

Safety and Airspace Regulation Group

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Airspace Change Proposal - Operational Assessment

Version: 1.1/ 2019

Title of Airspace Change Proposal	Introduction of CTA 10X and CTA 11
Change Sponsor	London Southend Airport
SARG Project Leader	██████████
Case Study commencement date	17/02/2020
Case Study report as at	16/04/2020
File Reference	ACP-2017-25

Instructions

In providing a response for each question, please ensure that the 'Status' column is completed using the following options:

- Yes
- No
- Partially
- N/A

To aid the SARG Project Leader's efficient Project Management it may be useful that each question is also highlighted accordingly to illustrate what is:

resolved  not resolved  not compliant  as part of the AR Project Leader's efficient project management.

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1.	Justification for change and “Option Analysis”	Status
1.1	<p>Is the explanation of the proposed change clear and understood?</p> <p>Implement the additional CTA airspace (CTA 10X and CTA 11) in accordance with the CAA decision when approving the original London Southend Airport CTA ACP (“ACP-15-01”).</p>	Yes
1.2	<p>Are the reasons for the change stated and acceptable?</p> <p>Increased volume and complexity of traffic, and increase of passenger numbers beyond that previously predicted. Containment of all levels of the GEGMU Hold within controlled airspace.</p>	Yes
1.3	<p>Have all appropriate alternative options been considered, including the ‘do nothing’ option?</p> <p>As instructed by DfT, the comparison was limited to the proposal and ‘do nothing’, since all other options were ruled out during the previous ACP, and this ACP explicitly only considers airspace within the scope of the previous ACP.</p>	Yes
1.4	<p>Is the justification for the selection of the proposed option sound and acceptable?</p> <p>Covered by 1.1, 1.2 and 1.3.</p>	Yes

2.	Airspace Description and Operational Arrangements	Status
2.1	<p>Is the type of proposed airspace clearly stated and understood?</p> <p>Class D CTA.</p>	Yes
2.2	<p>Are the hours of operation of the airspace and any seasonal variations stated and acceptable?</p> <p>H24. Use of CTA 11 will be in coordination with MOD due to the overlapping Danger Area.</p>	Yes
2.3	<p>Is any interaction with adjacent domestic and international airspace structures stated and acceptable including an explanation of how connectivity is to be achieved? Has the agreement of adjacent States been secured in respect of High Seas airspace changes?</p> <p>No High Seas implications. The interaction with the LTMA has been discussed with NATS Terminal Control and a draft Letter of Agreement has been provided.</p>	Yes

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2.4	Is the supporting statistical evidence relevant and acceptable?	Yes
	Traffic, air transport movement, and passenger predictions and actual figures since the previous ACP, controlled airspace transit requests (both accepted and rejected), number of aircraft based at LSA, level of engagement feedback.	
2.5	Is the analysis of the impact of the traffic mix on complexity and workload of operations complete and satisfactory?	Yes
	Traffic mix will not change significantly from today.	
2.6	Are any draft Letters of Agreement and/ or Memoranda of Understanding included and, if so, do they contain the commitments to resolve ATS procedures (ATSD) and airspace management requirements?	Yes
	Comprehensive LoA between LSA and NATS TC included.	
2.7	Should there be any other aviation activity (low flying, gliding, parachuting, microlight site etc) in the vicinity of the new airspace structure and no suitable operating agreements or ATC Procedures can be devised, what action has the sponsor carried out to resolve any conflicting interests?	Yes
	Stakeholder engagement exercise conducted during summer 2019 to ensure that relevant stakeholders have been updated and any new issues raised.	
2.8	Is the evidence that the Airspace Design is compliant with ICAO SARPs, Airspace Design & FUA regulations, and Eurocontrol Guidance satisfactory?	Yes
	The proposal is for an airport CTA, designated as ICAO-Compliant Class D airspace. The FUA Regulation does not apply.	
2.9	Is the proposed airspace classification stated and justification for that classification acceptable?	Yes
	Class D, as agreed by CAA in the previous ACP. This provides a known traffic environment, as appropriate for airspace containing a Hold, while still permitting VFR aircraft to transit the CTA following communication with ATC.	
2.10	Within the constraints of safety and efficiency, does the airspace classification permit access to as many classes of user as practicable?	Yes
	The request is for Class D airspace. LSA have demonstrated that they have granted over 99% of all CTA transit requests since the introduction of their controlled airspace.	
2.11	Is there assurance, as far as practicable, against unauthorised incursions? (This is usually done through the classification and promulgation)	Yes

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	LSA have already flagged the proposed change to the local GA community via the 2019 engagement activity. Besides the promulgation of the new Airspace Classification via the AIP update in the normal way (if approved), the Risk Assessment identifies a number of other ways of reaching the relevant operational stakeholders as part of the mitigation against potential airspace infringements.	
2.12	Is there a commitment to allow access to all airspace users seeking a transit through controlled airspace as per the classification, or in the event of such a request being denied, a service around the affected area?	Yes
	LSA have permitted over 99% of the transit requests relating to the controlled airspace introduced in the previous ACP.	
2.13	Are appropriate arrangements for transiting aircraft in place in accordance with stated commitments?	Yes
	To date, LSA have approved over 99% of transit requests. A second radar position can be opened in times of peak demand.	
2.14	Are any airspace user group's requirements not met?	No
	No.	
2.15	Is any delegation of ATS justified and acceptable? (If yes, refer to Delegated ATS Procedure).	N/A
	N/A	
2.16	Is the airspace structure of sufficient dimensions with regard to expected aircraft navigation performance and manoeuvrability to contain horizontal and vertical flight activity (including holding patterns) and associated protected areas in both radar and non-radar environments?	Yes
	Airspace has been specifically designed to provide containment for the GEGMU Hold.	
2.17	Have all safety buffer requirements (or mitigation of these) been identified and described satisfactorily (to be in accordance with the agreed parameters or show acceptable mitigation)? (Refer to buffer policy letter).	N/A
	Buffer Policy not applicable. CTA 11 will not be used when overlapping Danger Area is in use.	
2.18	Do ATC procedures ensure the maintenance of prescribed separation between traffic inside a new airspace structure and traffic within existing adjacent or other new airspace structures?	Yes
	Yes – Class D CTA. CTA 11 will not be used when overlapping Danger Area is in use.	

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2.19	Is the airspace structure designed to ensure that adequate and appropriate terrain clearance can be readily applied within and adjacent to the proposed airspace?	Yes
	Minimum altitude is 3500ft. The majority of the airspace concerned is over the sea, and the Minimum Sector Altitude is specified as 1800ft.	
2.20	If the new structure lies close to another airspace structure or overlaps an associated airspace structure, have appropriate operating arrangements been agreed?	Yes
	The existing agreements with NATS London Terminal Control and Qinetiq remain relevant.	
2.21	Where terminal and en-route structures adjoin, is the effective integration of departure and arrival routes achieved?	Yes
	This request for additional controlled airspace is explicitly to support the improved integration of arrival routes to LSA.	

3.	Supporting Resources and CNS Infrastructure	Status
3.1	Is the evidence of supporting CNS infrastructure together with availability and contingency procedures complete and acceptable? The following are to be satisfied:	Yes
	<ul style="list-style-type: none"> ▪ Communication: Is the evidence of communications infrastructure including RT coverage together with availability and contingency procedures complete and acceptable? Has this frequency been agreed with AAA Infrastructure? 	Yes
	No new frequencies required. As stated in the previous ACP ("ACP-15-01"), LSA already provide a LARS (Lower Airspace Radar Service) out to 30NM from the airport, which covers the relevant airspace. LSA have confirmed that they have the capability to open a second ATC position when the traffic requires this.	
	<ul style="list-style-type: none"> ▪ Navigation: Is there sufficient accurate navigational guidance based on in-line VOR or NDB or by approved RNAV derived sources, to contain the aircraft within the route to the published RNP value in accordance with ICAO/ Eurocontrol Standards? Eg. Nav aids – has coverage assessment been made eg. a DEMETER report, and if so, is it satisfactory? 	N/A
	No new routes proposed. The STARs to GEGMU are already RNAV, as is the GEGMU Hold itself. (DEMETER report provided as part of original ACP showed full/excessive redundancy for the airspace now known as CTA 10X and CTA 11. GNSS coverage was also reported as satisfactory.)	
	<ul style="list-style-type: none"> ▪ Surveillance: Radar Provision – have radar diagrams been provided, and do they show that the ATS route / airspace structure can be supported? 	No

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	No diagrams were provided but, as stated in the previous ACP ("ACP-15-01"), LSA already provides a Lower Airspace Radar Service out to 30NM from the airport, which covers the relevant airspace.	
3.2	Where appropriate, are there any indications of the resources to be applied, or a commitment to provide them, in line with current forecast traffic growths acceptable?	Yes
	There is a commitment to utilise the second radar position when the nature of the traffic makes this necessary.	

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4.	Maps/Charts/Diagrams	Status
4.1	<p>Is a diagram of the proposed airspace included in the proposal, clearly showing the dimensions and WGS84 co-ordinates? (We would expect sponsors to include clear maps and diagrams of the proposed airspace structure(s) – they do not have to accord with AC&D aeronautical cartographical standards (see CAP725), rather they should be clear and unambiguous and reflect precisely the narrative descriptions of the proposals. AC&D work would relate to regulatory consultation charts only).</p> <p>Multiple diagrams provided, plus relevant cartographic data and ADQ compliance statement.</p>	Yes
4.2	<p>Do the charts clearly indicate the proposed airspace change?</p>	Yes
4.3	<p>Has the Change Sponsor identified AIP pages affected by the Change Proposal and provided a draft amendment?</p> <p>Included within spreadsheet containing ADQ compliance and cartographic information.</p>	Yes

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5.	Operational Impact	Status
5.1	<p>Is the Change Sponsor’s analysis of the impact of the change on all airspace users, airfields and traffic levels, and evidence of mitigation of the effects of the change on any of these, complete and satisfactory? Consideration should be given to: a) Impact on IFR GAT, on OAT or on VFR general aviation traffic flow in or through the area.</p>	Yes
	<p>This ACP is explicitly aimed at providing a benefit to IFR GAT by improving the efficiency and effectiveness of the approach procedure to London Southend Airport, notably by the improved utilisation of the GEGMU Hold and consequent reduction/removal of the restrictions which are necessary while the Hold cannot be fully utilised.</p> <p>The new airspace will be Class D, in line with the rest of the Southend CTA. This allows VFR GAT aircraft access with an ATC clearance. LSA have demonstrated that since the introduction of the rest of the Southend CTA, they have granted access to over 99% of VFR GAT flights which requested it. Additionally, as the majority of the new Class D airspace will be over the sea, the expectation is that the proportion of non-radio aircraft which might be inconvenienced by it will be very small or non-existent. In any case, LSA have indicated that they are open to prior contact by non-radio flights to see if access can be granted.</p> <p>Parts of the Southend CTA will overlap with the Danger Area associated with the Shoeburyness Range. Explicit arrangements will be made with the MOD/Range Operator to ensure that the relevant parts of the CTA are not used by civil traffic while the Range is active. LSA have further confirmed to the MOD that military access to the airspace will be granted when necessary for OAT.</p>	
	<p>b) Impact on VFR Routes.</p>	N/A
	<p>No VFR Routes in affected airspace.</p>	
	<p>c) Consequential effects on procedures and capacity, ie on SIDS, STARS, holds. Details of existing or planned routes and holds.</p>	Yes
	<p>New controlled airspace explicitly provides containment for the GEGMU Hold.</p>	
	<p>d) Impact on Airfields and other specific activities within or adjacent to the proposed airspace.</p>	Yes
	<p>No impacts over and above those already covered in 5.1 a).</p>	
	<p>e) Any flight planning restrictions and/ or route requirements.</p>	Yes
	<p>Non-radio-equipped VFR flights wishing to enter the CTA must contact ATC for approval prior to departure.</p>	

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5.2

Does the Change Sponsor Consultation letter reflect the likely operational impact of the change?

N/A

Consultation explicitly not required for this ACP, as stated in CAA Decision Letter for the previous Southend CTA ACP. Additional Engagement document produced to remind stakeholders of the proposal indicates the likely operational impact.

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6.	Economic Impact	Status
6.1	<p>Is a provisional economic impact assessment to all categories of operations and users likely to be affected by the change included and acceptable? (This may include any forecast capacity gains and the cost of any resultant additional track mileage).</p> <p>See CAA Options Appraisal Assessment document.</p> <p>For operational and proportionality reasons (including the volume nature of traffic at units other than LSA), the identified potential benefits can only be assessed qualitatively. However, they are identifiable and positive. The identified potential negative impacts are extremely minor in comparison. Hence the net benefit is clearly positive, even if unquantifiable.</p>	Yes
7. Recommendations / Conditions / PIR Data Requirements		
7.1	<p>Are there any Recommendations which the change sponsor <u>should try</u> to address either before or after implementation (if approved)? If yes, please list them below.</p>	No
<p><i>GUIDANCE NOTE: Recommendations are something that the change sponsor <u>should try</u> to address either before or after implementation, if indeed the airspace change proposal is approved. They may relate to an area in which the change sponsor is reliant upon a third party to actually come to an agreement and consequently they do not carry the same 'weight' as a Condition.</i></p>		
7.2	<p>Are there any Condition(s) which the change sponsor <u>must fulfil</u> either before or after implementation (if approved)? If yes, please list them below.</p>	No
<p><i>GUIDANCE NOTE: Conditions are something that the change sponsor <u>must fulfil</u> either before or after implementation, if indeed the airspace change proposal is approved. If their proposal is approved, change sponsors <u>must</u> observe any condition(s) contained within the regulatory decision; failure to do so <u>will usually</u> result in the approval being revoked. Conditions should specify the consequence of failing to meet that condition, whether that be revoking the ACP or some alternative.</i></p>		
7.3	<p>Are there any specific requirements in terms of the data to be collected by the change sponsor for the Post Implementation Review (if approved)? If yes, please list them below.</p>	Yes
<p><i>GUIDANCE NOTE: PIR data requirements concerns any specific data which the change sponsor should be instructed to collate post-implementation, if indeed the airspace change proposal is approved. Please use this section to list any such requirements so that they can be captured in the regulatory decision accordingly.</i></p> <p>Indication of the number of VFR access/transit requests approved/denied.</p>		

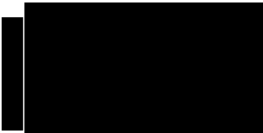

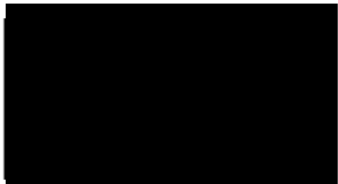
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Case Study Conclusions – To be completed by SARG Project Leader	Yes/No
Has the Change Sponsor met the SARG Airspace Change Proposal requirements and Airspace Regulatory requirements above?	Yes

Third Party Approval	Yes/No
Is the approval of the SoS for Transport required in respect of the Environmental Impact of the airspace change?	No
The CAA Environmental Assessment has confirmed that SoS approval is not required for this airspace change.	
Is the approval of the MoD required in respect of National Security issues surrounding the airspace change?	No
MoD's response to the Engagement Activity did not identify any National Security issues which would require MOD approval of this ACP.	

General Summary
This ACP represents the conclusion of "ACP-15-01", as permitted by the original Decision Letter for that ACP (CAA letter to NATSMAC Representatives dated 23 January 2015). It re-classifies the airspace blocks described in the submission documentation as "CTA 10X" and "CTA 11" from Class G airspace to Class D airspace and adds them to the existing Southend CTA. (CTA 11 will be added as described, CTA 10X will be combined with the existing CTA 10 to form a new, larger CTA 10.)
Comments & Observations
None.

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Operational Assessment Sign-off/ Approvals	Name	Signature	Date
Operational Assessment completed by:	AR Case Officer		16/04/20
Operational Assessment approved:	 Mgr AR		11/05/20

Mgr AR Comments: *All comments on contingent on OGC determination on making ACP decisions whilst traffic numbers are significantly reduced due to COVID-19 restrictions – awaiting OGC.*

I have considered both proposed CTAs and I understand the suggested rationale for each. CTA10X not only provides protection for the GEGMU hold, but also better contains the Southend easterly outbounds that run north of that hold. CTA10X will enable, over the sea, a better, contained within CAS, descent inbound and will reduced the need for arrivals to hold over the airfield at SND. This is environmentally beneficial, allowing a better inbound CDO and largely stopping low level holding (at 3,000ft) over the land (the added benefit of this is it stops outbounds been held down at 2,000ft whilst they clear the SND Hold when it is active). Whilst noting the concerns of some VFR light GA users that this increases the area over the Estuary/North Sea where they will be restricted by the 3,500ft base level, I am still content to recommend the approval of CTA10X because Southend ATC say they will continue to offer a crossing clearance to the absolute majority of those that request one. However, I am not content with the rationale for CTA11. The 'opportunity basis' and benefits of the shorter arrival route that this CTA appears to offer has not really been quantified by the sponsor, and given its dependency on the the Shoeburyness Danger area, I don't agree the case has been made for CTA11. I recommend not approving CTA11.

Hd AAA Comment/ Approvals	Name	Signature	Date
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Operational Assessment Conclusions approved:

[Redacted]
Hd AAA

[Redacted]

27/10/20

Hd AAA Comments:

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GD SARG Decision/ Approval	Name	Signature	Date
GD SARG Decision:	[REDACTED] GD SARG		
GD SARG Comments:			