

19 Oct 20

EGBP CAP 1616 Proposal Submission – Additional Rationale for not including a Hold in the Design.

1. Introduction

1.1 This document presents the justification for not providing a holding procedure into the design of the proposed Instrument Approach Procedures (IAP), developed as an ACP under CAP 1616 for Cotswold Airport (Kemble).

1.2 Although the assessment in this document and more widely throughout the CAP1616 process has identified benefits and disbenefits of a procedural hold for all types of ICAO Aircraft Approach Category (CAT) aircraft, this must be viewed through the lens of both operational context and the scope of the ACP. For Kemble's CAT aircraft in scope for the IAP, the bulk are CAT A and B, business jets on private flights. The smaller number of CAT C and D aircraft generally only arrive on ferry permits for end of life recycling or P145 maintenance during title handovers.

1.3 The matter of a hold had been considered by the Change Sponsor from the outset and the following content provides the evidence to support the decision. This includes steps taken in advance to mitigate against the risk of a missed approach occurring and direct mitigations for managing the lack of a hold.

2. Background

2.1 Operations involving CAT A to D aircraft at Kemble have been conducted safely for at least the past 10 years. Despite not having a defined approach routing (using crew defined own Visual Flight Rules (VFR) navigation), only on two occasions has a crew placed the aircraft into a holding pattern of their own making. On both occasions, this was due to marginal, but improving, weather conditions, which an IAP would remediate due to the lower weather minima of Instrument Flight Rules (IFR).

2.2 In the case of airliner delivery operations these are also preplanned and not subject to commercial flight timing pressures. For all in scope arrivals, this allows the benefit of increased dialogue between operator/crew and Kemble, from initial quote request to negotiating a slot which best fits both parties. This results in the aircraft crew confirming all operational conditions, including weather is, to the best of their knowledge, satisfactory to complete the approach and landing prior to take off.

3. Benefits of providing a hold

3.1 A hold can allow the pilot somewhere to position the aircraft while they resolve an issue on the aircraft, wait for an improvement in the weather or to set the aircraft up for another approach.

3.2 However, a hold in Class G airspace served by a flight information service as opposed to a radar unit providing an approach control service is not the most appropriate solution in this location. Brize Radar can provide a radar service in class G (as well as inside CAS if appropriate) to aircraft that do not recommence approach after a missed approach, for whatever reason, but they are clear that they cannot, within the conditions of their licence, provide an approach control service to aircraft in the hold for these procedures.

3.3 No approach control service also means an inability to provide separation minima laterally or vertically for a hold and wake turbulence time sequencing/control of any other aircraft.

3.4 A hold could provide a facility for traffic management and integration but this is obviated by the fact that arrivals to the procedure are sequenced and regulated by strict PPR slots, up to a maximum of 5 per day, with 90 minutes between each IAP slot and only one aircraft per IAP slot.

4. Mitigations for managing not having a hold

4.1 The Pilot Brief will be re-issued and will include a description of the procedure as non-standard, without a holding facility and detail the limits within which the pilot can utilise the procedure. If a pilot decides not to commence the procedure again after a missed approach, they may wish to hold in Class G airspace. The most appropriate solution in this location is to contact Brize as the local LARS unit to avail themselves of a radar derived ATSOCAS or to divert (or Return to Base) in accordance with their pre-flight planning.

4.2 The length of track miles flown following a missed approach plus information provided in the Pilot Brief gives crews sufficient time and guidance to either set the aircraft up for the procedure again or make a decision as to what actions they will take if they don't recommence the approach. The Change Sponsor has calculated there is time within a slot to fly 2 approaches in a CAT A aircraft and 3 in a CAT D aircraft.

4.3 If the pilot requires a further clearance from RAF Brize Norton to be able to complete the approach, should ICAR3¹ be planned or the Fairford MATZ be activated, our long-standing LoA with RAF Brize Norton (which includes RAF Fairford), enables this and an updated version, which has been agreed and will be signed on approval of the ACP, states the crew may request this from them. Outside controlled airspace, the bulk of this proposed IAP, the crew can request ATSOCAS, if available. This is also enshrined in the LOA. Three LOAs have been agreed, which cover all scenarios for both Kemble and RAF Brize Norton ACPs.

4.4 Pre-application stakeholder engagement carried out in 2018 showed demand likely to be in the order of 1 slot per day initially. However, subsequent changes to commercial activities by these entities due to Covid-19 has reduced demand.

4.5 Throughout all the CAP1616 Stages when describing options for the designs of the approaches, it was made clear that no holding facility would be provided. As the records lodged on the CAA Portal show, none of the aviation stakeholders who responded commented on that which the Change Sponsor took to be acceptance.

4.6 With the exception of an approach from ICAR3, a clearance to enter Brize CAS D will be not be required from BZN for any of the IAPs or missed approaches. However, should the Fairford MATZ be activated all approaches to runway 26 will have to request a transit from BZN. The missed approach from runway 08 does not enter the Fairford MATZ.

5. Steps taken to reduce risk of a Missed Approach

5.1 There are a few reasons why an aircraft might fly a missed approach such as an emergency with another aircraft or an unexpected event such as a vehicle runway incursion. Nevertheless, the risk of an aircraft flying the missed approach has been minimised through:

¹ The Northern T-Bar IAF Join for the RW26 IAP. ICAR3 5LNC will be requested to change to PAFRA.

- Runway equipped with high intensity AGL services.
- Runway inspection carried out prior to slot arrival.
- Met observing competencies will match CAP746
- Circuit procedures imposed with aircraft of ground held and visual circuit unavailable
- Feathered arrows added to chart to highlight IAPs to aircraft flying in the vicinity.
- No other PPR arrivals accepted during blocked PPR approach slot.
- PPR timed separation assured by limiting to 5 per day.

5.2 This means that the likelihood of an aircraft executing a missed approach and requiring a holding facility is significantly reduced.

6. Summary

6.1 Whilst developing the options in the early stages of CAP1616 and through to consultation and submission of the final proposal, it has been the change sponsor's opinion that a hold is both operationally unnecessary and, on balance, less safe than having a designated hold. Of particular concern is that any hold would not be protected by controlled airspace and would not be in receipt of an approach control service, relying on Kemble's AFISO and the aircrafts onboard TCAS (or similar system).

6.2 It may be likely that, in a procedural hold, the requirement to take appropriate action in the event of a TCAS warning whilst maintaining VFR separation under SERA could potentially increase the pilot's workload. Furthermore, information demands for traffic outside the visual circuit and holding on the ground are also likely to increase AFISO workload. Both of these factors increase the inherent safety concern of operating executive jets/large aircraft in GA populated Class G airspace.

6.3 For these reasons, the assessment throughout the CAP 1616 process and enshrined within the supporting CAP1122 safety case concluded not having a hold for Kemble's IAP was both safer and operationally acceptable.