
NMB 2017/2018 Work Plan – Overview

Prepared for NMB/7

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Executive summary

The Noise Management Board (NMB) was constituted in June 2016 with an initial focus on the implementation of the Arrivals Review Recommendations. As noted in the implementation report Imm-20 published on January 31st 2017, the NMB has now reached the end of this preliminary work and has developed its own workplan with an expanded remit which includes both arrivals and departures.

The workplan was developed using the Balanced Approach to aircraft noise management as proposed by the International Civil Aviation Organisation (ICAO). This includes the management of noise at source, the development of operational restrictions and noise abatement procedures along with land use management. In addition to the ICAO approach, an additional activity has been included to focus on the measurement, analysis and reporting of noise-related improvements

In total 20 topics have been identified as priority topics on the NMB 2017/18 work plan. This includes priority activities to implement Fair and Equitable Distribution (FED), improve Continuous Descent Operations (CDOs) and implement noise abatement departures procedures.

This paper provides an overview of the NMB 2017/18 work plan. Additional details are included within the consolidated NMB 2017/2018 workplan which provides the implementation action plan. This document also includes a number of supplementary activities such as ongoing continuous improvement work on selected arrivals review recommendations and lower priority items of the work plan.

Action: The NMB is invited to consider adapt as necessary and to agree this work plan overview for the 2017/2018 period in connection with NMB-7 WP04 the Consolidated 2017/2018 work plan. Further adjustments, which may be required following feasibility analysis, will be subject to NMB discussion.

Introduction

The Noise Management Board (NMB) was constituted in June 2016 with an initial focus on the implementation of the Arrivals Review Recommendations. It can be noted from the implementation report Imm-20 published on January 31st 2017 and subsequent reports to the NMB, that the majority of the Arrivals Review Recommendations have already been completed. The NMB has therefore reached the end of this preliminary work on implementing the recommendations of the Arrivals Review and has developed its own workplan with an expanded remit which includes both arrivals and departures.

The workplan has a number of topics for the measurement, analysis and reporting of noise-related improvements (described in Section 2). The remaining activities have been developed around the Balanced Approach to aircraft noise management as proposed by the International Civil Aviation Organisation (ICAO), based upon four principal elements:

- Noise abatement operational procedures (Section 3)
- Operating restrictions on aircraft (Section 4)
- Reduction of noise at source (Section 5)
- Land-use planning and management (Section 6)

Gatwick Airport (GAL) has agreed the work plan and is working to implement these initiatives as ongoing work while the NMB work plan is further updated.

A summary table of all the work plan activities is given in Annex A.

Measurement, Analysis and Reporting

Measurement, analysis and reporting is key to all NMB work plan activities and is essential in order to plan changes and measure their performance.

Monitoring and reporting tasks are already underway for tasks such as the A320 family FOPP modification and tracking of night movements. The tracking and reporting of these continues under the new work plan ([Activity 1](#)) with additional reporting to support Fair and Equitable Dispersal (FED) measurements. Noise Impact Metrics are being developed and will be proposed for FED measurement as well as for the assessment of future proposed NMB activities ([Activity 2](#)). Community Noise Groups (CNGs) on the NMB will use the published data to determine their desired target distribution for FED ([Activity 3](#)).

In addition, an airline noise league table will be published ([Activity 4](#)) and research will be undertaken into the perception of aircraft height on arrival. ([Activity 5](#)).

Finally, the NMB will help inform Gatwick Airport's development of requirements for NATS future London Airspace Management Programme (LAMP 2) ([Activity 6](#)).

Measures Related to Noise Abatement Operational Procedures

Noise abatement operational procedures refer to those operational changes to control and manage noise impacts. This is the main area of NMB activity in the 2017/18 work plan.

Arrivals: Fair and Equitable Distribution (FED) has been a key NMB focus since its first meeting. Significant analysis and discussions have taken place to define FED and therefore identify options to achieve its intention. The 2017/18 work plan includes activities involving GAL, NATS, ANS and the CAA to assess and implement initiatives to meet FED objectives ([Activities 7, 8](#)).

A number of activities aim to improve Continuous Descent Operations (CDO) for arriving aircraft. CDOs aim to reduce noise by keeping arriving aircraft generally higher and in a 'low power low drag' quiet configuration.

It is recognised that there is a perception that aircraft are complying with the existing CDO procedures but are still noisier than they could be, so a new definition of CDO will be developed ([Activity 9](#)). However, this is not Gatwick specific and there is an understanding and recognition that this activity can only be delivered through Gatwick leading the initiative with the CAA and Sustainable Aviation (SA), at both UK and European levels.

Other CDO-related activities are:

- a review of aircraft speed limitations in the London area ([Activity 10](#)) since these can affect CDO compliance,
- a review of noise abatement information provided to airlines ([Activity 11](#)) to ensure it is consistent and accurate, and
- improved collaboration between airlines to align CDO best practises ([Activity 12](#)).

Finally, an important task ([Activity 13](#)) seeks to trial night time RNAV arrivals to significantly reduce night noise impacts. This task is very much at a conception stage and there is much more work to do through industry engagement and NMB workshops.

Departures: Departure-related activities are also a significant part of the 2017/18 work plan and were developed through holding community and industry workshops, as well as recommendations through GATCOM and NATMAG. Some of the departure activities also address the high level principles of the voluntary undertakings proposed by the CAA's review of Gatwick's RNAV Standard Instrument Departure (SID) routes.

The short-term activity is to standardise departure noise abatement procedures ([Activity 14](#)) with airlines.

Long term initiatives seek to review and update ATC procedures and the airspace design to both reduce the impact of departures by; altering the design of the departures routes within the NPR ([Activity 15](#)), reviewing departure vectoring practices ([Activity 16](#)), reviewing departures at night ([Activity 17](#)) and examining the feasibility of SID rotation ([Activity 18](#)).

Options will be identified to remove airspace constraints affecting Gatwick departures by examining interactions with routes to/from nearby airports ([Activity 19](#)).

Initial feasibility and scoping studies to implement Time Based Separation (TBS), Extended Arrivals Manager (XMAN) and the integrated AMAN/DMAN systems have now been completed. GAL is working towards the implementation of these technologies as part of its ongoing operational improvement initiatives.

Measures Related to Aircraft Operating Restrictions

The NMB 2017/18 work plan includes a task to review current airline scheduling practices ([Activity 20](#)) to optimise the arrivals/departure waves, reduce delays and minimise unscheduled operations into the night period.

Measures Related to Reduction of Noise at Source

Reduction of noise at source refers to measures to reduce the noise produced by aircraft based on their physical characteristics

The Arrivals Review recommended the modification of retro-fitting a Fuel Over Pressure Protector (FOPP) to the A320 family aircraft and to implement a financial penalty for non-modified aircraft using Gatwick. In response, GAL announced higher noise charges from 1st January 2018 for aircraft that are not modified. This has led to a reduction in non-modified aircraft and the continued implementation of changes is reported on a regular basis to the NMB.

In addition, the NMB, working with GAL aims to identify and publish airline fleet plans to phase out the use of older noisier aircraft in favour of new lower noise, ICAO Chapter 4 and 14 aircraft.

Measures Related to Land Use Planning and Management

The Arrivals Review included a recommendation to jointly review the land use planning policy. In response, Gatwick organised a workshop with local planning authorities and a detailed plan for co-ordination and support of planning authorities was presented at the workshop. Following the workshop, Gatwick committed to investigating a “planning portal” to provide local authorities with Gatwick planning relevant material. This activity is outside of the scope of the NMB work plan as GAL is undertaking this work as business as usual.

Annex A –NMB2017/18 Work Plan Activities

Measurement, analysis and reporting			
Ref	Activity 1	Title	Ongoing monitoring and reporting
Regular reporting to the NMB related to ongoing activities such as the A320 family FOPP modification, night movements and FED metrics.			
Ref	Activity 2	Title	Review of metrics for NMB activities
The development of metrics to allow the measurement of FED implementation and proposed NMB activities.			
Ref	Activity 3	Title	Determine target distribution for FED
Data analysis, discussion and agreement of FED distribution targets for FED between industry and the NMB.			
Ref	Activity 4	Title	Publish noise league table
Publication of a league table to track airline noise performance.			
Ref	Activity 5	Title	Research into aircraft height perception
Commission independent academic research to identify if there is a correlation between aircraft size, noise level and height perception. This is Imm-15 from the Arrivals Review.			
Ref	Activity 6	Title	Develop requirements for future London airspace changes
Develop requirements for input into future airspace change as part of the London Airspace Management Programme (LAMP 2).			

Noise abatement operational procedures			
Ref	Activity 7	Title	Feasibility assessment of proposed NATS FED initiatives
The feasibility assessment of four NATS-led FED initiatives will recommend which activities can be taken forward for implementation.			
Ref	Activity 8	Title	Scoping and feasibility assessment of follow on FED initiatives
The feasibility assessment of additional FED initiatives, this task follows on from Activity 7 and seeks to investigate additional proposals which could assist with the delivery of FED.			
Ref	Activity 9	Title	Review and update the CDO definition
GAL will lead a study to investigate the development of a low noise approach to improve upon the current CDO definition. This is not Gatwick specific and there is an understanding and recognition that this activity can only be delivered through Gatwick leading the initiative with the CAA and Sustainable Aviation (SA) providing engagement at both UK and European levels.			
Ref	Activity 10	Title	Review speed limitations on approach
Review current speed limitations on approach and conduct a feasibility analysis to determine if the speed restrictions should be altered to allow aircraft to operate in the optimal low noise configuration.			
Ref	Activity 11	Title	Review noise abatement information provided to airlines by commercial flight plan service providers
Conduct a gap analysis on the information provided to airlines by commercial flight plan service providers in the AIP and make recommendations to improve the availability and the level detail provided			
Ref	Activity 12	Title	Improve collaboration between airlines to align CDO standard operating procedures and noise training
Creation of an airlines engagement and continuous improvement forum and engagement process covering CDO.			
Ref	Activity 13	Title	Quiet Night Arrivals
Following on from Arrivals Review recommendation Aspire-21, this activity will aim to implement carefully designed RNAV routes in the night period to reduce noise impacts.			

Ref	Activity 14	Title	Standardise Noise Abatement Departure Procedures (NADP)
Conduct analysis on the Noise Abatement Departure Procedures (NADP) currently used by airlines operating at Gatwick and seek to identify an optimal procedure to become a recommended practice.			
Ref	Activity 15	Title	Review departure routes to minimise impact
Assess current Standard Instrument Departure (SID) routes to identify current issues and develop options for optimised/multiple SID routes within current NPRs.			
Ref	Activity 16	Title	Review departures vectoring practices
Review of current departure vectoring practices with the aim to inform works to potentially increase the minimum vectoring height on specific SIDs.			
Ref	Activity 17	Title	Review of departures at night
Review of current night time departures and identify opportunities for improvements.			
Ref	Activity 18	Title	Conduct a feasibility analysis of SID rotation
Conduct a feasibility assessment on the use of departure route rotation to provide departures FED.			
Ref	Activity 19	Title	Review of constraints placed upon Gatwick departures by routes to/from Gatwick and other airports
Conduct a review of arrivals/departures routes to/from other London airports to identify restrictions and develop options to allow Gatwick departures to climb in a more consistent and low noise configuration.			

Aircraft operating restrictions

Ref	Activity 20	Title	Review Gatwick airlines scheduling practices
Review current scheduling practices and identify areas for potential improvements to assist with the delivery of FED. This includes options to optimise the arrivals/departure waves, reduce delays and minimise unscheduled operations in the night period.			