

# Danger Areas for UAS Operations From Predannack Airfield

## Airspace Change Decision

CAP 1785

**Published by the Civil Aviation Authority, 2019**

Civil Aviation Authority,  
Aviation House,  
Gatwick Airport South,  
West Sussex,  
RH6 0YR.

Enquiries regarding the content of this publication should be addressed to:

Airspace and ATM Aerodromes, Safety and Airspace Regulation Group, CAA House, 45-59  
Kingsway, London, WC2B 6TE

The latest version of this document is available in electronic format at [www.caa.co.uk](http://www.caa.co.uk)

# Contents

---

Contents.....	3
<b>Chapter 1.....</b>	<b>5</b>
Executive summary.....	5
Objective of the Proposal.....	5
Summary of the decision made.....	5
Next steps.....	5
<b>Chapter 2.....</b>	<b>7</b>
Decision Process and Analysis.....	7
Aims and Objectives of the Proposed Change.....	7
Chronology of Proposal Process.....	8
Framework Briefing.....	8
Consultation.....	8
Submission of Airspace Change Proposal.....	9
CAA Analysis of the Material provided.....	9
CAA assessment and decision in respect of Consultation.....	9
CAA Consideration of Factors material to our decision whether to approve the change.....	10
Explanation of statutory duties.....	10
Conclusions in respect of safety.....	10
Conclusions in respect of securing the most efficient use of airspace.....	11
Conclusions in respect of taking into account the Secretary of State's guidance to the CAA on environmental objectives.....	11
Conclusions in respect of aircraft operators and owners.....	13
Conclusions in respect of the interests of any other person.....	13
Integrated operation of ATS.....	13

---

Interests of national security.....	14
International obligations .....	14
<b>Chapter 3.....</b>	<b>15</b>
CAA’s Regulatory Decision .....	15
CAA’s Regulatory Decision .....	15
Period Regulatory Decision Remains Valid for Implementation .....	15
Conditions .....	15
Post Implementation Review.....	16

## Chapter 1

# Executive summary

---

## Objective of the Proposal

---

1. Royal Naval Air Station (RNAS) Culdrose identified a requirement to operate Unmanned Aerial Systems (UAS) at their satellite airfield, Predannack. The objective is to create 2 new Danger Areas (DA) and modify the existing DA EG D006 to facilitate larger UAS operating from Predannack, and provide access to the maritime training environment in the South Coast Exercise Areas (SCXA) complex. The SCXAs are already approved for Beyond Visual Line of Sight (BVLOS) UAS activity operating from RN ships, and this application looks to link this with a land element to enhance wider training opportunities to ships which do not have their own UAS, and provide a facility to train UAS operators. The application replicates the airspace established via Temporary Danger Area in late 2016 for this activity, with minor adjustments accounting for lessons identified during the activation. The Airspace Change Proposal (ACP) was submitted on 16 August 2018.

## Summary of the decision made

---

2. The CAA has decided to approve the proposed change to facilitate UAS operations at Predannack Airfield and link these to the SCXAs, subject to the conditions detailed in Chapter 3.
3. The change will modify EG D006 creating EG D006B and EG D006C, and introduce new DAs at Predannack Airfield (EG D005A) and one linking this with the SCXAs (EG D005B).

## Next steps

---

4. Implementation of the revised airspace will be notified through a single AIRAC cycle (AIRAC 08/2019) and will become effective on 18 July 2019.

5. 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. 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. The PIR is the seventh stage of the CAA's airspace change proposal process (set out in [CAP 725](#), the Guidance on the Application of the Airspace Change Process<sup>1</sup>) and will consider whether *"the anticipated impacts and benefits, set out in the Airspace Change Proposal, have actually been delivered"*. The policy states that if those impacts and benefits have not been delivered then the review should *"ascertain why and ... determine the most appropriate course of action"*.<sup>2</sup>

---

<sup>1</sup> [www.caa.co.uk/CAP725](http://www.caa.co.uk/CAP725)

<sup>2</sup> There are therefore a wide range of possibilities for the conclusions of a PIR; they include a rejection of the proposal, the imposition of further requirements on the proposal, and the making of wider recommendations, albeit that the success of the proposal is not dependent upon them.

## Chapter 2

## Decision Process and Analysis

---

### Aims and Objectives of the Proposed Change

6. At present all UAS are required to be operated in segregated airspace owing to their inability to 'detect and avoid', which is a technical capability equivalent to having an onboard pilot. The principal aim of the introduction of DAs at Predannack Airfield, and linking it to the SCXAs, is to facilitate UAS to be launched and recovered from land whilst being able to transit into the maritime environment to train RN ships. This would allow for ships who do not have a UAS capability to be trained, as well as enhance training opportunities and scenarios. The land element allows for the training of UAS operators without the need to transfer them to sea.
  
7. The objective is to minimise the impact on other airspace users by only activating the new DAs when required, by issuing a Notice to Airman (NOTAM). When activated RNAS Culdrose Air Traffic Control (ATC) will provide a Danger Area Crossing Service (DACS) to aircraft in the vicinity. At other times a Danger Area Activity Information Service (DAAIS) is available as per existing SCXAs. By creating multiple DAs, it allows the smallest amount of airspace necessary to be used for the operation, and assist other aircraft in transiting the airspace. The DAs have been designed to be 10nm away from the Lands End Transit Corridor, which is a popular route for General Aviation aircraft, and located primarily over the sea to reduce any impact on the population. Letters of Agreement have been established with the Search and Rescue (SAR) helicopters operating at Newquay International Airport and with Flag Officer Sea training (FOST) who operate in the SCXAs.

## Chronology of Proposal Process

---

### Framework Briefing

8. A Framework Briefing took place at CAA House, London on 02<sup>nd</sup> October 2017. During this the sponsor outlined its proposal and justification for the introduction of new DAs and the amendment to an existing one.
9. A post-presentation discussion ensued on the proposed design, specifically surrounding the non-airspace stakeholders who would need to be considered during the ACP, particularly as Predannack Airfield lies in an Area of Outstanding Natural Beauty (AONB) and is a designated Site of Special Scientific Interest (SSSI). The CAA emphasised the need for continued consideration of environmental sensitivities surrounding the local environment and environmental issues in any subsequent proposal.
10. The meeting concluded with the CAA outlining the requirements of the process and considerations for the sponsor prior to commencing their ACP. The CAA emphasised the need for a collaborative approach, in particular with affected aviation stakeholders and non-aviation stakeholders including environmental bodies.

### Consultation

11. A public consultation took place between 18<sup>th</sup> December 2017 and 26<sup>th</sup> March 2018. The consultation document was emailed to 56 organisations and individuals, including the MoD, local parishes, environmental organisations and national aviation bodies such as the Light Aircraft Association, and was published on the CAA website. During the Consultation period (15 March 2018) a stakeholder meeting was conducted with Grade Ruan Parish Council to increase their understanding of the proposal and determine its potential impact.
12. A total of 14 responses were received. This relatively low response rate is primarily owing to the vast majority of stakeholders contacted not being impacted by the proposal. The sponsor did identify 6 key stakeholders including Bristow's SAR and Cornwall AONB and received a 100% response rate from



these organisations. The sponsor published the Consultation Feedback Report on the CAA website on 13<sup>th</sup> August 2018.

13. Prior to the Consultation period the sponsor conducted key stakeholder pre-engagement including holding a focus group conducted at Predannack Airfield. Part of RNAS Culdrose's termly Predannack Stakeholder meeting, this brought together interested parties including local farmers, residents, Natural England Cornwall Wildlife Trust and Bristow's SAR. The information gathered from this specific meeting influenced the proposed design.

### **Submission of Airspace Change Proposal**

14. On 16<sup>th</sup> August 2018 the CAA received the formal ACP submission. This included the Consultation Document, Consultation Report, and individual consultation responses and correspondence. Also included was the Freedom of Information request to Cornwall Council to assist the sponsor in conducting the noise impact assessment.

### **CAA Analysis of the Material provided**

---

15. As a record of our analysis of this material the CAA has produced:
  - 20190325 Predannack Airfield UAS Operations Operational Assessment
  - 20181107 Predannack Airfield Consultation Assessment

The CAA's Assessments will be published on the CAA's website.

### **CAA assessment and decision in respect of Consultation**

---

16. The CAA considered the Consultation Document, Consultation Report, and individual responses. 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 development of the proposals. The consultation material was written in plain English and suitable for non-aviation audiences. It included in layperson's terms what

segregated airspace is, what UAS are and why they are used at Predannack Airfield, the drivers for the change and the impact. Audience appropriate, the consultation itself allowed respondents to make informative, valuable contributions to the proposal. Of the 14 responses there were no outright objections to the proposal, only queries which the sponsor has looked to address or mitigate.

17. In this respect, the CAA is satisfied that the fundamental principles of consultation have been applied by the sponsor before, during and after the consultation. In addition, the CAA is satisfied that the change sponsor has conducted their consultation in accordance with the requirements of CAP 725.

## **CAA Consideration of Factors material to our decision whether to approve the change**

---

### **Explanation of statutory duties**

18. The CAA's statutory duties are laid down in [Section 70 of the Transport Act 2000](#).

### **Conclusions in respect of safety**

19. 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.<sup>3</sup>
20. 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:
  - a. Owing to a lack of Detect and Avoid capability the UAS operations are conducted within segregated airspace.
  - b. The DAs are activated via NOTAM and whilst active a DACS is provided by RNAS Culdrose ATC. A DAAIS is available at all other times.

---

<sup>3</sup> Transport Act 2000, Section 70(1).

- c. The segregated airspace is located 10nm away from the Lands End Transit Corridor, and an LoA is in place with Bristow SAR helicopters.

### **Conclusions in respect of securing the most efficient use of airspace**

21. 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.<sup>4</sup>
22. 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’.
23. 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.
24. Whilst new segregated airspace is associated with this proposal, the location is in a relatively low usage area for General Aviation. In addition, the segregated airspace is only to be activated when required, and utilise as small an area as deemed appropriate for each operation. Whilst active a DACS is available from RNAS Culdrose ATC who also provide a Lower Airspace Radar Service (LARS) in the area. The proposal is designed to facilitate RN training within the constraints of current UK regulations on UAS operations whilst minimising the impact on other airspace users.
25. In this respect, the CAA is content that the most efficient use of airspace is maintained with the proposal.

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

26. In performing the statutory duties, the CAA is obliged to take account of the extant directions provided by the Secretary of State<sup>5</sup>. The Department for Transport’s (DfT) guidance to CAA on its environmental duty is set out in the Air Navigation Guidance (ANG). At the commencement of this ACP Air Navigation Guidance 2014 was extant; however, on 01<sup>st</sup> January 2018 a new airspace policy framework

---

<sup>4</sup> Transport Act 2000, Section 70(2)(a).

<sup>5</sup> Transport Act 2000, Section 70(2)(d)

(UK Air Navigation Guidance 2017 and CAA Directions 2017) and airspace change process (CAP1616) were introduced. Following consultation with the DfT the CAA published a clarification to its ACP transition policy from ANG 2014 (CAP 725) to ANG 2017 (CAP 1616). Consequently, it was agreed that ongoing ACPs which had commenced their consultation by 02<sup>nd</sup> January 2018, and whose noise impact currently affects less than 10,000 people in the standard 54dB LAeq 16 hours noise contour, should be allowed to continue to follow the 2014 Air Navigation Guidance. All other proposals which had not commenced their consultation by that date should follow the 2017 Air Navigation Guidance.

27. This proposal commenced its consultation on 18th December 2017. To satisfy the noise contour requirement the sponsor performed a Freedom of Information request to Cornwall Council which provided detail that significantly fewer than 10,000 people resided within a 5nm radius of Predannack Airfield, and therefore could not be impacted by the proposal. The CAA accepted this evidence and argument and therefore this proposal is assessed against CAP 725 and Air Navigation Guidance 2014.
28. In respect of the Air Navigation Guidance 2014, which augments The CAA (Air Navigation) Directions 2001 (incorporating Variation Direction 2004), and the CAA's environmental duty in section 70 of the Transport Act 2000, the CAA shall disregard the environmental impacts of military aircraft or military operations when considering whether to agree to an airspace change proposal proposed by the military. However, where a military body proposes an airspace change that will have a consequential effect on civil operations (for example, by removing an area of airspace from civil use so that civil routes need to be redirected around it), the CAA shall take account of the environmental impacts of those civil operational changes. In this proposal no civil traffic or route is affected.
29. By introducing segregated airspace to operate UAS at Predannack Airfield, when active it will remove the ability for manned aircraft to operate there as mixed operations are not allowed in proposed DA EG D005A. Currently operating Merlin EH101 helicopters, it is most likely that during UAS operations the noise output at the airfield will reduce.
30. In this respect the CAA is satisfied its environmental obligations are met.

## Conclusions in respect of aircraft operators and owners

31. The CAA is required to satisfy the requirements of operators and owners of all classes of aircraft.<sup>6</sup>
32. Gliding operations can only take place at Predannack when the airfield is closed. The DAs are designed to cause minimal, if any, impact to military aircraft operating to/from RNAS Culdrose. RNAS Culdrose ATC provide a DACS to aircraft wishing to cross the DAs, and a LARS to those transiting nearby. LoAs have been established with Bristow SAR and FOST. The DAs are located 10nm away from the Lands End Transit Corridor.
33. In this respect the CAA is satisfied that the proposal does not negatively impact any owners or operators of other classes of aircraft.

## 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. The proposal looks to minimise any impact on communities and other persons. The proposal allows the sponsor to continue to effectively consider the SSSI and AONB requirements and conform to the associated Environment Order.
36. In this respect the CAA is satisfied by the proposal.

## Integrated operation of ATS

37. 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.<sup>7</sup>
38. The MoD is the sponsor of the proposal. The segregated airspace was designed to have an area offset from RNAS Culdrose's extended centre-line to ensure it does not impact on their operation. No other air traffic services are affected by the proposal.

---

<sup>6</sup> Transport Act 2000, Section 70(2)(b).

<sup>7</sup> Transport Act 2000, Section 70(2)(e).

39. In this respect, the proposal successfully integrates with the operation of other ATS.

### **Interests of national security**

40. The CAA is required to take into account the impact any airspace change may have upon matters of national security.<sup>8</sup> There are no impacts for national security.

41. In this respect, the proposal satisfies this requirement.

### **International obligations**

42. The CAA is required to take into account any international obligations entered into by the UK and notified by the Secretary of State.

43. In this respect, the proposal satisfies this requirement.

---

<sup>8</sup> Transport Act 2000, Section 70(2)(f).

## Chapter 3

## CAA's Regulatory Decision

---

### CAA's Regulatory Decision

---

44. Noting the anticipated impacts on the material factors we are bound to take into account, we have decided to approve the introduction of a new danger area at Predannack Airfield (EG D005A), a new danger area linking Predannack Airfield to the SCXAs (EG D005B) and an amendment and sub-division to an existing danger area creating 2 new danger areas (EG D006B and D006C). As detailed in Chapter 2, the change fulfils the requires of the CAP 725 airspace change process and conforms to both the CAA's statutory obligations as laid out in the Transport Act (2000), and the guidance to the CAA on environmental objectives as detailed in the Air Navigation Guidance (2014).

### Period Regulatory Decision Remains Valid for Implementation

45. The ACP is to be implemented in accordance with the target date of AIRAC 08/2019.
46. The revised airspace will become effective on 18 July 2019. Any queries are to be directed to the SARG Project Leader via [airspace.policy@caa.co.uk](mailto:airspace.policy@caa.co.uk).

### Conditions

47. The sponsor will ensure all draft Letters of Agreement are signed by all parties and effected prior to implementation.
48. The sponsor is to ensure RNAS Culdrose and Predannack Airfield Local Orders are updated to explicitly reflect that proposed Danger Area EG D005A when activated is for the exclusive use of UAS, and no mixed operations with manned aircraft are allowed. This amendment can only be altered after consultation with the CAA.
49. The sponsor will provide data required by the CAA to carry out the PIR as detailed below.

## Post Implementation Review

50. In accordance with CAA standard procedures and Stage 7 of the ACP Process, as detailed in CAP 725, 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.
51. 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 instances a DACS was not available or refused whilst the segregated airspace was active, any conflicts with RNAS Culdrose traffic, and any relevant feedback or comments from ongoing engagement at the termly Predannack Stakeholder Meetings or elsewhere. Any complaints from any party regarding the change or its associated impact are to be recorded and presented for the PIR. This will include, but not be limited to, airspace accessibility. Evidence of benefits from the change are also to be recorded and provided.

Civil Aviation Authority

*11 April 2019*