

# CAA CAP 1616 Options Appraisal Assessment (Phase II Full)

<b>Title of airspace change proposal</b>		Land's End Transit Corridor	
<b>Change sponsor</b>		Land's End Airport	
<b>Project no.</b>		ACP-2019-75	
<b>Case study commencement date</b>	Click or tap to enter a date.	<b>Case study report as at</b>	Click or tap to enter a date.

<b>Account Manager:</b> [Redacted]	[Grey]	<b>Airspace Regulator (Engagement &amp; Consultation):</b> [Redacted]	[Yellow]	<b>IFP:</b> [Redacted]	[Orange]	<b>OGC:</b> [Redacted]	[Dark Blue]
<b>Airspace Regulator (Technical):</b> [Redacted]	[Light Green]	<b>Airspace Regulator (Environmental):</b> [Redacted]	[Purple]	<b>Airspace Regulator (Economist):</b> [Redacted]	[Light Blue]	<b>ATM (Inspector ATS Ops):</b> [Redacted]	[Red]

**Instructions**

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:

Resolved - GREEN     
 Not Resolved – AMBER     
 Not Compliant – RED     
 Not Applicable - GREY

**Guidance**

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.

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 (Phase II - Full) which sets out how Initial appraisal 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 Full Options Appraisal, including information for the Do-Nothing (discarded) and other four options. For a Level 2C change, a qualitative assessment of the CO2 emissions and a qualitative explanation of the other cost is required, unless the sponsor anticipates a negligible impact of the proposed change on the airspace users. Due to the nature of the change the sponsor does not expect any change in the level of the noise for the stakeholders on the ground, hence no noise impact assessment was undertaken.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.2	<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"> <li>-all reasonable costs and benefits quantified</li> <li>-all other costs and benefits described qualitatively</li> <li>-reasons why costs and benefits have not been quantified</li> </ul>	<p>Yes. The preferred option (Option 4 - Combined RMZ/TMZ and alter the size of the LETC to encompass the IAPs at Land's End and St Mary's airports) is compared against the do-nothing option with all reasonable costs and benefits described qualitatively. Due to the level assigned to this ACP – Level 2C, the qualitative assessment provided by the sponsor is sufficient because the proposed change will not affect the traffic movements and a small portion of GA aircraft (i.e. less than 1%), that do not have a 2-way radio equipment installed in their aircraft, will be affected by the change.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.3	Where options have been discounted, does the change sponsor clearly set out why?	Yes. Moving from Initial Options Appraisal (IOA) document to the Full Options Appraisal (FOA) the sponsor uses the Design Principles (DPs) to discard	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

		the options that do not meet the criteria and only carries forward four options, including the preferred one. The sponsor states that Option 4 guarantees higher level of safety than the other options.	
1.1.4	Has the change sponsor indicated their preferred option in the Options Appraisal (Phase II - Full)? [E23]	Yes. The sponsor sets out the preferred option – Option 4 - Combined RMZ/TMZ and alter the size of the LETC to encompass the IAPs at Land’s End and St Mary’s airports.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.5	Does the Full Options Appraisal (Phase II - Full) 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 Options Appraisal (Phase III - Final)? Does the plan for evidence gathering cover all reasonable impacts of the change?	No. Due to the level assigned to this ACP, the sponsor has provided sufficient and reasonable qualitative analysis for the options appraised.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

2. Direct impact on air traffic control		Status			
<b>2.1</b>	<b>Are there direct cost impacts on air traffic control / management systems?</b> If so, please provide below details of the factors considered and the level in which this has been analysed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2.1.1</b>	<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	N/A	N/A
2.1.5	Day-to-day operational costs / workload / risks		x	N/A	N/A
2.1.6	Other (provide details)	x			



2.1.7	<p><b>Comments</b></p> <p>The proposed change aims to introduce an improved and safer airspace solution for the unknown air traffic at Land's End Transit Corridor and does not expect to stimulate new traffic nor altering any existing route. This implies that there are not going to be changes in the infrastructure and no additional training and operational costs are expected.</p> <p>The sponsor highlights that does not have any operational requirement for approved surveillance equipment nor the financial means to install and operate this equipment, however for completeness the sponsor estimates the cost of installing, operating and running the surveillance equipment:</p> <ul style="list-style-type: none"> <li>• Infrastructure cost: cost to setup data line installation, feed costs, safety case and flight calibration is estimated to be between £60,000 and £120,000;</li> <li>• operational cost: investment to obtain radar feed from an approved source is estimated to be approx. £60,000; and</li> <li>• deployment: training cost for the ATCOs is estimated to be £150,000.</li> </ul>				
2.2	<p><b>Are there direct beneficial impacts on air traffic control / management systems?</b></p> <p>If so, please provide details and how they have been addressed:</p>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2.2.1	<i>Examples of benefits considered</i>	Not applicable	Qualitative	Quantified	Monetised
2.2.2	Reduced work-load		x	N/A	N/A
2.2.3	Reduced complexity / risk		x	N/A	N/A
2.2.4	Other (provide details): Remove the current component of unknown traffic operating within the LETC		x		
2.2.5	<p><b>Comments</b></p> <p>The proposed change is going to impact the safety of the existing services and will not contribute to changes in the current work-load.</p> <p>This ACP would have a direct beneficial impact on the unknown traffic currently operating at the LETC, such that even if the aircraft is not visible on radar it will be in communication with the Air Traffic Control (ATC).</p>				
2.3	<p><b>Where monetised, what is the net monetised impact on air traffic control (in net present value) over the project period?</b></p> <p>N/A</p>				
2.4	<p><b>Are the direct impacts on air traffic management analysed accurately and proportionately?</b></p> <p>Yes. The sponsor has provided sufficient and reasonable justification of the impact that the airspace change will have on Air Traffic Management.</p>				<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

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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	N/A	N/A
3.1.2	Type of aircraft movement		x	N/A	N/A
3.1.3	Distance travelled	x			
3.1.4	Area flown over / affected		x	N/A	N/A
3.1.5	Other impacts	x			
3.1.6	Comments The proposed change would not increase the effective capacity but will improve the overall safety of the existing activities. The sponsor estimates that only aircraft that are not equipped with radio and transponder would incur in additional one off-cost of £1,000 for a suitable radio equipment and a one off-cost of £2,000 for a transponder equipment, because of the proposed airspace change. However, the number of airspace users is small (less than 1%) and approximately 12 aircraft movements are not radio equipped and only one of the locally based aircraft is not transponder equipped.				
3.2	Has the forecasting of traffic done reasonably using best available guidance (e.g. DfT WebTAG, the Green Book, Academic sources...etc?) ADC - No. The sponsor explains that the proposed airspace change is not going to increase the traffic movements but provides traffic forecasts based on their own assumptions.				<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
3.3	What is the impact of the above changes (3.1) on the following factors? ADC - The proposed change is going to take place mostly over the sea and the expected impacts on the environment, i.e. noise, fuel burn and CO <sub>2</sub> emissions, are anticipated to be negligible as well as the impact on airspace users (less than 1%).				
		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			
3.3.8	Tranquillity	x			
3.4	<p><b>Are the traffic forecast and the associate impact analysed proportionately and accurately according to available guidelines (e.g. WebTAG or the Green Book?)</b></p> <p>ADC - Yes. The sponsor provides traffic forecast for the next 10 years and both the forecast and the estimated impact associated with the proposed change, i.e. noise level, fuel burn and CO<sub>2</sub> emissions, are proportionate to the nature of the ACP – Level 2C.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
3.5	<p><b>What is the total monetised impact of 3.3? (Provide comments)</b></p> <p>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	x	N/A
4.1.4	Airlines	x			
4.1.5	Airports		x	N/A	N/A



4.1.6	Local communities	x			
4.1.7	Wider Public / Economy		x	N/A	N/A
4.1.8	<p><b>Comments</b>  ADC - The potential impact of the proposal on GA could be considered negligible because less than 1% of GA aircraft are not radio and /or transponder equipped.  The proposed change would NOT modify the capacity in terms of the number of aircraft that could use it, since it would remain the same and the physical dimensions of the LETC would change only to include the IAP's at Land's End and St Mary's airports.</p>				
4.2	<b>How are the above groups impacted by the ACP, especially (but not exclusively) looking at the following factors below:</b>				
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			N/A	
4.2.5	Other impacts	Safety would be improved if any of the proposed options were implemented.			
4.2.6	<p><b>Comments</b>  The Land's End Transit Corridor is situated in the far South-West of England and is an established block of airspace approximately 38nm long and 15nm wide (Surface to 4,000ft altitude) linking the mainland to the Isles of Scilly. The proposed change will take place mostly over the sea and will not impact the journey time nor the choice of frequency and destination from the airports.</p>				
4.3	<b>What is the overall monetised impacts associated with 4.1 and 4.2 the above?</b> N/A				
4.4	<b>What are the non-monetised but quantified impacts of the above? (Insert details of description)</b> The only quantification is available for the portion (less than %1) of non-transponder equipped GA aircraft which would be impacted by this airspace change.				
4.5	<b>What are the qualitative / strategic impacts described above?</b> This proposal suggests the introduction of an improved airspace solution to the Land's End Transit that could mitigate the current unknown traffic environment. The sponsor is promoting an improvement of the safety of the existing services at Land's End Transit Corridor and it is not aiming to stimulate new traffic nor altering any existing routes.				

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?	<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	<p>The Full Option Appraisal (FOA) fulfils the minimum requirement for the ACP - Level 2C options appraisal. The sponsor provides a qualitative analysis for all relevant criteria as in Table E2 of CAP1616 for the do-nothing and the four options appraised.</p> <p>The proposed change aims to improve the safety of the existing activities, reducing the unknown traffic at LETC without modifying its current capacity. The preferred option – Option 4 Combined RMZ/TMZ and alter the size of the LETC to encompass the IAPs at Land’s End and St Mary’s airports – guarantees higher safety benefits for airspace users than the other available options. The proposed options (including the preferred one) would affect the GA aircraft that are not radio and / or transponder equipped (currently estimated to be less than 1% within the LETC) that would incur in a one off-cost (£1,000 for a radio equipment or £2,000 for a transponder one).</p>	
Outstanding issues?		
Serial	Issue	Action required
1		
2		



CAA Full Options Appraisal Assessment Completed by	Name	Signature	Date
Airspace Regulator (Technical)	[REDACTED]	[REDACTED]	18/12/2020
Airspace Regulator (Economist)	[REDACTED]		15/12/2020
Airspace Regulator (Environmentalist)	[REDACTED]		18/12/2020
ATM – Inspector ATS (Ops)	[REDACTED]		18/12/2020