

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 1 of 18

Title of Airspace Change Proposal	LAMP Phase 1a ACP - Stansted SID Switch – Module A
Change Sponsor	NERL / Stansted Airport
SARG Project Leader	██████████
Case Study commencement date	Issue 1 received 28 Nov 14; commenced Case Study 11 Dec 14; no further work until 23 Mar 15. Issue 2 received 17 Feb 15. Issue 2.1 received 27 Apr 15.
Case Study report as at	15 Jun 15 (updated 24 Sep 15) V 2.1

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 DAP Project Leader's efficient Project Management it may be useful that each question is also highlighted accordingly to illustrate what is resolved (Green), not resolved (Amber) or not compliant (Red) as part of the DAP Project Leader's efficient project management.

1.	Justification for change and "Option Analysis"	Status
1.1	Is the explanation of the proposed change clear and understood?	Yes

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 2 of 18

	<p>The proposal is to switch the Stansted Dover (DVR) SID departures over to the routing of the Stansted Clacton (CLN) SID routing to CLN VOR. At CLN VOR, a new ATS route (U)M84 will be established routeing CLN-EVMEK-NONVA-ABTUM-KONAN (the FIR Bdy) with a lower limit of FL 105.</p> <p>Note: since the consultation, the DVR SID has been truncated to DET; this does not affect this proposal in any way; however, as there are many references to DVR in the proposal, for the purposes of this report, reference to the DVR SID can be read across to the truncated SID to DET.</p> <p>The actual SID switch does not constitute a traditional ACP submission as the CLN SID is already an established routeing. By virtue of the fact that the impact will effectively mean the doubling of the number of departures onto the CLN SID immediately on implementation, the sponsor was advised that an appropriate level of consultation should be conducted through the Stansted airport consultative committee. Therefore, the results of that consultation, the environmental impacts and the implementation details of the new ATS route are reflected in the traditional ACP reporting methodology.</p> <p>The revised routeing would be in operation daily from 0600-2300L. The DVR SIDs are retained for overnight use.</p>	
1.2	Are the reasons for the change stated and acceptable?	Yes

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 3 of 18

The introduction of the ACP (last paragraph) states that the proposal is an enabler for the implementation of the LAMP Phase 1a changes for LCY. The 'SID Switch' justification (ACP Section 3) refers to the Consultation Document (Con Doc) Section 5 (extracts are repeated below for easy reference). The ACP Section 6.6 last sub-paragraph, states the sponsor is justifying the proposal on a stand-alone basis, quote:

'This proposal would also enable wider savings as it is a dependency for the London City Airport changes planned as part of the wider LAMP phase 1A. The full phase 1A CO₂ benefits will be presented in the LAMP Bridging ACP.' NATS then state - quote: *'However, we are presenting the Stansted proposal as a standalone change here as we believe that the benefits to the Stansted operation alone will provide sufficient justification for making the Stansted changes, regardless of whether the rest of LAMP phase 1A is progressed.'*

In the Con Doc, the focus was on the benefits of the continuous climb on the CLN SID to justify the SID switch against the current situation with Stansted departures being held below the Heathrow traffic. In the consultation document, NATS is justifying the rationale for this SID switch proposal based on the fact that it is necessary to re-route traffic on the DVR SID away from the busy Heathrow arrival and departure interactions where they cross the Stansted DVR SID track, explaining that the Stansted departures are held at 7000ft for a long period until clear of the Heathrow arrivals descending to 8000ft (routeing into the LAM Hold), and the outbound Heathrow DVR SIDs. 90% of the Stansted SIDs are therefore held at 7000ft until clear of the Heathrow traffic and do not receive a continuous climb, whereas on the CLN SID, a continuous climb is feasible. Hence, the CO₂ benefits realised from the continuous climb on the CLN SID is the rationale to justify the change. In a footnote to paragraph 5.14 in the Con Doc there is a reference to delays with Stansted departures relating to the interaction of the London City (LCY) departures (re-produced in the extracts below).

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 4 of 18

This stand alone justification is acceptable.

In reality, the ACP is also an enabler for the LCY elements of LAMP Phase 1a in that the Stansted DVR SID's have to be re-routed onto the CLN SID's to enable the LCY SID's to out-climb the LCY arrivals on the Point Merge / RNAV Transition arrival procedure.

CONSULTATION ASSESSMENT EXTRACTS (repeated here for completeness)

- The subsequent 'LAC Design Report following Consultation Feedback on Route Network (above 4000ft) over Sussex, Essex and Kent' para 5.48 has stated:

"As a separate part of LAMP Phase 1 we are removing this Stansted traffic flow so that instead of passing over the London City arrivals and over the Thames Estuary, they would fly east and turn south much later (see Ref 6). This would allow the London City departures to climb higher whilst over Essex. This earlier climb is not only good for reducing local impact, it is also vital to enable them to climb to at least 7,000ft so they can cross the point merge system for arrivals descending along the Thames Estuary."

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 5 of 18

5.3 *The Dover SID has to pass through some of the most congested airspace in the London area (which is some of the most congested airspace in the world). In particular the Dover SID (now Truncated to DET) has to pass beneath the very busy air traffic flows that convey Heathrow's air traffic to and from the East. There are two of these flows that have to be avoided. The arrivals flow is descending westbound into Heathrow, north of the Thames, and the departures are climbing eastbound, south of the Thames as illustrated in Figure 3 on page 14 of the Consultation Document. The arriving Heathrow traffic north of the Thames is descending to around 8,000ft which means that the Stansted Airport departures usually cannot climb above 7,000ft until they are clear of it. Typically, only 10% of Dover departures manage a continuous climb, the rest being held at 7,000ft for a portion of their flight towards Kent.*

5.4 *Because it has generally been held at a lower level, the Stansted Airport flow then has to merge with the Heathrow flow to head east towards Dover, rather than climbing above it. This compounds the problem as further level restrictions may be required to merge these traffic flows safely.*

5.5 *In summary, the altitude constraints on the Stansted Airport Dover departures, which keep them below the dense Heathrow flows, prevent continuous climbs and add significantly to congestion in the area. In turn this reduces the operational efficiency of the airspace, meaning delays are more likely, more fuel is burned and more CO₂ emitted.*

5.7 *NATS has stated that this proposal seeks to resolve these issues by switching Stansted Airport's daytime traffic from the Dover SID to the Clacton SID, which enables the departures to achieve a more continuous climb because they avoid crossing the dense Heathrow arrival flow until much later in their climb profile. These flights generally reach at least 15,000ft by Clacton from where those heading southeast would turn to eventually join the Dover departure flows.*

5.8 *On turning south some aircraft will still have to stop their climb in order to pass under the Heathrow arrivals, however this period of level flight would be at about 17,000ft over the sea, rather than 7,000ft over densely populated areas of east London. Because aircraft are much more fuel/CO₂ efficient at higher altitudes, the proposed use of the Clacton SID would, on average, save fuel compared to the Dover SID.*

5.9 *Furthermore, many faster climbing aircraft types would be expected to climb sufficiently by Clacton to pass above the Heathrow arrivals, in which case they could have a continuous climb to at least 24,000ft.*

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 6 of 18

5.10 While continuous climb to at least 15,000ft would generally be expected on the Clacton routes, there would continue to be occasions when ATC interrupt the climb on a tactical basis, for example, to keep the aircraft safely separated from other aircraft in the region. However, approximately 85% of Stansted Airport Clacton departures currently achieve continuous climb (compared to approximately 10% on the Dover alternative - see Para 5.3).

5.11 At night, Stansted Airport southbound departures would continue to use the Dover SID. This is because the route is, on average, marginally shorter and at night there are relatively few Heathrow arrivals meaning the Dover departures are likely to get a clear climb similar to that available on the Clacton route. Therefore, on balance, the shorter Dover SID would be the most efficient at night.

5.14 As discussed in paras 1.3 and 1.5 of the Consultation Document, this proposed change is to formalise alternative route usage. Without the change, flights on the Dover route would become gradually less efficient with increasing delays as the airspace to the south becomes more congested. This effect would be exacerbated by changes at other airports, in particular London City Airport, that are being progressed as part of the first phase of the LAMP. This is also part of local development at London City Airport which will increase the number of their flights in the airspace to the south of Stansted Airport.

To explain the reference to the delays highlighted above, a footnote was included to explain that:

Stansted departures on the Dover route cross departure routes from London City. These departures therefore have to be coordinated so that flights from either airport may be delayed on the ground until such time that their flightpath will be clear of departures from the other airport. As both airports become busier, such delays would be expected to increase unless the Dover traffic is put on the alternative route.

The enabled fuel saving in the ACP was forecast as between 100-200kg per fit.

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 7 of 18

1.3	Have all appropriate alternative options been considered, including the 'do nothing' option?	Yes
	The do nothing was considered; however, if this option was considered, it would preclude the CO ₂ benefits to be realised, and the SID switch could not take place, hence, the Phase 1A elements for the LCY changes cannot be implemented. The LCY changes rely on this SID switch being implemented as the SID switch enables Thames Radar to climb the LCY departures above the LCY arrivals flying the RNAV arrival transition. This is not currently possible due to the Luton, Northolt and Stansted SIDs routing to DET.	
1.4	Is the justification for the selection of the proposed option sound and acceptable?	Yes
	The justification to use this route via CLN is operationally sound given the issues with the routing to DET, and the fact that if not implemented, it would prevent Phase 1a implementation.	
2.	Airspace Description and Operational Arrangements	Status
2.1	Is the type of proposed airspace clearly stated and understood?	Yes
	A simple re-routing of traffic onto the CLN SID to CLN VOR, together with the establishment of an ATS link route (U)M84 routing from CLN-EVMEK-NONVA-ABTUM-KONAN (FIR Bdy), Class A, lower limit FL 105.	
2.2	Are the hours of operation of the airspace and any seasonal variations stated and acceptable?	Yes
	Re-routed SIDs are routed to CLN then KONAN during daytime – i.e. 0600-2300L. Outside this time, Stansted departures will still fly the DET SIDs (LCY is closed). The ATS route is published as H24.	
2.3	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?	Yes
	At CLN VOR, the SID is routed via a new Link route (U)M84 to KONAN where the departures will join UL9 at KONAN for access to the European route network. SARG will advise ICAO of the new ATS route assuming the proposal is approved.	Ongoing
2.4	Is the supporting statistical evidence relevant and acceptable?	Yes

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 8 of 18

	The impact of the change was shown in consultation based on the average number of flights per day – i.e. the traffic on the CLN route will be doubled with the average daily number of flights rising from 51 to 109. In peak periods, the number will be higher but was not specified.	
2.5	<p>Is the analysis of the impact of the traffic mix on complexity and workload of operations complete and satisfactory?</p> <p>The proposal has been subjected to real time development and validation simulation. NERL has advised that the workload on the CLN sectors is manageable, and that the traffic was successfully routed to KONAN via the new Link Route. The ACP illustrates that traffic will be vectored off the CLN SID at any point between BRAIN and CLN which will vary depending on the position of the crossing inbound LTMA traffic. ██████ did flag an issue regarding controller manpower when the sectors are busy. This is an ATM issue to be handled by NERL. ATM Ops are aware of this situation and has not raised any regulatory concerns regarding manpower/resource.</p>	Yes
2.6	<p>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?</p> <p>An early draft LoA with Maastricht Upper Area Control has been provided to illustrate the new ATS route for the purposes of including the notification and co-ordination requirements for transfer to MUAC. This will result in a routine amendment.</p> <p>Although the lateral limits of the ATS Route (U)M84 would infringe Danger Area D138A if it was active above the normal upper limit of 6000ft AMSL (it can occasionally be notamed up to 60,000ft AMSL on a few times a year) it will be a requirement of NATS controllers to ensure aircraft on (U)M 84 remain on or east of the centreline should the danger area upper limit rise above the lower limit of the airway as the airway centreline is within 5NM from the edge of D138A. This will be highlighted as a regulatory requirement.</p>	Yes
2.7	<p>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?</p> <p>[Comments]</p>	N/A
2.8	<p>Is the evidence that the Airspace Design is compliant with ICAO SARPs, Airspace Design & FUA regulations, and Eurocontrol Guidance satisfactory?</p> <p>The new link route is an RNAV 5 airway. Radar monitoring and tactical vectoring if (required) will ensure aircraft remain clear of D138A if it is notamed as active above the routing upper limit of 6000ft.</p>	Yes

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 9 of 18

2.9	Is the proposed airspace classification stated and justification for that classification acceptable?	Yes
	The airway (U)M84, is proposed within existing Class A up to FL195, and Class C above FL195; no new CAS is required.	
2.10	Within the constraints of safety and efficiency, does the airspace classification permit access to as many classes of user as practicable?	N/A
	[Comments]	
2.11	Is there assurance, as far as practicable, against unauthorised incursions? (This is usually done through the classification and promulgation)	N/A
	[Comments]	

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 10 of 18

2.12	<p>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?</p> <p>[Comments]</p>	N/A
2.13	<p>Are appropriate arrangements for transiting aircraft in place in accordance with stated commitments?</p> <p>[Comments]</p>	N/A
2.14	<p>Are any airspace user group's requirements not met?</p> <p>[Comments]</p>	N/A
2.15	<p>Is any delegation of ATS justified and acceptable? (If yes, refer to Delegated ATS Procedure).</p> <p>[Comments]</p>	N/A
2.16	<p>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?</p> <p>The new airway is established within existing controlled airspace.</p>	Yes
2.17	<p>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).</p> <p>The proposed ATS route is adjacent to D138 complex (Shoeburyness) with the airway centreline 2.6NM from the edge of D138A. In the main, traffic will be above the normal daily upper limits. When occasional danger area activity is NOTAMED to the upper limit (max 60,000ft) (few times a year), NATS controllers will radar monitor flights to ensure they do not enter the danger area. SARG will issue a regulatory requirement for NATS to ensure this procedure is included in the relevant Manual of Air Traffic Services (MATS) Pt 2 entries.</p>	Yes
2.18	<p>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?</p> <p>Aircraft will be tactically separated from other traffic.</p>	Yes
2.19	<p>Is the airspace structure designed to ensure that adequate and appropriate terrain clearance can be readily applied within and adjacent to the proposed airspace?</p>	N/A

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 11 of 18

	[Comments]	
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 alignment of (U)M84 against D138A needs to be made clear in the NATS Shoeburyness MoU.	
2.21	Where terminal and en-route structures adjoin, is the effective integration of departure and arrival routes achieved?	Yes
	The CLN SID has connectivity with (U)M84 at CLN VOR.	
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:	
	<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 S&S Section? 	Yes
	[Comments]	
	<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? 	Yes
	[Comments]	
	<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? 	Not required
	[Comments]	

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 12 of 18

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 growth acceptable?	Yes
	The re-routeing of departures can be managed with existing controller resource.	
4.	Maps/Charts/Diagrams	Status
4.1	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).	Yes
	The ATS route (U)M84 is aligned within existing CAS.	
4.2	Do the charts clearly indicate the proposed airspace change?	Yes
	See ACP page 10 Fig 3.	
4.3	Has the Change Sponsor identified AIP pages affected by the Change Proposal and provided a draft amendment?	Yes
	Route details for (U)M84 have been provided and verified by SARG Mapping.	
5.	Operational Impact	Status
5.1	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:	Yes
	a) Impact on IFR GAT, on OAT or on VFR general aviation traffic flow in or through the area.	
	Traffic can be adequately managed and integrated with all other routes in the south east.	
	b) Impact on VFR Routes.	N/A
	[Comments]	
	c) Consequential effects on procedures and capacity, ie on SIDS, STARS, holds. Details of existing or planned routes and holds.	Yes

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 13 of 18

	The re-routed SIDs can be managed on the CLN SID routeing and integrated with all other routes in the south east which adds 2NM to the Rwy 22 and a reduction of 6NM to the Rwy 04 routeing compared with the DVR SID; although Rwy 22 is used approximately 70% of the time, the Rwy 22 extra track miles is offset by the benefits realised with the improved climb performance. (See Environmental Assessment).	
	d) Impact on Airfields and other specific activities within or adjacent to the proposed airspace.	N/A
	[Comments]	
	e) Any flight planning restrictions and/or route requirements.	Yes
	The re-route is only utilised from 0600-2300L daily. Outside this period, the existing DET SID will be used.	
5.2	Does the Change Sponsor Consultation letter reflect the likely operational impact of the change?	Yes
	The re-route has been made clear to aviation stakeholders	
6.	Economic Impact	Status
6.1	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).	N/A
	Not applicable	

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 14 of 18

Case Study Conclusions – To be completed by DAP Project Leader	Yes/No
---	---------------

Has the Change Sponsor met the DAP Airspace Change Proposal requirements and Airspace Regulatory requirements above?	Yes
---	------------

This Module A of the LAMP ACP is an enabler for the LAMP Phase 1A change; the re-routed traffic now flight planning via the CLN SID will be managed by ATC to ensure more direct routeing to KONAN is achieved when practicable. The establishment of (U)M84 is satisfactory regarding integration with all other routes with the caveat that radar monitoring will be required when the infrequent activation of D138A is promulgated above the lower limit of the airway.

It is therefore essential that this module is approved.

Outstanding Issues

Serial	Issue	Action Required
1	MUAC LoA	Amendments to be completed prior to implementation
2	Brussels LoA	Amendments to be completed prior to implementation
3	Shoeburyness MoU	Amendments to be completed prior to implementation

Additional Compliance Requirements (to be satisfied by Change Sponsor)

Serial	Requirement
1	NERL is to ensure that Radar Monitoring requirements for (UM)84 against D138A and that aircraft are kept on or east of the centreline of (U)M84 if D138A is active above FL105 are detailed in the appropriate sections of the TC and LAC MATS Part 2.

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 15 of 18


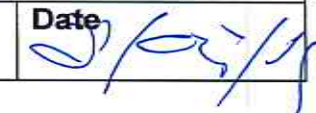
Recommendations	Yes/No
Is the approval of the SoS for Transport required in respect of the Environmental Impact of the airspace change?	No
Is the approval of the MoD required in respect of National Security issues surrounding the airspace change?	Yes
<p>Given the route is in close proximity to D138A, (approximately 2.6NM from the northeast corner), the arrangements for Flexible Use of Airspace (FUA) are catered for this route and are covered in the MoU with Shoeburyness with the requirement for traffic to be on or east of the centreline of (U)M84, if the danger area is active above FL105.</p> <p>The DAATM representing the Ministry of Defence (MOD) has agreed to this proposal.</p>	
General Summary	
<p>From an operational point of view, the re-routeing of the DVR (now DET) SID is essential to enable the LAMP Phase 1A design for LCY to be implemented. The procedures have been tested in development simulations, and subsequent validation simulations. The re-routeing results in an extra 2NM track miles for Rwy 22 departures and a reduction of 6NM for Rwy 04 departures. The extra track miles is nevertheless offset by the CO₂ benefits realised by the continuous climb on the CLN SID which is not possible via the SIDs to DET.</p> <p>The rationale supporting the stand alone justification is acceptable from a CO₂ view point based on the forecast figures supplied subject to verification by ERCD. The environmental impacts of the re-route are detailed in the environmental assessment from ERCD.</p> <p>Whilst the response to consultation has indicated opposition to this change from a number of stakeholder groups due to the perceived impacts of immediately doubling the number of flights on the CLN SID, the consultation assessment summary is in the Consultation Report.</p>	

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 16 of 18

Comments			
Observations			
Operational Assessment Sign-off/Approvals			
	Name	Signature	Date
Operational Assessment completed by (DAP Project Leader)			15 June 2015 (updated 24 Sep 15)
Operational Assessment approved by (Head of Section)			

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 17 of 18

Case Study Sign-off/Approvals			
	Name	Signature	Date
Case Study Assessment Conclusions approved by (Head AAA)			

SARG Group Director Comment/Approval		
<p style="font-size: 2em; color: blue;">Approved subject to agreed conditions</p>		
Name	M SWAN	Date
		

	Safety and Airspace Regulation Group	DAP 1C
Doc Type:	Annex C	Version: 1/2012
Title:	Airspace Change Proposal Operational Assessment	Page 18 of 18