
Imm-12 Night arrivals KPI

Prepared for the 3rd meeting of the Noise Management Board

Date: 14th October 2016

Introduction

Recommendation Imm-12 of the Independent Arrivals Review (IAR) requested the introduction of: “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)”. Following the publication of the IAR and the Gatwick Action Plan, GAL and its representatives have been progressing this recommendation. Consultations with the airport operations and Arrivals Review Team have now concluded, this paper has been developed for presentation to the 3rd meeting of the NMB.

The structure of this paper

This analysis provides an overview of the night noise management process before introducing the KPI and how it could be regularly presented to the NMB. The NMB is requested to review this analysis and to provide guidance on next steps.

Background - The current system

There have been restrictions on night flights (23.30-06.00 local time) at Gatwick for many years with restrictions historically reviewed by government every five or six years. The current restrictions were announced in July 2014¹ under a 3-year review regime to fit with the timing of the Airports Commission Review. The night restrictions are established by the Secretary of State for Transport under the auspices of section 78 of the Civil Aviation Act 1982 and are published in the UK Aeronautical Information Publication².

The restrictions use a quota system established by the Department for Transport (DfT) and are in place at Heathrow, Gatwick and Stansted. The system is based upon aircraft movements and aircraft noise. An aircraft movement is defined as single arrival or departure. Aircraft noise is slightly more complex and is dependent on the certified noise output of the aircraft. Each aircraft is put into one of seven bands called Quota Count (QC) which have the following values: exempt, 0.25, 0.5, 1, 2, 4, 8 and 16. The values can vary for the same aircraft on arrival and departure. Aircraft with QC values of 8 and 16 are banned from operating at night.

Airports are set seasonal limits (summer and winter) for both total number of movements or aircraft noise (measured by QC) and neither limit may be exceeded. As a night movement takes place it is counted as both a movement and its corresponding QC value is recorded. The recorded values are totalled for the seasonal period. Gatwick is required to report on the use of the quota system which it does in its Flight Performance Reports (available online³).

Airlines are able to apply to use parts of that quota (movements and noise) for their scheduled flights. Airlines can also apply for an allocation of quota to create a ‘pool’ which can be used for unscheduled operations. The pool is typically used for delays caused by situations which are out of control of the airline, such as technical problems or industrial action. In addition, Gatwick will hold a ‘pool’ to act as a buffer to its maximum limit to cater for situations such as diverted aircraft. The night quota allocation is managed by Airports Coordination Limited (ACL), an independent party assigned to manage schedules and slot allocation at 28 UK airports.

Exceptional circumstances, such as emergency landings may be exempt from the quota system and are described as “dispensations”. Other factors can be applied for an exemption, these may only be applied in certain situations beyond the control of the airport or airline, for example severe weather or ATC disruption. The scheme is administered by the airport in accordance with DfT guidelines and oversight.

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/330354/night-noise-decision.pdf

² http://www.ead.eurocontrol.int/eadbasic/pamsflight-07A1EF0D45768D29B5D0F4F85016775C/7FE5QZZF3FXUS/EN/SUP/NON_AIRAC/004-2016/EG_SUP_2016_004_en_2016-03-17.pdf

³ <http://www.gatwickairport.com/business-community/aircraft-noise-airspace/noise-reports/fpt-reports-publications/>

The government has placed a freeze on noise quota limits since 2012. As the fleet operating from Gatwick mainly involves low QC aircraft the movement limit is more restrictive and is therefore used as the limiting value. Since the freeze in 2012 the Gatwick Night Jet Movement quota has been capped at 11,200 (summer) and 3,250 (winter). The Gatwick Night Jet Movement summer quota of 11,200 has been in place since at least 2000 and the winter quota was reduced from 5,250 to 3,250 in 2006. Additional rules (set out in the AIP supplement) cause one season's quota to affect the next with carry overs and penalties:

- The airport may use its designated season quota plus the previous season carry over (maximum 10% of the previous quota).
- If the Airport exceeds this it may overrun by up to 10%, in which case the following season is reduced by that additional overrun.
- If the overrun exceeds 10% then the following season's quota is reduced by 2 movements for any overrun exceeding 10% up to a total of 20%.

By using these rules, Gatwick's movement quota for summer 2016 includes a 325 carryover from the previous season which brings the quota to 11,525.

As the quota system is set and managed by the DfT it is subject to regular consultations. This autumn/winter DfT will be consulting on Night Flights as part of a review of Airspace Policy. In preparation for this consultation, Gatwick has announced that it will not request an increase to the Night Jet quota movements.

Additional information on the Department for Transport, Airports and Aviation Policies webpage:
<https://www.gov.uk/government/policies/aviation-and-airports>

How the quota period is managed

As delays and night jet performance varies between airlines proactive monitoring, oversight, engagement and in some cases direct intervention by Gatwick is necessary to help drive good behaviours and deliver performance within the quota. This proactive action includes:

- Weekly calls with airlines and ACL to monitor usage and dispensations.
- The issue of letters to a number of airlines regarding over-quota utilisation and requesting remediation plans.
- Supporting ACL fining of airlines for off slot operations and enforcing rules for airlines without allocation to prevent night operations by regular offenders. This can include temporary night flight bans or aircraft impoundment.
- Employing ACL to check airline schedules to see that they are realistically achievable.

The airport has also recognised that it can contribute to reducing delays during the day. The failure to turnaround on time contributes to Gatwick based carriers accumulating delay over the day such that their evening arrivals get pushed into the Night Period. In order to mitigate the impact of delayed turnarounds GAL has:

- A proposal to impose a minimum 40-minute scheduled turnaround time where airlines do not achieve their currently scheduled 30 minute turnarounds.
- Deployed GAL ground handling turnaround teams to help improve airline turnaround efficiency.

The proposed KPI metric

The proposed KPI metric has been designed to fit into the existing structure currently in place to managed the night quota period. The metric will report on the total planned and actual use of the movements allocation in the Night period. The total number of movements has been used as this is the most restrictive limitation set by the DfT. The metric is shown in Figure 1.

The figure will be produced and presented to the NMB at every meeting. It will be joined with a short report outlining the proactive actions that Gatwick has undertaken to manage the night quota period. Over the summer period, an example of the actions undertaken could include:

- Weekly discussions with airlines to manage quota usage,
- Airlines have re-assessed their schedules to build in additional resilience,
- Airlines have cancelled 10 flights,
- One airline has positioned extra 'pool' aircraft and crews at Gatwick to stand-in if an inbound flight is sufficiently delayed,
- Several aircraft impounded to prevent unallocated night movements.

The presentation of the night quota usage chart along with the presentation of the actions that Gatwick has taken is intended to provide transparency in how the process is managed and reported.

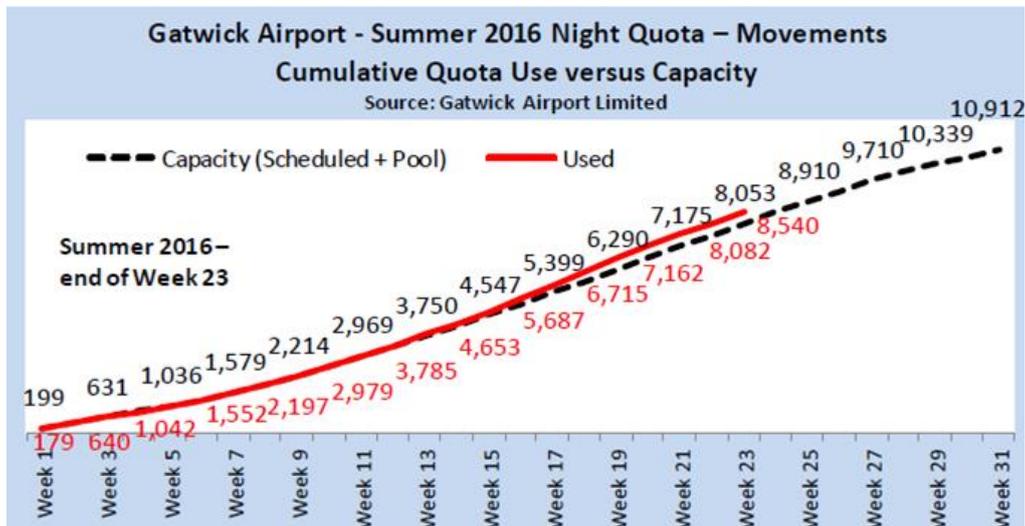


Figure 1 - Proposed Night Arrivals KPI focusing on the DfT night quota count system

Benefits and drawbacks of this metric

Benefits

- Fits within a currently established, robust and well defined process which is used by all airlines operating from Gatwick.
- Due to the robust strategy the airport is able to apply both:
 - Best effort approaches including active discussions, schedule planning and improvement works,
 - Stricter measures such as fines, temporary night flight bans and aircraft impoundment.
- Links the measurements to the government's established night noise management system.

Drawbacks

- Does not fully track the number of unscheduled night arrivals.

Alternative options

In the development of the above metric a number of other options were proposed including metrics to track and report on the number of unscheduled night arrivals. Although these metrics would meet the Arrivals Review recommendation, a number of drawbacks were identified that may reduce their effectiveness and may drive alternative behaviours which could result in adverse effects. This included a reliance on a 'best efforts' approach to manage the metric with stakeholders. In comparison, the proposed night quota KPI will deliver a balance between meeting the Arrivals Review recommendation, and:

- Tracking both arrivals and departures that operate in the night period, this includes both scheduled and unscheduled operations, providing a rounded approach to night noise management,
- Operates within a robust process which is defined and managed by the UK Government with regular public consultations.
- Gatwick is able to use both a best efforts management approach as well as stricter enforcement actions which have been deployed extensively throughout the 2016 summer season.

Next steps

The NMB is requested to review this paper and provide comments in NMB/3.

Annex A: Usage of the Night Quota Allocation

Usage over the last 3 years

The following table presents the usage of the night quota allowance for movements along with the number of dispensations:

Summer

Year	Movements	Dispensations	Limit
2013	10003	0	11200
2014	11147	80	11200
2015	11149	343	11200

Winter

Year	Movements	Dispensations	Limit
2013	1510	22	3250
2014	1756	77	3250
2015	1872	104	3250

Usage in 2016

The usage for the summer season 2016 so far is 8978 with additional dispensations expected of 380. The current forecast projects a usage of 11,522 night flights (the limit including carryover being 11,525) and thus is forecast to fall within the quota.

The reasons cited for increased usage this summer include network airspace and ATC disruption, weather, ground handling performance and airline crew shortages.

Dispensations are allowed to be granted in certain situations beyond the airport's control, for example severe weather, ATC disruption. Current dispensations are slightly higher to date compared to last season: 343 (summer 2015) and 384 (summer 2016). There have been very few dispensations through August and this trend is anticipated to continue until the end of the summer season (end of British Summer Time).

The increase in dispensations evident from 2013/2014 is in part due to increasing congestion in European airspace.