeholder input to the consultation and as a result, the shape and size of the proposed CTR/CTA was reduced to take account of the requirements of stakeholders; (see Enclosure 2). LSA then submitted an ACP to the Airspace Regulation (AR) team on 30th May 2014 and operational and environmental assessments were carried out by the respective CAA team members.
- 2.3 Due to safety concerns following the series of Airprox incidents, the CAA encouraged LSA to consider the introduction of a Radio Mandatory Zone (RMZ) and this was implemented in time for the summer of 2014. LSA was required to complete a 60 day review following implementation and they provided an in depth report covering the benefits and weaknesses of operating an RMZ in the vicinity of LSA. Of particular note was the fact that a surprisingly high percentage of traffic appeared to pay no attention to the RMZ at all and did not call Southend to enter the airspace. It is not known whether these occurrences took place due to a lack of awareness of the RMZ or whether it was because the airspace classification remains as Class G, with pilots being unaware of the requirement to make a radio call to Southend. It should also be noted that although aircraft are required to establish contact with LSA within the RMZ, they are not required to comply with any requests for co-ordination due to the uncontrolled nature of Class G airspace. This has a negative impact on the deconfliction minima which can be used and on the utilisation of the airspace. Due to the complex nature of the airspace, the high traffic density and the number of non-transponder equipped aircraft, many of which are not visible on radar, an RMZ was not considered to be a permanent solution for the airspace around LSA.
- 2.4 During the compilation of the operational Case Study, it was realised that the LSA requirement for CAS was predicated on not just the present situation but also the requirement for containment of RNAV² procedures that would be introduced at a later date and would serve to link in with and complement the London Airspace Management Programme (LAMP) phase 1A changes over south-eastern England. To tie in with the London City and Stansted developments associated with LAMP, LSA is proposing RNAV SIDs³ that would procedurally deconflict all future RNAV departures from other airport's procedures.

¹An Airprox is a situation in which, in the opinion of a pilot or air traffic services personnel, the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft involved may have been compromised.

²Area navigation (RNAV) is a method of Instrument Flight Rules (IFR) navigation that allows an aircraft to fly a course based on a network of navigational waypoints, rather than navigating directly to and from beacons on the ground. This means that RNAV procedures are not dependent on ground based facilities.

³A standard instrument departure (SID) is an air traffic control coded departure procedure that has been established to simplify clearance delivery procedures.

- 2.5 Following internal debate concerning the amount of CAS proposed for Southend, a team of CAA specialist airspace regulators engaged extensively with LSA in order to reach agreement on further reducing the size of the controlled airspace (CAS). It was also determined that complete containment of proposed LSA procedures was not required at this stage due to the number of commercial movements currently supported by the airport.
- 2.6 I have therefore approved the more limited airspace change, see Enclosure 3. If LSA wishes to introduce any further CAS, the airport would first need to prove that traffic levels and/or levels of complexity justify the requirement for this airspace and a separate ACP would have to be submitted in order to gain CAA approval. If such an application is received within two years of implementation and the increased airspace requirement is within that contained in Enclosure 4, there would not be a requirement for further consultation, as LSA has already consulted on this airspace.

3. AIRSPACE EFFICIENCY

- 3.1 I am required to secure the most efficient use of airspace consistent with the safe operation of aircraft and the expeditious flow of air traffic. I am satisfied that the protection provided by the new LSA CAS will enhance the service provision to passenger carrying CAT flights in the critical stages of flight and to other aircraft operating in the vicinity of LSA whilst still allowing airspace users to access the airspace as required.

4. AIRSPACE USERS

- 4.1 I am required to satisfy the requirements of operators and owners of all classes of aircraft. Objections were received from the general aviation community and many of these were based on the size of the proposed CAS. LSA has since made continued efforts to minimise the impact of CAS on other airspace users by reducing the size of the CTR and CTA and this has enabled me to approve this proposal. A Class D CTR plus an RMZ or Transponder Mandatory Zone (TMZ) in Class G airspace would have made the airspace unnecessarily complex whilst not providing benefits in terms of more efficient management of the airspace. The Class D designation of both the CTR and CTA also means that access will continue to be available to the majority of aircraft operators.
- 4.2 Other airspace user requirements have largely been met, although it is likely to prove difficult for LSA to accommodate gliders that are unable to maintain a required level or level band. Also, despite commitments from LSA to accommodate them where possible, some non-radio traffic may not be able to access the airspace. With that in mind, LSA has already adapted the shape and size of their proposed CTR in order to enable microlights and other non-radio traffic to utilise the airspace adjacent to the CTR whilst remaining below the CTA. I am also satisfied that LSA have provisioned adequate ATC resources to enable reasonable demand for crossing services to be accommodated safely.
- 4.3 Letters of Agreement (LoAs) are being negotiated with the adjacent airstrips at Barling, Burnham, St Lawrence and Tillingham, as well as with Stoke Airfield and Canewdon Paragliders. They all contain commitments to resolve ATS procedures and to accommodate airspace requirements.

5. INTERESTS OF OTHER PARTIES

- 5.1 The MoD Shoeburyness danger area complex straddles the new airspace structure. LSA has long standing procedures in place to ensure separation from these danger areas (D136/D138/D138A/D138B) when they are active and these procedures will continue to be utilised once CAS is implemented.

6. ENVIRONMENTAL CONSIDERATIONS

- 6.1 The environmental impact of this change is considered to be minimal as CAT at LSA will continue to utilise the same routes as before, albeit on a more predictable and efficient basis under the protection of CAS. Whilst some general aviation traffic will need to, or will choose to route around the LSA CAS, most traffic will have the option of contacting LSA to gain a clearance to transit the airspace. I have therefore concluded that the overall environmental impact of this change is broadly neutral.

7. SAFETY

- 7.1 Whilst there is a high density of diverse airspace activity in the airspace around LSA, airspace users have not always participated in the ATS available and slow moving traffic is not always seen on radar. Five Airprox incidents (three of which included CAT) have occurred since CAT resumed at LSA, meaning that a 'do nothing' option is not appropriate in this instance. I believe that the implementation of Class D CAS will enhance the protection of passenger carrying CAT flights in the critical stages of flight and of other aircraft operating in the vicinity of LSA.
- 7.2 As well as the 'do nothing' option, LSA has considered options which involved retaining Class G airspace but introducing either an RMZ or a Transponder Mandatory Zone (TMZ) or a combination of the two. From their experience of operating an RMZ, LSA considered their ability to establish and maintain consistent protection of CAT traffic to be in doubt. This was partly due to the high percentage of traffic which appeared to pay no attention to the RMZ and did not call Southend in order to enter the airspace. Additionally, whilst the need for a Class D CTR is recognised by the CAA, the extra complexity of a Class D CTR combined with a Class G RMZ/TMZ and the difference in requirements for each was considered likely to be a cause of more infringements rather than a means to reduce them. Therefore, due to the complex nature of the airspace, the high traffic density and the number of non-transponder equipped aircraft, many of which were not visible on radar, an RMZ was not considered to be a permanent solution to resolve the safety issues which exist in the airspace around LSA.
- 7.3 The role of the CAA is to ensure the safe, efficient and equitable usage of all UK airspace by all users and within that context my primary duty is to maintain a high degree of safety in the provision of air traffic services. As such, based on the findings of my staff in the CAA Safety and Airspace Regulation Group (SARG), I have concluded that a Class D CTR and CTA will enhance the safety of the airspace around LSA whilst enabling the majority of other airspace users to gain access to the airspace subject to receiving an ATC clearance. The appropriate safety management processes resulting from this airspace change will be completed prior to the introduction of any operational change and thus safety levels will be assured.

8. NATIONAL SECURITY

- 8.1 I am satisfied that national security will not be impacted by this proposal and the specific consultation requirements with the Secretary of State for Defence have been discharged by correspondence with the MoD which has confirmed it is content with this proposal.

9. REGULATORY DECISION

- 9.1 I am satisfied that the new CAS arrangements will help support greater safety and efficiency levels in the airspace surrounding LSA whilst not unduly disadvantaging other airspace users. I am also satisfied that the revised option put forward following changes made after consultation and liaison between the CAA and LSA is the appropriate option. I have therefore decided to approve the airspace as portrayed in Enclosure 3 for implementation on AIRAC 04/2015 (2nd April 2015). This airspace will be reviewed six months after implementation to ensure that it is working as anticipated.
- 9.2 If you have any queries, the SARG Airspace Regulation Project Leader is Clive Grant, who can be contacted on 020 7453 6551, clive.grant@caa.co.uk

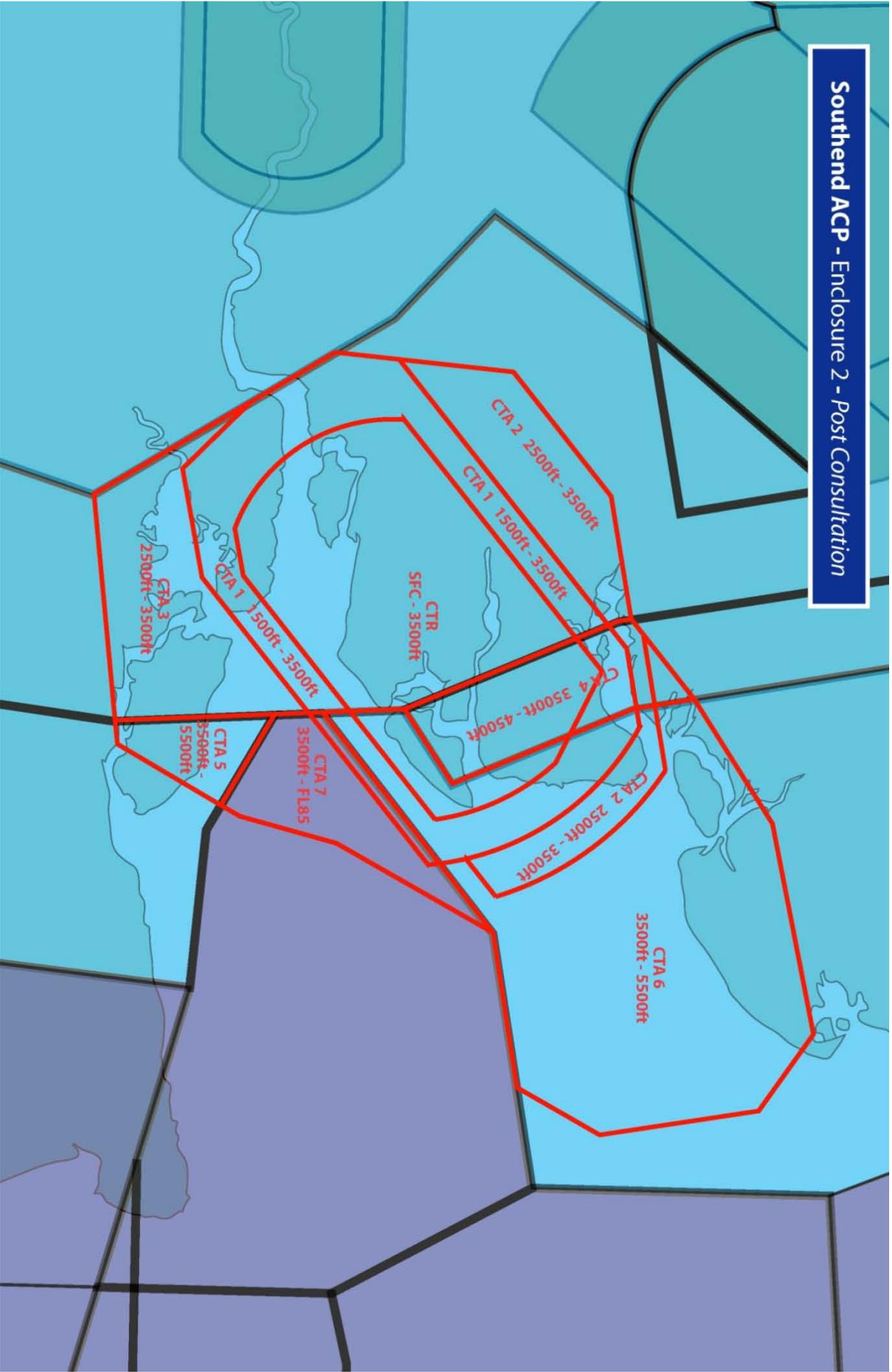


Mark Swan
Director

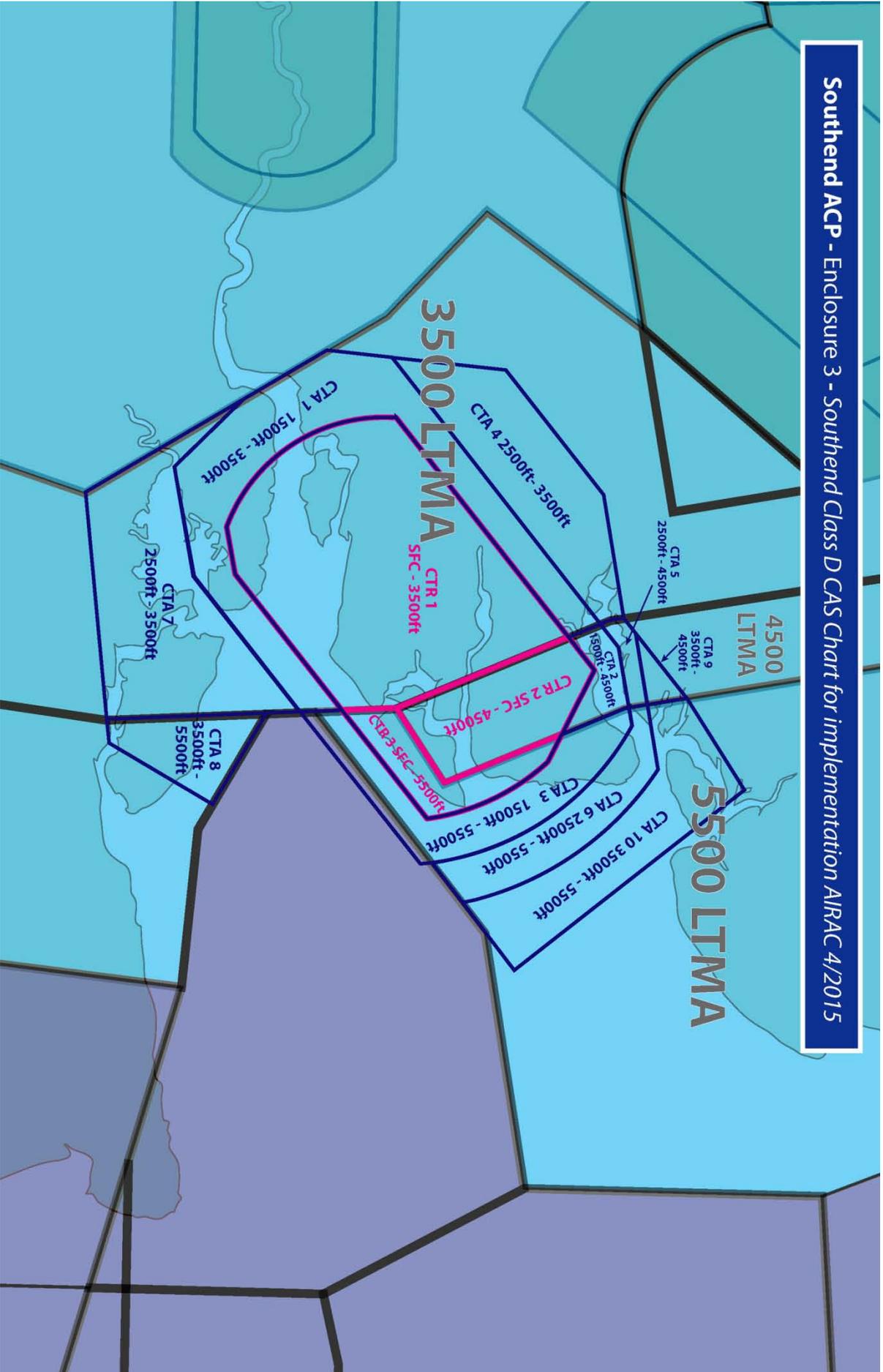
Enclosure:

1. Map showing proposed Southend Class D CTR/CTA pre-consultation
2. Map showing proposed Southend Class D CTR/CTA post-consultation
3. **Map showing Southend Class D CTR/CTA for implementation on 2 Apr 2015**
4. Map showing Southend Class D CTR/CTA which could be implemented before 2nd April 2017 without further consultation, but only following the submission of a separate ACP

Southend ACP - Enclosure 2 - Post Consultation



Southend ACP - Enclosure 3 - Southend Class D CAS Chart for implementation AIRAC 4/2015



Southend ACP - Enclosure 4 - Airspace already consulted on

