



ACP-2023-075

TRIAL OF AN RNP APPROACH TO RUNWAY 03 AT BIGGIN HILL AIRPORT

Trial Implementation Plan: Phase C

Version History		
Version	Date	Update
1.0	December 2025	Original
2.0	July 2026	Trial extension to end of December 2027

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1 Introduction

As set out in [CAA's Trial Plan review response May 2024](#), their approval decision is conditional on London Biggin Hill Airport (LBHA) progressing through three phases of trial implementation activities:

- Phase A will consist of a flight validation to ensure the procedure is coded correctly and can be flown in accordance with a Flight Management System. This would take place under control conditions (to be defined and agreed, see SR 03, 04, 05 and 49 in Annex E safety requirements). Phase A was successfully completed in September 2025.
- Phase B will consist of pre-planned testing of the procedure under control conditions (to be defined and agreed upon completion of phase A). Phase B was successfully completed in March 2026 with permission to proceed to Phase C received from the CAA on 19th March, commencing 30th April.
- Phase C will consist of open testing of the procedure with all suitably qualified AOs and reduced/nil control conditions (to be defined and agreed upon completion of phase B).

The CAA will not permit progression to the next phase until it has determined that the objectives of the previous phase have been met, which include maintaining a high standard of safety, and the CAA agreement to the conditions of the next phase.

V1.0 of this document summarises the outcome of the Phase B activities and describes the activities that took place to satisfy Phase C of the trial implementation. Phase C commenced on 30th April 2026.

This version, V2.0, includes the proposed extension of the trial to ensure operational continuity of the procedure whilst LBHA executes an Airspace Change Proposal to implement the procedure on a permanent basis.

2 Phase B Summary

Phase B consisted of pre-planned testing of the procedure under control conditions which involved the RNP 03 procedure being promulgated in the UK Aeronautical Information Publication (AIP) via an AIP Supplement, and flown by only a small number of specifically briefed operators for a period of time to demonstrate that a high standard of safety can be maintained before progressing to Phase C.

Phase B commenced from 17th November 2025; however, the navigation data base coding was not available until AIRAC12/2025 27th November 2025, therefore no flights could take place until that date.

The first RNP03 approach in Phase B took place on 26th December 2025 with another seven approaches completed by 5th March 2026. Data was presented to the CAA following each flight and in March 2026, the CAA approved progression to Phase C. Figure A illustrates the lateral containment of all 8 flights in yellow against the nominal centreline in green. Gatwick's CTA boundary is shown in black.



Figure A: 8 Phase B flights

Phase C commenced on 30th April 2026.

In the period up to 30th April, the operators currently briefed and approved for Phase B were able to request the procedure.

3 Phase C Plan

3.1 General

Phase C commenced on 30th April 2026 and runs through to 14th October 2026. LBHA have commenced an ACP for the permanent introduction of the trial RNP03 procedure¹ and provided CAA with justification to keep RNP03 operational whilst the ACP progresses.

It is proposed that an extension through to the end of 2027 is a suitable timeframe within which LBHA can make considerable progress through the CAP1616 process.

During Phase C, the RNP RWY03 procedure is available for all RF-capable operators to request on first contact with Thames Radar. An updated AIP Supplement needs to be submitted to NATS AIS by 4th September 2026, to ensure an effective date of 15th October 2026, before the existing AIP SUP 2026/036 expires on 14th October 2026.

Unit Temporary Operating Instructions at LBHA and London Terminal Control will be amended and extended through to 31st December 2027.

The Operator Questionnaire Survey remains suitable and does not require updating.

The General Aviation Survey form, available from the link in the AIP Supplement will remain live and does not require updating.

The following LOAs expire on the following dates. All LoA extensions through to 31st December 2027 are in progress.

1. Gatwick NATS / LBHA – 19th August 2026.
2. RAF Kenley / LBHA 25th September 2026
3. Redhill / LBHA – 20th October 2026

3.2 Phase C objectives and associated evidence to be captured

Three core trial objectives for Phase C were presented in the original Trial Plan V1.0. We propose that only 2 of those core trial objectives are currently relevant for Phase C to demonstrate that a high standard of safety can be maintained. The reason for temporarily excluding the 3rd objective from Phase C is explained below.

¹ ACP-2026-105
July 2026

OBJECTIVE 1: Understand and analyse RNP flyby and RF leg Actual Navigation Performance on arriving traffic to a short final approach.

Phase C will provide real-life data on the vertical and lateral actual navigation performance of aircraft flying the RNP RWY 03 procedure. We will be able to accurately assess the distances achieved between aircraft flying the RNP RWY 03 arrival in Class G uncontrolled airspace and:

- The Gatwick CTA boundary
- Gatwick arrivals or departures

This data will also better inform both Gatwick and Biggin Hill as to the most suitable CAS volume structure and achievable route separation in the area in support of their ongoing FASI ACPs.

Evidence Capture for Objective 1

LBHA's Aerodrome Traffic Monitor (ATM) has a Mode-S radar feed, and they have also installed an ADS-B receiver on the aerodrome, specifically to capture data for this trial². This data will be used to analyse the vertical and lateral actual navigation performance of aircraft flying the RNP RWY 03 procedure.

Success Criteria

Following the end of the trial period we will be able to report on:

- The lateral and vertical actual navigation performance of all RNP RWY 03 arrivals
- The lateral separation routinely achieved from Gatwick's CTA boundary
- The closest lateral and vertical separation between RNP RWY 03 arrivals and Gatwick arrivals or departures.

OBJECTIVE 2: Understand the impact on pilot workload associated with the use of RF to a short final approach, together with its suitability in Class G airspace.

The trial will enable us to understand whether the procedure is understood and flown correctly, log any occurrences of 'procedure breakdown', determine whether the procedure exacerbates the issues of pilot workload compared to the existing circling approach and understand if the RNP RWY 03 procedure increases interactions with other airspace users and/or created conflicts in Class G airspace.

Evidence Capture for Objective 2

Was the procedure understood and flown correctly or exacerbate the issue of pilot workload compared to the existing circling approach?

We will distribute the operator survey to LHBA's operators at the end of May, July and September via LBHA's Centrik platform. This allows operators to report on any issues with procedure misunderstanding, procedure breakdown or flyability and general workload associated with the RNP APCH+RF procedure. We cannot guarantee that all operators will respond to the survey.

² The ADS-B data is not included in the ATCO's ATM surveillance feed.

LBHA will log any occurrences of 'procedure breakdown' or issues with flyability as these could be expected to cause a sudden increase in pilot workload. We propose that a procedure breakdown occurs when a Flight Management Computer (FMC) Disconnect takes place resulting in the aircraft not making a turn at a waypoint and instead flying 'wings level' through that waypoint.

Excessive ballooning around a waypoint, over and above that which could be expected by an aircraft established on a typical RNP APCH procedure will be logged as a flyability issue.

An unstable approach caused by excessive speed and/or rate of descent above that defined by the IFP is not considered to be a breakdown of the procedure. ATC or the pilot purposefully breaking an aircraft off the procedure is not considered to be a breakdown of the procedure.

A procedure breakdown or flyability issue will either be raised by NATS Terminal Control, Biggin Hill ATC or pilot. In the event of a single procedure breakdown or a single flyability issue occurring, LBHA will engage with the operator to understand the reason. Multiple occurrences (more than 1) by the same aircraft or operator may, depending on the location and severity or the issue, lead to ATC stopping the aircraft or operator being cleared on the IAP, until the issue has been addressed.

Multiple occurrences of procedure breakdown or flyability issues across multiple operators or FMC manufacturer or aircraft types may, depending on the location and severity or the issue, lead to suspension of Phase C until the fault has been identified and corrected through either operational procedures or a change to the IFP.

Does the RNP RWY 03 procedure increase interactions with other airspace users and/or create conflicts in Class G airspace?

In addition to feedback from the operator survey, we will distribute an Airspace User survey to RAF Kenley Surrey Hills Gliding Club, Farnborough LARS and Redhill Aerodrome at the end of May, July and September to complete a short survey.

An online survey for GA users is also available to collect feedback and a link included with the AIP Supplement.

We will analyse ADS-B and/or Mode S data from the RNP APCH arrivals to calculate the time spent outside CAS on the RNP RWY 03 procedure compared to the time spent outside CAS by the traffic making a visual approach to RWY03 during the trial period.

We will analyse other conspicuous (Mode S, ADSB, FLARM, PAW) GA traffic in the area and understand the proximity encounter rates of those conspicuous GA operations in the volume of Class G against aircraft flying the RNP RWY 03 procedure.

Success Criteria

Following the end of the trial period:

- We have experienced no instances of procedure breakdown or flyability by more than one aircraft type/operator/FMC manufacturer on the leg between YARVU and the runway, since any issues were rectified
- The majority of pilot feedback, in the last 3 months of the trial, is positive with regards to their workload compared to the existing circling approach.

- We have quantified how much time traffic on the RNP RWY 03 procedure has, on average, spent outside CAS compared to traffic making a visual approach to RWY 03 during the trial period.
 - We have quantified the % of approaches flying the RNP RWY 03 procedure that were in close proximity to other, conspicuous traffic in Class G airspace. For the purpose of the analysis, we have defined 'close proximity' as within 1.0nm laterally and 500ft vertically. This can be compared to the % of visual approaches that were considered in close proximity to other conspicuous traffic, outside of the ATZ during the trial period, as well in relation to the proximity encounter rates between GA-GA aircraft.
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OBJECTIVE 3: Demonstrate safe integration of traffic, where different agencies require the use of multiple, innovative Instrument Approach Procedures (IAPs) in Class G Airspace.

Our engagement identified two ongoing ACPs³ to implement one or more Point in Space (PinS) Instrument Approach and Departure Procedures in close proximity to LBHA's RNP RWY 03 procedure. These procedures aim to enhance the capability of the blue light services that operate out of Redhill Aerodrome and King's College Hospital, Denmark Hill – namely, Air Ambulance Charity Kent Surrey Sussex (AACKSS) Helicopter Emergency Medical Service (HEMS) and flights in support of police operations that are conducted by the National Police Aviation Service (NPAS).

The ability for LBHA to assess this objective is dependent on the progress of ACP-2023-027 and ACP-2023-077. After speaking with the Sponsors, the current estimate for implementation of the PinS procedures is Q2 2027. We may be able to re-introduce this trial objective should the procedures reach implementation in this timeframe.

³ ACP-2023-027 and ACP-2023-077
July 2026

3.3 Safety mitigations to be implemented ahead of Phase C

Ahead of the commencement of Phase C:

- LBHA and LTC TOIs will be promulgated and accepted by CAA ATS Inspectors
- An updated AIP Supplement will be promulgated

3.4 Actions to be taken in the event of a safety event associated with the trial

The CAA's Trial Plan review response May 2024 states that the trial approval will be conditional on *"The CAA being informed throughout the trial of any incursions of Controlled Airspace that occur and any other incidents that would require Mandatory Occurrence Reporting. (in accordance with para 324 CAP 1616 v.4 the subsequent investigation into any incident during the trial may result in the CAA suspending or ending the trial.)"*

In the event of any safety occurrence, it will be reported and addressed within the normal reporting processes from the ATS unit and/or pilot so that the appropriate investigations can take place.

However, in the event that ATC at Biggin Hill, Swanwick Terminal Control or NATS Gatwick or a Pilot flying the RNP RWY 03 Approach considers that the IFP itself or associated ATC procedures may have been responsible for the safety event, or there is a failure of Biggin Hill's ATM, the trial can be immediately suspended by Thames Radar stopping issuing clearance for the RNP RWY 03 procedure until the issue is rectified.

As articulated in the trial objectives, it may not be necessary to suspend the trial in all events. For example, it may be appropriate to suspend a particular operator or aircraft type from participating in the trial until such a time as the causal issues have been identified and resolved.

3.5 Stakeholder Notification

All project industry stakeholders and relevant community groups were informed about the progression to Phase C in April 2026. If CAA permission to extend the trial through to the end of 2027 is granted, all stakeholders will receive another update.

In terms of community stakeholders, LBHA's Airport Consultative Committee will be briefed on the extension of Phase C to the end of 2027. The Airport Consultative Committee includes representatives for

- London Borough of Bromley

- London Borough of Croydon
- Tatsfield District Council
- Kent County Council
- Sevenoaks District Council
- Tandridge District Council
- Greater London Authority representatives
- Bromley Residents Federation
- Biggin Hill Residents Association

In addition, Reigate and Banstead District Council will be contacted directly as well as Botley Hill Farmhouse.

The LBHA website will be updated with new LinkedIn and Facebook posts confirming extension of the trial, directing viewers to the LBHA website for more information which contains information on [noise impacts](#) and how to make a [noise complaint](#). LBHA will collate, monitor and report noise complaints associated with this trial to the CAA.