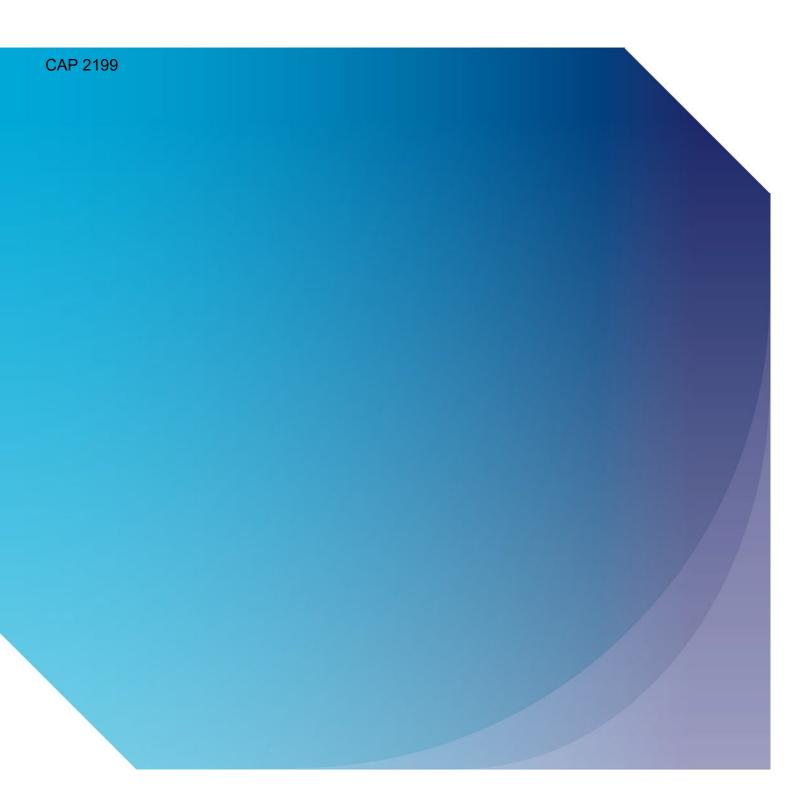


ACP-2019-75

Land's End Transit Corridor



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Executive Summary

Objective of the Proposal

- 1.1. The Land's End Transit Corridor (LETC) is an established airspace construct that links the area of Land's End with the Isles of Scilly, encompassing Land's End Airport (LEA) and St Mary's Airport (StMA), and extending vertically from the surface (SFC) to 4,000 ft AMSL. The LETC itself is Class G airspace and partially overlaps the RNAS Culdrose Area of Intense Aerial Activity (AIAA); current notification of both the LETC and RNAS Culdrose AIAA indicate that pilots 'are strongly recommended to' or 'should' contact the appropriate ATSU prior to entering the area.
- 1.2. LEA, the sponsor of the Airspace Change Proposal (ACP), recognised that an element of unknown traffic operates within the LETC due, at least in part, to the optional nature of the requirement for airspace users to communicate with Air Traffic Service Units (ATSUs) in the area. The sponsor contends that the unknown traffic operating within the LETC represents a hazard to the known traffic operating within the airspace, which includes commercial passenger flights (in 2019 LEA handled 64,000 passengers and StMA handled 94,000 passengers). LEA also recognised that a number of planned changes to increase commercial aviation activity within the LETC could potentially exacerbate the safety implications of this unknown traffic situation. These plans included the addition of commercial helicopter operations between Penzance and Tresco Heliports (which commenced in Q2 2020), the planned introduction of Instrument Approach Procedures (IAP) at StMA and plans for Point-in-Space (PinS) approaches to be introduced at the heliports.
- 1.3. This analysis led LEA to identify a requirement for an airspace change with the objective of providing mitigation to the unknown traffic situation within the LETC. As a result of following the CAP1616 ACP process, the sponsor proposed the removal of the LETC and notification of a Radio Mandatory Zone (RMZ) in its place. This RMZ would be known as the Land's End RMZ (LRMZ) and Stage 1 of the proposed implementation would be larger than the LETC structure in the vicinity of LEA to encompass the airspace used by traffic following the LEA instrument flight procedures (IFP).
- 1.4. The sponsor recognised that StMA and the heliports at Penzance and Tresco intend to introduce their own IFP and are currently following the ACP process to do so. This resulted in the sponsor proposing Stage 2 and Stage 3 designs of the LRMZ which anticipate successful outcomes for the StMA and heliport ACPs. The sponsor proposes that these designs should be approved now and implemented at some point in the future alongside any IFP that would result from successful conclusion of these ACPs.
- 1.5. A map illustrating the proposed Stage 1 LRMZ is at Appendix A.

Summary of the Decision Made

1.6. The sponsor operates within a Class G airspace environment alongside nearby commercial, recreational and military airspace users. Noting recent traffic levels there is an expectation of a return to, and continued growth beyond, pre-COVID air traffic levels operating in this area. The sponsor identified that it would be appropriate to create a 'more informed' traffic environment locally and the proposal to introduce an RMZ for this purpose addresses this

requirement in a proportionate manner. In the proposal, the sponsor contends that less than 1% of general aviation (GA) traffic that operates in the area is not fitted with radio equipment and would therefore potentially be impacted by the introduction of an RMZ. Noting this claim cannot be corroborated, the impact of this change must be balanced against the volume of current and likely predicted operations within this area.

- 1.7. Considering this impact, the sponsor has presented a well-reasoned argument to support the establishment of an RMZ in order to improve the overall safety of aviation operations in the area. This is further supported by the stated commitment to establish procedures that will, where traffic and safety allows, enable access to the area by non-radio equipped users, thereby mitigating to a degree the potential impact; this also aligns with the extant CAA policy requirements of an RMZ¹.
- 1.8. The phased approach proposed within the ACP to amend the LRMZ size and shape at a future date does not reflect the current situation and requirement. This instead predetermines the outcome of other airspace change requests and creates unintended dependencies with non-associated changes. This does not align with regulatory process where the requirement for a change is required to be evidenced. In this instance, the dimensions of any change proposed in Stage 2 and, or, 3 is neither determinable nor necessarily required.
- 1.9. In line with CAA responsibility under Section 70 of the Transport Act, the implementation of Stage 1 would support the safe and efficient use of airspace. Stage 1 of the ACP is therefore approved, where this approval is consistent with the engagement undertaken during the ACP and is proportionate.
- 1.10. Stages 2 and 3 of this change are not approved. Any perceived requirement due to a non-associated change should form part of that change request to enable appropriate consideration or should be the subject of a further change request once the requirement can be evidenced.

Next Steps

- 1.11. Implementation of the proposed airspace will be notified through a single AIRAC cycle (AIRAC 10/2021) and will become effective on 7th October 2021.
- 1.12. The CAA's Post-Implementation Review (PIR)² of the changes approved by the CAA in this decision will commence at least one year after the implementation date. It is a condition of the CAA's approval that the Sponsor captures and collates data throughout the year following implementation of the airspace change, which will be used to inform the PIR. Detail of the data that the sponsor will be required to collate is given in Chapter 4 CAA's Regulatory Decision, para 4.10.

¹ Policy for Radio Mandatory Zones and Transponder Mandatory Zones dated 14th August 2015

² PIR is the 7th Stage of the CAA's airspace change proposal process as described in CAP1616

Decision Process and Analysis

Chronology of the Proposal Process

Statement of Need and Assessment Meeting (Stage 1, Step 1A)

- 2.1 LEA submitted a DAP1916 Statement of Need (SoN) on 15 h October 2019. An Assessment Meeting (AM) was then held on 5th December 2019 at which LEA outlined the current situation and the issue that had been identified. The ACP process, which establishes the requirement to develop a comprehensive list of potential solutions or options, and the need to agree an indicative timeline were also discussed.
- 2.2 The CAA determined that the proposal was in scope of the CAP1616 ACP process and stated the provisional level of airspace change attributable to the proposal as Level 2C. Minutes of the AM, together with a copy of the slide presentation that was used in the meeting, were published to the CAA ACP Portal (the Portal).

Development of the Design Principles (Stage 1, Step 1B)

2.3 The sponsor identified and engaged with a broad group of stakeholders in the process of defining a set of Design Principles (DPs). The stakeholder group included local councils, environmental groups, Air Navigation Service Providers (ANSPs), aviation stakeholders and a number of representative groups including members of NATMAC and GA bodies. Feedback from the stakeholder group was used to define a set of draft DPs which were shared with the same stakeholder group for their consideration. The DPs were amended as a result of the feedback received from this engagement activity. A finalised submission was presented to the CAA and uploaded to the Portal.

Define Gateway – 26th June 2020

2.4 The sponsor originally submitted the required documentation and evidence in time for the Gateway Meeting on 29th May 2020. However, during analysis it became apparent that, having engaged with their identified stakeholder group to inform the development of a draft set of DPs, the sponsor had not shared that list of DPs with the stakeholder group for their consideration and comment. Advice was given to the sponsor and the decision was taken to reschedule for submission to the Gateway Meeting on 26th June 2020. This gave the sponsor sufficient time to share the draft DPs with the stakeholder group and to complete the process requirements. The ACP was considered at the June 2020 Gateway Meeting and, having completed the further engagement with stakeholders and amended the DPs in response to their feedback, the ACP was considered to have met with the CAP 1616 process requirements and was progressed to Stage 2: Develop and Assess.

Options Development and Appraisal (Stage 2, Step 2A & 2B)

2.5 The sponsor developed 9 design options, which included consideration of a 'Do Nothing' option, various changes to the classification of the airspace, installation of radar equipment or the use of a radar feed, and consideration of the introduction of mandatory equipment carriage in the area. A further 3 stakeholders who expressed an interest in the ACP were added to the stakeholder group identified in Stage 1 and this larger group were directly engaged to consider the design options developed by the sponsor. Formal submission of documents was completed to meet the Gateway Meeting scheduled for 25th September 2020. However, during the analysis period it was noted that the sponsor had not completed an appraisal of the options in accordance with the CAP 1616 process requirements. Subsequent discussions led to a delay of the Develop and Assess Gateway to the following Gateway Meeting on 30th October 2020. This provided sufficient time for the sponsor to address the required process elements and to produce a completed submission for review.

Develop & Assess Gateway – 30th October 2020

2.6 Following resubmission of the required documentation for consideration at the Gateway Meeting, the CAA accepted that the sponsor had adhered to the guidance provided in CAP1616 and followed the process appropriately to develop suitable options through engagement with stakeholders. The CAA also confirmed the proposal as a Level 2C ACP³ and accepted the rationale used to identify the shortlist of 4 options to be taken forward to Stage 3: Consult.

Consult Gateway (Stage 3, Step 3B) - 27th November 2020

2.7 During the Consult Gateway held on 27th November 2020, the CAA accepted that the consultation document and materials presented by the sponsor were clear, appropriate and comprehensive. In the material, the sponsor presented 4 options for stakeholder consideration and provided details on how to respond, predominantly through CitizenSpace via the Portal, as required by the CAP 1616 process. The consultation period was set at 12 weeks, although it was noted that this included the Christmas and New Year period, potentially reducing the effective duration of the consultation. The sponsor suggested the duration to be appropriate due to the Level 2C categorisation of the ACP, the scope of the proposal and the strategy to consult with a targeted stakeholder audience; this was accepted by the CAA. The Consult Gateway was approved subject to the completion of some corrections and amendments to the consultation material that had been noted by the CAA. Once these adjustments had been made to the consultation material it was decided that the consultation start would be delayed until 4th January 2021, to avoid the festive period, and would run for 10 weeks, concluding on the 15th March 2021.

CAA Assessment and Decision in Respect of Consultation

2.8 The CAA is satisfied that the sponsor applied the fundamental principles of effective consultation before, during and after the consultation period by targeting the right

³ **Level 2C:** Medium to Low Impact change which typically reflects the current use of the airspace concerned [or the removal of an established airspace structure] and which does not alter traffic patterns below 7,000 feet over an inhabited area

audience; communicating in a way that suited them; and giving them the tools to make informed, valuable contributions to the development of the proposals. In addition, the CAA considers that the sponsor conducted its consultation in accordance with the requirements of CAP1616 and having taken into account the Government's Consultation Principles: Guidance, and the Secretary of State's Air Navigation Guidance.

Proposal Update and Submission (Stage 4, Step 4A & 4B) – 29th April 2021

- 2.9 Initial versions of the Step 4A (Update Design) and Step 4B (Submit Airspace Change Proposal) documentation were submitted to the CAA on 29th April 2021. In accordance with the process described in CAP1616 Appendix G, a number of revisions and amendments were made to the documents during the decision phase to provide clarity or additional evidence to the submission.
- 2.10 The Step 4A submission considered the elements of feedback received during the consultation period that had the potential to impact the proposed options. Review of this feedback led to the sponsor changing its focus from the introduction of a combined RMZ & TMZ to the proposal to introduce an RMZ in isolation as a more proportionate and equitable airspace solution to the issue identified in the SoN. Further, the feedback also led to the refinement of the shape and dimensions of the proposed structure.
- 2.11 The Step 4B document presented the design proposal for a structure, known as the Land's End Radio Mandatory Zone (LRMZ), to be considered for implementation as appropriate mitigation for the presence of unknown air traffic that operates within the existing LETC. The proposal sought to delete the existing LETC structure and to replace it with an RMZ that differed in its dimensions and also sought approval to alter the size and shape of the structure, at an undetermined future date, in response to the possible introduction of additional IFP at StMA and the Penzance and Tresco Heliports. The proposed initial implementation, referred to as the Stage 1 implementation, would be larger than the existing LETC structure in the area around LEA as its shape was designed to encompass the existing IFPs at LEA; this is shown at Appendix A.

CAA Analysis of the Material Provided

- 2.12 As a record of the analysis of the Step 4B Airspace Change Proposal formal submission provided by the sponsor and relating to this ACP, the CAA has produced the following documentation which will be uploaded to the Portal:
 - i) 20210504-Consultation Assessment
 - ii) 20210504-Final Options Appraisal Assessment
 - iii) 20210504-Environmental Assessment
 - iv) 20210504-Operational Assessment

CAA Consideration of Factors Material to the Decision

Explanation of the CAA's Statutory Duties

3.1 The CAA's statutory duties are laid down in Section 70 of the Transport Act 2000. In addition, Regulation (EU) No 923/2012 as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018, (UK (EU) Reg No 923/2012) dated 26th September 2012 and the CAA Policy for Radio Mandatory Zones & Transponder Mandatory Zones dated 14th August 2015 are applicable to this proposal.

Conclusions in Respect of Safety

- 3.2 The CAA's primary duty is to maintain a high standard of safety in the provision of air traffic services and this takes priority over all other duties.⁴ In its consideration of this proposal, the CAA is satisfied that the implementation of the proposed RMZ will improve the overall safety of operations within the airspace affected:
 - The proposed RMZ does not alter the classification of the airspace.
 - ii) The proposed RMZ will ensure that all air traffic operating within the area is in contact with, and therefore known to, the appropriate ATSU.
 - iii) The dimensions of the proposed RMZ are such that the existing IAPs in operation at LEA will be encompassed by the structure. This is considered proportionate and appropriate in order to provide a consistent degree of additional safety to the operations that currently take place in the area.

Conclusions in Respect of Efficient Use of Airspace

- 3.3 The CAA is required to secure the most efficient use of the airspace consistent with the safe operation of aircraft and the expeditious flow or air traffic.⁵ In its consideration of this proposal, the CAA is satisfied that the implementation of the proposed RMZ will have a minimal impact on the efficient use of this airspace while improving the overall safety of operation:
 - i) The introduction of the proposed RMZ will not restrict the operation of the majority of the current users of the affected airspace.
 - ii) While the CAA notes that the sponsor's assertion that less than 1% of GA airspace users are not equipped with radios cannot be corroborated or defined absolutely, it is accepted that the number of such airspace users is considered, proportionally,

⁴ Transport Act 2000, Section 70(1).

⁵ Transport Act 2000, Section 70 (2) (a)

- to be very small. Therefore, the number of current users of this airspace likely to be negatively impacted by the introduction of the proposed RMZ is expected to be minimal.
- iii) The CAA considers the impact to users not equipped to enter the RMZ, and who may be unable to make alternate, tactical, arrangements with the sponsor to enable access, proportionate and acceptable in order to improve the overall safety of operations within the airspace.

Conclusions in Respect of Environmental Objectives

3.4 The CAA is required to take into account the 2014 Guidance to the CAA on Environmental Objectives provided by the Secretary of State. This ACP was scaled as a Level 2C ACP and CAP1616 provides additional guidance regarding the specific environmental considerations⁶ required for such ACPs. However, CAP1616⁷ also allows a change sponsor to propose a departure from these requirements for reasons of proportionality. In this case the sponsor contended that the small numbers of aircraft not appropriately equipped to transit the proposed RMZ, and therefore required to fly additional track miles to deviate around it, were insufficient to provide meaningful output from the WebTAG system. The numbers potentially impacted were also considered to be further mitigated and reduced by the sponsor's commitment to enable access to the RMZ by such airspace users in accordance with CAA policy8. Therefore, it was suggested that the resultant number of air movements potentially impacted by the proposal made the additional effort and expenditure required to provide more detailed analysis disproportionate as the impact would be negligible. This was accepted by the CAA at the Consult Gateway in consideration of the Full Options Appraisal.

Conclusions in Respect of Aircraft Operators and Owners

3.5 The CAA is required to take account of the requirements of operators and owners of all classes of aircraft⁹. In its consideration of this proposal the CAA accepts that the majority of air traffic will be unaffected by the introduction of the proposed RMZ. The CAA also recognises a small element of airspace users operate air vehicles that are not fitted with radio equipment. However, the CAA accepts that, in accordance with CAA policy, the sponsor is committed to enabling access to the proposed RMZ by such airspace users where traffic and safety allow.

Conclusions in Respect of the Interests of Any Other Person

3.6 The CAA is required to take account of the interests of any person, other than an aircraft operator or owner, in relation to the use of any particular piece of airspace or the use of

⁶ CAP1616 Appendix B, page 163: Summary of environmental assessment requirements for Level 2 proposals

⁷ CAP1616 Appendix B, page 160, para B26

⁸ Policy for Radio Mandatory Zones and Transponder Mandatory Zones dated 14th August 2015

⁹ Transport Act 2000, Section 70 (2) (b)

airspace in general. In this respect, the CAA is satisfied that the implementation of the proposed RMZ will not perceptibly alter traffic patterns and will therefore not be discernible to other persons.

Conclusions in Respect of the Integrated Operation of ATS

3.7 The CAA is required to facilitate the integrated operation of air traffic services provided by, or on behalf of, the Armed Forces of the Crown and other air traffic services¹⁰. In this respect, the CAA is satisfied that the implementation of the proposed RMZ will have no effect on the integrated operation of ATS.

Conclusions in Respect of the Interests of National Security

3.8 The CAA is required to take account of the impact that any airspace change proposal may have upon matters of National Security¹¹. In this respect, the CAA is satisfied that the implementation of the proposed RMZ will have no effect on National Security.

Conclusions in Respect of International Obligations

3.9 The CAA is required to take account of any international obligations entered into by the UK and notified by the Secretary of State. The CAA is satisfied that the proposed implementation of this RMZ has no impact on international obligations.

¹⁰ Transport Act 2000, Section 70 (2) (e)

¹¹ Transport Act 2000, Section 70 (2) (f)

CAA's Regulatory Decision

General Summary

4.1 The sponsor operates within a Class G airspace environment alongside nearby commercial, recreational and military airspace users, and it is noted that there is a reasonable expectation of a return to, and continued growth beyond, pre-COVID air traffic levels operating in this area. The sponsor identified that it would be appropriate to create a 'more informed' traffic environment locally and the proposal to introduce an RMZ for this purpose addresses this requirement in a proportionate manner. In the proposal, the sponsor contends that less than 1% of general aviation (GA) traffic that operates in the area is not fitted with radio equipment and would therefore potentially be impacted by the introduction of an RMZ. Noting this claim cannot be corroborated, the impact of this change must be balanced against the volume of current and likely predicted operations within this area.

Decision

- 4.2 In considering the formal submission by the sponsor with respect to ACP-2019-75: Land's End Transit Corridor, the CAA recognises the requirement to mitigate the existing element of unknown traffic operating within the current LETC airspace structure in order to improve the overall level of safety of operations that take place in the area.
- 4.3 The sponsor has presented a well-reasoned argument to support the requirement to delete the existing LETC airspace structure and to establish an RMZ, of appropriate dimensions, in its place. The establishment of a recognised airspace structure, with associated clearly defined requirements to gain access, can be expected to provide a more informed traffic environment and to improve the overall level of safety of aviation operations.
- 4.4 In consideration of the likely impact of the introduction of an RMZ on the element of airspace users that may not be fitted with radio equipment, the CAA accepts the sponsor's commitment to ensure that, where traffic and safety allows, tactical arrangements will be made to enable access to the RMZ for those airspace users. The number of users potentially impacted in this way, which is accepted to be proportionally very small, will therefore be further reduced as a result. The residual impact on the small number of airspace users that is neither equipped to gain access nor enabled access through tactical arrangements is outweighed when considered against the safety benefits gained from the introduction of an RMZ in the area.
- 4.5 The staged implementation approach proposed within the ACP to amend the size and shape of the LRMZ at a future date does not reflect the current situation and requirement but instead predetermines the outcome of other airspace change requests and creates unintended dependencies with non-associated changes. This does not align with regulatory

- process where the requirement for a change is required to be evidenced. In this instance, the dimensions of any change proposed in Stage 2 and, or, 3 is neither determinable nor necessarily required. Therefore, implementation of the proposals referred to within the formal submission as **Stage 2 and Stage 3 are not approved**.
- 4.6 However, in line with CAA responsibility under Section 70 of the Transport Act, the implementation of Stage 1 would support the safe and efficient use of airspace. **Stage 1 of the ACP is therefore approved**, where this approval is consistent with the engagement undertaken during the ACP and is proportionate.

Conditions and Recommendations

- 4.7 The following conditions are to be met prior to the implementation of the LRMZ:
 - Condition 1: The sponsor will be required to achieve ADQ compliance in the definition of the proposed LRMZ.
 - ii) **Condition 2:** The sponsor will be required to gain regulatory approval of the proposed AIP Change Request for the notification of the LRMZ.
 - iii) **Condition 3:** All required LoAs must be agreed and signed prior to the implementation of the proposed LRMZ.
- 4.8 **Recommendation:** It is recommended that the sponsor inform all stakeholders of the Decision outcome and of the next steps.

Implementation

4.9 The proposed RMZ is approved for implementation as agreed through AIRAC 10/2021.

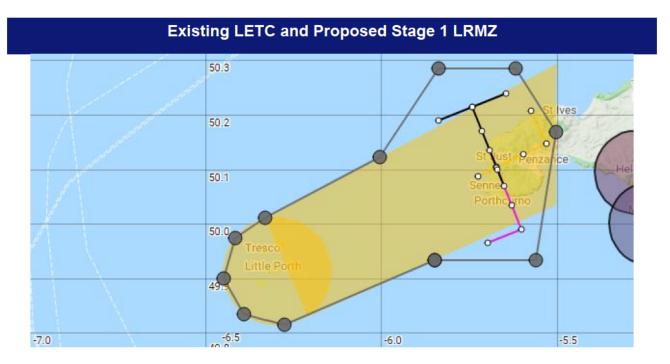
Post Implementation Review

- 4.10 In accordance with current CAA standard practice, as detailed in CAP1616, the airspace change will be reviewed a minimum of 12 months after implementation to evaluate whether the anticipated impacts and benefits stated are as expected. To enable a thorough and rigorous review, the sponsor will be required to gather relevant data during the post-implementation period.
 - i) Requirement 1: The sponsor is required to make suitable arrangements for the collection of the following information related to requests made by airspace users not appropriately equipped to operate within the LRMZ:
 - (1) Details of those requests that are approved and such traffic that is enabled to operate within the LRMZ.
 - (2) Details of those requests that are denied and such traffic that is not enabled to operate within the LRMZ.

- ii) **Requirement 2:** The sponsor is required to make suitable arrangements to capture as much information as possible related to any known incursions into the LRMZ by airspace users that are either not appropriately equipped or are non-compliant.
- iii) **Requirement 3:** The sponsor is required to make the following arrangements related to the environmental impact of the LRMZ:
 - (1) Monitor the volume and, as far as possible, the flight behaviour of traffic operating within the LRMZ.
 - (2) Monitor the volume and, as far as possible, the flight behaviour of traffic utilising the current IAPs at LEA and, if implemented prior to the PIR, the use of the IAPs proposed for StMA and the Penzance and Tresco Heliports.
 - (3) Monitor the volume and, as far as possible, the flight behaviour of traffic that must route around or over the LRMZ as a result of not being appropriately equipped to enter the LRMZ.
- iv) Requirement 4: The sponsor is required to collate related stakeholder observations (enquiry or complaint data) and present them to the CAA. Any location / area from which more than 10 individuals have made enquiries or complaints must be plotted on separate maps displaying a representative sample of aircraft track data plots and traffic density plots. These plots should include a typical day's movements from the last month of each standard calendar quarter (March, June, September, December) from each of the years directly preceding and following implementation of the LRMZ.

APPENDIX A

Map Showing Proposed RMZ



Current LETC in yellow with the proposed LRMZ (Stage 1) outlined