

NOISE MONITORING SUB-COMMITTEE

15 JANUARY 2016
(10.30 am - 11.10 am)

PRESENT: Marshall Morris, Chairman
Alan Ascott, ARCH Under the Bridge
Larry Dack, Speke Estate
Norman Elias, Passenger Representative
Ian Gaskell, Environmental Health, Knowsley Metropolitan Borough Council
Councillor Evelyn Hudson, Hale Parish Council
Dr Ian Rushforth, Environmental Health, Liverpool City Council
Simon Osborne, National Trust
Councillor Jeremy Wolfson, Liverpool City Council
Liverpool John Lennon Airport
Andrew Dutton, Head of Environment
Colin Barnes, Environmental Advisor
Secretariat
Mike A Jones, Assistant Secretary

23 APOLOGIES

Apologies had been received from:

| | |
|--------------------------|--|
| Councillor Mary Aspinall | Liverpool City Council, Cressington Ward |
| Peter Hargreaves | Cheshire West and Chester Council |
| Isobel Mason | Halton Borough Council |
| Angus Tilston MBE | Wirral Transport Users Association |

24 CHANGES IN MEMBERSHIP

There were no changes in membership to report.

25 MINUTES OF LAST MEETING

DECIDED: That

the minutes of the meeting of the Noise Monitoring Sub-Committee held on 16 October 2015 be agreed as a correct record.

26 NOISE COMPLAINTS LOG

The Sub-Committee considered the Noise Complaints Log, which detailed every complaint received and the response to it, for the period 1 October to 31 December 2015. Colin Barnes gave a presentation to members on the Noise Log which included analysis of the number of noise complaints received by date, number of complainants, administrative area and the total number of complaints compared to the previous year. He also detailed the number of engine ground test runs. The presentation attached to these minutes showed the figures in more detail.

During the period the Airport Company received a total of 21 complaints regarding aircraft noise with the highest proportion (9, or 45%) from residents of Cheshire West and Chester mainly linked to arrivals on runway 09. It was noted that no more than 2 complaints had been received on any one day.

Members were concerned that some emails were quite personal and insulting but the officers accepted them as they could appreciate that there was a depth of

feeling over the perception of aircraft noise intrusion in their life and this was how it was expressed.

Over 60% of the complaints concerned aircraft arriving at the Airport. Officers informed members that there was likely to be a review of flightpaths throughout the North of England and Scotland after 2017 as the aviation industry (Air Traffic Service Provider, Airports & Airlines) sought to reduce overall CO2 emission and noise exposure. However, this was unlikely to influence the final approach (6-8 nautical miles) to the runway which would probably remain very similar to previously.

Colin Barnes then gave a presentation about the airport usage and complaints throughout the calendar year 2015. The draft annual report presentation is attached to these minutes. There were around 61,000 aircraft movements during 2015 of which approximately 33,000 were commercial aircraft movements. Night flights (between 2330 and 0600) amounted to approximately 1,000 aircraft movements. An average of 72% of runway use was on runway 27, but it varied from 85% to 66% each month. Over 2015 there was a total of 74 complaints about aircraft noise, the lowest figure since 2001. The highest proportion, 30%, concerned arrivals on Runway 09 and 97% of complaints were responded to within 14 working days.

DECIDED: That

the Noise Complaints Log for 1 October to 31 December 2015 be noted, and the analysis of complaints for the whole of 2015 be noted.

27 ANY OTHER BUSINESS

The Chairman noted that at the Annual General Meeting of the Consultative Committee on 12 February, the Chairman of the Noise Monitoring Sub-Committee would be appointed. He had taken the role for 15 years and indicated that he would be willing to let another member take it.

28 DATE OF NEXT MEETING

The draft list of meetings for the 2016/2017 year (between Annual General Meetings) of the Noise Monitoring Sub-Committee at 10.30 a.m. in the Cavern Suite, Liverpool John Lennon Airport, were noted as follows:

| |
|-----------------|
| 15 April 2016 |
| 15 July 2016 |
| 28 October 2016 |
| 20 January 2017 |

The dates would be approved at the Annual General Meeting of the Consultative Committee on 12 February 2015, and would then be notified to Committee members.

Chairman

Date

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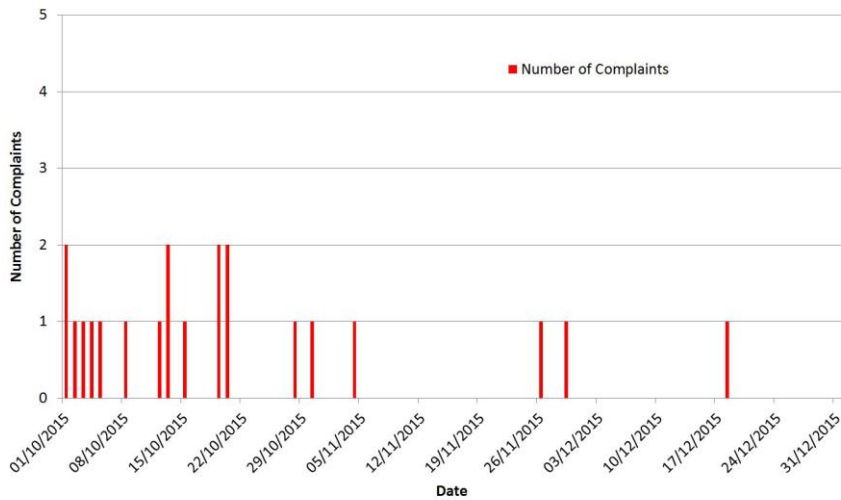
Noise Monitoring Sub Committee

15th January 2016

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Liverpool John Lennon Airport

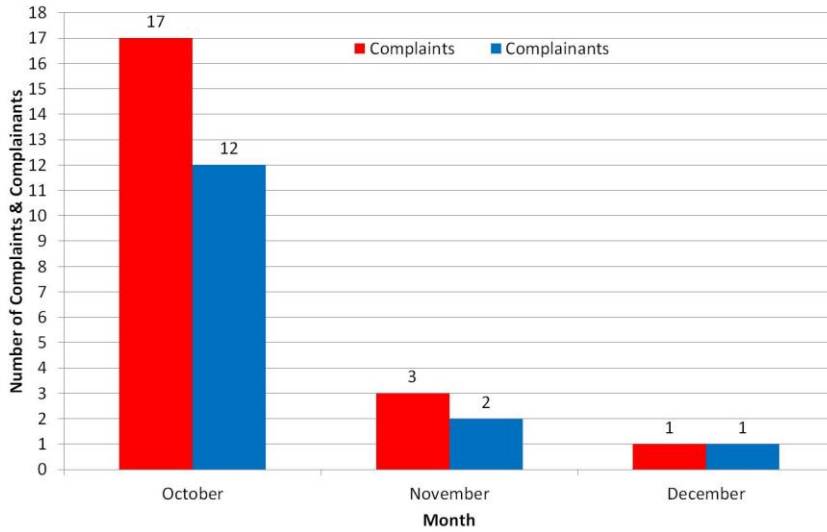
Liverpool John Lennon Airport Noise Complaints By Day 1st October to 31st December 2015



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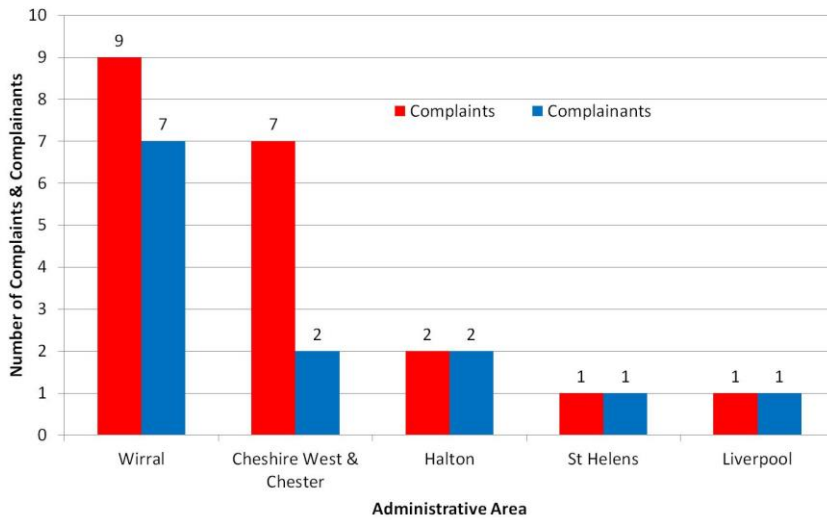
Liverpool John Lennon Airport Complaints and Complainants for 1st October to 31st December 2015



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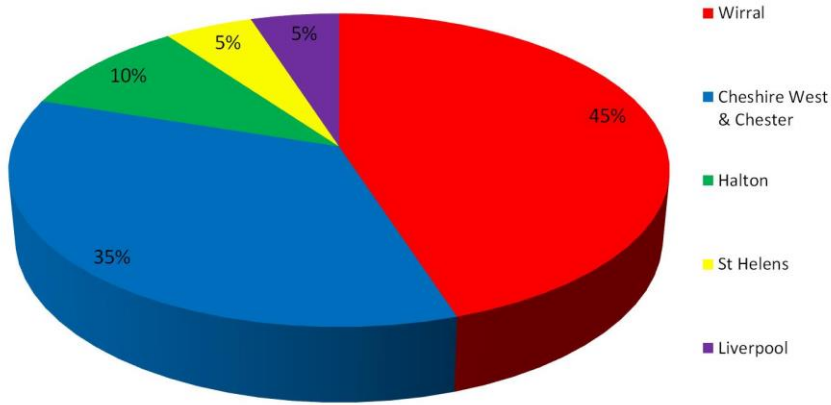
Liverpool John Lennon Airport Complaints and Complainants with Administrative Area for 1st October to 31st December 2015



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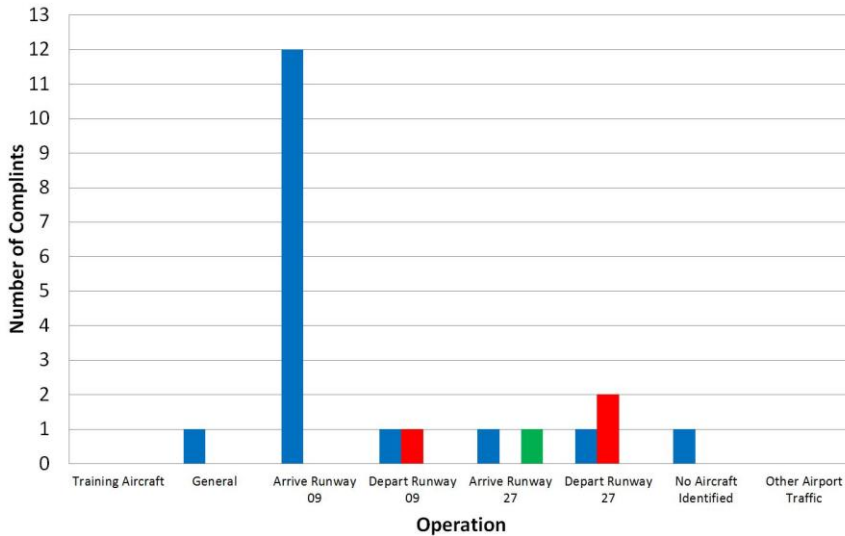
Liverpool John Lennon Airport Percentage of Complaints for Administrative Area 1st October to 31st December 2015



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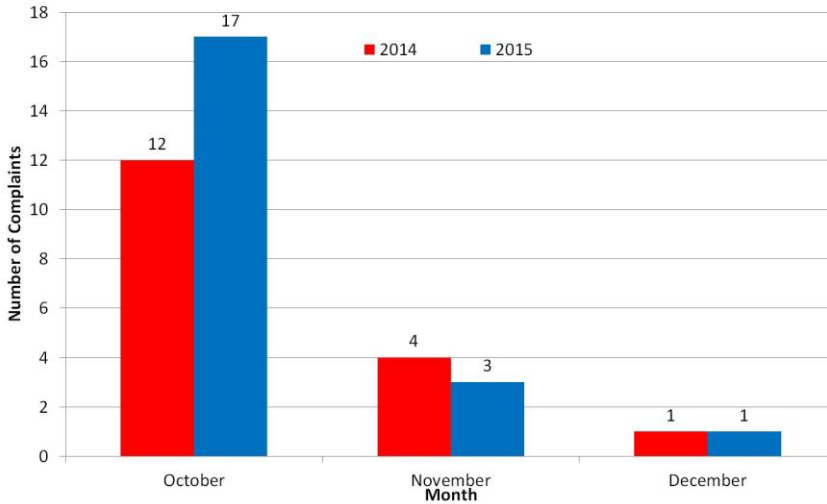
Liverpool John Lennon Airport Operations that caused Noise Complaints for 1st October to 31st December 2015



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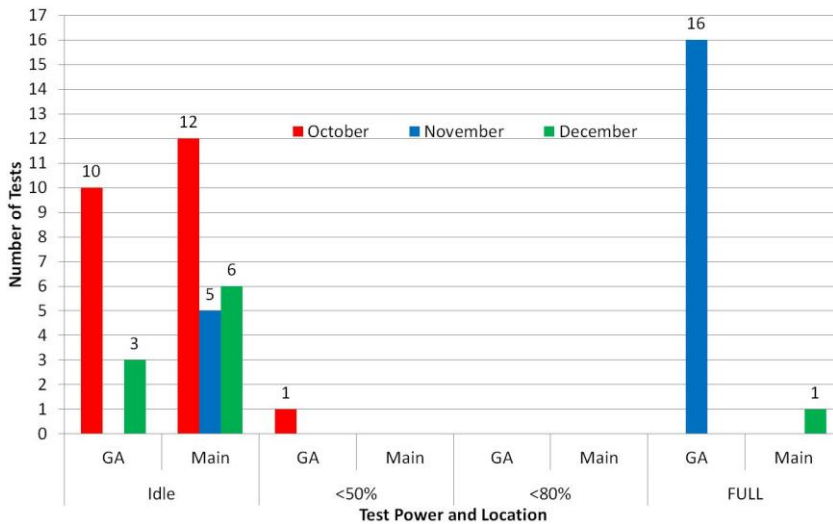
Liverpool John Lennon Airport Complaints Comparison for 1st October to 31st December 2014 & 2015



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Liverpool John Lennon Airport Engine Test Runs 1st October to 31st December 2015



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Annual Noise Report

2015

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Review of Aircraft Movements 2015

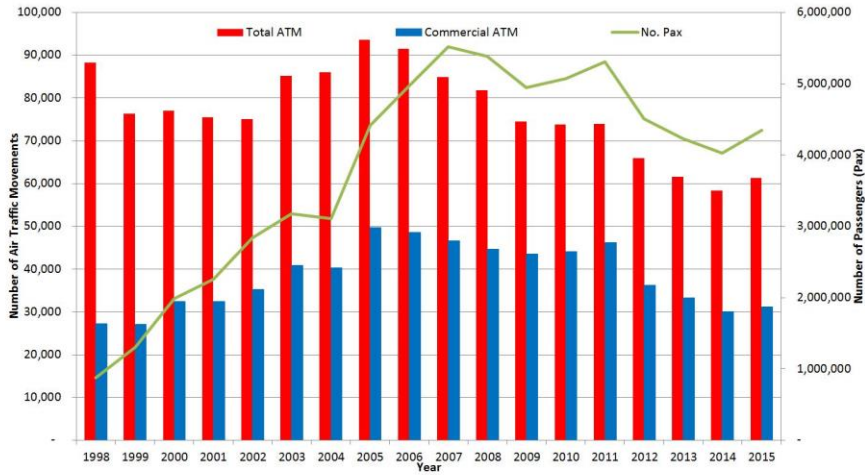
| | Club | Commercial | Non Commercial | Other | TOTAL |
|---------------|---------------|---------------|----------------|--------------|---------------|
| January | 1,211 | 2,058 | 119 | 101 | 3,489 |
| February | 1,813 | 2,160 | 123 | 85 | 4,181 |
| March | 1,886 | 2,467 | 138 | 132 | 4,623 |
| April | 2,313 | 2,837 | 122 | 116 | 5,388 |
| May | 2,403 | 2,969 | 134 | 103 | 5,609 |
| June | 2,940 | 2,881 | 71 | 137 | 6,029 |
| July | 2,479 | 3,003 | 110 | 166 | 5,758 |
| August | 2,857 | 3,198 | 104 | 179 | 6,338 |
| September | 2,765 | 3,021 | 110 | 198 | 6,094 |
| October | 2,399 | 3,077 | 99 | 200 | 5,775 |
| November | 870 | 2,801 | 89 | 119 | 3,879 |
| December | 1,073 | 2,816 | 78 | 117 | 4,084 |
| Totals | 25,009 | 33,288 | 1,297 | 1,653 | 61,247 |

The movements are divided into Commercial (paying passenger services and cargo), Non Commercial (private aircraft), Club (private aircraft based at the airport) and Others (military and positioning flights and other miscellaneous aircraft movements).

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Review of Aircraft Movement (ATM) Type and Passenger (Pax) Numbers from 1999 to 2015

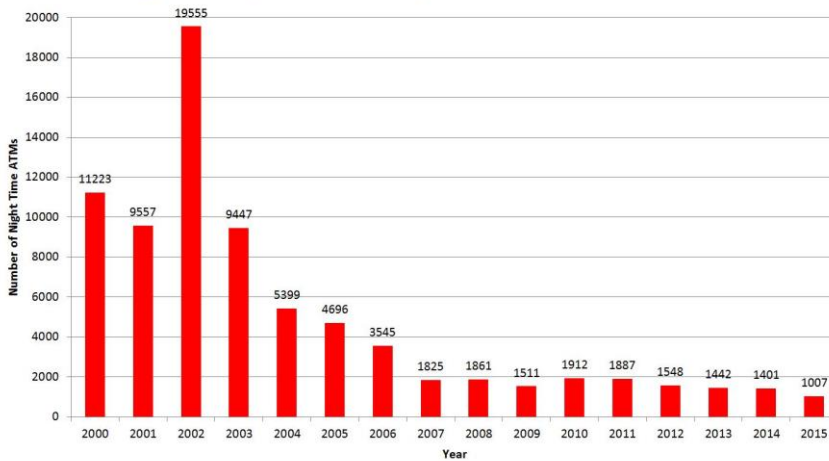


The chart illustrates aircraft movements (both total and commercial) as well as passenger numbers from 1998 to 2015. The number of commercial aircraft movements for 2014 were down by 33% on the peak number in 2005.

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Number of Night Time (23:30 to 06:00) Aircraft Movements 2000 to 2015

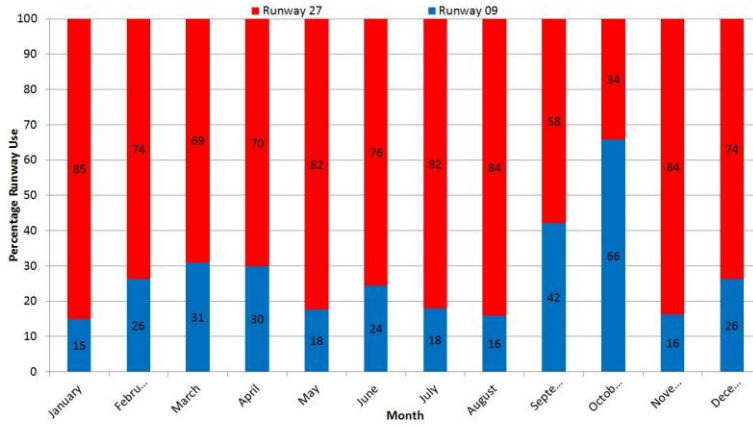


The number of aircraft movements during the night time quota period (23:30 to 06:00) from 2000 to 2015 is shown above. The number of night time aircraft movements for 2015 are down by 95% on the peak year of 2002 when there was a large night time cargo and mail operation at Liverpool John Lennon Airport.

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Runway Utilisation per Month 2015

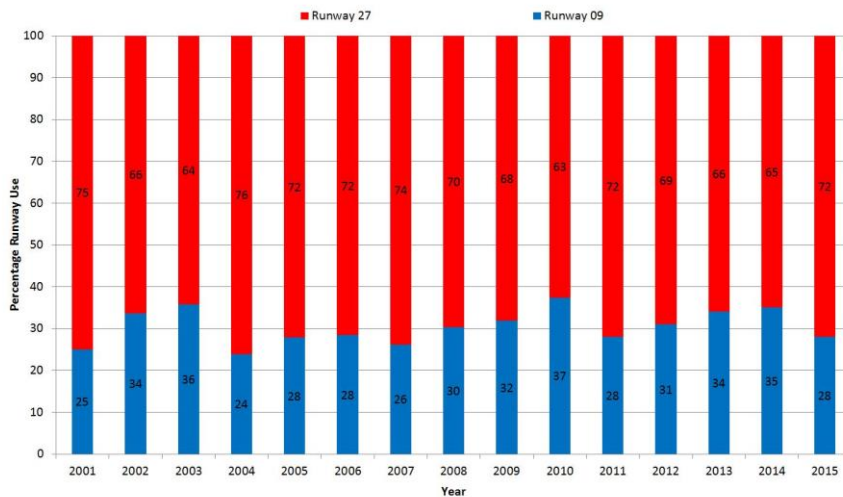


The overall percentage figure for 2015 were runway 09 = 28% and runway 27 = 72%. Runway 09 operations are aircraft arriving (over The Wirral Peninsula) and departing (over Hale Village) to the east. Runway 27 operations are aircraft arriving (over Hale Village) and departing (over the Wirral Peninsula) to the west.

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Runway Utilisation 2001 to 2015



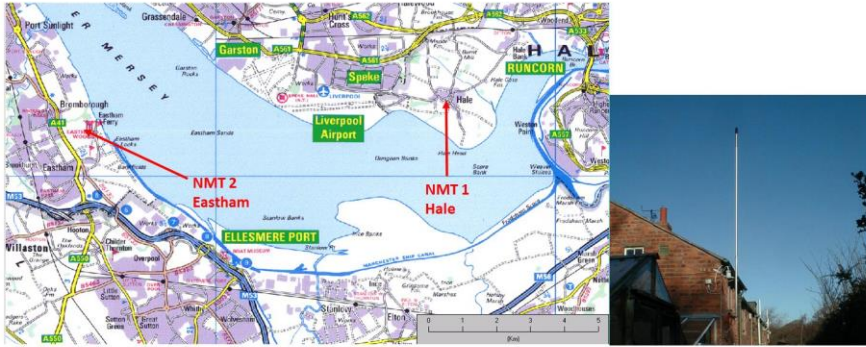
The average for the 2001 to 2015 period shown are runway 09 = 30% and runway 27 = 70%.

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Noise Monitoring

Airborne aircraft noise is monitored at two fixed Noise Monitoring Terminals (NMT's) at Hale C of E Primary School (NMT 1) to the east of the runway and at Eastham (NMT 2) to the west of the runway. The NMT's measure all relevant acoustical parameters. The acoustical parameters are stored in the Noise Monitoring Terminal (NMT) on a data logger located in the NMT cabinet and the data is collected twice a day.



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Average Event Annual Noise Levels for Eastham and Hale Noise Monitoring Terminals (NMT) 2015

| Airline | Aircraft Type | Runway 09 | | | | | | Runway 27 | | | | | |
|----------|-------------------|----------------------------|-----------|---------------|---------------------------|-----------|---------------|-------------------------|-----------|---------------|------------------------------|-----------|---------------|
| | | Arrivals (NMT 2 - Eastham) | | | Departures (NMT 1 - Hale) | | | Arrivals (NMT 1 - Hale) | | | Departures (NMT 2 - Eastham) | | |
| | | L_{Aeq} dB | SEL dB(A) | L_{Amax} dB | L_{Aeq} dB | SEL dB(A) | L_{Amax} dB | L_{Aeq} dB | SEL dB(A) | L_{Amax} dB | L_{Aeq} dB | SEL dB(A) | L_{Amax} dB |
| Fly BE | Bombardier Dash 8 | 68.0 | 81.2 | 72.7 | 65.8 | 77.6 | 70.1 | 71.0 | 84.0 | 77.5 | 61.9 | 73.1 | 64.6 |
| easyjet | Airbus A319 | 70.2 | 83.9 | 76.2 | 68.3 | 82.1 | 73.2 | 75.2 | 89.2 | 83.7 | 65.5 | 78.8 | 69.6 |
| easyjet | Airbus A320 | 69.0 | 82.7 | 74.2 | 71.2 | 85.8 | 77.0 | 74.8 | 88.8 | 83.3 | 66.0 | 79.3 | 70.3 |
| Wizz Air | Airbus A320 | 69.0 | 82.7 | 74.2 | 71.2 | 85.8 | 77.0 | 74.9 | 89.0 | 83.0 | 62.9 | 74.8 | 66.1 |
| Ryanair | Boeing 737-800 | 70.9 | 84.7 | 77.0 | 72.4 | 86.7 | 78.1 | 75.9 | 90.0 | 94.4 | 64.6 | 77.1 | 68.4 |
| Blue | Boeing 737-400 | 72.2 | 85.9 | 79.1 | 75.6 | 90.6 | 82.5 | 78.1 | 92.3 | 87.3 | 64.6 | 77.9 | 68.7 |

L_{Aeq} - Equivalent continuous sound level. The steady dB(A) level which would produce the same A-weighted sound energy over the stated period of time as specified time-varying sound.

SEL - The Single Event Level (SEL) is a measure of aircraft noise from a single event which takes account of the duration as well as the intensity, being the level maintained constantly for a period of one second that would deliver the same A weighted energy as the given noise event.

L_{Amax} - The L_{Amax} is the maximum noise level measured with slow time weighting and represents the highest level of environmental noise occurring during a correlated noise event.

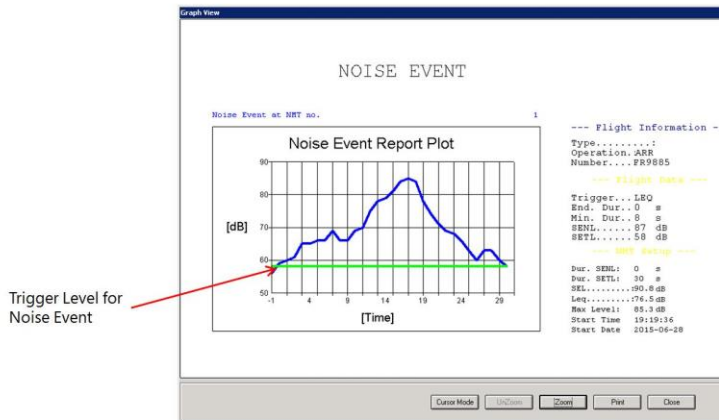
The Noise Levels vary at NMT 1 and NMT 2, because NMT 1 (4.6 km) is located closer to the Airport than NMT 2 (8.5 km).

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Noise Event Report

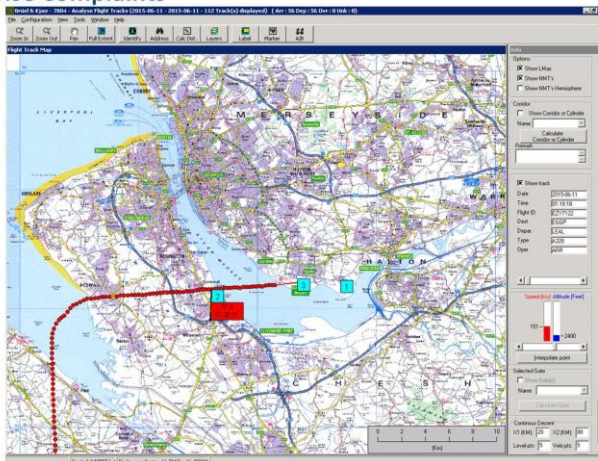
Example of a Noise Event Report form the Noise Monitoring System (NMT 1) for a Ryanair Boeing 737-800 arrival on runway 27.



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Noise Complaints



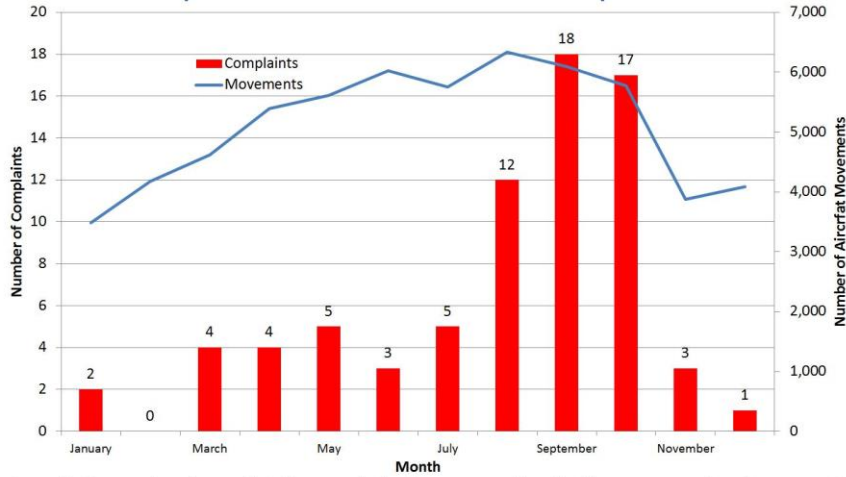
The Airport operates a Noise Complaints Management System to accurately record the nature of the noise complaint made by the local community to the Airport Company, to investigate the potential source of the complaint and to respond to the complainant. A complaint can be made by telephone, letter, email or via the Airport website.

The critical information from the caller includes a description of their concerns, the date, time and location of the event and their contact details. This information is used to investigate the complaint using the Noise Monitoring and Track Keeping System which coordinates Radar aircraft specific information and operational data with information form the Noise Monitoring Terminals.

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Number of Complaints and Total Aircraft Movements per Month for 2015

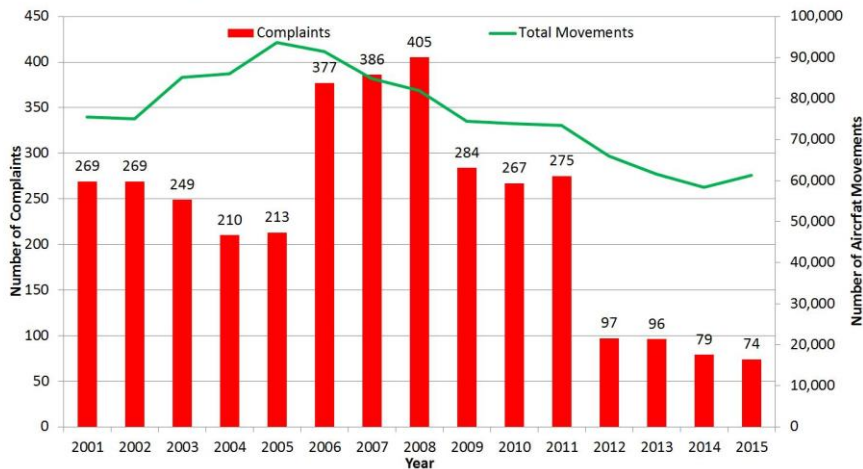


Generally the number of complaints increase during the summer when there are more aircraft movements but this is not always the case as in 2015 where other factors such as the weather and runway orientation can have a bearing on the number of noise complaints and where they originate from that are received by the Airport.

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Number of Complaints and Total Aircraft Movements 2001 to 2015

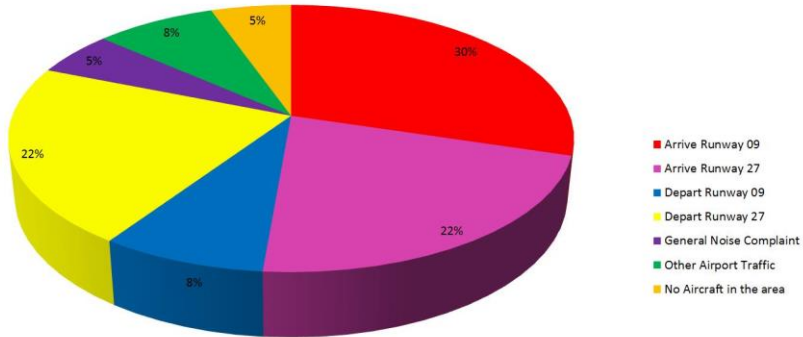


2015 shows a 82% reduction from the peak number of noise complaints in 2008. The absolute number of noise complaints is not a good indicator of actual noise exposure, nor should it be the determining factor in how or what steps can be taken to mitigate noise impacts.

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Activity which Caused Noise Complaints in 2015

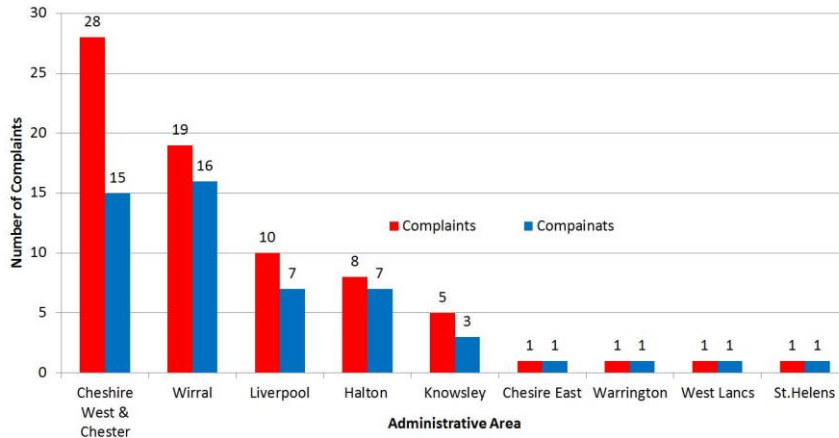


During 2015 30% of complaints were generated by aircraft arriving on runway 09 over the Wirral Peninsula. 22% of complaints were generated by arrivals on runway 27 over Warrington, Runcorn and Hale Village. 22% of complaints were generated by departures from runway 27 over the Wirral Peninsula. Just 8% of complaints made related to departures from runway 09 over Hale Village. 5% of complaints were related to the general operation of aircraft at Liverpool Airport. 8% of noise complaints were associated with aircraft movements from other airports and 5% of complaints related to situations where no aircraft activity was identified at the time of the complaint.

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Number of Noise Complaints and Complainants for each Administrative Area 2015

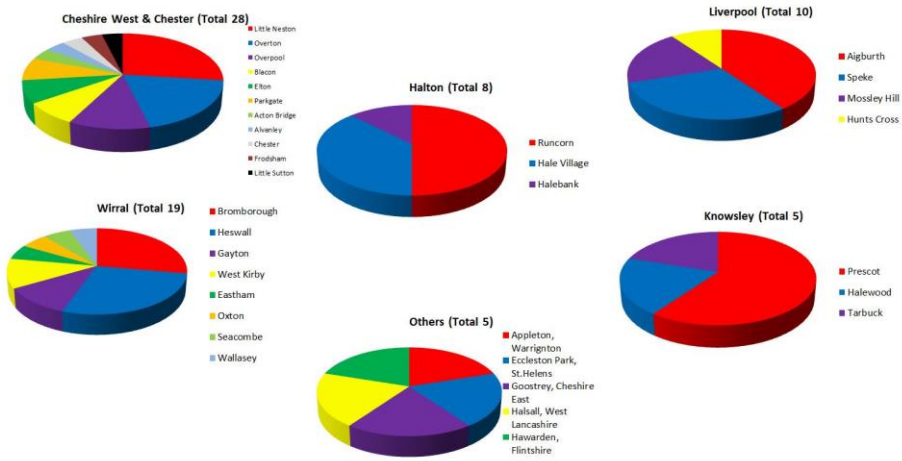


The chart illustrates the number of complaints received from each Local Authority Area and the number of complainants who made the complaints in 2015. 38% of complaints were received from Cheshire West & Chester residents with 26% coming from Wirral residents. Liverpool had 14%, Halton 11%, and Knowsley 8%. Cheshire East, St. Helens, Warrington and West Lancashire all had 1%.

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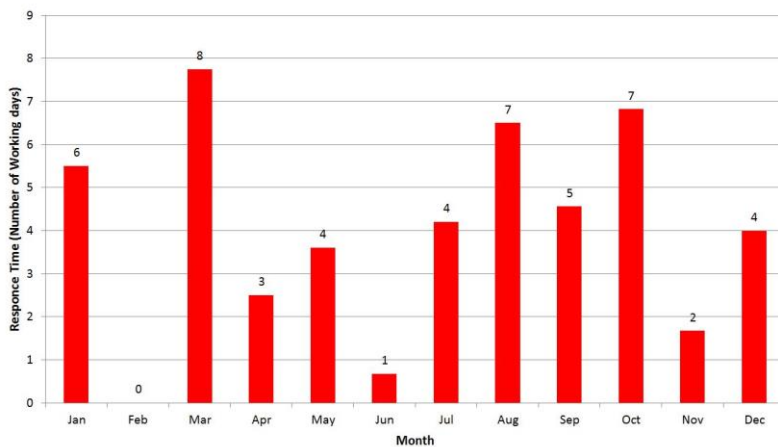
Number of Complaints Received from each Area of the Administrative Areas in 2015



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Average response time for Noise Complaints are Received by the Airport in 2015

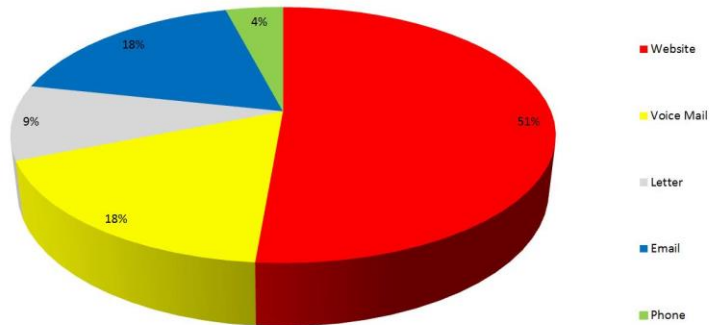


The Airport aims to respond to all noise complaints within 14 working days. During 2015 97% of all noise complaints were responded to within 14 working days.

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Method by which the Noise Complaints are Received by the Airport in 2015



The chart illustrates the method by which noise complaints were received as a percentage in 2015

Website via: <http://www.liverpoolairport.com/about-ljla/aircraft-noise/>

Voice Mail via: 0151 907 1745

Email via: environment@liverpoolairport.com

Letter via: Environment Team, Liverpool John Lennon Airport, Liverpool, L24 1YD

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