CAP1616 Assessment Meeting

ACP-2023-018 & ACP-2023-020
Introduction of RNP IAPs at Benbecula & Stornoway Airports

5 October 2023

Highlands and Islands Airports Limited
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Assessment Meeting Agenda

- Introductions
- Statement of Need (discussion & review)
- Confirm Level 1C
- Design History
- Anticipated Timelines
- Engagement Activities
- ATM Safety Questionnaire
- Next Steps & AOB

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Introductions

- CAA
- HIAL

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Statement of Need (discussion & review)
ACP-2023-018 – Introduction of RNP IAPs at Benbecula Airport

Benbecula Airport is currently served by IAPs relying on conventional navigational aids (BBA NDB and BEN DVOR). The current UK DVOR Infrastructure was installed circa 1982-1991, is operating well beyond design life and cannot be supported in the long term, hence the decision taken to reduce the UK infrastructure of en-route DVOR from 46 down to 19. To address ongoing support capability, the DVORs at BEB were to be rationalised (removed from service) by December 2019 since they did not form part of the requirement to maintain a reduced en-route capability in line with NERLs diminishing capability to provide support and maintain appropriate levels of competence for such support.

HIAL planned to introduce RNP (originally GNSS) approaches to Benbecula as part of its aim to innovate and move to a PBN environment, but more importantly to mitigate the loss of the BEN DVOR. The charts and safety case were initially submitted to the CAA in 2013, with a revised chart submission in 2014. This was approximately 4 years prior to the introduction of CAP1616. However, CAA approval was never received and the directive on HIAL is that the introduction of the RNP IAPs must now follow the CAP1616 process.

Statement of Need (discussion & review)
ACP-2023-018 – Introduction of RNP IAPs at Benbecula Airport

Through conversation with HIAL, NERL have mitigated the delay to the approval of RNP procedures by extending the operational use of DVOR at BEB until 31st December 2023. However, the risk associated with the design life and available support is not mitigated since the agreement is based on planned and corrective maintenance on a reasonable endeavour basis only.

The NDB IAPs are prone to ground effect and regular outages in the harsh environment of the Western Islands of Scotland. RNP IAPs will not have the same dependency on either weather or engineering support (Weather permitting, it can take 2 days for an ATSEP to travel to the Island, thus increasing the risk exponentially). Dependency on old and unreliable technology such as the terrestrial based NDB is not sufficient to ensure the sustainability of airport operations and vital connectivity to islands communities, including out of hours medical emergency and SAR flights, nor will there be any resilience following the permanent removal of the DVOR.

The introduction of RNP IAPs are an essential measure at Benbecula to cater for the DVOR rationalisation programme, together with the unreliable nature of the NDB, to provide IAPs to life-line services to the island community. RNP are the means by which HIAL aim to support the CAA future airspace and PBN aspirations.

Statement of Need (discussion & review)
ACP-2023-020 – Introduction of RNP IAPs at Stornoway Airport

Stornoway Airport is currently served by IAPs relying on conventional navigational aids (SAY NDB and STN DVOR with the latter being owned and maintained by NATS NERL).

HIAL planned to introduce RNP (originally GNSS) approaches to Stornoway as part of its aim to innovate and move to a PBN environment. The project commenced prior to the introduction of CAP1616. However, CAA approval was never received and the directive on HIAL is that the introduction of the RNP IAPs must now follow the CAP1616 process.

The NDB IAPs are prone to ground effect and regular outages in the harsh environment of the Western Islands of Scotland. RNP IAPs will not have the same dependency on either weather or engineering support (weather permitting, it can take 2 days for an ATSEP to travel to the Island, thus increasing the risk exponentially). Dependency on old and unreliable technology such as the terrestrial based NDB is not sufficient to ensure the sustainability of airport operations and vital connectivity to islands communities, including out of hours medical emergency and SAR flights. There is currently no resilience to an NDB failure should the non-HIAL DVOR be out of service (either planned or unplanned).

The introduction of RNP IAPs are an essential measure at Stornoway to cater for the unreliable nature of the NDB and provide IAPs to life-line services to the island community. RNP are the means by which HIAL aim to support the CAA future airspace and PBN aspirations.

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Confirmation of ACP Level

- Following email correspondence between HIAL and the CAA, CAA confirmed both ACPs "*will be progressed in accordance with the Part 1C process (Airspace Change Process for RNP Instrument Approach Procedures (IAPs) without an Approach Control Service).*"

Design History

- We will base Stage 2 and Stage 3 activities on the existing Cyrrus designs (2013/14, refreshed 2021/22) as they have already been through a long process of IFP design, stakeholder feedback, incorporated feedback following CAA IFP review feedback as well as supporting HIAL safety case development.

- These designs already replicate what is currently flown and overfly water to the greatest extent possible .

- This means they already meet the Level 1C Design Principles “The proposal must maintain a high level of safety” and “The proposal should avoid overflight of densely populated areas where possible”

- There is also great urgency to provide HIAL with resilience, especially with the pending withdrawal of BEN DVOR.

- There will be a Do Nothing option and one Do Something option for each airport.

Anticipated Timelines

- Stage 1 – proposed Gateway Friday 20 October 2023

- Stage 2 – December 2023 Submit CAA report containing:
  - Design Options
  - Design Principle Evaluation
  - Environmental Impact
  - ATM Safety Questionnaire (CAA to provide)

- Stage 3 – assuming no additional environmental assessments are required and subsequently, no formal consultation, HIAL will draft an Engagement Strategy and submit this to the CAA within 8 weeks of confirmation from the CAA that the proposal can move into Stage 3, c.March/April 2024.

- Stage 4 - TBC

Engagement Activities

- Details will be in the Stage 3 Engagement Strategy. However, we propose targeted engagement will take place (in Stage 3) with industry stakeholders.

- We anticipate this will be limited to online engagement with the appropriate local airspace users and organisations, including NATMAC.

- Community engagement requirements will be identified in Stage 2.

- Please can the CAA confirm that if no formal consultation is required, there is no requirement to use Citizen Space for the stakeholder engagement?

ATM Safety Questionnaire

- We understand this will be shared by the CAA?

Next Steps & AOB

- HIAL to produce draft Assessment Meeting minutes for CAA approval.
- HIAL to publish redacted Assessment Meeting minutes on CAA portal, once approved.
- CAA to confirm Gateway dates.