

Reduced Night Noise Trial

London Gatwick Airport Limited

CAP 1616 Stage 1 – ‘Define’

Assessment Meeting

26th March 2019



Purpose

The purpose of this slide pack is to:

- Support the Airspace Change Process Stage 1 'Define' Assessment Meeting
- Outline benefits and potential challenges
- Outline our approach to engagement and the schedule

This document should be read with reference to London Gatwick's Reduced Night Noise Statement of Need (dap1916-2093) and Trial Plan. This briefing pack has been produced with reference to CAP 1616 (2nd edition) dated November 2018.



1. Introduction

- ✈ Round table
- ✈ Apologies for absence



Agenda

Scope of Discussion	Slide(s)
2. Statement of Need & Trial Plan	5 - 10
3 & 4. Opportunities and Issues	11 - 14
5. Provisional Indication of the Level and Process Requirements	15 - 17
6. Provisional Process Timescales	18 - 19
7. Next Steps	20 - 21
8. AOB	22



2. Statement of Need & Trial Plan



Statement of Need - Drivers of Change

- ➔ In April 2017, Gatwick Airport's Noise Management Board (NMB), as part of its Workplan, agreed that opportunities for night noise respite should be explored to reduce the number of people disturbed by night arrivals.
- ➔ Research conducted by the University of Sussex for Gatwick indicated that 'outlier' noise events, defined as aircraft which are significantly lower or noisier than the mean, are responsible for a disproportionate impact on communities.
- ➔ Compared to current operations, GNSS routes have the potential to reduce outliers. Gatwick intend to conduct a trial to explore the benefits of using GNSS arrival routes at night to reduce the number of outliers and therefore improve the overall noise situation.



Statement of Need - Trial Objective

The primary objective of the trial is to assess the extent that PBN technology can be used to deliver noise benefits (to arriving aircraft) during the night period by reducing the number of aircraft flying unduly noisy profiles and/or flying at unnecessarily low altitudes, thus reducing the number of people disturbed.



Trial Plan – Proposed Parameters

- ➔ Operate the trial between 01:30-05:00 (local time).
- ➔ Run the trial for 6 months in total.
- ➔ Design PBN routes to both ends of the runway.
- ➔ Use the Southern Runway only.
- ➔ Use noise monitors to capture real data, both before (baseline) and during the trial.
- ➔ On completion of the trial, remove the PBN arrival procedures and revert to pre-trial operation.



Trial Plan - Success Criteria

The following metrics will be measured using recorded noise data at noise monitor locations:

- ➔ Objective 1: The loudest outliers reduced by 90%.
- ➔ Objective 2: The lowest outliers reduced by 90%.
- ➔ Objective 3: A reduction in X% of N60 events.

For the purpose of the trial, outliers are defined as those in the 'worst performing' 5% of aircraft.



Trial Plan - Engagement

We propose to engage through the following existing groups as we progress with the design, development and implementation of the trial:

- ✈ NMB
- ✈ NATMAG
- ✈ GATCOM
- ✈ Airlines, through the Flight Operations and Performance Safety Committee (FLOPSC) and Airline Operators Committee (AOC)
- ✈ NATS

General information will be promulgated on Gatwick's website with links to the CAA Portal

Note: significant community and industry engagement has taken place since July 2017.



3 & 4. Opportunities and Issues



Opportunities

Gatwick is seeking to achieve the following outcomes from this airspace trial:

- Demonstrate the noise benefits of PBN by comparing the 'with' and 'without' PBN noise environment.
- Inform future planning as to the impacts of PBN.
- Gather data on PBN operational performance and noise impacts.
- Further develop the NMB's understanding of arrivals PBN.
- Evaluate new community engagement initiatives and processes.



Trial Operational Issues

- Aircraft equipage and crew qualification
 - Percentage of aircraft that can participate in the trial
- Overnight runway works
 - Early 2020 main runway works planned
 - Potential to impact the trial



Community Concerns

➔ PBN technology will concentrate traffic

- The trial will propose four routes for both westerly and easterly arrivals to be taken through the design process. The proposals will have the intention of minimising concentration and dispersing arrivals whilst not creating newly overflowed.
- The trial will run during the night (01:30-05:00) when arrival traffic is low.
- Proposed routes will be designed so they do not overlap or cross before joining the extended centreline.

➔ Overflight of communities currently not affected by noise

- Proposed routes will be placed within existing arrival swathes to prevent overflight of new communities.



5. Provisional Indication of the Level and Process Requirements



Trial Process Requirements

CAP 1616

1. *Develop and submit Statement of Need & Trial Plan*
2. **Assessment Meeting with the CAA**
3. *Prepare consultation strategy and documentation*
4. **Consult Gateway**
5. *Commence consultation via the Airspace Change Portal*
6. *Collate and review responses*
7. *Update trial plan (if applicable) and submit*
8. **Decide Gateway**



Trial Process Requirements

Other

1. *Route and procedure design*
2. *ATC procedure design*
3. *Noise monitors deployment*
4. *Environmental Assessment - Noise*
5. *Engagement & Consultation*
6. *Safety Assessment*
7. *Define data collection procedures*
8. *Define trial reporting procedures*
9. *Define trial suspension procedures*



6. Provisional Process Timescales



Activity Gantt Chart (draft)



Indicative timescales as per the submitted Trial Plan



7. Next Steps

- ➔ Industry Workshop (3rd May)
- ➔ NMB/14 (8th May)
- ➔ Community Noise Group Ad-Hoc Meeting (TBC)
- ➔ Airline Questionnaire
- ➔ Development of detailed Consultation Strategy
- ➔ **CONSULT Gateway (date TBC)**



8. AOB

