

## WEST DUNBARTONSHIRE COUNCIL

### Report by the Acting Director of Housing, Regeneration and Environmental Services (Land and Environmental Services)

Community Safety and Environmental Services Committee: 7 February 2007

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**Subject**                      **Aircraft Noise Monitoring Within Clydebank**

#### **1. Purpose**

- 1.1** To advise the Committee of the results of aircraft noise monitoring obtained from the Environmental Noise Monitor (ENM) located within the Whitecrook area of Clydebank for the period July to October 2006.

#### **2. Background**

- 2.1** At the Community Safety and Environmental Services Committee on 11 January 2006 the Committee agreed to purchase specialised aircraft noise monitoring equipment to measure the impact of noise on the local community from aircraft taking off and landing from/at Glasgow Airport. It was also agreed that the Environmental Health Section would gather and interpret data for a period of one year. Thereafter the use of the equipment was to be at the discretion of the Director of Housing, Regeneration and Environmental Services.
- 2.2** The noise monitoring equipment was installed in July 2006 in John Knox Street, Clydebank. It provides information on each flight's noise levels as well as hourly environmental noise data. The purchase followed a request from Whitecrook Community Group to assist them in demonstrating the levels of aircraft noise to which the local population are exposed.
- 2.3** The level of noise to which a community is exposed over a time period is dependent on the noise emitted by individual aircraft and the number of aircraft movements in that period. The number of aircraft movements in the year 2005 was 95, 952. It is forecast that by the year 2015 this will have increased to 125,100.
- 2.4** West Dunbartonshire Council has no enforcement powers relating to aircraft noise. The Government retains responsibility for developing the infrastructure, economic and regulatory framework within which the aviation industry operates. Responsibility for policy on aviation environmental matters, including noise, rests with the Department for Transport (DfT). The British Airports Authority (BAA), the owners of Glasgow Airport, carries out noise monitoring at three automated monitoring stations around Glasgow Airport.

The nearest station to West Dunbartonshire is located at Drumry House in Drumchapel, Glasgow.

**2.5** There are no legally enforceable restrictions on noise levels in relation to aircraft noise. BAA Glasgow has voluntarily adopted the DfT day and night-time departure noise limits set for the London airports, which apply at a point 6.5 km from the start of an aircraft's take off. These limits are 94 dBA during the day and 87 dBA at night. BAA levies a fine on the operators of aircraft which exceed these levels. (Less than 3 dBA over the level receives a £500 fine, more than 3 dBA receives a £1000 fine). BAA states that all income from this scheme is distributed to local charitable causes.

**2.6** An overall measure of noise exposure can be expressed by noise contours. BAA uses a **Leq 16 hour** (Level equipment) for an average summer day (07.00 to 23.00) based on data from mid-June to mid-September to determine current noise contours. The DfT estimates current and future impacts of aircraft noise by determining the area exposed to average sound levels of 57 dBA or more. The 57 dBA figure is a starting point for contours which increase from this in 3 dB intervals. Government research has shown that the average person starts to get annoyed when the **Leq 16 hour** exceeds 57 dBA. The results of a survey of residents around Heathrow Airport comparing Leq bands and perception of unacceptable noise levels are given in Appendix 1.

### **3. Main Issues**

**3.1** The results of aircraft noise monitoring from John Knox Street for the period 8 July 2006 to 31 October 2006 are shown in Appendix 2. Monthly averages are shown in Appendix 3. The ENM is located within the BAA's 63 to 66 dB aircraft noise contour. The results indicate that their assessment reflects the noise levels experienced by the residents of Whitecrook.

**3.2** The results for breaches of BAA's maximum noise levels of individual flights for July to October 2006 are shown in Appendix 4. In total, there were 184 flights above the levels stated in paragraph 2.5. Of these, 36 were during the day and 148 were at night. This compares with 2 breaches reported by BAA between March and September 2006 at the Drumchapel monitor, one in March and one in July 2006.

**3.3** BAA published their Glasgow Airport Master Plan in August 2006 following a 3 month public consultation exercise. This followed the Government's White Paper "The Future of Air Transport" which set out a framework for the development of airport capacity in the UK up to 2030.

- 3.4** Following analysis of the responses, no residential properties within the 69 dB contour were found to be eligible for relocation and no noise sensitive properties within the 63 dB contour were eligible for acoustic insulation. Paragraph 8.4.8 of the Master Plan states:

“In recognising that standard criteria for all UK airports may not necessarily address local issues and local concerns, BAA Glasgow will continue to consider a range of options to help mitigate against noise. We will consider, for example, the justification for and feasibility of a separate acoustic insulation scheme for residential properties or the creation of a community trust to assist neighbourhoods most exposed to noise. As a first step, we aim to introduce a dedicated noise enquiry line by the end of 2006. This will allow local residents, concerned about noise, to make contact with the airport and receive a prompt reply.”

- 3.5** Whitecrook Community Group has been actively pursuing BAA with a view to obtaining some form of compensation scheme for the local population under the Glasgow Airport flight path.
- 3.6** The monitoring data for the period July to October 2006 has been passed to BAA for their consideration. Copies of the data have also been provided to local politicians and Whitecrook Community Group. BAA have verbally stated active consideration is now being given to statement 8.4.8 of the Master plan. The Environmental Health Section has written to BAA requesting further information on their intentions to progress noise mitigation schemes and community trusts in neighbourhoods most exposed to noise.

#### **4. Personnel Issues**

- 4.1** There are no personnel issues.

#### **5. Financial Implications**

- 5.1** No further capital purchases are anticipated for this project. Ongoing operational costs are required for telecommunications for transfer of data from the Environmental Noise Monitoring unit to a server within the Environmental Health Section at Rosebery Place, Clydebank. The cost of £2,000 pr annum is being met from the Environmental Health Sections revenue budget.

#### **6. Risk Analysis**

- 6.1** There are no risks associated with the content of this report.

#### **7. Conclusion**

- 7.1** The results from the Environmental Noise Monitor (ENM) in John Knox Street indicate that:

- (a) In comparison to noise levels recorded by BAA at their monitor in Drumchapel, the noise levels at Whitecrook are considerably higher for individual flights, with a total of 129 breaches of BAA's maximum permitted levels at Whitecrook compared to 1 recorded by BAA in the same period at Drumchapel. It is possible that the noise level at Whitecrook is considerably different from that at Drumchapel due to the difference in aircraft to ground distance and the variation in engine noise at that stage of descent/ascent to/from the airport. BAA will not impose fines on these flight operators as the breaches were not detected at their noise monitors, and Whitecrook is within the 6.5 km distance from the take off point.
- (b) The monthly average noise levels are around 63 dBA which in a study of residents around Heathrow was considered unacceptable by between 30% and 45% of the population surveyed within that noise contour.

## **8. Recommendation**

- 8.1 The Committee agrees that the Environmental Health Section continues to monitor aircraft noise at John Knox Street and to publish the results on West Dunbartonshire Councils web-site for public information.**
- 8.2 That Committee instruct the Acting Director of HR&ES (Land and Environmental Services) to follow up the letter issued at 3.6 with a meeting with BAA to determine what course of action they propose to improve conditions.**

**Ronald Dinnie**

**Acting Director of Housing, Regeneration and Environmental Services**

**Date: 11 January 2007**

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**Wards Affected:** 1 and 5

**Appendices:** Appendix 1 – Table of survey results relating population annoyance and aircraft noise contours

Appendix 2 – Graph with weekly average of **Leq 16 hour** levels at Environmental Noise Monitor in John Knox Street for period 7<sup>th</sup> July to 31<sup>st</sup> October 2006

Appendix 3 – Table with monthly average of **Leq 16 hour** levels at Environmental Noise Monitor in

John Knox Street for period 7<sup>th</sup> July to 31<sup>st</sup> October 2006

Appendix 4 – Table with numbers of flights Breaching

BAA's maximum permitted aircraft noise levels at John Knox Street, Clydebank between 8<sup>th</sup> July and 31<sup>st</sup> October 2006

**Background Papers:**

**(i)** "The Future of Air Transport White Paper" Department for Transport (2003)

**(ii)** "Glasgow Airport Master Plan" BAA Glasgow (October 2006)

**(iii)** "The UK Aircraft Noise Index Study: 20 Years On" P.Brooker: (Proceedings of The Institute of Acoustics, Vol 26, Pt.2, 2004)

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## Appendix 1

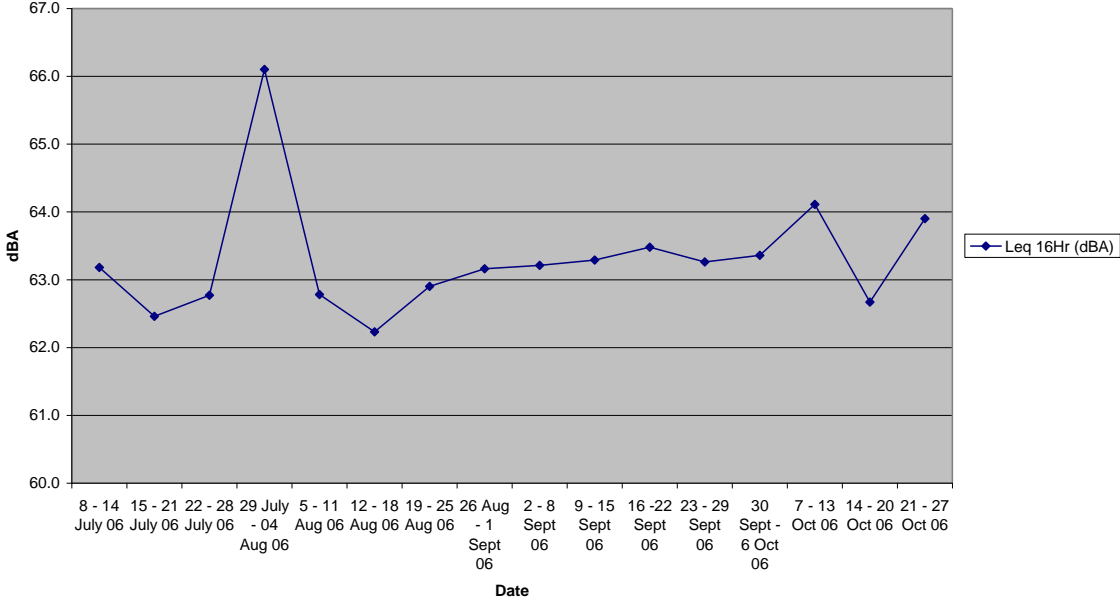
<b>Leq Band dB(A)</b>	<b>Population in band (1000s)</b>	<b>% Unacceptable</b>	<b>Number rating unacceptable (1000s)</b>
>72	1.4	90	1.3
69-72	4.7	75	3.5
66-69	14.6	60	8.8
63-66	36.2	45	16.3
60-63	54.2	30	16.3
57-60	132.3	15	19.8

### **Illustrative comparison of populations in Leq bands for Heathrow and rating unacceptable %age**

“The UK Aircraft Noise Index Study: 20 Years On” P. Brooker: (Proceedings of the Institute of Acoustics, Vol 26, Pt.2, 2004)

# Appendix 2

Noise Monitoring Whitecrook July-October 2006



Graph with weekly average of **Leq 16 hour** levels at Environmental Noise Monitor in John Knox Street for period 8 July to 31 October 2006.

### Appendix 3

Month	L eq 16hr dB(A)
Jul-06*	62.9
Aug-06	63.7
Sep-06	63.3
Oct-06	63.6

Table with monthly average of **Leq 16 hour** levels at Environmental Noise Monitor in John Knox Street for period July to October 2006.

\*Measurements commenced on 8 July 2006.



#### Appendix 4

Breaches	July 2006	August 2006	September 2006	October 2006	Total
Day	13	4	8	11	<b>36</b>
Night	19	25	60	44	<b>148</b>
<b>Total</b>	32	29	68	55	<b>184</b>

Numbers of flights breaching BAA's maximum permitted aircraft noise levels at John Knox Street, Clydebank between 8 July and 31 October 2006.