

Cotswold Airport (Kemble) Instrument Approach Procedures

Airspace Change Decision

CAP 1983

Published by the Civil Aviation Authority, 2021

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First published 2021

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Chapter 1

Executive Summary

Objective of the Proposal

- 1.1 This proposal introduces new Required Navigation Performance (RNP)¹ Instrument Approach Procedures (IAPs) for the 2 main runway ends at Cotswold Airport (also known as Kemble) to support Maintenance Repair Organisation movements and other corporate/non-recreational activities such as business jets and royal flights.
- 1.2 The proposal aims to achieve:
- Improved safety, regularity and accuracy of in-scope arrivals on a defined terrain-safe approach.
 - Reduced cockpit workload for in-scope aircraft on approach.
 - Improved ability to conduct successful approaches in Instrument Meteorological Conditions (IMC).

Summary of the decision made

- 1.3 The CAA has decided to approve the proposal for the introduction of RNP IAPs at Cotswold Airport.
- 1.4 It should be noted that this airspace change proposal was conducted in accordance with the CAP1616 airspace change process² before the scaled CAP1961³ process was implemented.
- 1.5 The CAA discussed at length the Sponsor's submission and considered the rationale and safety statements for the proposal, including supplementary documents presented to provide greater explanation on the absence of holding procedures, and the Stage 4 amendment to the Runway 26 missed approach procedure.

¹ Previously also referred to as GNSS, RNAV, GPS or PBN procedures. However, RNP has recently been determined as the standardised term

² www.caa.co.uk/cap1616

³ www.caa.co.uk/cap1961

- 1.6 With regard to the supplementary documents, the CAA is content that the mitigations in place for traffic separation without the use of holding procedures maintain a high standard of safety that is not materially different from the missed approach for current operations. The CAA is also satisfied that the Stage 4 amendment to the missed approach procedure for Runway 26 does not have a discernible impact on the operation or on other parties compared to the design that was originally consulted upon, and that no further consultation is required.
- 1.7 Taking the procedures as a whole, the safety of large aircraft operations at Cotswold Airport will be enhanced by the implementation of these procedures.

Next steps

- 1.8 Implementation of the new IAPs will be notified through a single AIRAC cycle (AIRAC 06/21), which will be effective from 17 June 2021.
- 1.9 The CAA's Post Implementation Review (PIR) of the changes approved by the CAA in this decision will commence at least one year after implementation of those changes. It is a condition of the CAA's approval that the Sponsor provides data required by the CAA throughout the year following implementation to carry out that PIR. The Sponsor will be advised in due course of the specific data sets and analysis required, and the dates by when this information must be provided.
- 1.10 There is an update to the CAA's PIR requirements in response to COVID-19 on the CAA website⁴.

⁴ <https://www.caa.co.uk/Commercial-industry/Airspace/Airspace-change/Reviews/Airspace-changes-post-implementation-reviews/>

Chapter 2

Decision Process and Analysis

Chronology of the Proposal Process

Statement of Need and Assessment Meeting

- 2.1 The Sponsor first notified the CAA of their intention to pursue the implementation of IAPs in 2016, prior to the implementation of the CAP1616 airspace change process. Following the introduction of CAP1616 in January 2018, the Sponsor submitted an updated Statement of Need (SoN) to the CAA on 29 May 2018 and an Assessment Meeting (AM) was held on 26 June 2018, during which the Sponsor outlined their CAP1122 risk assessment work already conducted prior to the introduction of CAP1616. A proposed timeline was also presented.
- 2.2 The CAA determined that the proposal was in scope of the CAP1616 airspace change process. The SoN and minutes of the AM were published on the CAA Airspace Change Portal.

Process followed to arrive at the Proposal's Design Principles

- 2.3 The Sponsor developed a suitable set of Design Principles (DPs) through appropriate engagement with stakeholders that included Air Navigation Service Providers, the Ministry of Defence, local airfields, affected communities, conservation organisations and aviation organisations. The final list of 9 DPs was submitted to the CAA as part of Step 1B and subsequently uploaded to the portal on 18 October 2018.

Define Gateway

- 2.4 A Define Gateway assessment was conducted on 26 October 2018. The CAA was content that the DPs had been developed through appropriate engagement and that the requirements of CAP1616 had been met.
- 2.5 The following statement was uploaded to the CAA Airspace Change Portal:

'The CAA has completed the Define Gateway Assessment for Kemble Airspace and Arrival Procedures and is satisfied that the change sponsor has met the requirements of the Process up to this point. The CAA approves progress to the next Step.'

Options development and appraisal

- 2.6 The Sponsor considered different designs for defined RNP approaches to each main runway end (Runway 26 and Runway 08). A 'Do Nothing' baseline was considered along with 3 options, with stakeholders given an opportunity to comment on the options and provide suggestions or alternatives.
- 2.7 Each option was evaluated against the DPs and an Initial Options Appraisal completed. The 'Do Nothing' option did not meet with the DPs and was not assessed any further. In addition, through local engagement the sponsor identified concerns with Option 3 where it would potentially place in-scope aircraft in an area of known intensive glider activity; as such it was rejected.

Develop and Assess Gateway

- 2.8 A Develop and Assess Gateway assessment was conducted on 22 February 2019. The CAA determined that this was a Level 1 airspace change, that sufficient engagement had taken place during this stage, and that the options presented had been assessed in a satisfactory manner.
- 2.9 The Sponsor retained 2 distinct options for further consideration in Stage 3, although the impacts as determined by the Sponsor were similar in both.
- 2.10 The following statement was uploaded to the CAA Airspace Change Portal:

'The CAA has completed the Develop and Assess Assessment for Kemble and is satisfied that the change sponsor has met the requirements of the Process up to this point. The CAA has determined that this is a Level 1 ACP and approves progress to the next Step. This step was completed on 22 February 2019.'

Consult Gateway

- 2.11 A Consult Gateway assessment was conducted on 28 June 2019 where the CAA reviewed the Sponsor's consultation and engagement strategy against the criteria set out in CAP1616. The CAA determined that the requirements of CAP1616 had not been met such that the proposal could not proceed on to the next step in the process.
- 2.12 Following further work, the Sponsor submitted revised consultation and engagement documents, which were assessed by the CAA at a Consult Gateway on 31 January 2020. The sponsor proposed an 8-week consultation; the CAA agreed with the justification that this was a proportionate duration given the scope and scale of the proposal.

2.13 The CAA determined that the strategy met the best practice consultation principles in that it was targeting the right audience, communicating in a way that met the requirements of the stakeholders and provided sufficient information to enable stakeholders to make informed judgements. Furthermore, it was acknowledged that mechanisms for stakeholder consultation feedback were appropriate.

2.14 The following statement was uploaded to the CAA Airspace Change Portal:

'The CAA has completed the Consult Gateway Assessment and is satisfied that the change sponsor has met the requirements of the Process up to this point. The CAA approves progress to the next Step.'

Public consultation and consultation responses

2.15 The Stage 3 consultation commenced on 10 February 2020 and was publicised through social media, aviation publications, industry bodies, via parish councils and direct email to stakeholders. The consultation was conducted through Citizen Space, the Government's consultation platform, with moderation of stakeholder comments carried out by the CAA in accordance with CAP1616.

2.16 The sponsor sent reminder emails to stakeholders at appropriate intervals during the consultation period to ensure maximum participation before it concluded on 6 April 2020. A total of 49 responses were received via Citizen Space, where the overwhelming response was supportive of the proposal. One consultee rejected the proposal whilst 3 consultees provided a neutral response (no opinion/do not know) although the associated text was supportive.

2.17 The output from the consultation confirmed a marginal preference for Option 2 (straight in approach to Runway 08 and a T-bar approach to Runway 26), whilst the majority of consultees had no preference. Analysis by the Sponsor was presented in the Collate and Review Responses document, which was uploaded to the Airspace Change Portal on 22 May 2020. This identified one response that might impact the final proposal, where it was suggested that the missed approach altitude should be increased.

2.18 The following statement was uploaded to the CAA Airspace Change Portal:

'The CAA has reviewed a sample of consultation responses and accepts that the change sponsor has completed a fair, transparent and comprehensive review and categorisation of consultation responses.'

Proposal update and submission to CAA

2.19 The Sponsor submitted Consultation Response Documents that were uploaded to the Airspace Change Portal on 12 June 2020. Following a request from the CAA for clarification in a number of areas, version 2 of the document set was submitted, which addressed the points raised.

- 2.20 There was one response to the consultation that was considered to potentially impact the final proposal, which prompted the Sponsor to review the missed approach and Initial Approach Fix (IAF) altitudes. An increase in altitude was incorporated into the updated design, which did not materially affect the outcome of the options appraisal or consultation.
- 2.21 The final proposal was submitted to the CAA and uploaded to the Airspace Change Portal on 17 July 2020, and the document check was completed by the CAA on 24 July 2020.

Secretary of State call-in

- 2.22 The Secretary of State call-in window was initiated on 24 July 2020 via the CAA Airspace Change Portal and closed on 21 August 2020 with no feedback having been received.

Public Evidence Session and written statements

- 2.23 The CAA determined that it was not proportionate to hold a Public Evidence Session for this proposal, having concluded that there was insufficient interest in the change to support one being held.

Revised Submission and Supplementary Documents

- 2.24 During the assessment of the final submission, the CAA identified some aspects that required clarification or amendment, including the provision of justification for the lack of holds in the proposed IAP designs, and statements relating to the closure of the Aerodrome Traffic Zone (ATZ). The Sponsor was advised of the issues on 11 August 2020, who subsequently issued a revised version (V2) of the final proposal to the CAA⁵ on 20 August 2020, which was uploaded to the portal on 21 August 2020.
- 2.25 The issue relating to the final submission containing references to closure of the ATZ when the IAPs are in use was raised as this is not permitted within the privileges of the Aerodrome Flight Information Services licence held by the airport. The Sponsor made efforts to rectify the error in version 2 of the final proposal; however, as an oversight some comments remain in the draft revised procedure documents; as such, implementation of the IAPs is conditional on the rectification of these comments.

⁵ In accordance with CAP1616 (Ed 3) Paragraph 222

- 2.26 The CAA considered the Sponsor's justification for lack of holds and determined that the CAA did not agree with most of the arguments presented. The reasoning for this was sent to the Sponsor on 6 October 2020 via email, which included a request for a supplementary document in response to the CAA comments. Additional details on the air traffic services operation, including specifics relating to the missed approach procedure, were requested. The Sponsor was informed that the supplementary document, which was received by the CAA on 19 October 2020, would be used to assist in the decision-making process.
- 2.27 Having considered the Sponsor's additional justification for proposing IAPs without holds, the CAA did not agree with the Sponsor's assertion that it was less safe to have them but determined that either option could be argued as being safe. The CAA agreed that, for this proposal, holds were not an operational necessity, and that the mitigations proposed for traffic separation would adequately achieve an acceptable level of safety that is not materially different from current missed approach operations.
- 2.28 During the CAA review of the proposal, the CAA identified in the document set two different versions of the missed approach for Runway 26. The main submission document included a diagram used in previous stages, including the consultation, where the outbound leg of the missed approach was 4.8 nautical miles, whereas the technical draft designs in Annex C presented an outbound leg of 7.5 nautical miles. The CAA asked the Sponsor to submit a supplementary document to clarify the issue. The Sponsor was informed that the supplementary document, which was received by the CAA on 2 Dec 2020, would be used to assist in the decision-making process.
- 2.29 Having considered the Sponsor's supplementary document regarding the change in design for the missed approach procedure for Runway 26, the CAA agreed that the impact was negligible given the likely very low frequency of use and that the extended leg mirrored the track flown for approaches to Runway 08. The CAA determined that there were potential benefits from the change due to removing overflight of Tetbury and further reducing the risk of inadvertent entry into the Highgrove House Restricted Area (EG R106). The Sponsor was informed that there was no need for further consultation, but all stakeholders should be notified of the minor modification to the design as this had not specifically been highlighted in the final submission documents.

CAA assessment of the Change Sponsor's Final Options Appraisal

- 2.30 Within the Final Options Appraisal the Sponsor provided a 10-year forecast and economic analysis of the impact of the IAPs compared against the current situation. Both options were identical in terms of the total cost and benefits of the IAPs.

- 2.31 The CAA identified inconsistent reporting in the cost benefit analysis with respect to the impact on net airspace users benefit versus net community benefit, which differed from the Initial Options Appraisal. However, the CAA determined that this does not materially affect the outcome of this proposal or the option selected because:
- The number of in-scope aircraft movements is extremely low.
 - The in-scope flights already take place under the current operation.
 - Other than the 'do nothing' option, there is nothing to differentiate the economic impact across the options considered.
 - Broader work by the Department for Transport and the CAA looking at 'GNSS IAPs without an Approach Control Service' (now released as CAP1961⁶) has concluded that qualitative statements on the economic impact of a proposal are acceptable.

CAA analysis of the material provided

- 2.32 As a record of our analysis of this material the CAA has produced the following:
- Consultation Assessment.
 - Economic Assessment.
 - Environmental Assessment.
 - Operational Assessment.

2.33 The CAA Assessments will be published on the CAA Airspace Change Portal.

CAA assessment and decision in respect of consultation

- 2.34 The fundamental principles of effective consultation are: targeting the right audience, communicating in a way that suits them, and giving them the tools to make informative, valuable contributions to the proposal's development. The CAA is satisfied that these principles have been applied by the Sponsor before, during and after the Stage 3 consultation.
- 2.35 The CAA is also satisfied that the Sponsor has conducted this consultation in accordance with the requirements of CAP1616 and that they have demonstrated the Government's consultation principles and the Gunning Principles.

⁶ www.caa.co.uk/cap1961

CAA consideration of factors material to our decision whether to approve the change

Explanation of Statutory Duties

2.36 The CAA's statutory duties relating to air navigation are laid down in Section 70 of the Transport Act 2000.

Conclusions in respect of safety

2.37 The CAA's primary duty for air navigation is to maintain a high standard of safety in the provision of air traffic services and this takes priority over all other duties⁷.

2.38 In this respect, with due regard to safety in the provision of air traffic services, the CAA is satisfied that the proposal maintains a high standard of safety for the following reasons:

- The IAPs have been designed to international standards.
- The in-scope flights already take place under the current operation without the assistance of IAPs.
- The air traffic services operation has been developed to mitigate the risk of more than one aircraft utilising the procedures concurrently to as low as reasonably practicable.
- The IAPs provide in-scope aircraft with defined terrain-safe procedures that should reduce cockpit workload and enable stabilised approaches to be established.

Conclusions in respect of securing the most efficient use of airspace

2.39 The CAA is required to secure the most efficient use of the airspace consistent with the safe operation of aircraft and the expeditious flow of air traffic⁸.

2.40 The CAA considers that the most efficient use of airspace is defined as that which 'secures the greatest number of movements of aircraft through a specific volume of airspace over a period of time so that the best use is made of the limited resource of UK airspace'.

2.41 The CAA considers the expeditious flow of air traffic to involve each aircraft taking the shortest amount of time for its flight. It is concerned with individual flights.

⁷ Transport Act 2000, Section 70(1)

⁸ Transport Act 2000, Section 70(2)(a)

- 2.42 In this respect the CAA is satisfied that efficient use of airspace is unaffected by this proposal as the in-scope flights already take place under the current operation and, as such, the changes proposed will not impact other airspace users.

Conclusions in respect of aircraft operators and owners

- 2.43 The CAA is required to satisfy the requirements of operators and owners of all classes of aircraft⁹.
- 2.44 In this respect the CAA is satisfied that the proposed IAPs have been designed to international standards that meet the requirements of in-scope aircraft operators and do not impose any additional conditions on out-of-scope aircraft operators.

Conclusions in respect of the interests of any other person

- 2.45 The CAA is required to take account of the interests of any person (other than an owner or operator of an aircraft) in relation to the use of any particular airspace or the use of airspace generally¹⁰.
- 2.46 In this respect the CAA considers that the proposal will not negatively impact other interests and will not have a discernible impact on the general public. This is because the number of in-scope flights are very low, and that these aircraft movements already take place without the support of the IAPs.

Conclusions in respect of taking into account the Secretary of State's guidance to the CAA on environmental objectives

- 2.47 In performing the statutory duties, the CAA is obliged to take account of the extant guidance provided by the Secretary of State¹¹, namely the 2017 Guidance to the CAA on Environmental Objectives.
- 2.48 In this respect the CAA is satisfied that there will be no discernible negative environmental impact as a result of this proposal. Obtaining accurate data is not proportionate in this case; however, there may be slight benefits in noise and fuel impact due to the ability for large aircraft to establish stabilised approaches.

Integrated Operation of Air Traffic Services

- 2.49 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 services¹².

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

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

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

- 2.50 In this respect the CAA is content that this proposal will not impact the operational requirements of Crown or other air traffic service providers, and that sufficient measures have been taken to integrate the amended Cotswold Airport operation.

Interests of National Security

- 2.51 The CAA is required to take account of the impact any airspace change may have upon matters of national security¹³.
- 2.52 In this respect the CAA is satisfied that the proposal has no impact on national security.

International Obligations

- 2.53 The CAA is required to take account of any international obligations entered into by the UK and notified by the Secretary of State¹⁴.
- 2.54 In this respect the CAA is satisfied that the proposal has no impact on international obligations.

¹² Transport Act 2000, Section 70(2)(e)

¹³ Transport Act 2000, Section 70(2)(f)

¹⁴ Transport Act 2000, Section 70(2)(g)

Chapter 3

CAA Regulatory Decision

Decision

- 3.1 This proposal maintains a high standard of safety, does not introduce any discernible negative environmental impacts, and supports a low number of flights already taking place. Noting the anticipated impacts on the material factors we are bound to take account of, we have decided to approve the implementation of IAPs to the 2 main runway ends at Cotswold Airport.

Conditions

- 3.2 Any remaining statements in the draft publications relating to the closure of the ATZ during use of the IAPs shall be amended to the satisfaction of the CAA prior to implementation of the IAPs. This is to ensure that there is no misrepresentation of the responsibilities and limitations in the provision of the Aerodrome Flight Information Services provided by Cotswold Airport.
- 3.3 Appropriate validation of the IAPs shall be completed to the satisfaction of the CAA prior to the AIP change request being submitted.
- 3.4 The Draft Letters of Agreement developed as part of the proposal shall be finalised by the signatories prior to implementation of the IAPs.
- 3.5 Stakeholders must be advised of the change to the missed approach procedure for Runway 26 at the earliest opportunity and, in any event, prior to implementation of the IAPs.

Period Regulatory Decisions Remain Valid for Implementation

- 3.6 The Sponsor is to discuss with the CAA any anticipated delays to implementation so that any potential impacts can be assessed.

Implementation

- 3.7 The revised airspace is expected to become effective on 17 June 2021 and will accord with the Aeronautical Information Regulation and Control (AIRAC) schedule for the proposed implementation date, notified by a single AIRAC period. Any queries are to be directed to the SARG Project Lead via airspace.policy@caa.co.uk.

Post Implementation Review

- 3.8 In accordance with standard CAA procedures, the implications of the change will be reviewed after approximately one full year of operation, at which point CAA staff will engage with interested parties to obtain feedback and data to contribute to the analysis.
- 3.9 There is an update to the CAA's PIR requirements in response to COVID-19 on the CAA website¹⁵.
- 3.10 Specifically (but not exhaustive) the following sections of CAP1616 Table H1 apply to this proposal for PIR data collection:
- Safety data.
 - Service provision/resource issues.
 - Traffic figures.
 - Operational feedback.
 - Denied access statistics. NOTE: This should account for denial of access to the IAPs as well as the ATZ.
 - Utilisation of SIDs/STARs/instrument flight procedures. NOTE: To include as far as reasonably practical use of the missed approach procedures and any inability to maintain compliance with the published IAP.
 - Letters of Agreement.
 - Impact on environmental factors.
 - Impact on Ministry of Defence operations.
 - Stakeholder feedback.

¹⁵ <https://www.caa.co.uk/Commercial-industry/Airspace/Airspace-change/Reviews/Airspace-changes-post-implementation-reviews/>