

## CAA CAP 1616 Options Appraisal Assessment (Phase III Final)

<b>Title of Airspace Change Proposal:</b>	Land's End Transit Corridor		
<b>Change Sponsor:</b>	Land's End Airport		
<b>ACP Project Ref Number:</b>	ACP-2019-75		
<b>Case study commencement date:</b>	17/05/2021	<b>Case study report as at:</b>	07/06/2021

<b>Account Manager:</b> [REDACTED]	[REDACTED]	<b>Airspace Regulator (Engagement &amp; Consultation):</b> [REDACTED]	[REDACTED]	<b>IFP:</b> [REDACTED]	[REDACTED]	<b>OGC:</b> [REDACTED]	[REDACTED]
<b>Airspace Regulator (Technical):</b> [REDACTED]	[REDACTED]	<b>Airspace Regulator (Environmental):</b> [REDACTED]	[REDACTED]	<b>Airspace Regulator (Economist):</b> [REDACTED]	[REDACTED]	<b>ATM (Inspector ATS Ops):</b> [REDACTED]	[REDACTED]

<p><b>Instructions</b></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;"> <span style="background-color: green; padding: 2px;">Resolved - GREEN</span>             <span style="background-color: yellow; padding: 2px;">Not Resolved – AMBER</span>             <span style="background-color: red; padding: 2px;">Not Compliant – RED</span>             <span style="background-color: grey; padding: 2px;">Not Applicable - GREY</span> </p>
<p><b>Guidance</b></p> <p>The broad principle of economic impact analysis is <b>proportionality</b>; 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 Do Nothing (DN) /Do Minimum (DM) scenarios		Status	
1.1	Are the outcomes of DN/DM 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 III - Final) which consists of the Full appraisal with any refinements or changes made as a result of the Stage 3 formal consultation with stakeholders? [E24]</p>	<p>Yes, the change sponsor has produced the Final Options Appraisal which summarises the outcome of the consultation feedback received from stakeholders. Due to the feedback received during the consultation, the sponsor has refined the shape and size of the proposed Land's End Transit Corridor (LETC) to make sure that only needed airspace was used.</p> <p>In Stage 3 the preferred option taken forward was Option 4, while at this stage the sponsor proposes a "a more proportional and equitable solution to reclassify the LETC as an RMZ and alter the size to include the IAP's at Land's End &amp; St Mary's Airports (Option 3). This change to a RMZ is in line with the Statement of Need and the agreed Design Principles".</p> <p>The implementation of Option 3: RMZ + Alter the size of the LETC to encompass the IAP's at Land's End and St Mary's Airports &amp; Penzance Heliport, will take place into three stages:</p> <ul style="list-style-type: none"> <li>stage 1 – Change the shape to include the IAP's at Land's End Airport;</li> <li>stage 2 – Change the shape to include the PINS approach at Penzance Heliport; and</li> <li>stage 3 – Change the shape to include the IAP's at St Mary's Airport</li> </ul> <p>Most of these size changes will take place over the sea and will not affect that portion of traffic using Land's End Radio Mandatory Zone (LRMZ).</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

2. Direct impact on air traffic control					Status
2.1	<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"/>
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> N/A				
		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	<b>Comments:</b> The proposed airspace change aims to improve the safety of the existing services and does not expect to stimulate new traffic nor alter any existing routes. This implies that there are not going to be changes in the infrastructure and no additional training and operational costs are expected. The sponsor states that Land's End Airport currently has all necessary ATC equipment for the level of service provided and therefore there would be no extra costs to the airport or ANSP.				
2.2	<b>Are there direct beneficial impacts on air traffic control / management systems?</b> If so, please provide details and how they have been addressed:				<input checked="" 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)	x			
2.2.5	<b>Comments:</b> Proposed airspace change 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). This will impact the safety of the existing services. It				

	is noted that the capacity of aircrafts using the proposed airspace would remain the same as today because the physical dimensions of the LETC would change only to include the IAP's, however a slightly increase in the workload may incur but this will be within the current ATC system capacity.	
2.3	<b>Where monetised, what is the net monetised impact on air traffic control (in net present value) over the project period?</b> N/A	
2.4	<b>Are the direct impacts on air traffic management analysed accurately and proportionately?</b> Due to the level assign to this airspace change proposal – Level 2C – the justification provided on the potential impact that the airspace change will have on air traffic management is sufficient and reasonable.	<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	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	<b>Comments:</b> The proposed change would not increase the effective airspace capacity but will improve the overall safety of the existing activities. The sponsor estimates that aircraft would need to be equipped with and operate a suitable 2-way radio equipment and would incur a one off-cost of £500 for a suitable radio equipment. For the small number of aircrafts (less than 1%) that do not or would not use a 2-way radio equipment, the access to the airspace would not be permitted without prior agreement.						
3.2	<b>Has the forecasting of traffic done reasonably using best available guidance (e.g. DfT WebTAG, the Green Book, Academic sources...etc?)</b> No, the sponsor explains that the proposed airspace change is not going to increase the traffic movements, hence does not provide any traffic forecast.  The sponsor does not provide a 10-year traffic forecast within this submission, although this was included at Stage 3. The sponsor states that <i>"this proposal is related to improving the safety of existing services and not about stimulating new</i>						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>

	<i>traffic or altering any existing routes”, and hence does not provide a traffic forecast.</i>				
<b>3.3</b>	<p><b>What is the impact of the above changes (3.1) on the following factors?</b></p> <p>█ The proposed airspace change is going to take place mostly over the sea and the expected impacts on the environment, i.e. noise, fuel burn and CO2 emissions, are anticipated to be negligible as well as the impact on airspace users (less than 1%).</p> <p>█ This ACP affects airspace below 7,000 ft, however the sponsor states that <i>“this proposal is related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes”</i>. This ACP has therefore been scaled as Level 2C where, as stated in CAP1616, a sponsor is required to assess fuel and CO<sub>2</sub> impacts.</p> <p>The sponsor states <i>“no change from today”</i> regarding fuel burn, resulting in <i>“no effect”</i> to air quality and greenhouse gas emissions as the number of aircraft operating within the LRMZ would <i>“not increase”</i>. The sponsor also states <i>“no impact”</i> for noise. The impact as a result of aircraft unable to enter the RMZ due to not being suitably equipped is considered to be negligible as <i>“less than 1%”</i> of aircraft do not have 2-way radio equipment installed.</p>				
		Not applicable	Qualitative	Quantified	Monetised
3.3.1	Noise	x			
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			
<b>3.4</b>	<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>█ The sponsor does not provide traffic forecast for the next 10 years within this submission, but they were part of the previous submission. However, due to the nature of this ACP – Level 2C, traffic forecast and estimated impacts, i.e. noise level, fuel burn and CO2 emissions, were proportionate.</p>			<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

	<p>█ The sponsor does not provide a 10-year traffic forecast within this submission, although this was included at Stage 3. However, as “<i>this proposal is related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes</i>” the associated environmental impacts for a Level 2C ACP, fuel burn and CO<sub>2</sub> emissions, have been assessed proportionately.</p>	
3.5	<p><b>What is the total monetised impact of 3.3? (Provide comments)</b> N/A</p>	

4. Benefits of ACP		Status			
4.1	<p>█ Does the ACP impact refer to the following groups and how they are impacted by the ACP?</p>				
		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	x
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></p> <p>The sponsor states that impact that the proposed airspace change will have on GA would be negligible because less than 1% of GA aircraft are not radio equipped. The sponsor estimates that the cost to equip aircrafts of suitable radio is a one-off cost of £500. The proposed change would not modify the capacity in terms of the number of aircraft that could use it, that would remain the same, and the change in shape and size of the LETC aims only to include the IAP's at Land's End and St Mary's airports.</p> <p>█ The sponsor states that this ACP “<i>has no further noise impact than already present, nor does it negatively impact air quality or lifestyles of those under the flight paths</i>”.</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	The proposed option aims to improve safety of the existing activities at LETC.
4.2.6	<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.	
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 non-monetised quantified impact is related to the portion of non-transponder equipped GA aircraft (according to the sponsor estimates these GA aircrafts are less than %1 within the LETC).	
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	<b>What is the overall monetised benefits-costs ratio (BCR) of the policy? Is it more than 1?</b> N/A	
4.7	<b>Have the sponsors provided reasonable justification for the proportionality of analysis above?</b>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.8	<b>If the BCR is less than 1, are the quantitative and qualitative strategic impacts proportional to the costs of the ACP?</b> N/A	

<b>5. Other aspects</b>	
<b>5.1</b>	Nil

**6. Summary of Assessment of Economic Impacts & Conclusions**

**6.1** The Final Option Appraisal fulfils the minimum requirement for a Level 2C airspace change proposal (ACP) options appraisal, by providing the qualitative analysis for all relevant criteria. The ACP aims to improve the safety of the existing activities, reducing the unknown traffic at LETC without modifying its current capacity. The sponsor decides to implement Option3 rather than Option 4, as stated in Stage 3, to reflect the feedback received by the stakeholders and to make sure that only needed airspace was used.  
 The proposed final option – Option 3: RMZ + Alter the size of the LETC to encompass the IAP's at Land's End and St Mary's Airports & Penzance Heliport – is in line with the Statement of Need and aligns with the Design Principles.  
 This ACP guarantees significant safety benefits and would only affect the GA aircraft that are not radio equipped.

**Outstanding issues?**

Serial	Issue	Action required
1		
2		

CAA Initial Options Appraisal Completed by	Name	Signature	Date
Airspace Regulator (Economist)	[Redacted]	[Redacted]	17/06/2021
Airspace Regulator (Environment)	[Redacted]	[Redacted]	18/06/2021
Airspace Regulator (Technical)	[Redacted]	[Redacted]	20/06/2021



ATM – Inspector ATS (Ops)	[REDACTED]	[REDACTED]	16/06/2021
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