

CAA CAP 1616 Options Appraisal Assessment

Title of airspace change proposal		Removal EGSS LYD 6R/5S SIDs	
Change sponsor		NATS	
Project no.		ACP2020-66	
Case study commencement date	18/11/2020	Case study report as at	18/11/2020

Account Manager: N/A		Airspace Regulator (Engagement & Consultation): [REDACTED]		IFP: [REDACTED]		OGC: N/A	
Airspace Regulator (Technical): [REDACTED]		Airspace Regulator (Environmental): [REDACTED]		Airspace Regulator (Economist): [REDACTED]		ATM (Inspector ATS Ops): [REDACTED]	

<p>Instructions</p> <p>To aid the SARG project leader’s efficient project management, please highlight the “status” cell for each question using one of the four colours to illustrate if it is:</p> <p style="text-align: center;"> Resolved - GREEN Not Resolved – AMBER Not Compliant – RED Not Applicable - GREY </p>
<p>Guidance</p> <p>The broad principle of economic impact analysis is proportionality; is the level of analysis involved proportionate to the likely impact from that ACP? There are three broad levels of economic analysis; qualitative discussion, quantified through metrics, and monetised in £ terms. The more significant the impact, the greater should be the effort by sponsors to quantify and monetise the impact.</p>

1. Background – Identifying the impact of the shortlist of options (including Do Nothing (DN) / Do Minimum (DM))		Status
1.1	Are the outcomes of DN/DM and DS scenarios clearly outlined in the proposal?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.1	<p>Has the change sponsor produced an Options Appraisal which sets out how they have moved from the Statement of Need to the airspace change design options and if the qualitative assessment is developed into a more detailed quantitative assessment, moving from qualitatively defined shortlist options to the selected preferred option? [E23]</p> <p>Yes, the sponsor has produced the Initial Options Appraisal but the Full Options Appraisal has not been produced separately under Stage 3 because it is unchanged from the Stage 2 options appraisal as stated by the sponsor in the submission. Due to the level of this ACP (Level 2b) the qualitative appraisal is the requirement for the environmental impact and due to the very limited economic impact of the change no detailed quantification or monetisation is required. The preferred option is stated as Option 2 which is the to remove the Stansted LYD 6R/5S SIDs.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.2	<p>Does the list of options include a description of the change proposal?</p> <p>Yes, the description of the proposal is included in the submission, Initial Options Appraisal and also at Section 6 of the submission.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.3	<p>Has the sponsor stated on what criteria the longlist of options has been assessed?</p> <p>Yes, the long list of options assessment is available in the submission in the Design Principle Evaluation section.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.4	<p>Does each shortlist option include the impacts in comparison to the 'do nothing / do minimum' option, in particular:</p> <ul style="list-style-type: none"> -all reasonable costs and benefits quantified -all other costs and benefits described qualitatively -reasons why costs and benefits have not been quantified <p>Yes, the sponsor included the qualitative assessment for all costs and benefits by addressing the criteria listed under CAP 1616 Table E2 and also stated the rationale why it would be disproportionate for them to carry out a quantified analysis.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.5	<p>Where options have been discounted, does the change sponsor clearly set out why?</p> <p>Yes, the sponsor explained why do-nothing option and Option 1 were rejected as a result of Design Principle Evaluation activity at Stage 2A.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

1.1.6	Has the change sponsor indicated their preferred option in the Options Appraisal? [E23]	Yes, the preferred option is Option 2.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.1.7	Does the Options Appraisal detail what evidence the change sponsor will collect, and how, to fill in any evidence gaps and how this will be used to develop the Final Options Appraisal (Phase III)? Does the plan for evidence gathering cover all reasonable impacts of the change?	The sponsor provided the minimum requirement for this Level ACP which is the qualitative appraisal of the costs and benefits related to the proposed option. As detailed quantification is not required for Level 2C changes, the sponsor is not expected to indicate any evidence they will collect for the next phase of the options appraisal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2. Direct impact on air traffic control		Status			
2.1	Are there direct cost impacts on air traffic control / management systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	If so, please provide below details of the factors considered and the level in which this has been analysed.			
2.1.1	<i>Examples of costs considered (please add costs that have been discussed, and any reasonable costs that the Airspace Regulator (Technical) feels have NOT been addressed)</i>				
		Not applicable	Qualitative	Quantified	Monetised
2.1.2	Infrastructure changes		X	N/A	N/A
2.1.3	Deployment		X	N/A	N/A
2.1.4	Training	X			
2.1.5	Day-to-day operational costs / workload / risks	X			
2.1.6	Other (provide details)	X			
2.1.7	Comments The sponsor indicated that there would be a requirement for changes in airport electronic systems and documentation to capture SIDs removal but the estimated value for such costs is not mentioned.				
2.2	Are there direct beneficial impacts on air traffic control / management systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	If so, please provide details and how they have been addressed:			

2.2.1	<i>Examples of benefits considered</i>	Not applicable	Qualitative	Quantified	Monetised
2.2.2	Reduced work-load	X			
2.2.3	Reduced complexity / risk	X			
2.2.4	Other (provide details)	X			
2.2.5	Comments				
2.3	Where monetised, what is the net monetised impact on air traffic control (in net present value) over the project period? N/A				
2.4	Are the direct impacts on air traffic management analysed accurately and proportionately? Yes, the sponsor included all impact assessment related to air traffic management. Due to the scalability of level 2c ACPs, the analysis is carried out qualitatively for all impacts which is concluded to be proportional for this ACP.			<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

3. Changes in air traffic movements / projections					Status
3.1	What is the impact of the ACP on the following and has it been addressed in the ACP proposal?			<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
		Not applicable	Qualitative	Quantified	Monetised
3.1.1	Number of aircraft movements	X			
3.1.2	Type of aircraft movement	X			
3.1.3	Distance travelled	X			
3.1.4	Area flown over / affected	X			
3.1.5	Other impacts		X		
3.1.6	Comments – The sponsor has been clear that the DET 1D SID may now see <2 aircraft a day use it to route via LYD, but only as published in the AIP. The DET 1D is an RNP1 SID and follows the nominal track of the conventional SIDs during the initial climb out. The sponsor states this is				

	negligible usage.				
3.2	<p>Has the forecasting of traffic done reasonably using best available guidance (e.g. DfT WebTAG, the Green Book, Academic sources...etc?)</p> <p>■ The majority of the implications of this proposal is of a technical nature only, resulting from the planned removal of the (now redundant) Navigational beacons and “transfer” of the traffic onto routes maintained using alternate navigational systems, so no traffic forecast is necessary. As the sponsor states in their Options appraisal document: “The traffic mix, usage and profiles will therefore remain the same as today; introducing no change to lateral or vertical tracks” however it must be noted that on approval of this change proposal as is acknowledged by the sponsor a negligible number of movements (<2 aircraft a day) will use the use the DET 1D SID.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3	<p>What is the impact of the above changes (3.1) on the following factors?</p> <p>■ In environmental impact terms the change proposed in this ACP is largely technical in its nature, in that it aims to remove the dependency on the LYD DVOR, which the service provider (and sponsor) intends to remove from service. All existing traffic flows (Including both traffic volume and orientation) will be replicated following the change, the only difference being the navigational system and source on which the aircraft derive their information. Proposal will result in no change to traffic patterns or orientation therefore no quantitative analysis is required.</p>				
		Not applicable	Qualitative	Quantified	Monetised
3.3.1	Noise		X	N/A	N/A
3.3.2	Fuel Burn		X	N/A	N/A
3.3.3	CO2 Emissions		X	N/A	N/A
3.3.4	Operational complexities for users of airspace	X			
3.3.5	Number of air passengers / cargo	X			
3.3.6	Flight time savings / Delays	X			
3.3.7	Air Quality		X	N/A	N/A
3.3.8	Tranquillity	X			
3.4	<p>Are the traffic forecast and the associate impact analysed proportionately and accurately according to available guidelines (e.g. WebTAG or the Green Book?)</p> <p>■ No significant change to traffic forecast or orientation is expected as a result of this proposal as the change is of a</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<p>technical nature only, resulting from the planned removal of the (now redundant) Navigational beacons and “transfer” of the traffic onto routes maintained using alternate navigational systems, so no traffic forecast is necessary.</p> <p>BM: It is stated in the IOA that some aircraft operators calculate fuel based on the flight plan. By removal of the SIDs and effectively reducing the 5,000ft level portion of the flight, aircraft will be able to fly with less fuel which means the overall impact will be positive.</p>	
3.5	<p>What is the total monetised impact of 3.3? (Provide comments) N/A</p>	

4. Benefits of ACP					Status
4.1	Does the ACP impact refer to the following groups and how they are impacted by the ACP?				
		Not applicable	Qualitative	Quantified	Monetised
4.1.1	Air Passengers	X			
4.1.2	Air Cargo Users	X			
4.1.3	General aviation users		X	N/A	N/A
4.1.4	Airlines		X	N/A	N/A
4.1.5	Airports	X			
4.1.6	Local communities		X		
4.1.7	Wider Public / Economy		X	N/A	N/A
4.1.8	<p>Comments: ████ No significant change to the traffic patterns, volume or orientation proposed, therefore no quantification required.</p>				
4.2	How are the above groups impacted by the ACP, especially (but not exclusively) looking at the following factors below:				
4.2.1	Improved journey time for customers of air travel			N/A	
4.2.2	Increase choice of frequency and destinations from airport			N/A	

4.2.3	Reduced price due to additional competition because of new capacity	N/A
4.2.4	Wider economic benefits	Less fuel burn impact on GA and commercial airlines and a positive overall impact on wider society
4.2.5	Other impacts	N/A
4.2.6	Comments	
4.3	What is the overall monetised impacts associated with 4.1 and 4.2 the above? N/A	
4.4	What are the non-monetised but quantified impacts of the above? (Insert details of description) N/A	
4.5	What are the qualitative / strategic impacts described above? The Sponsor stated the proposed technical flight planning change is necessary to remove the dependency on the LYD DVOR which is planned to be removed from service.	
4.6	What is the overall monetised benefits-costs ratio (BCR) of the policy? Is it more than 1? N/A	
4.7	Have the sponsors provided reasonable justification for the proportionality of analysis above? Yes, the sponsor stated the technical flight planning change will not have any impact on aircraft tracks over the ground.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.8	If the BCR is less than 1, are the quantitative and qualitative strategic impacts proportional to the costs of the ACP? N/A	

5. Other aspects	
5.1	Nil

6. Summary of Assessment of Economic Impacts & Conclusions	
6.1	It is stated in the IOA that some aircraft operators calculate fuel based on the flight plan. By removal of the SIDs and effectively reducing the 5,000ft level portion of the flight, aircraft will be able to fly with less fuel which means the overall impact will be positive. The minimum requirement for this scalable Level 2C change is the qualitative analysis around each costs and benefits which is completed by the sponsor in one combined options appraisal. In essence, the technical flight planning change will not have any impact on aircraft tracks over the ground and the objective of the change is to remove dependency on the LYD DVOR which is planned to be removed from service.

Outstanding issues?		
Serial	Issue	Action required
1	-	-
2		

CAA Options Appraisal Assessment Completed by	Name	Signature	Date
Airspace Regulator (Technical)	[REDACTED]	[REDACTED]	18/11/2020
Airspace Regulator (Economist)	[REDACTED]	[REDACTED]	18/11/2020
Airspace Regulator (Environmentalist)	[REDACTED]	[REDACTED]	Click or tap to enter a date.
ATM – Inspector ATS (Ops)	[REDACTED]	[REDACTED]	Click or tap to enter a date. 25/11/2020