

DRAFT FOR DISCUSSION

Bickerdike Allen Partners

MANSTON AIRPORT

Aircraft Night Noise Assessment Report

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1.0 INTRODUCTION

Manston Airport (MSE) is seeking to agree a policy with Thanet District Council to establish a regular schedule of flights into and out of the airport that will occur between the recognised night-time hours of 23.00 and 07.00. It is already acknowledged and accepted that in order for an airport like MSE to function successfully, a degree of flexibility is required to enable aircraft to fly in and out during these night-time hours. At present, these events already take place on an ad-hoc basis.

It is a requirement of the current Section 106 Agreement between Thanet District Council and MSE that prior to the introduction of any regular night flying operations, a Night-time Flying Noise Policy is to have been agreed with the Council.

The Second Schedule to the Section 106 Agreement dated 26th September 2000 sets out requirements for the Night-time Flying Noise Policy and, in August 2009, a draft Night-time flying policy was submitted to the Council for their and residents' consideration. The policy is to be based on the Night-time Quota Count System that is successfully deployed at many major UK airports including Gatwick, Heathrow, Stansted, Manchester, Bristol and others.

In recognition of the flexibility required in the scheduling of aircraft, and in the sensitivity of people to noise disturbance at night, the Quota Count System is based around the hours of 23.30 to 06.00 and sets a quota against which each aircraft movement, a departure or a landing, is counted. The count varies according to the noisiness of the aircraft. A count of 4 for example is noisier than a count of 2. The details of this proposal are beyond the scope of this report but MSE have developed forecasts for their expected annual number of required night operations, both during the night-time quota count period (23.30 to 06.00 hours) and also the night-time period of 23.00 to 07.00 hours.

This report considers the likely noise impacts from these forecast operations which are expected to be reached by 2018. This is done by taking the forecast night-time operations and generating noise contours (in terms of the $L_{Aeq,8h}$ index) which depict the average noise levels expected over a typical night period. In addition, noise footprints are presented for the most commonly used aircraft at night that will feature the most in the noise environment. These provide an illustration of the noise produced on the ground during a single aircraft event, rather than an average. Contour areas, dwelling and population counts within contour bands are also presented.

A description is provided of the criteria available for rating the effects of night-time noise in light of research undertaken by various parties and of those set out in recognised guidance documents and standards. Based on this information, criteria are suggested and adopted for rating the impact of regular night operations at MSE.

2.0 SITE DESCRIPTION

Manston Airport is situated in the Isle of Thanet, a few kilometres to the west of Ramsgate town and about six kilometres to the south of Margate. In close proximity to the airport, to the north and south, a number of small villages are located such as Monkton, Minster and Cliffs End to the south, and Manston and Acol to the north. The village of St Nicholas Wade is located about 6 kilometres to the west of the airport.

The density of people located around the airport is therefore by far the most significant to the east of the airport as compared to the west. For this reason, the airport operates a preferred runway usage seeking to ensure aircraft depart on runway 28 to the west and arrive on runway 10 when weather conditions permit such operations in a safe manner.

For aircraft departing on runway 28, a noise abatement route exists which requires operators of jet and large aircraft to make a right turn to the north west at a distance of around 1.5 miles from the centre of the airport runway to avoid overflying Herne Bay, as long as operationally safe to do so.

3.0 AIRCRAFT MOVEMENTS AT NIGHT

3.1 Current Night-time Aircraft Movements

Night-time aircraft movements at Manston currently occur on an ad-hoc basis and involve aircraft of the type that are expected to fly in the future, for example the B747-400. The number of movements that take place currently vary from week to week and month to month but are typically around 2 per week at present.

3.2 Future Night-time Aircraft Movements

Up to the year 2018, MSE have developed forecasts for future night-time aircraft movements that indicate the following number of movements over a calendar year and during a typical night:-

Hours	Night-time Aircraft Movements (2018)			
	Annual		Typical night	
	Passenger	Freight	Passenger	Freight
23.00 – 23.30	1016	157	2.8	0.4
23.30 – 06.00 (Night-time Quota Period)	610	471	1.7	1.3
06.00 – 07.00	407	157	1.1	0.4
	2033	785	5.6	2.1

A detailed breakdown of the aircraft movement numbers by aircraft type are presented in Appendix A.

For the Night-time Quota Count Period, the quota count sought for the calendar year amounts to 1995.

The above information forecasts that in 2018, an average of 7.7 flights per night will take place with over 60% taking place during what are known as the shoulder periods of 23.00 – 23.30 and 06.00 to 07.00 hours. It is generally accepted that the most sensitive time for people at night is the intervening period and, from recent research, particularly during the hours of 01.00 to 06.00.

The conventional manner of assessing night-time noise however relies on the consideration primarily of the overall night period from 23.00 to 07.00 and it is this 8 hour period that has been adopted, together with the associated aircraft movement numbers, in the noise contours presented in this report.