

St Athan Instrument Landing System (ILS)

Airspace Change Decision

CAP 1945



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Chapter 1

Executive summary

Objective of the Proposal

1. Since 01 April 2019 the Welsh Government and Cardiff Airport have operated St Athan airfield under a joint venture with a CAA Ordinary Aerodrome Licence regulated by the Civil Aviation Authority (CAA). Prior to this date the airfield was a Ministry of Defence (MoD) establishment regulated by the Military Aviation Authority (MAA), and since installation in 2003 the airfield's ILS procedures were published in the Military Aeronautical Information Publication (Mil AIP) and regulated under MAA oversight. Now a civil airfield this proposal seeks CAA approval to publish the ILS procedures in the civilian UK AIP and transition them to CAA oversight.
2. This proposal seeks to publish the prior St Athan ILS procedures in the UK AIP and is not an application for the design of a new ILS procedure. The ILS was used primarily by the commercial aircraft arriving to use the Maintenance, Repair and Overhaul (MRO) facilities at St Athan, and there is no proposed change to either aircraft type or frequency of use, which at the time of application was approximately 100 aircraft per year. This comprises around 1% of annual movements at St Athan airfield, but has a disproportionately high economic impact on the region's economy. Aircraft tracks over the ground will be the same as previously, with no anticipated change to the nature, traffic mix or orientation of traffic accessing the airfield. No change is expected to tranquillity, noise, fuel burn or emissions, and local air quality is not anticipated to be affected by the proposal.
3. A diagram of the ILS procedures is at Appendix A, and the St Athan local airspace is at Appendix B.

Summary of the decision made

4. The CAA has decided to approve the proposal for the St Athan ILS procedures to be published in the civilian UK AIP and be regulated by CAA oversight.

5. The ACP will introduce 2 ILS procedures in the UK AIP. To ensure civil ILS accreditation and transition to CAA oversight the previous military procedures required a minor modification to the Missed Approach Procedure (MAP) and a Radio Communications Failure (RCF) procedure to be added.

Next steps

6. Implementation of the revised airspace will be notified through a single AIRAC cycle (AIRAC 11/2020) and will become effective on 08 October 2020.
7. The CAA's Post Implementation Review (PIR)¹ 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. In due course, the sponsor will be advised of the specific data sets and analysis required, and the dates by when this information must be provided.

¹ PIR is the seventh stage of the CAA's airspace change proposal process

Chapter 2

Decision Process and Analysis

Chronology of Proposal Process

Statement of Need and Assessment Meeting

8. The Welsh Government submitted a Statement of Need (SoN) on 11 January 2019. An Assessment Meeting was held on 20 March 2019 at which the Welsh Government outlined the following drivers for the ACP:
 - On 01 April 2019 St Athan airfield will transition to become a fully regulated and licensed civil airfield under the oversight of the CAA. The ILS approach to Runway 25 is currently approved and regulated by the MAA, flight checked to Category 1 standards, and published in the Military AIP. Following transition to CAA regulation the ILS will require to be approved by the CAA and published in the civil UK AIP.
 - The ILS is a critical enabler for the MRO facilities to recover aircraft. Whilst comprising of only 1% of St Athan movements, the facilities provide a high economic impact for the South Wales regional economy, and without the ILS there is a genuine concern these facilities will lose business or move elsewhere.
 - The ILS is pre-existing, and the proposal does not seek to increase, change or alter its use. There are no proposed changes to tracks over the ground, new associated environmental issues, changes to airspace classification or new impacts on other airspace users. Interactions with adjacent airport procedures (Cardiff International Airport) are already established.
9. The CAA determined that the proposal was in scope of the ACP process and assessed the proposal as Level 2C. This was based on the proposal reflecting the current use of the airspace concerned and does not alter traffic patterns below 7,000 feet. Minutes of the Assessment Meeting together with a copy of the slide presentation and detail of provisional scaling were published on the CAA Airspace Change Portal.

Process followed to arrive at the proposal's design principles (Stage 1, Step 1B)

10. The Welsh Government commenced initial stakeholder engagement in July 2019 which was limited to the MRO companies who were identified as the only key stakeholders. Cardiff International Airport were also continuously engaged as an integral stakeholder as they provide the air traffic control elements of the procedure and a part of the joint venture. The sponsor submitted an argument that in this instance there is no requirement to develop design principles. They stated that *'the proposed change relates to an existing published design and...has no safety, operational or environmental impact. There would be no change to air traffic control procedures, or to the design of UK airspace, and there would be no change for other airspace users, adjacent airports or to the general public living beneath the procedures. The sole and exclusive aim of [the ACP] is to enable the publication of the...St Athan ILS procedures, previously published in the Mil AIP, in the UK AIP'*.
11. The design principles document provides clear rationale behind the sponsors argument that there is no requirement to develop design principles for a pre-existing ILS in this scenario, and they addressed each of the technical considerations in turn.

Define Gateway

12. A Define Gateway Assessment for St Athan ILS procedures was conducted on 26 July 2019. The CAA was content that the submitted argument stating there is no requirement for design principles in this instance was credible and stands up to scrutiny. This is a proportional approach to the proposal with suitable rationale and justification. The following statement was uploaded to the CAA Airspace Change Portal on 29 July 2019. *The CAA has completed the Define 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.*

Options development and appraisal (Stage 2, Step 2A and 2B)

13. The sponsor performed an initial evaluation of five potential options to address the removal of the St Athan ILS. Whilst these were not five options of ILS design (which is not the subject of the proposal,) they considered the impact of either permanently withdrawing the ILS (a 'do nothing' option,) against different ACP Levels that could be applied to the proposal using CAP 1616. To ensure process was followed the sponsor

also compared the proposal against the ACP submission requirements detailed in CAP 1616, Appendix F.

Develop and Assess Gateway

14. The Develop and Assess Gateway Assessment was held on 26 July 2019. The CAA was content that the sponsors options appraisal conformed to process and provided acceptable rationale and argument justifying the proposed single option which is to publish the ILS procedures in the civil UK AIP. The proposal was confirmed as a Level 2C ACP owing to the change reflecting previous and current use of the airspace, not altering traffic patterns below 7,000 feet, and that there is no change to noise impact over the ground on the approach. The following statement was published on the CAA Airspace Change Portal on 29 July 2019. *The CAA has completed the Develop and Assess Gateway Assessment and is satisfied that the change sponsor has met the requirements of the Process up to this point. The CAA has determined that the appropriate level for this airspace change is Level 2C, and approves progress to the next step.*

Consultation

15. The sponsor requested to conduct a targeted stakeholder consultation over a reduced 4-week consultation period on the grounds that the proposal does not alter the historical track, altitude or the number of aircraft arriving at St Athan, nor the classification or dimensions of surrounding airspace, and that key stakeholders had been engaged with from the outset. This included both aviation and non-aviation stakeholders in the local area. The CAA approved this request determining it represented a proportional and pragmatic approach to take in these circumstances. The period of consultation took place between 30 September 2019 to 28 October 2019.
16. Targeted stakeholders were sent a launch email on the 30th September 2019, notifying them that the consultation was open, the dates and duration of the consultation and a link to the relevant section of the Airspace Change Portal. Follow-up emails were distributed to those targeted stakeholders that had not responded on the 11th and 21st October 2019; these emails confirmed the end date of the consultation, included a link to the relevant section of the Airspace Change Portal and highlighted the importance of consultee feedback in terms of progressing the airspace change proposal.

17. On conclusion of the consultation phase the sponsor submitted a Step 3D (Collate and Review Responses) document, which provided a full breakdown of stakeholder feedback. This was published on the CAA Airspace Change Portal on 01 November 2019.

Proposal update and submission to CAA (Stage 4, Step 4A and 4B)

18. The sponsor submitted Step 4A Update Design documents (Options Appraisal Phase III Final) and Stage 4B Airspace Change Proposal submission documents on 13 November 2019. Whilst no fundamental change was made to the airspace change proposal following consultation, the change sponsor demonstrated that they had taken consultee feedback into consideration by updating their Stage 4 documentation to provide clarity on circling approach and missed approach procedures. These documents were published on the CAA Airspace Change Portal.
19. Step 4A requires the sponsor to submit the Final Options Appraisal which assesses the benefits of the various options compared to a baseline. As the proposal concerns the publishing, or not, of the St Athan ILS procedures in the UK AIP, this option was compared against the impact of its permanent withdrawal.
20. Step 4B, the sponsors formal Airspace Change Proposal, detailed the background to the proposal, the requirement and the process followed to date. The proposal seeks CAA approval to publish the St Athan ILS procedures in the civilian UK AIP and transition them to CAA oversight.

CAA Analysis of the Material provided

21. As a record of our analysis of this material the CAA has produced:

20200710 – St Athan ILS Environmental Assessment
20200710 – St Athan ILS Consultation Regulatory Assessment
20200710 – St Athan ILS Operational Assessment
20200710 – St Athan ILS Final Options Appraisal Assessment

These assessments will be published on the CAA Airspace Change Portal.

CAA assessment and decision in respect of Consultation

22. The CAA is satisfied that the fundamental principles of effective consultation, namely: 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, were applied by the change sponsor before, during and after the consultation. The change sponsor has conducted this consultation in accordance with the requirements of CAP 1616 and has taken into account the Government's consultation principles and the Secretary of State's Air Navigation Guidance.

CAA Consideration of Factors material to our decision

Explanation of statutory duties

23. The CAA's statutory duties are laid down in Section 70 of the Transport Act 2000.

Conclusions in respect of safety

24. 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.²
25. In this respect, with due regard to safety in the provision of air traffic services, the CAA is satisfied that the proposals maintain a high standard of safety for the following reasons:
- a. The sponsor has conducted a hazard identification exercise and produced a safety case for the missed approach procedure and radio communications failure. These procedures have been assured by the CAA.
 - b. The ILS is to be flight checked and validated prior to initial use.
 - c. Air Traffic Control procedures are conducted by Cardiff International Airport. The controllers are to be suitably trained on equipment and procedures prior to use. Evidence of this is to be provided to the CAA prior to use.

² Transport Act 2000, Section 70(1).

Conclusions in respect of securing the most efficient use of airspace

26. 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 traffic.³
27. The CAA considers that the most efficient use of airspace is defined as ‘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’.
28. 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.
29. In this respect, the CAA is satisfied that there would be no identifiable impact to General Aviation (GA) aircraft arrivals, departures or transits of the local area associated with the re-introduction of the ILS procedures at St Athan. Aircraft flying an ILS procedure would be following a very similar profile to that of a visual approach, so there is no discernible impact on GA aircraft. The proposal does not modify how GA operate to and from St Athan, and there are no changes to airspace design or classification.

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

30. In performing the statutory duties, the CAA is obliged to take account of the extant guidance provided by the Secretary of State,⁴ namely the 2017 Guidance to the CAA on Environmental Objectives.
31. The proposal does not involve a change to the nature, type or orientation of traffic. Therefore, as there is no alteration to flight pattern behaviour or traffic nature or numbers, no environmental consultation was submitted. The CAA accepts the sponsors rationale and supporting documentation and believes this is a proportional and appropriate approach in this circumstance.

Conclusions in respect of aircraft operators and owners

32. The CAA is required to satisfy the requirements of operators and owners of all classes of aircraft.⁵

³ Transport Act 2000, Section 70(2)(a).

⁴ Transport Act 2000, Section 70(2)(d)

⁵ Transport Act 2000, Section 70(2)(b).

33. In this respect, the CAA is content that the publication of the St Athan ILS procedures in the civil UK AIP does not disadvantage other classes of aircraft, and equitable access is provided to other aircraft operators and has not been amended by the proposal.

Conclusions in respect of the interests of any other person

34. 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 generally.
35. In this respect, the CAA considers that the impact of the proposal will not be discernible to other persons.

Integrated operation of ATS

36. 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 services.⁶
37. In this respect, the CAA is content that this ACP will not impact the operational requirements of the MoD or impact on other Air Traffic Service Providers.

Interests of national security

38. The CAA is required to take account of the impact any airspace change may have upon matters of national security.⁷
39. In this respect, the CAA is satisfied that the proposal has no impact on national security.

International obligations

40. The CAA is required to take account of any international obligations entered into by the UK and notified by the Secretary of State.
41. In this respect, the CAA is satisfied that the proposal has no impact on international obligations.

⁶ Transport Act 2000, Section 70(2)(e).

⁷ Transport Act 2000, Section 70(2)(f).

Chapter 3

CAA's Regulatory Decision

CAA's Regulatory Decision

42. Noting the anticipated impacts on the material factors we are bound to take into account, we have decided to approve the publication of the St Athan ILS procedures in the civil UK AIP and transition them to CAA oversight. This approval includes the modification of the missed approach procedure, and the introduction of a radio communications failure procedure.

Conditions

43. Prior to the equipment being used for the first time, the sponsor must fulfil the following conditions:
- a. Provide evidence that the Units, St Athan and Cardiff, MATS Part II have been updated and accurately reflect the equipment usage including the requirements in the safety assessment.
 - b. Provide confirmation of the controllers which have used the system before it was taken out of service, and that they have reviewed the MATS Part II in case of any changes.
 - c. Confirm that the Radio Communications Failure Missed Approach Procedure safety case has been reviewed and that all safety requirements are complied with.
 - d. Provide assurance that the Unit has a specific training plan in place for its trainees. Assurance is required that trainees, students and ATCOs who were trained while the equipment was out of service, have trained on the procedures and associated phraseology prior to them using the equipment.
 - e. Provide the CAA ATS (Engineering) Inspector with the ILS Flight Calibration and Flight Validation reports scheduled for August 2020.
 - f. Ensure that the Cardiff Airport and St Athan Airport ATSMACs have been updated and submitted together so when published the information correlates and is up to date.

44. The sponsor will provide data required by the CAA to carry out the PIR as detailed below.

Period Regulatory Decision Remains Valid for Implementation

45. This regulatory decision remains valid until implementation in accordance with the target date of AIRAC 11/2020, 08 October 2020. Any delay beyond this point will require further approval from the CAA.

Implementation

46. The revised airspace will become effective on 08 October 2020. Any queries are to be directed to the SARG Project Leader via airspace.policy@caa.co.uk.

Post Implementation Review

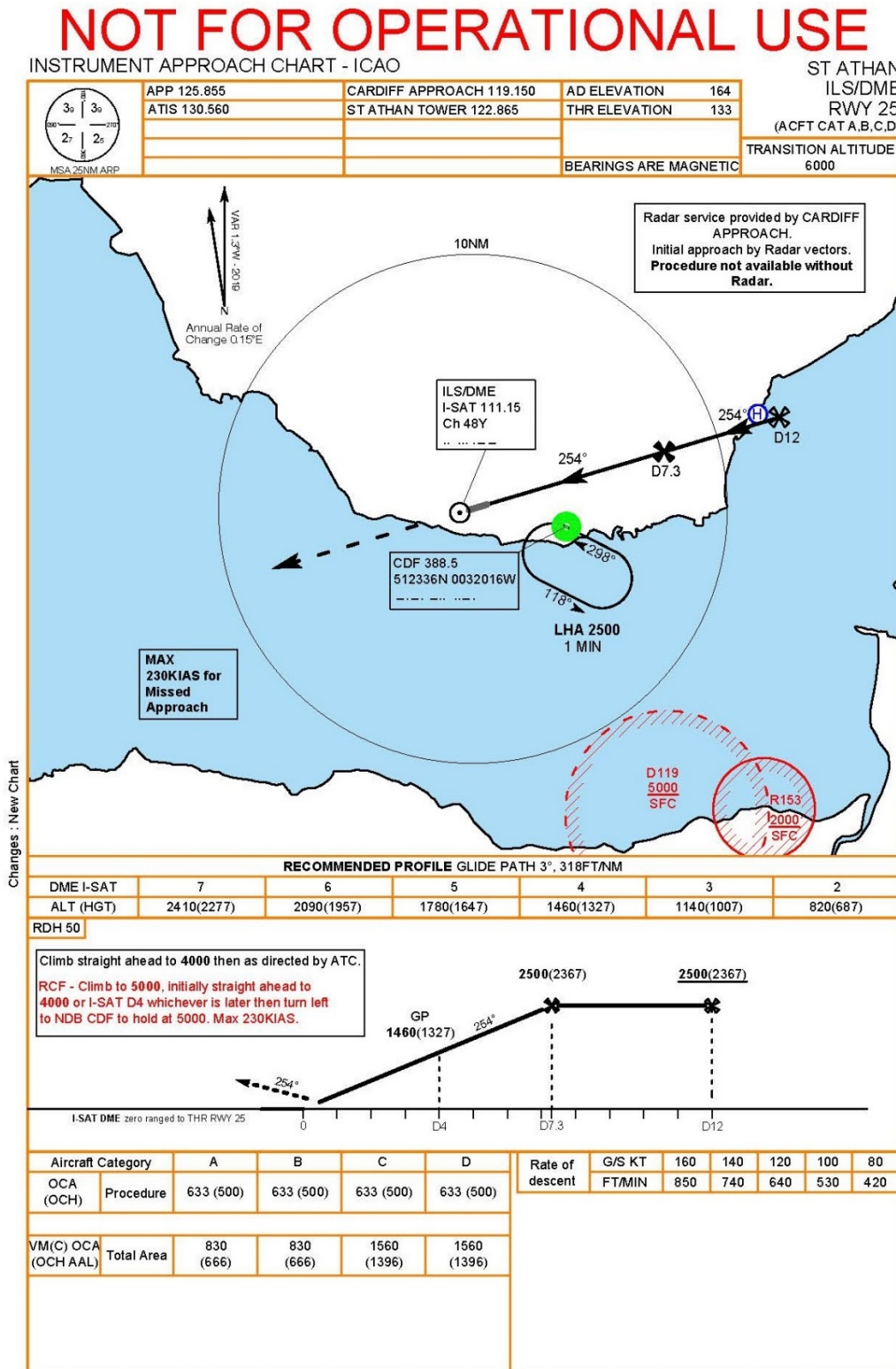
47. In accordance with CAA standard procedures and Stage 7 of the ACP Process, as detailed in CAP 1616, the implications of the change will be reviewed after one full year of operation, at which point CAA staff will engage with interested parties to obtain feedback and data to contribute to the analysis. The CAA will review how the airspace change has performed, including whether the anticipated impacts and benefits in the original proposal and decision have been delivered.
48. The PIR will include, but not be limited to, reviewing the impact of the change on all airspace users. The sponsor will provide detail on any occasions an aircraft performing an ILS to St Athan performed either a MAP or RCF and detail any subsequent impact on other airspace users and/or Cardiff International Airport's traffic. Any issues arising during the first year of operation are to be recorded and provided. More information on what is required for a PIR can be found in CAP 1616, Appendix H.

Civil Aviation Authority

15 July 2020

Appendix A

St Athan ILS/DME RWY25 Instrument Approach Chart



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NOT FOR OPERATIONAL USE

Appendix B

St Athan Local Flying Zone and airspace

