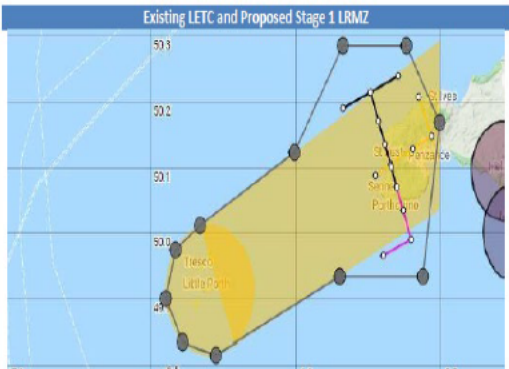
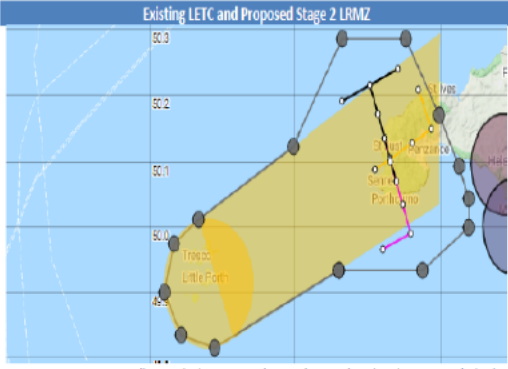
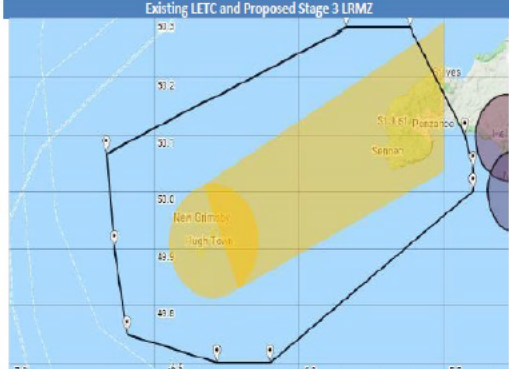


CAA Environmental Assessment and Statement

Title of airspace change proposal	Land's End Transit Corridor (LETC)	
Change sponsor	Land's End Airport Limited (LEAL)	
Project no.	ACP-2019-075	
SARG project leader	[REDACTED]	
<p>Instructions</p> <p>In providing a response for each question, please ensure that the 'status' column is completed using one of the following options:</p> <ul style="list-style-type: none"> • yes • no • partially • n/a <p>To aid the SARG project leader's efficient project management, please highlight the "status" cell for each question using one of the three colours to illustrate if it is:</p> <p>resolved Green not resolved Amber not compliant Red</p>		
1. Introduction		
	<p>This Environmental Assessment and Statement describes the considerations relevant to Land's End Airport Limited's (LEAL) airspace change proposal (ACP) for the Land's End Transit Corridor (LETC) to be reclassified as a Radio Mandatory Zone (RMZ) and redefined as the Land's End RMZ (LRMZ). The proposal also seeks to change the shape of the transit corridor to incorporate the instrument approach procedures (IAP) at both Land's End and St Mary's airports, and Penzance and Tresco heliports. The sponsor anticipates that this shape change would take place in the following three stages as neither St Mary's nor Penzance have their published procedures as of yet and will therefore be proceeding with their own ACPs:</p> <ul style="list-style-type: none"> • Stage 1 – Change the shape to include the IAP's at Land's End Airport • Stage 2 – Change the shape to include the Point in Space (PINS) approach at Penzance Heliport • Stage 3 – Change the shape to include the IAP's at St Mary's Airport 	

	<p>It must be noted that if this ACP is approved by the CAA, only the shape change associated with Stage 1 can be realised. The shape changes associated with Stages 2 and 3 are dependent on the outcome of other ACPs, therefore, these subsequent changes will only be realised if these ACPs are approved by the CAA.</p> <p>The LETC is situated in the South-West of England and is an established block of airspace approximately 38 NM long and 15 NM wide, linking the mainland UK to the Isles of Scilly. The LETC is used by scheduled passenger aircraft, freight flights, military aircraft, Search and Rescue helicopters, General Aviation (GA) flights and other charter and air-taxi operators.</p> <p>The need for an ACP was identified by LEAL ('the sponsor') in order to provide "<i>increased protection for all users</i>" as aircraft using the LETC are "<i>funnelled within a very narrow lateral and vertical area of airspace</i>". The need to increase the size of the LETC to encompass IAPs at neighbouring airports was also for safety reasons and to provide a safety buffer around the main area of the LETC. However, as noted above, if this ACP is approved by the CAA only the shape change associated with Stage 1 can be realised. The shape changes associated with Stages 2 and 3 are dependent on the outcome of other ACPs, therefore, these subsequent changes will only be realised if these ACPs are approved by the CAA.</p> <p>This ACP is anticipated to impact airspace design below 7,000 ft as the vertical extent of the main portion of the LETC ranges from surface (SFC) to 4,000 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>". Therefore, it is considered that this ACP will not change aircraft behaviours or alter traffic patterns above or below 7,000 feet. Thus, as the proposal does not expect to alter aircraft behaviours below 7,000 ft, the ACP has been scaled as a Level 2C. In accordance with the Department for Transport's (DfT) altitude-based priorities¹, the environmental priority therefore is to reduce aircraft CO₂ emissions in support of the objective to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions. Due to this being a Level 2C ACP, there is no explicit requirement for the sponsor to assess other environmental aspects, including impacts on local air quality, noise, tranquillity, and biodiversity.</p>	
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¹ Department for Transport, Air Navigation Guidance 2017: Altitude-Based priorities.

2. Nature of the Proposed Change		Status
2.1	Is it clear how the proposed change will operate, and therefore what the likely environmental impacts will be?	Yes
<p>This proposal seeks to reclassify the LETC as an RMZ, whilst redefining the LETC as the Land's End RMZ (LRMZ). Reclassifying the airspace as an RMZ will require aircraft transiting through the airspace to be radio equipped. In addition to this, the ACP seeks to change the shape of the LRMZ to include the instrument approaches at nearby aerodromes. The shape change would take place in three stages. The reason for these stages is because neither St Mary's nor Penzance have their published procedures as of yet and will be proceeding with their own ACPs to implement these. If these ACP's are approved by the CAA, the sponsor anticipates the shape change to take place in the following three stages, however, this order may be reversed and is subject to the outcome of both Penzance's and St Mary's ACPs:</p> <ul style="list-style-type: none"> • Stage 1 – Change the shape to include the IAP's at Land's End Airport. • Stage 2 – Change the shape to include the PINS approach at Penzance Heliport. • Stage 3 – Change the shape to include the IAP's at St Mary's Airport. <p>The figures below, extracted from the document '<i>Stage 4B Airspace Change Proposal v2.1</i>', illustrate the extent of the proposed LRMZ compared with the extent of current LETC, in addition to the shape changes related to each stage.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Existing LETC and Proposed Stage 1 LRMZ</p> <p>Fig 2: Current LETC in yellow with the proposed LRMZ (Stage 1) outlined</p> </div> <div style="text-align: center;">  <p>Existing LETC and Proposed Stage 2 LRMZ</p> <p>Fig 3: Current LETC in yellow with the proposed LRMZ (Stage 2) outlined to now include the proposed PINS approach at Penzance</p> </div> <div style="text-align: center;">  <p>Existing LETC and Proposed Stage 3 LRMZ</p> <p>Fig 4: Current LETC in yellow with the proposed Land's End RMZ (Stage 3) in outline that includes approaches and holds at St Mary's, Land's End and Penzance.</p> </div> </div>		

If this ACP were implemented, the vertical extent of the main portion of LRMZ would remain the same as it is currently; SFC to 4,000ft. The eastern land portion falls within the Culdrose Area of Intense Aviation Activity (AIAA) which extends vertically from SFC-6,000ft. The corridor falls within Class G airspace, however, there are two Aerodrome Traffic Zones (ATZs) at St Mary's and Land's End, both SFC – 2000ft and with 2NM radii. Neither Penzance nor Tresco heliports have an ATZ.

The overall shape of the proposed LRMZ, once all shape changes have occurred, will take into account the Instrument Approach Procedures (IAPs), and associated holds, at both St Mary's and Land's End Airport; the proposed PINS approaches at Penzance, in addition to the Visual Flight Rules (VFR) Northern Route from Land's End to St Mary's. The RMZ is proposed to coincide with the airport operating hours which vary during the summer and winter; "typical" summer hours are 0700-1730 UTC and "typical" winter hours are 0800-1730 UTC. Outside of these hours the airspace will revert back to how it operates today.

The sponsor anticipates that the airspace "would continue to be used by all types of aviation that currently utilise it" with a "possible future use of large freight carrying UAS [Unmanned Aircraft Systems] that are currently undergoing trials between St Mary's, Land's End and Perranporth airports". It should be noted that aircraft which are non-radio equipped would not be able to enter the airspace unless a prior agreement is made. It is understood from the sponsor that aircraft without the required equipment, or prior agreement, would be required to fly above or around the LRMZ. However, the number of aircraft expected to be impacted is considered negligible and if a radio were to be retrofitted to these aircraft, use of the LRMZ could continue. As published in the document 'Stage 3 Step 3A – Options Appraisal (Phase 2 Full) V3.0', the sponsor states that "less than 1%" of aircraft do not have 2-way radio equipment installed.

The CAA requested further clarification from the sponsor regarding the potential environmental impact as a result of the new portion of land that is to be encompassed by the proposed larger LRMZ, requesting whether this ACP will impact on aircraft that are currently using the airspace, or introduce any new flights to the airspace. The sponsor provided the following response:

"The majority of the size change happens over the sea and is proposed just to encompass the current IAPs at Land's End airport and the future IAPs at St Mary's airport and Penzance Heliport. Aircraft tracks over the sea are not expected to alter as the routing for aircraft will not be affected. Likewise, over the land portion of the LETC the proposed change will not affect aircraft routing and so there would be no change to the environmental impact of any future size change.

The alteration of the boundary of the LETC near Penzance is to encompass their proposed IAP and is only intended to provide a safety buffer zone around the IAP, which is almost entirely over the sea. It is not anticipated that moving the LETC boundary here would alter aircraft flight paths as the IAP has to be flown in accordance with the laid down procedure. Aircraft not using the IAP and routing from the Scillies would still follow their current tracks, again not having to be altered because of the boundary change. Traffic levels in this area would not be increased

	<p>by the proposed change. The boundary to the north-east of the LETC, near St Ives, has actually been moved to reduce the land portion of the LETC thus reducing the environmental impact in this area".</p> <p>Therefore, in terms of the likely environmental impact it considered that there will be no impact as aircraft behaviours are unchanged, including those aircraft using the transit corridor and those using the IAPs at neighbouring airports. Due to the anticipated volume of impacted aircraft it is considered that any impact as a result of increased track mileage will be negligible. Although this ACP is anticipated to impact airspace design below 7,000 ft, it has been scaled as a Level 2C as the proposal does not expect to alter aircraft behaviours above or below 7,000 ft. Therefore, in accordance with the Department for Transport's (DfT) altitude-based priorities², the environmental priority is to reduce aircraft CO₂ emissions in support of the objective to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions. Due to this being a Level 2C ACP, there is no explicit requirement for the sponsor to assess other environmental aspects, including impacts on local air quality, noise, tranquillity, and biodiversity.</p>	
3. Secretary of State Call-in Noise Criterion		Status
3.1	<p>Is the proposal likely to meet the Secretary of State's criterion for call-in on noise impacts? If yes, has the additional assessment on that criterion been undertaken and what are the results? If no, what is the rationale for that conclusion?</p> <p>The criterion, as set out in the DfT's Air Navigation Guidance (2017)³ is that the proposed airspace change could lead to a change in noise distribution resulting in a 10,000 net increase in the number of people subjected to a noise level of at least 54 dB⁴ <u>as well as</u> having an identified adverse impact on health and quality of life.⁵</p>	No
	<p>As this proposal does not alter existing airspace routes and therefore aircraft behaviours, it is not anticipated to affect noise exposure above 54 dB LAeq 16h or have an identified adverse impact on health and quality of life, therefore it is considered that this proposal is unlikely to meet the noise criterion for Secretary of State Call-in.</p>	

² Department for Transport, Air Navigation Guidance 2017: Altitude-Based priorities.

³ The DfT's call-in criteria are set out in The Civil Aviation Authority (Air Navigation) Directions 2017, Section 6, paragraph (5). These Directions are replicated in Annex D of the DfT's Air Navigation Guidance 2017.

⁴ L_{Aeq,16h} noise exposure.

⁵ The assessment of the numbers of people affected and the associated adverse impacts on health and quality of life of the airspace change proposal should be carried out by the sponsor in accordance with the requirements set out in the DfT's Guidance.

4. Statement of Need		Status
4.1	Does the Statement of Need include any environmental factors?	No
	The Statement of Need does not include any environmental factors. It should be noted that the purpose of the Statement of Need is to identify why the airspace change is required and to set out what issues or opportunities the sponsor is seeking to address. There is no requirement for the airspace change to be driven by the need to reduce environmental impacts.	
5. Design Principles		Status
5.1	Does the final set of Design Principles include any environmental objectives?	Yes
	<p>The ACP has one design principle (DP) that includes an environmental objective:</p> <ul style="list-style-type: none"> DP7: <i>“Ensure that any changes fully consider any environmental impact – to include noise, air pollution and social issues”.</i> <p>It should be noted this DP is not specific to the design of this ACP but is in fact a requirement of the CAP 1616 process.</p>	
5.2	Does the proposal explain how and to what extent the final airspace design achieves any environmental Design Principles?	Partially
	<p>The document ‘<i>Stage 4B Airspace Change Proposal v2.1</i>’ includes the Design Principle Evaluation conducted at Stage 2B for the proposed option for this ACP, Option 3; <i>“RMZ + Alter the size of the LETC”</i>. The sponsor evaluated Option 3 to meet DP 7 to <i>“ensure that any changes fully consider any environmental impact – to include noise, air pollution and social issues”</i>, stating <i>“no change”</i> as a result of this option. Due to this being a Level 2C ACP, there is no explicit requirement for the sponsor to assess other environmental aspects, including impacts on local air quality, noise, tranquillity, and biodiversity.</p> <p>The Final Options Appraisal for Option 3 within the document ‘<i>4A: Update Design v2.0</i>’ states <i>“no change”</i> regarding fuel burn and <i>“no effect”</i> on greenhouse gas emissions due to <i>“negligible changes to aircraft routings below 7000 ft”</i> further stating that this proposal will <i>“not increase the number of aircraft within the LETC”</i>. As the vertical extent of the main portion of the LRMZ is SFC – 4,000 ft, and since this proposal is <i>“related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes”</i>, it can be</p>	

	<p><i>inferred that there will also be no impact to fuel burn and CO₂ emissions above 7,000 ft.</i></p> <p>Although not part of the Level 2C environmental assessment requirements, the sponsor has considered the impact upon noise and air quality within the Final Options Appraisal, stating there will be <i>“no impact for noise”</i> due to <i>“negligible changes to air traffic patterns”</i> and that <i>“most of the LETC is over the sea between Land’s End and the Isles of Scilly”</i>. Additionally regarding air quality, the sponsor states there will be <i>“no effect on air quality”</i> due to <i>“negligible changes to aircraft routings below 7000 ft”</i>, further stating that this change option will <i>“not increase the number of aircraft within the LETC”</i>.</p> <p>It should be noted however that aircraft that are non-radio equipped would not be able to enter the airspace unless prior agreement was made and therefore would be required to fly above or around the LETC. The sponsor does not address the impact of these potentially affected aircraft with respect to the environmental assessment criteria as listed in CAP1616 Appendix B. However, the document ‘Stage 3 Step 3A – Options Appraisal (Phase 2 Full) V3.0’ states that <i>“less than 1%”</i> of aircraft currently using the LETC do not have appropriate equipment installed and <i>“neither Land’s End nor St Mary’s allow non-radio aircraft to use their airports and neither have recorded a request to do so in the last 6 years”</i>.</p> <p>Therefore, based on the number of aircraft anticipated to be impacted by this ACP, LEAL’s conclusion that <i>“the aviation impact on the environment due to any of the proposed changes would be negligible as it is anticipated that no more than a few aircraft may have their routings or levels altered”</i>, as stated in the document ‘Stage 3 Step 3A – Options Appraisal (Phase 2 Full) V3.0’, is a reasonable conclusion to reach.</p>	
5.3	<p>Were there any proposed environmental Design Principles that were rejected from the final set? If so, is the rationale for rejecting those Principles reasonable?</p>	<p>No</p>
	<p>No environmental Design Principles (DP) were rejected from the final set. This ACP proposed one DP that included an environmental objective, and this DP was carried through to the final set.</p>	

5.4	<p>Were there any design options during the airspace change process that might have better met the environmental Design Principles than the final proposal as submitted to the CAA? If so, is the rationale for rejecting those options set out?</p>	Yes
<p>This ACP has one Design Principle (DP) that includes environmental objectives, DP7; <i>“Ensure that any changes fully consider any environmental impact – to include noise, air pollution and social issues”</i>. This ACP is not anticipated to alter aircraft traffic patterns below 7,000 ft and is therefore scaled as a Level 2C where the sponsor is required to assess the impacts upon fuel burn and CO₂ emissions, as detailed in CAP1616. It is considered that fuel burn and CO₂ emissions are therefore the environmental impacts that the sponsor should fully consider for the purpose of this DP.</p> <p>As this proposal seeks to reclassify the LETC as an RMZ, and redefine the LETC as the LRMZ, it could be inferred that options proposed by the sponsor that would not restrict the use of airspace could have better met DP7 as there is no change to the current airspace use and aircraft without the appropriate equipment would not be required to fly around the airspace. These options included, <i>“Do Nothing”</i>, <i>“Obtain Radar feed from existing Radar unit”</i>, <i>“Install Radar”</i>, <i>“Class E controlled airspace”</i> and <i>“Automatic Dependent Surveillance – Broadcast (ADS-B)”</i>. However, these options were not progressed and the rationale for this is clearly explained.</p> <p>There were 63 responses from the consultation, and these showed a general split between the <i>“GA community wanting no change”</i> and the <i>“commercial/professional community supporting option 4”</i>. Following feedback from stakeholders, and the sponsor’s own analysis, LEAL decided to submit Option 3 as the formal proposal to the CAA because <i>“it best meets the needs of the design principles, regular airspace users, ATC and offers the most balanced and equitable solution to enhancing safety”</i>.</p>		
6. Options Appraisal		Status
6.1	<p>Have environmental impacts been adequately reflected and assessed in the Options Appraisal?</p>	Partially
<p>This ACP is not anticipated to alter traffic patterns below 7,000 ft, therefore, the ACP has been scaled as a Level 2C. In accordance with the Department for Transport’s (DfT) altitude-based priorities⁶, the environmental priority is to reduce aircraft CO₂ emissions in support of the objective to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions. Due to this being a Level 2C ACP, there is no explicit requirement for the sponsor to assess other environmental aspects, including impacts on local air quality, noise, tranquillity, and biodiversity. As stated in CAP1616, a sponsor is required to assess fuel burn and CO₂ impacts as part of a Level 2 proposal.</p>		

⁶ Department for Transport, Air Navigation Guidance 2017: Altitude-Based priorities.

LEAL examined and considered the operational, economic and environmental impacts, in addition to safety and any technical constraints and opportunities when developing the following options:

- “do nothing”;
- “obtain a radar feed from an existing radar unit”;
- “install a radar at or near Land’s End Airport”;
- “LETC reclassified as Class D controlled airspace”;
- “LETC reclassified as Class E controlled airspace”;
- “establish an RMZ”;
- “establish a TMZ”;
- “establish a combined RMZ/TMZ”;
- “alter the size and dimensions of the LETC”; and
- “utilise [Automatic Dependent Surveillance-Broadcast] ADS-B technology”.

The sponsor provides a high-level statement within the document ‘2B: Options Appraisal (Phase 1 Initial)’ stating that for all options “it is not anticipated that this change will have an adverse effect on CO₂ emissions or noise impacts to stakeholders on the ground, therefore no further environmental impact assessments have been conducted”. As this is a Level 2C ACP with a likely neutral CO₂ impact, the sponsor’s rationale for providing a high-level qualitative statement is reasonable for this stage of the process. The sponsor continued to state that if any of the options “did alter the track or anticipated fuel burn for aircraft, then the sponsor will carry out a more detailed assessment or analysis for CO₂ and noise impacts”. The sponsor provides high-level statements for each option concluding no impact to noise, air quality, greenhouse gas emissions and fuel.

Following feedback from stakeholders and the sponsor’s own analysis, four options were carried forward to consultation at Stage 3. The sponsor combined “alter the size of the LETC” with both “RMZ” and “combined RMZ/TMZ” as a result of the safety assessment conducted at Stage 2. The options carried forward to Stage 3 were known as:

- Option 1; “RMZ”;
- Option 2; “Combined RMZ/TMZ”;
- Option 3; “RMZ + Alter the size of the LETC”; and
- Option 4; “Combined RMZ/TMZ + Alter the size of the LETC (Preferred)”.

Within the document ‘Stage 3 Step 3A – Options Appraisal (Phase 2 Full) V3.0’ the sponsor deems it disproportionate to quantify the impact upon greenhouse gas emissions using WebTAG due to there being “no anticipated dramatic increase in the number of flights in the LETC” and

therefore an expected *“negligible impact to noise or CO₂ in the local environment”*. For Option 3 and Option 4 which extend the area of the LETC over a new portion of land (refer to section 2.1 of this document for visual illustration) the sponsor states *“no change”* regarding fuel burn and *“no effect”* on greenhouse gas emissions due to both options resulting in *“negligible changes to aircraft routings below 7000 ft”*, further stating that the options will *“not increase the number of aircraft within the LETC”*.

For there to be no change regarding fuel burn and greenhouse gas emissions, no change to aircraft routings is required, therefore, the sponsor’s rationale of *“negligible changes to aircraft routings”* is not strictly true. However, as *“this proposal is related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes”* the sponsor’s conclusion of no change to fuel burn and CO₂ emissions is reasonable.

Option 4 was the sponsor’s preferred option and the initial proposal put forward to the CAA, however, following further consideration by the sponsor it was proposed that Option 3 is put forward as the formal proposal as it is *“a fairer and more workable solution to the safety issues in the current LETC”*.

The sponsor does not however directly address the environmental impact of aircraft that are non-radio equipped which would not be able to enter the airspace *“unless by prior agreement”*, and would therefore have to potentially *“utilise the airspace above or around the LETC”*. This consequential impact to aircraft could impact fuel burn, CO₂ emissions and depending on the altitude, impact upon noise, air quality, tranquillity and/or biodiversity. However elsewhere in the submission, the sponsor anticipates that *“less than 1%”* of aircraft do not have 2-way radio equipment installed.

The CAA requested further clarification from the sponsor regarding the potential environmental impact as a result of the new portion of land that is proposed to be included within the LRMZ, requesting whether this ACP will impact on aircraft that are currently using the airspace, or introduce any new flights to the airspace. LEAL provided the following response:

“The majority of the size change happens over the sea and is proposed just to encompass the current IAPs at Land’s End airport and the future IAPs at St Mary’s airport and Penzance Heliport. Aircraft tracks over the sea are not expected to alter as the routing for aircraft will not be affected. Likewise, over the land portion of the LETC the proposed change will not affect aircraft routing and so there would be no change to the environmental impact of any future size change.

The alteration of the boundary of the LETC near Penzance is to encompass their proposed IAP and is only intended to provide a safety buffer zone around the IAP, which is almost entirely over the sea. It is not anticipated that moving the LETC boundary here would alter aircraft flight paths as the IAP has to be flown in accordance with the laid down procedure. Aircraft not using the IAP and routing from the Scillies would still follow their current tracks, again not having to be altered because of the boundary change. Traffic levels in this area would not be increased

	<p>by the proposed change. The boundary to the north-east of the LETC, near St Ives, has actually been moved to reduce the land portion of the LETC thus reducing the environmental impact in this area".</p> <p>Therefore, based on the number of aircraft anticipated to be impacted by this ACP and the sponsor's response to the CAA's request for clarification, LEAL's conclusion that <i>"the aviation impact on the environment due to any of the proposed changes would be negligible as it is anticipated that no more than a few aircraft may have their routings or levels altered"</i> is a reasonable.</p>	
6.2	<p>Is the final proposal as submitted to the CAA the airspace design option that also produced the best environmental impacts as assessed by the Options Appraisal? If not, does the rationale for selecting the preferred option adequately explain this choice?</p>	No
	<p>This ACP is not expected to alter traffic patterns below 7,000ft therefore it has been scaled as Level 2C. As stated in CAP1616, a sponsor is required to assess fuel burn and CO₂ impacts as part of a Level 2 proposal. It is considered that all options would have similar environmental outcomes as all options were anticipated to have a negligible impact on aircraft behaviours</p> <p>It could be argued that other options proposed by the sponsor, which would not restrict the use of the airspace for non-radio equipped aircraft, have a reduced environmental impact. These options include, <i>"Do Nothing"</i>, <i>"Obtain Radar feed from existing Radar unit"</i>, <i>"Install Radar"</i>, <i>"Class E controlled airspace"</i> and <i>"Automatic Dependent Surveillance – Broadcast (ADS-B)"</i>. However, the sponsor evidences that few aircraft would be impacted and therefore concludes that <i>"the aviation impact on the environment due to any of the proposed changes would be negligible"</i>.</p>	
7. Noise [for Level 1 and Level M1 airspace change proposals]		Status
7.1	<p>Has the noise impact been adequately assessed and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?</p>	N/A
	<p>This ACP has been scaled as Level 2C as the proposal does not expect to alter <i>"aircraft tracks and routings"</i> below 7,000 ft and subsequently <i>"it is not anticipated that this change will have an adverse effect on CO2 emissions or noise impacts to stakeholders on the ground"</i>. There is no requirement therefore for the sponsor to assess noise. The sponsor has however considered the impact upon noise by providing a high-level qualitative statement concluding, <i>"no impact"</i>.</p> <p>It should be noted however that aircraft which are non-radio equipped would not be able to enter the airspace <i>"unless by prior agreement"</i>. Aircraft without the required equipment fitted <i>"could still utilise the airspace above or around the LETC"</i>. The sponsor does not address the</p>	

	<p>impact of these potentially affected aircraft with respect to noise. However, the document 'Stage 3 Step 3A – Options Appraisal (Phase 2 Full) V3.0' states that "less than 1%" of aircraft do not have 2-way radio equipment installed in their aircraft and "neither Land's End nor St Mary's allow non-radio aircraft to use their airports and neither have recorded a request to do so in the last 6 years".</p> <p>As detailed in the Final Options Appraisal, and taking account of LEAL's response to the CAA's request for clarification, detailed in Question 2 of this assessment, the sponsor's conclusion of "no impact for noise" due to "negligible changes to air traffic patterns" is reasonable.</p>	
7.2	<p>If a noise assessment has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?</p>	<p>N/A</p>
	<p>This ACP has been scaled as Level 2C as the proposal does not expect to alter "aircraft tracks and routings" below 7,000 ft and subsequently "it is not anticipated that this change will have an adverse effect on CO2 emissions or noise impacts to stakeholders on the ground". Therefore, there is no requirement for the sponsor to assess noise. The sponsor has however considered the impact upon noise by providing a high-level qualitative statement concluding, "no impact".</p> <p>The sponsor does not however acknowledge the consequential impact to noise as a result of aircraft that are non-radio equipped. Given the small number of aircraft the sponsor anticipates being potentially impacted by this ACP, "less than 1%" of aircraft do not have 2-way radio equipment, the sponsor's conclusion of "no impact for noise" due to "negligible changes to air traffic patterns", as detailed in the Final Options Appraisal, is therefore considered reasonable.</p>	
7.3	<p>Summary of anticipated noise impacts from the final proposed airspace change.</p>	
	<p>Based on the information provided, the sponsor's conclusion that "it is not anticipated that this change will have an adverse effect on [...] noise impacts to stakeholders on the ground" is reasonable.</p>	

8. CO ₂ Emissions	Status
8.1	<p>Has the impact on CO₂ emissions been adequately assessed and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?</p>
	<p>This ACP has been scaled as Level 2C as the proposal does not expect to alter “aircraft tracks and routings” below 7,000 ft. As stated in CAP1616, a sponsor is required to assess fuel and CO₂ impacts as part of a Level 2 proposal.</p> <p>The Final Options Appraisal for Option 3; “RMZ + Alter the size of the LETC”, within the document ‘4A: Update Design v2.0’ states “no change” regarding fuel burn and “no effect” on greenhouse gas emissions due to “negligible changes to aircraft routings below 7000 ft”, further stating that this proposal will “not increase the number of aircraft within the LETC”. Similarly, the document ‘Stage 4B: Airspace Change Proposal v2.1’ and ‘Stage 3: Consultation Document v3.0’ states no impact or benefit to CO₂ emissions due to “no change to the number of flights in the LETC”. For there to be no change regarding fuel burn and greenhouse gas emissions, no change to aircraft routings is required, therefore, the sponsor’s rationale of “negligible changes to aircraft routings” is not strictly true. However, as “this proposal is related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes” the sponsor’s conclusion of no change to fuel burn and CO₂ emissions is reasonable.</p> <p>It should be noted however that aircraft which are non-radio equipped would not be able to enter the airspace “unless by prior agreement”. Aircraft without the required equipment fitted “could still utilise the airspace above or around the LETC”. The sponsor does not address the consequential impact of these potentially affected aircraft with respect to fuel burn and CO₂ emissions. However, the document ‘Stage 3 Step 3A – Options Appraisal (Phase 2 Full) V3.0’ states that “less than 1%” of aircraft do not have 2-way radio equipment installed in their aircraft and “neither Land’s End nor St Mary’s allow non-radio aircraft to use their airports and neither have recorded a request to do so in the last 6 years”.</p> <p>Based on the number of aircraft anticipated to be impacted by this ACP and the sponsor’s response to the CAA’s request for clarification, as detailed in Question 2 of this assessment, LEAL’s conclusion that it is “not anticipated that this change will have an adverse effect on CO₂ emissions” is reasonable. Furthermore, the sponsor’s rationale for not conducting a quantified WebTAG assessment of the impacts to greenhouse gas emission was due to the “negligible impact to [...] CO₂ in the local environment”. Given the nature of the changes being made and the “negligible impact to [...] CO₂ in the local environment”, the sponsor’s high-level qualitative statement regarding the impacts upon CO₂ emissions is considered reasonable.</p>

8.2	<p>If an assessment of the impact on CO₂ emissions has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?</p>	Yes
	<p>This ACP has been scaled as Level 2C as the proposal does not expect to alter “<i>aircraft tracks and routings</i>” below 7,000 ft. As stated in CAP1616, a sponsor is required to assess fuel burn and CO₂ impacts as part of a Level 2 proposal.</p> <p>The Final Options Appraisal for Option 3; “<i>RMZ + Alter the size of the LETC</i>”, within the document ‘<i>4A: Update Design v2.0</i>’ states “<i>no change</i>” regarding fuel burn and “<i>no effect</i>” on greenhouse gas emissions due to “<i>negligible changes to aircraft routings below 7000 ft</i>”, further stating that this proposal will “<i>not increase the number of aircraft within the LETC</i>”. Similarly, the document ‘<i>Stage 4B: Airspace Change Proposal v2.1</i>’ and ‘<i>Stage 3: Consultation Document v3.0</i>’ states no impact or benefit to CO₂ emissions due to “<i>no change to the number of flights in the LETC</i>”.</p> <p>The sponsor does not however address the consequential impact with respect to fuel burn and CO₂ emissions for aircraft that will potentially have to “<i>utilise the airspace above or around the LETC</i>” due to not being suitably equipped. However, the document ‘<i>Stage 3 Step 3A – Options Appraisal (Phase 2 Full) V3.0</i>’ states that “<i>less than 1%</i>” of aircraft do not have 2-way radio equipment installed in their aircraft and “<i>neither Land’s End nor St Mary’s allow non-radio aircraft to use their airports and neither have recorded a request to do so in the last 6 years</i>”.</p> <p>The sponsor’s rationale for not conducting a quantified assessment of the impacts to greenhouse gas emissions was due to a “<i>negligible impact to [...] CO₂ in the local environment</i>”. Based on the number of aircraft anticipated to be impacted by this ACP this rationale can be considered reasonable, and therefore, the sponsor’s high-level qualitative statement regarding the impacts upon CO₂ emissions is satisfactory.</p>	
8.3	<p>Summary of anticipated impact on CO₂ emissions from the final proposed airspace change.</p>	
	<p>The sponsor states that “<i>it is not anticipated that this change will have an adverse effect on CO₂ emissions</i>”. However, should this ACP be approved, it must be noted that aircraft that are non-radio equipped would not be able to enter the airspace “<i>unless by prior agreement</i>”, and would therefore potentially be required to “<i>utilise the airspace above or around the LETC</i>”. It is understood by the sponsor that “<i>less than 1%</i>” of aircraft do not have 2-way radio equipment installed.</p> <p>Based on the number of aircraft anticipated to be impacted by this ACP, the impacts to fuel burn and CO₂ emissions as a result of these</p>	

	aircraft having to <i>“utilise the airspace above or around the LETC”</i> can be considered as being negligible and, therefore, no adverse impacts are expected to occur.	
9. Local Air Quality [for Level 1 and Level M1 airspace change proposals]		Status
9.1	Has the impact on Local Air Quality been adequately assessed and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?	N/A
	<p>This ACP has been scaled as Level 2C as the proposal does not expect to alter <i>“aircraft tracks and routings”</i> below 7,000 ft, therefore there is no requirement for the sponsor to assess the impacts upon local air quality. The sponsor has however provided a high-level qualitative statement for air quality and concluded <i>“no effect”</i>.</p> <p>It should be noted however that aircraft which are non-radio equipped would not be able to enter the airspace <i>“unless by prior agreement”</i>. Aircraft without the required equipment fitted <i>“could still utilise the airspace above or around the LETC”</i>. The sponsor does not address the consequential impact of these potentially affected aircraft with respect to air quality. However, the document <i>‘Stage 3 Step 3A – Options Appraisal (Phase 2 Full) V3.0’</i> states that <i>“less than 1%”</i> of aircraft do not have 2-way radio equipment installed and <i>“neither Land’s End nor St Mary’s allow non-radio aircraft to use their airports and neither have recorded a request to do so in the last 6 years”</i>.</p> <p>An Air Quality Management Area (AQMA), Kerrier AQMA, designated for NO₂, is situated in close proximity to the North East of the existing and proposed LETC/LRMZ boundary. The sponsor should have had regard for this AQMA within the submission, however, given the small number of aircraft the sponsor anticipates being potentially impacted by this ACP, and LEAL’s response to the CAA’s request for clarification, as detailed in Question 2 of this assessment, it is considered reasonable that the sponsor has not conducted further assessment. As stated in CAP1616, a sponsor is required to assess fuel and CO₂ impacts as part of a Level 2 proposal.</p>	
9.2	If an assessment of the impact on Local Air Quality has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?	N/A

	<p>The sponsor does not acknowledge the consequential impact to air quality as a result of aircraft that are non-radio equipped and therefore required to <i>“utilise the airspace above or around the LETC”</i>. It should also be noted that there is an Air Quality Management Area (AQMA), Kerrier AQMA, designated for NO₂, in close proximity to the North East of the existing and proposed LETC/LRMZ boundary which the sponsor has not considered.</p> <p>Given the number of aircraft the sponsor anticipates being potentially impacted by this ACP, <i>“less than 1%”</i> of aircraft do not have 2-way radio equipment installed, it is considered reasonable that the sponsor has not conducted a further assessment of the impacts upon air quality. As stated in CAP1616, a sponsor is required to assess fuel and CO₂ impacts as part of a Level 2 proposal.</p>
9.3	<p>Summary of anticipated impact on Local Air Quality from the final proposed airspace change.</p>
	<p>Taking into consideration the number of aircraft the sponsor anticipates being potentially impacted by this ACP, <i>“less than 1%”</i> of aircraft do not have 2-way radio equipment installed, and the sponsor’s response to the CAA’s request for clarification, as detailed in Question 2 of this assessment, no adverse impact upon local air quality is likely.</p>
10. Tranquillity [for Level 1 and Level M1 airspace change proposals]	
	Status
10.1	<p>With specific reference to Areas of Outstanding Natural Beauty and National Parks - Has the impact on tranquillity been adequately considered and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?</p>
	N/A
	<p>This ACP has been scaled as Level 2C as the proposal does not expect to alter <i>“aircraft tracks and routings”</i> below 7,000 ft, therefore there is no requirement for the sponsor to assess the impacts upon tranquillity.</p> <p>A high-level statement provided by the sponsor concludes that an assessment of the impacts upon tranquillity is <i>“N/A [not applicable]”</i>. It should be noted however that this ACP proposes to extend the area of the LETC (LRMZ) over a new portion of land, which has potential to impact upon new areas of the Cornwall Area of Outstanding Natural Beauty (AONB). Refer to section 2.1 of this document for visual illustration. In addition to this, aircraft which are non-radio equipped would not be able to enter the airspace <i>“unless by prior agreement”</i>. Aircraft without the required equipment fitted <i>“could still utilise the airspace above or around the LETC”</i>. The sponsor does not address the consequential impact of these potentially affected aircraft with respect to tranquillity. However, the document <i>‘Stage 3 Step 3A – Options Appraisal (Phase 2 Full) V3.0’</i> states that <i>“less than 1%”</i> of aircraft do not have 2-way radio equipment installed and <i>“neither Land’s End nor</i></p>

	<p><i>St Mary's allow non-radio aircraft to use their airports and neither have recorded a request to do so in the last 6 years".</i></p> <p>Based on the number of aircraft anticipated to be impacted by this ACP and the sponsor's response to the CAA's request for clarification, as detailed in Question 2 of this assessment, it is considered reasonable that the sponsor has not conducted a tranquillity assessment 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>.</p>	
10.2	<p>If consideration of the impact on tranquillity has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?</p>	N/A
	<p>The sponsor does not acknowledge the consequential impact to tranquillity as a result of aircraft that are non-radio equipped and therefore required to <i>"utilise the airspace above or around the LETC"</i>. In addition to this, the ACP proposes to extend the area of the LRMZ over a new portion of land, which has potential to impact upon new areas of the Cornwall Area of Outstanding Natural Beauty (AONB).</p> <p>Given the number of aircraft the sponsor anticipates being potentially impacted by this ACP, <i>"less than 1%"</i> of aircraft do not have 2-way radio equipment installed, and that this proposal is <i>"related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes"</i>, it is considered reasonable that the sponsor has not conducted a further assessment of the impacts upon tranquillity. As stated in CAP1616, a sponsor is required to assess fuel and CO₂ impacts as part of a Level 2 proposal.</p>	
10.3	<p>Summary of anticipated impact on tranquillity from the final proposed airspace change.</p>	
	<p>No adverse impact upon tranquillity is likely. This is concluded on the basis that the number of aircraft the sponsor anticipates being potentially impacted by this ACP is <i>"less than 1%"</i> and that this proposal is <i>"related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes"</i>,</p>	
11. Biodiversity [for Level 1 and Level M1 airspace change proposals]		Status
11.1	<p>Has the impact on biodiversity been adequately assessed and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?</p>	N/A

	This ACP is assigned as a Level 2C, therefore there is no requirement to assess biodiversity and therefore no assessment regarding the impacts upon biodiversity has been provided by the sponsor. As per CAP1616 [pg. 162] <i>'Most airspace change proposals are unlikely to have an effect upon biodiversity and therefore the inclusion within the design principles is expected to be the full extent of any consideration in most instances'</i> .	
11.2	If assessment of the impact on biodiversity has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?	N/A
	This ACP is assigned as a Level 2C, therefore there is no requirement to assess biodiversity. The sponsor has adequately explained that this proposal is <i>"related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes"</i> , therefore, this proposal is not expected to have an adverse impact on biodiversity. As per CAP1616: <i>"most airspace change proposals are unlikely to have an effect upon biodiversity and therefore the inclusion within the design principles is expected to be the full extent of any consideration in most instances"</i> .	
11.3	Summary of anticipated impact on biodiversity from the final proposed airspace change.	
	The ACP is considered unlikely to have an impact on biodiversity as it is <i>"related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes"</i> . As per CAP1616 [pg. 162] <i>'Most airspace change proposals are unlikely to have an effect upon biodiversity and therefore the inclusion within the design principles is expected to be the full extent of any consideration in most instances'</i> .	
12. Traffic Forecasts		Status

12.1	<p>Have traffic forecasts been provided, are they reasonable, and have these been used to reflect the anticipated environmental impacts of the proposal?</p>	N/A
<p>This ACP affects airspace design 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 detailed in CAP1616, the impacts upon fuel burn and CO₂ emissions require assessing.</p> <p>The sponsor has provided traffic data for 2019 and 2020, in addition to traffic forecast data from 2021 up to 2030. The sponsor provided 11 months’ worth of data for 2020 as only this amount of data was <i>“available at [the] time of print”</i>. The sponsor assumes that a recovery to pre-Covid levels of traffic will occur over the next <i>“12 – 18 months”</i>, within 2022, following a recovery rate of <i>“80 – 85%”</i> of the previous year’s figures witnessed during the summer months of 2020, after travel restrictions were eased by the government. The sponsor notes that traffic levels will continue to rise <i>“but at a slower rate than in previous years”</i> due to the Isles of Scilly’s <i>“maximum capacity and continued popularity”</i>. The forecasts provided by the sponsor are considered reasonable given the uncertainty in how air traffic will be impacted in the long-term.</p> <p>This ACP is <i>“related to improving the safety of existing services and not about stimulating new traffic or altering any existing routes”</i>. The sponsor did not conduct a quantified assessment of fuel burn and CO₂ emissions due to the <i>“negligible impact to [...] CO₂ in the local environment”</i>. Based on the information provided by the sponsor, LEAL’s decision for not conducting a quantified assessment is considered reasonable. As a result of the sponsor providing a qualitative assessment of the impacts to fuel burn and CO₂ emissions, and on the understanding that this ACP is <i>“not about stimulating new traffic or altering any existing routes”</i>, the traffic forecasts provided by the sponsor were not required for the purpose of the environmental assessment.</p>		
13. Consultation		Status

13.1	Has the sponsor taken account of any environmental factors (noise, CO₂ emissions, Local Air Quality, tranquillity or biodiversity) raised by consultees or has evidence been provided to indicate why this has not been possible?	Yes
	<p>The sponsor received a response during the consultation period from Natural England, stating the need to have particular regard to the sensitivities of breeding birds and seals related to the Scilly Isles Special Area of Conservation, suggesting the consideration of flight exclusion zones around key breeding areas during their breeding seasons. LEAL's response to Natural England was that "<i>sensitive wildlife areas are already identified within the LETC and procedures [are] in place to ensure their safety</i>". As this ACP concerns improving the safety of existing services and is "<i>not about stimulating new traffic or altering any existing routes</i>" the response provided by LEAL is reasonable.</p> <p>The Environment Agency was also included as a consultee and stated that there is "<i>no likely impact on our response service</i>" as a result of the proposal.</p>	
13.2	Has the sponsor taken account of any consultation response submitted by ICCAN? If so, what are the outcomes?	N/A
	ICCAN did not provide a consultation response to this ACP.	
14. Public Evidence Session (if held)		Status
14.1	If a Public Evidence Session has been held, was any <u>new</u> evidence on potential environmental impacts presented?	N/A
	Not applicable, no public evidence session has been held for this change.	
14.2	If so, was the new evidence relevant and material to the CAA's consideration of the environmental impacts of the submitted airspace change proposal?	N/A
	Not applicable, no public evidence session has been held for this change.	
15. Compliance with policy and guidance from Government, ICCAN or the CAA		Status

15.1	Has the sponsor satisfied all relevant policy and/or guidance from either the Government, ICCAN or the CAA, with regards to environmental impacts of the proposed airspace change?	Yes
	This ACP affects airspace design 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 the impacts upon fuel burn and CO ₂ emissions require assessing. The change sponsor has complied with all relevant requirements as listed within CAP 1616 for a Level 2C ACP, taking into consideration the DfT's Altitude-Based Priority, D, in which CO ₂ emissions were considered as an environmental factor.	
15.2	Has the sponsor adequately considered the DfT's Altitude-Based Priorities ⁷ ?	Yes
	This ACP affects airspace design below 7,000 ft, however, it has been scaled as a Level 2C 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> . Therefore, the environmental impacts are consistent with Altitude-Based Priority, D, in which CO ₂ emissions were considered as an environmental factor.	
16. Other aspects		Status
16.1	Are there any other aspects of the airspace change proposal that have not already been addressed in this report but that may have a bearing on the environmental impact?	No
	None.	
17. Recommendations/Conditions/PIR Data Requirements		Status
17.1	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.	No
	None.	
17.2	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.	No

⁷ Paragraph 3.3, DfT's Air Navigation Guidance 2017


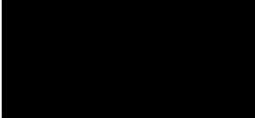
	None.	
17.3	Are there any specific requirements in terms of the data to be collected by the change sponsor for the Post Implementation Review (if approved)? If yes, please list them below.	Yes
	<p>For this ACP it is recommended that the sponsor starts to collect the following information from the date of implementation for the Post Implementation Review:</p> <ul style="list-style-type: none"> • Monitor the flight behaviour and volume of traffic operating within the LRMZ. • Monitor the flight behaviour and volume of traffic utilising the current, and proposed IAPs, at Penzance Heliport, Land's End Airport, St Mary's Airport and Tresco Heliport. • Monitor the flight behaviour and volume of traffic that must route-around/over the LRMZ as a result of not having the appropriate equipment. 	

18. Summary of Assessment of Environmental Impacts & Conclusions	
	<p>This Airspace Change Proposal (ACP) seeks to improve the safety of existing services within the Land's End Transit Corridor (LETC). This ACP impacts airspace below 7,000ft, however it has been scaled as Level 2C as the proposal is <i>"not about stimulating new traffic or altering any existing routes"</i>. The sponsor proposes to implement a Radio Mandatory Zone (RMZ) whilst redefining the LETC as the Land's End RMZ (LRMZ). In addition to this, the ACP seeks to change the shape of the LRMZ to include the instrument approaches at Penzance Heliport, Land's End Airport, St Mary's Airport and Tresco Heliport. The sponsor anticipates that this shape change would take place in following three stages as neither St Mary's nor Penzance have their published procedures as of yet and will therefore be proceeding with their own ACPs:</p> <ul style="list-style-type: none"> • Stage 1 – Change the shape to include the IAP's at Land's End Airport • Stage 2 – Change the shape to include the PINS approach at Penzance Heliport • Stage 3 – Change the shape to include the IAP's at St Mary's Airport

It must be noted that if this ACP is approved by the CAA, only the shape change associated with Stage 1 can be realised. The shape changes associated with Stages 2 and 3 are dependent on the outcome of St Mary's' and Penzance's ACPs, therefore, these subsequent changes will only be realised if these ACPs are approved by the CAA.

The RMZ is proposed to coincide with the airport operating hours which vary during the summer and winter; "typical" summer hours are 0700-1730 UTC and "typical" winter hours are 0800-1730 UTC. Outside of these hours the airspace will revert back to how it operates today.

As this ACP has been assigned as Level 2C the environmental priority is the reduction of aircraft CO₂ emissions. As this ACP is "not about stimulating new traffic or altering any existing routes" the sponsor predicts a negligible impact to CO₂ emissions as a result of the proposed option. Due to this being a Level 2C ACP, there is no explicit requirement for the sponsor to assess other environmental aspects, including impacts on local air quality, noise, tranquillity, and biodiversity. Based on the information provided by the sponsor, it is considered unlikely that this proposal will have an impact on these environmental aspects.

Environmental assessment and statement sign-off and approval	Name	Signature	Date
Environmental assessment and statement completed by:	Airspace Regulator (Environment)		27/05/2021
Environmental assessment and statement approved by:	Airspace Regulator (Environment)		09/06/2021