

# Implementation of Gatwick Arrivals Review Recommendations

Progress report to 1<sup>st</sup>  
September 2016

For Noise Management Board

## NMB Recommendation Status Dashboard

| Key to dashboard  |  |
|---|--|
|  | Work underway and on-time for planned implementation.  |
|  | Work underway and on-time for planned implementation. Significant progress during reporting period |
|  | Implementation delayed.  |
|  | Implementation stalled or at risk.   |
|  | Recommendation implemented. Work complete.   |

| Recommendation                         |   | Completion date |  | Recommendation                                    |   | Completion date |
|--|---|-----------------|--|---|---|-----------------|
| Imm-01 A320 modification sunset        |    | Jan 17          |  | Imm-13 XMAN                                       |    | Dec 16          |
| Imm-02 DfT engagement on A320          |    | Jun 16          |  | Imm-14 TBS  |    | Dec 16          |
| Imm-03 Joint review of land use policy |    | Jun 16          |  | Imm-15 Research on low-flying aircraft perception |    | Dec 17          |
| Imm-04 Information booklet             |    | Aug 16          |  | Imm-16 Additional community engagement manpower   |    | Jun 16          |
| Imm-05 CDA to 7000ft                   |    | Dec 16          |  | Imm-17 Enhanced complaints policy                 |    | Sep 16          |
| Imm-06 CDA improvement                 |   | May 17          |  | Imm-18 NMB  |   | Jun 16          |
| Imm-07 CDA to 8000ft                   |  | Dec 16          |  | Imm-19 Response to Arrivals Review                |  | May 16          |
| Imm-08 CDA taxonomy                    |  | Jan 17          |  | Imm-20 Progress report                            |  | Jan 17          |
| Imm-09 Route spacing design criteria   |  | May 16          |  | Aspire-21 LAMP                                    |  | After Dec 17    |
| Imm-10 Joining point change            |  | Dec 16          |  | Aspire-22 Change to holding areas                 |  |                 |
| Imm-11 Landing direction protocol      |  | Dec 16          |  | Aspire-23 AMAN and DMAN                           |  | Dec 16          |
| Imm-12 Night arrivals KPI              |  | Dec 16          |  |   |   |                 |

# 1 Introduction

## 1.1 General

The Gatwick Independent Arrival Review made 23 recommendations related to arrivals noise. This document summarises the status on these actions to **1<sup>st</sup> September 2016**.

## 1.2 Imm-01 A320 modification sunset

**Status** Green

**Final implementation date** January 2017

**Recommendation** That as an indication of GAL commitment to noise reduction, as a further tangible indication to local communities that the noise impact of the airport is taken seriously and to incentivise an accelerated noise modification by all airlines using A320 family aircraft at Gatwick, GAL should establish an earlier sunset date for unmodified Airbus 320 family aircraft using the airport of December 31st 2017. With an appropriate noise penalty applied for non-compliant aircraft immediately thereafter.

### **Implementation status**

GAL has begun consultation with airlines on a revised charging regime. GAL has presented the proposed aircraft charges consultation to GATCOM and NMB.

A specific update on this recommendation is included in a blog on GAL's Arrivals Review web page.

## 1.3 Imm-02 DfT engagement on A320

**Status** Completed

**Final implementation date** June 2016

**Recommendation** That GAL to engage with DfT, consider proposing to the European Commission the establishment of a sunset date of December 31st 2020 for the operation in Europe of Airbus 320 series aircraft without the Fuel Over Pressure Protector (FOPP) cavity vortex generator noise modification.

### **Implementation status**

A letter has been produced setting out the noise impact of the FOPP cavity on the A320 and how Gatwick is addressing the issue. The letter will be sent to UK, European and international bodies to engage them in discussion. The letter has been reviewed by Gatwick stakeholders and has been sent to the DfT with a copy sent to other stakeholders.

## 1.4 Imm-03 Joint review of land use policy

**Status** Orange

**Final implementation date** June 2016

**Recommendation** That planning authorities for communities impacted by aircraft noise from Gatwick, coordinate to conduct their own joint review of the application of land use policy in context of Gatwick aircraft noise, with the objective of identifying steps that will enable the increase of its effective use and the improvement of the aircraft noise awareness for existing and potential land users.

### **Implementation status**

Review of local planning authority policies partially complete.

Consideration of best practice with reference to ProPPG: Planning and Noise - Professional Practice Guidance on Planning & Noise, New Residential development, consultation draft, January 2017, Institute of Acoustics (IOA), Association of Noise Consultants (ANC), Chartered Institute of Environmental Health (CIEH).

Land Use Planning Workshop planned for first week of November. The workshop agenda and invite list is in preparation.

## **1.5 Imm-04 Information booklet**

**Status** Orange

**Final implementation date** August 2016

**Recommendation** That Gatwick develop, publish and maintain with annual updates an information booklet intended for planning authorities, home buyers, estate agents and conveyancing solicitors, to provide reference information on flight routes, terminology and other aspects of the airport operation relevant to communities. NATS and the CAA should also be encouraged to participate, and to verify those elements of the content that reflect their own areas of activity.

### **Implementation status**

Draft document to be circulated within GAL.

Draft document to be forwarded to National Association of Estate Agents (NAEA) for advice and comment. Final document will be circulated to Estate Agents and other stakeholders, and will also be available through distribution by the FPT and for download from the GAL website.

## **1.6 Imm-05 CDA to 7,000 ft**

**Status** Green

**Final implementation date** December 2016

**Recommendation** That as soon as possible, the altitude for commencement of CDA at Gatwick should be increased from the current 6000 feet to 7000 feet (FL070).

### **Implementation status**

The increase in CDA commencement height was implemented on the 1<sup>st</sup> August 2016. The evaluation period has been monitored closely, with the 1<sup>st</sup> month showing compliance rate of 89.2%, the highest CDA compliance seen since October 2015. No undesirable effects have been reported or discovered.

The evaluation period will continue for a further 2 months where it will continue to be monitored closely and progress reported.

## 1.7 Imm-06 CDA improvement

**Status** Green

**Final implementation date** May 2017

**Recommendation** That GAL collaborates with NATS, CAA and airlines, within 12 months, to agree incremental improvements, to the application of CDA procedures at Gatwick.

**Implementation status**

A CDA workshop has been planned for 21<sup>st</sup> October which will involve NATS, ANS, CAA and airlines local to Gatwick, plus other stakeholder groups able to contribute to the debate. The objective is identify mechanisms and procedures that are able to improve the way CDAs are initiated and flown. This initiative also includes Imm-07 and Imm-08.

NATS, CAA, DfT and Sustainable Aviation are expected to advise, based on their experience, of any similar work underway elsewhere in the UK and overseas, and how to leverage lessons or initiatives identified at the Gatwick workshop such that they can be promoted and exploited more widely.

Workshop planning is well underway with the agenda and invite list being finalised. A discussion paper covering CDA improvements has been produced and is included within the paper described in Imm-08.

## 1.8 Imm-07 CDA to 8,000ft

**Status** Green

**Final implementation date** December 2016

**Recommendation** That GAL work with NATS and CAA to raise the Gatwick CDA commencement altitude to 8000 feet when feasible.

**Implementation status**

Imm-07 will be addressed in the CDA workshop planned for Imm-06.

## 1.9 Imm-08 CDA Taxonomy

**Status** Green

**Final implementation date** January 2017

**Recommendation** That GAL propose a subsidiary CDA taxonomy which includes the commencement altitude of the procedure, e.g. CDA 6000, be established by the CAA to improve lay understanding and to better benchmark later improvements.

**Implementation status**

Consultations have commenced with the CAA and operational stakeholders. Initial engagement has raised a number of topics that will require wider stakeholder consultation which will be undertaken at the CDA workshop planned under Imm-06. A discussion paper will be used to introduce these topics along with the wider CDA improvements.

## 1.10 Imm-09 Route spacing design criteria

**Status** Completed

**Final implementation date** May 2016

**Recommendation** That GAL considers proposing to the CAA, the establishment in airspace design criteria, of a minimum distance between arriving tracks for aircraft, to deliver for arrivals; both a meaningful dispersal and an opportunity for respite. This is likely to apply to aircraft before they have joined the final approach track, which for Gatwick will therefore be at 3000 feet or above.

**Implementation status**

CAP 1378 provides an overview of a number of options in which PBN routings can be used to improve noise along with detailed graphs showing the impacts of route spacing.

The CAP has been reviewed with a briefing note produced for submission to the NMB, due to the technical nature of the CAP, steps have been taken to reduce the complexity. The NMB is invited to determine its requirements for input into Aspire-21.

## 1.11 Imm-10 Joining point change

**Status** Green

**Final implementation date** December 2016

**Recommendation** That GAL explore with NATS the potential for aircraft to be vectored to be established on the ILS at a minimum of 8nm from touchdown outside of night hours, rather than the current 10nm. This adaptation to vectoring methodology should extend the arrival swathe 2nm closer to the airport and increase the arrivals dispersal to more closely emulate the operations prior to the 2013 change. Hence the arrival swathe would normally extend from a minimum of 8nm to 14nm, with aircraft joining on a straight in approach when traffic permits.

**Implementation status**

Implementation has taken more time than was initially forecast, largely as a result of the complexity of ensuring that the analysis and planning related to the regulatory requirements for safety could be met in full. Despite the setback the evaluation commenced on the 15<sup>th</sup> August under a 6 month evaluation.

Since the commencement of the evaluation the minimum joining point has been used on occasions. Data analysis has shown that the swathe concentration at 11nm has reduced, with additional aircraft joining between 8 and 10nm. The evaluation will continue to be monitored closely with monthly reports produced.

A community briefing has been prepared and will be circulated shortly.

## 1.12 Imm-11 Landing direction protocol

**Status** Green

**Final implementation date** December 2016

**Recommendation** The development, publication and implementation by GAL of an operating protocol to define the occasions when a change of landing direction will be implemented at Gatwick for noise reasons, if weather, safety requirements and other conditions permit. The objective of the protocol being to achieve a more even split of

arrivals, and to fragment the otherwise continuous use of one runway direction or another because of long term weather patterns. The impact should be monitored by GAL and the results regularly reviewed by the Noise Management Board (NMB). The target implementation of the protocol should be during 2016 following engagement with airlines, air traffic control and communities.

**Implementation status**

Consultations with the airport, airlines and ANS have made significant progress but are still ongoing and we are still assessing whether airlines with larger aircraft (e.g. A380) could land with any tailwind given the length of the Gatwick Runway.

Data analysis on when the protocol could be used is nearing completion. This takes into account additional factors such as aircraft limitations, the runway surface and runway use along with surface and winds aloft.

The work to date along with the benefits and consequences of the protocol have been investigated and reported in a briefing paper to the NMB.

**1.13 Imm-12 Night arrivals KPI**

**Status Green**

**Final implementation date** December 2016

**Recommendation** That the Gatwick Flight Performance Team introduce a KPI, enabling the monitoring and reporting of the number of flights delayed from planned daytime arrival, into a night movement (after 23:30 local) and that GAL initiate measures to identify and agree steps, including enhanced use of time based operations, with airlines and with the airport's scheduling committee for implementation within 12 months, to effectively and progressively reduce unplanned night arrivals at Gatwick.

**Implementation status**

Consultations with Gatwick airport and operational experts have made significant progress with various KPI options investigated and assessed using data reported for May, June and July 2016.

A KPI has been produced to track the number of aircraft arriving late into the night period, this has been reported in a briefing paper to the NMB.

**1.14 Imm-13 XMAN**

**Status Green**

**Final implementation date** December 2016

**Recommendation** That within 6 months, GAL and NATS conduct a joint investigation to establish and agree whether the XMAN extended arrivals manager is an effective tool to reduce arrival holding at Gatwick and if so; to agree and publish within 9months when XMAN can be deployed for Gatwick and what results can be expected.

**Implementation status**

A Kick Off Meeting between Think and GAL was held in August 2016. The plan of work was agreed and a delivery date (completion date) of December 2016 is targeted. A high level ConOps for XMAN for Gatwick is being developed as a first step towards understanding the feasibility and benefits of XMAN.

### 1.15 Imm-14 Time Based Separation (TBS)

**Status** Green

**Final implementation date** January 2017

**Recommendation** GAL and NATS should evaluate the potential efficiency benefits of an earlier implementation of advanced TBS technology (timescale for completion of evaluation within 12 months).

**Implementation status**

A Kick Off Meeting between Think and GAL was held in August 2016. The plan of work was agreed and a delivery date (completion date) of December 2016 is targeted. A high level ConOps for TBS for Gatwick is being developed as a first step towards understanding the feasibility and benefits of TBS.

### 1.16 Imm-15 Research on low-flying aircraft perception

**Status** Green

**Final implementation date** December 2017

**Recommendation** To better inform stakeholders, independent academic research should be undertaken to validate the reasons why arriving aircraft are often perceived by residents to be lower than in the past and to identify measures to establish the actual facts in a controlled analysis with community involvement.

**Implementation status**

Project lead has been appointed and work has started.

Initial review of CAA NTK height verification report (CAP1246) complete.

Consultation with Tunbridge Wells Aircraft Noise Study Group and site visit to Tunbridge Wells complete.

### 1.17 Imm-16 Additional community engagement manpower

**Status** Completed

**Final implementation date** June 2016

**Recommendation** That GAL allocates additional manpower, as soon as possible, to strengthen the Airport's Community engagement capability.

**implementation status**

None - Recommendation closed

### 1.18 Imm-17 Enhanced complaints policy

**Status** Green

**Final implementation date** September 2016

**Recommendation** That Gatwick should establish an enhanced complaints policy and fully transparent procedure, as soon as possible, using an on-line form as the primary medium, requiring sufficient detail to allow the location (postcode) of the complainant, the date and time of day of the incident, such that the aircraft in question can be identified and established with the location, to allow empirical data to be developed and analysed so that noise mitigation action can be taken. There should be no limit to the number of complaints

per household. For residents not possessing computer access, postal submissions should be accepted, but should be required to contain the basic information outlined above.

**Implementation status**

Proposed enhancements to CASPER being developed and tested. Changes to the system have been demonstrated to GATCOM Steering Group and will be shown to NMB/2.

Software change planned for implementation by end of September.

**1.19 Imm-18 Noise Management Board**

**Status Completed**

**Final implementation date** June 2016

**Recommendation** The establishment of a Noise Management Board (NMB) by summer 2016, to be operated under independent chairmanship and comprising representatives from each of the institutions able to effect change for Gatwick arrivals, as well as the chair of the Airport Consultative Committee (GATCOM), and both elected council members and residents' representatives.

**Implementation status**

None - Recommendation closed.

Next NMB meeting is on Tuesday 15th November.

**1.20 Imm-19 Response to arrival review**

**Status Completed**

**Final implementation date** June 2016

**Recommendation** That Gatwick should publish not later than March 31st a description of the steps that it is intended to take in response to the arrivals report and which, if any of the recommendations it plans to pursue.

**Implementation status**

None - Recommendation closed.

**1.21 Imm-20 Progress report**

**Status Green**

**Final implementation date** January 2017

**Recommendation** In the interests of improved community relations that; GAL publish not later than January 31st 2017 a report of overall progress towards delivery of the steps recommended in this report, including relevant status updates from CAA and NATS, with where appropriate the basis for any related decisions.

**Implementation status**

Report to be prepared by GAL and published on 31<sup>st</sup> January 2017.

## 1.22 **Aspire-21 RNAV arrival routes**

**Status** Green

**Final implementation date** Start in Q1 2017

**Recommendation** The adoption of carefully designed routes from the approach holding fixes used for Gatwick, to the ILS final approach tracks, provides real opportunity to reduce noise, to disturb fewer people, to deliver fair and equitable dispersal of noise, and, to deliver well defined respite measures. The London Airspace Management Programme should be developed by NATS and GAL to incorporate alternative proposals, to those published in 2013, as soon as reasonably possible, for consultation, agreement and implementation for Gatwick arrivals.

**Implementation status**

No activity yet as this task is scheduled to start in Q1 2017.

## 1.23 **Aspire-22 Change to holding areas**

**Recommendation** That the Gatwick holding areas should be higher, or should be relocated to enable holding aircraft to dwell over water, rather than over Sussex.

**Status** Green

**Final implementation date** Start in Q3 2016

**Implementation status**

No activity yet as this task is scheduled to start in Q3 2016.

## 1.24 **Aspire-23 AMAN and DMAN**

**Status** Green

**Final implementation date** Start in Q2 2016.

**Recommendation** That the requirements specification of any system upgrade to, or replacement of, any sequencing tools must take full account of the need to integrate the AMAN at Swanwick and DMAN at Gatwick, such that they are each fully informed of, and take into account the capacity allocations of both arrival and departure functions.

**Implementation status**

A Kick Off Meeting between Think and GAL was held in August 2016. The plan of work was agreed and a delivery date (completion date) of December 2016 is targeted. The consensus at the Kick Off Meeting was that there are a range of potential solutions and therefore a clear problem statement and analysis is being drawn up to ensure suitability of the selected option for addressing the needs.