

Safety and Airspace Regulation Group

Airspace Change Process

Post Implementation Review Data Request (Scaled)

ACP Project Reference:	ACP-2015-16		
Title of Airspace Change:	Introduction of Land's End Airport RNP Instrument Approach Procedures		
Change Sponsor:	Land's End Airport Limited		
CAA Decision Document:	https://www.caa.co.uk/media/fuem55ao/lands-end-decision-document.pdf		
CAA Decision Date:	30/03/2016	AIRAC Date(s):	18/08/2016
PIR Data Submission Requested:	08/04/2024	PIR Data Submission Required by:	ASAP

Introduction

1. The CAA's airspace change process is a seven-stage mechanism that is set out in detail in CAP 1616. Stage 7 of this process is a Post Implementation Review (PIR) that normally begins one year after implementation of the change. The PIR is an assessment of whether the anticipated impacts and benefits in the approved change and published decision are as expected and where there are differences, what steps (if any) the CAA requires to be taken.
2. Irrespective of whether the CAA decision to approve the change was made under the previous process (set out in CAP 725), all PIRs should normally be in accordance with the process requirements of CAP 1616. However, when assessing the expected impacts against the actual impacts, the methodology adopted at the time of the original CAA decision should be used.
3. Airspace Change Proposals can vary in size, scale and complexity, which has led the CAA to scale the PIR process appropriately. A PIR of Level 2 changes will be undertaken when it is proportionate to do so. For some changes, the CAA may proportionately reduce the extent of evidence and data required from the change sponsor or allow more flexibility in the format of the data required¹.
4. This data request form sets out that list of data required for the CAA to complete the assessment for a scaled PIR. On receipt of this data request form, the change sponsor should provide qualitative statements against each of the general observations listed below. The date on which the CAA requires the data to be submitted is stipulated at the top of this document.

¹ CAP 1616 – Para 294, 295 & Appendix H
APR-AC-TP-041

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General Observations

1. The following general observations are to enable an overview of the effectiveness of the airspace change.
2. The change sponsor is required to submit a qualitative statement against each data request which supports the conclusion reached in each case.
3. The CAA will review the analysis of the data submitted to ensure the anticipated impacts and benefits in the approved change were as expected.

<p>a) An overview statement on whether, in the change sponsor’s view, the original proposal met the intended objectives as described on the CAA’s decision to approve the change.</p>
<p>This proposal aimed to:</p> <ul style="list-style-type: none"> i) <u>introduce GNSS (RNAV) IAP’s</u> to all four main runways at Land’s End as the final part of a major investment programme and ii) <u>to improve the year-round operational resilience</u> of its service. <p>These objectives were partially met – with both LNAV & LVP approaches going operational to runway’s 07, 16, 25 and 34.</p> <p>However, with the loss of EGNOS in June 2021, the IAP’s have only provided very limited resilience due to their artificially high OCH restrictions. All approaches are currently restricted to 500ft due to the CAP 1122 (now CAP2304) process. Aircraft can make a visual (VMC) approach at 500ft negating the benefits of an instrument approach. The IAP designers, and the surveyed obstacle clearance limitations, both confirm that the MDH for all the approaches could be reduced (for one approach, to the system minima of 250ft). The re-introduction of EGNOS (or UK SBAS equivalent) is considered essential to restore the LPV approaches and make a case for lower OCH’s.</p>
<p>b) An overview statement on whether, in the change sponsor’s view, the original proposal met any conditions described on the CAA’s decision to approve the change (if applicable).</p>
<p>The conditions imposed by the CAA were that the Approaches would be approved subject to successful completion of the design assessment by SARG IFP Procedure Designers and the Safety Case Assessments by both SARG Aerodromes and SARG ATS. These conditions were met, and compliant Designs and a robust Safety Case were approved by SARG.</p>
<p>c) Confirm that implementation occurred on the dates identified in the Decision Letter. If no implementation date was specified in the Decision, please state so.</p>

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The Decision Letter states that “it is currently estimated that the procedures will become effective from AIRAC 09/2016 promulgated by a double AIRAC cycle on 18th Aug 2016”.

Airport records indicate that the approaches were effective at the following AIRAC cycles:

RUNWAY	Published in AIP (AIRAC Cycle)	Available for Use (ANO Article 172 issued)
RWY 07	02/2016 (3 rd Mar 2016)	3 rd March 2016
RWY 16	09/2016 (18 th Aug 2016)	19 th July 2019
RWY 34	09/2016 (18 th Aug 2016)	19 th July 2019
RWY 25	12/2016 (10 th Nov 2016)	19 th July 2019

d) If there was a significant delay between the planned and actual implementation date, please provide an explanation.

As one of the pioneering Airport's for the new EGNOS GNSS approaches (without the traditional infrastructure/services associated with an IAP), we had to work closely with the CAA to find a way forward – often breaking new ground.

Reasons for the AIRAC Cycle differences detailed in the table above:

RUNWAY	Reason
RWY 07	The LNAV approach to RWY07 was able to be implemented prior to AIRAC 09/2016 (18 th Aug 2016) as it was exempt from the ACP process (it was deemed that this approach overlaid the existing visual approaches and was wholly over the sea).
RWY 16	The LNAV approach to RWY16 was implemented in AIRAC 09/2016 (18 th Aug 2016).
RWY 34	The LNAV approach to RWY16 was implemented in AIRAC 09/2016 (18 th Aug 2016).
RWY 25	The LNAV approach to RWY16 was implemented in AIRAC 12/2016 (10 th Nov 2016). This was delayed as further Flight Trials were needed due to the non-standard steep approach angle (4.5 degrees).

Actual use of the LNAV Approaches to RWY's 16, 25 and 34, and the LVP Approaches to all four runways, was delayed until 19th July 2019 for the following reasons (a series of NOTAM's were issued delaying the use of these approaches – the first being NOTAM Ref: L4523/16):

- CAA requirement for further Flight Validations,
- CAA requirement for a traffic study (conducted at RNAS Culdrose using their radar)

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- CAA acceptance of the associated Safety Case
- CAA acceptance of the ATC Training Plan
- Delay in agreeing final ATC procedures with adjacent ATCU's
- The subsequent need for Operational Trials to validate the new procedures.

There were complications with agreeing safe procedures with St. Mary's ATC. While satisfactory procedures were already in place with the 'live' LNAV approaches, issues materialised such as no proven separation between St. Mary's NDB approaches and the Land's End RNP GNSS approaches (this was addressed by placing a restriction of only one aircraft at any time on either set of approaches), ATCO training issues (further training between the ATCU's was agreed), concern over GA using the approaches (eventually restricted to CAT transport, priority A & B flights and Land's End based operators only), concern with the number of aircraft involved with only a procedural approach service / ADI service (this was resolved eventually by restricting aircraft to 15min intervals and reiterating that only one IFR aircraft was permitted on Land's End frequency at a time).

e) Identify whether any other issues of significance have occurred during the period 12 months after date of implementation.

No reported instances of unforeseen/unintentional operational impacts.
 Minor issues with ATC co-ordination between adjacent ATCU's (subject to internal SMS reports).

f) Other than normal promulgation activity (e.g. NOTAM, AIC etc.), identify what steps were undertaken to notify local aviation stakeholders that the airspace change was about to be implemented.

- Land's End Airport Website – promotion of the new IAP's and pilot procedures
- Press Release via parent Company (Isles of Scilly Steamship Company - ISSC)
- Email and Poster to local aviation organisations
- Letter of Agreements with operators (Commercial Operators and GA including hang-gliders, etc.)
- Email awareness and Letter of Agreements with local ATCU's

g) Feedback/complaints received from stakeholders, aviation stakeholders or the Ministry of Defence by the change sponsor in the period between implementation and post-implementation review (including feedback/complaints received via an FCS 1522 Form (UK Airspace Access or Refusal of ATS Report)).

Nil reports received.

Other information of relevance (if appropriate)

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h) [Insert additional requirement #1]

N/A

i) [Insert additional requirement #2]

N/A

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In providing a response for each general observation, please ensure that the 'status' column is completed using the following options and that they are colour coded accordingly:

YES • NO • PARTIALLY • N/A

A summary of any issues arising should be provided against each question in the appropriate text box.

General Observations	Status
a) Has the change sponsor indicated that the original proposal met the intended objectives as described on the CAA's decision to approve the change?	Yes
The intended objectives were initially realised satisfactorily, providing 3-dimensional LNAV & LVP GNSS approaches to RW 07.	
b) Has the change sponsor indicated that the original proposal met any conditions described on the CAA's decision to approve the change (if applicable)?	Yes
The changes and flight procedures to each runway were implemented incrementally over an extended period of 3 years.	
c) Did the implementation occur on the date(s) identified in the Decision Letter?	Partially
It was anticipated that the procedures for each of the runways would have been implemented in 2016, however, procedures for RWs 16, 34 & 25 were not implemented until 2019. (see d), below)	

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General Observations	Status
d) Was there a significant delay between the planned and actual implementation date?	Partially
As indicated at b), the procedures for each of the runways other than RW07, were only implemented after a significantly extended period of reassessment of regulatory associated case studies, including coordinating and approving procedures with adjacent service providers and then subsequently trialling the resultant interaction of procedures. This then led to additional safety cases having to be drafted and then reviewed by the CAA. Clearly, for whatever reason, fluency and efficiency were not achieved during this protracted period.	
e) Has there been any other issues of significance that occurred during the period 12 months after date of implementation?	No
Other than those listed at d), above, there is nothing more to add	
f) Other than normal promulgation activity (e.g. NOTAM, AIC etc.), were there any steps undertaken to notify local aviation stakeholders that the airspace change was about to be implemented?	Yes
Numerous satisfactory and efficient methods of promulgation were used to notify all associated stakeholders and the public.	
g) Were there any feedback/complaints received from stakeholders, aviation stakeholders or the Ministry of Defence by the change sponsor in the period between implementation and post-implementation review?	No
Nothing was received by the sponsor	

Other information of relevance (if appropriate)	Status
h) [Insert additional requirement #1]	N/A
i) [Insert additional requirement #2]	N/A

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General Summary and recommendation

Based on the above, does the CAA Project Officer recommend that this concludes the PIR assessment for this ACP?	Yes
<p>Land’s End airport, like so many other stakeholders and sponsors of similar airspace change seeking to introduce enhanced capability and 3-dimensional procedures, are presently subject to a diminished return for their initial investment due to the State withdrawal from the EGNOS project following BREXIT and the UK leaving the European Union. Unfortunately, any realisation of RNP to LPV procedures is subject to the reimplementation of SBAS capability being achieved in the future, probably at considerable cost. However, prior to the political machinations, the implementation of procedures for each of the runways other than for RW07, was not achieved efficiently due to a lack of managed direction and limited resources.</p> <p>Although this PIR report is critical of the process that oversaw this disjointed project, politics has clearly had the biggest impact in that the 3-dimensional element of all procedures has been removed and has resulted in artificially high procedural decision heights in an area of the UK that is often affected by significant weather systems coming in off the North Atlantic Ocean.</p> <p>I however consider that at this stage, there is little more that can be achieved and this record details what has happened to date. I therefore conclude and recommend that this PIR is complete and approved.</p>	

Decision and Sign Off

Based on the above, does the Decision Maker conclude that the PIR assessment for this ACP complete?	Yes
<p>The PIR assessment accurately records and reflects the factors associated with this ACP. The issues associated with EGNOS are appropriately captured and it is recognised that at this juncture there is little scope for the level of resilience offered by the change to improve.</p>	
<p>Signed: </p> <p>Name: </p> <p>Principal Airspace Regulator</p>	
<p>Date: 29/07/2024</p>	