

Annual Noise Report

2018



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Review of Aircraft Movements 2018

		Club	Commercial	Non Commercial	Other	Total
2018	January	1,170	2,550	109	78	3,907
	February	1,800	2,455	122	82	4,459
	March	1,822	2,841	155	68	4,886
	April	2,009	3,115	190	81	5,395
	May	2,968	3,343	248	98	6,657
	June	2,615	3,187	144	77	6,023
	July	2,362	3,322	175	100	5,959
	August	2,180	3,465	188	123	5,956
	September	2,369	3,349	126	59	5,903
	October	2,354	3,292	112	70	5,828
	November	1,744	2,560	131	80	4,515
	December	1,480	2,720	191	42	4,433

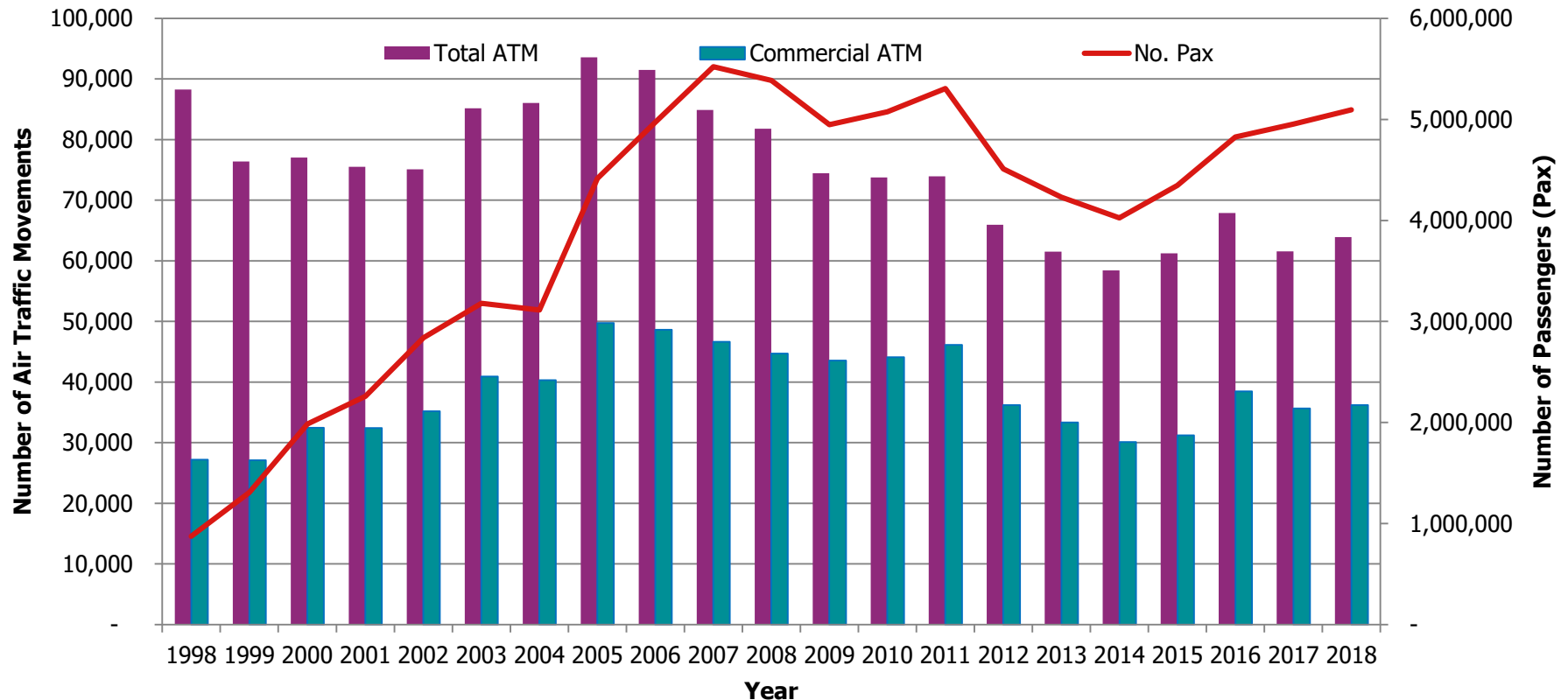
The movements are divided into Commercial (paying passenger services and cargo), Non Commercial (private aircraft), Club (private aircraft based at the airport) and Others (military and positioning flights and other miscellaneous aircraft movements). There was a total of 63,921 aircraft movements in 2018.

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Review of Aircraft Movement (ATM) Type and Passenger (Pax) Numbers from 1999 to 2018



The chart illustrates aircraft movements (both total and commercial) as well as passenger numbers from 1998 to 2018. The number of commercial aircraft movements for 2018 were down by 22% on the peak number in 2005.

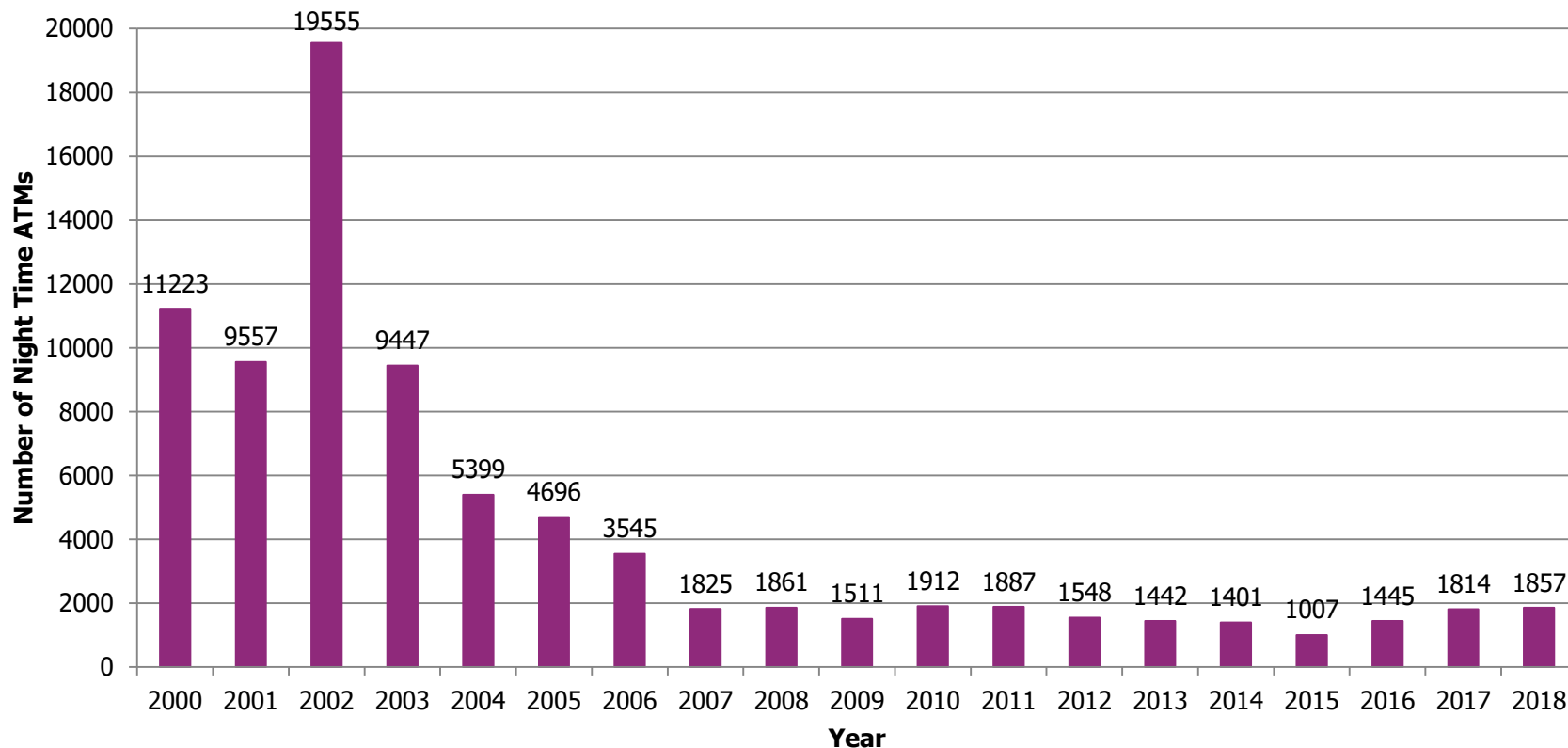
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Number of Night Time (23:30 to 06:00) Aircraft Movements 2000 to 2018



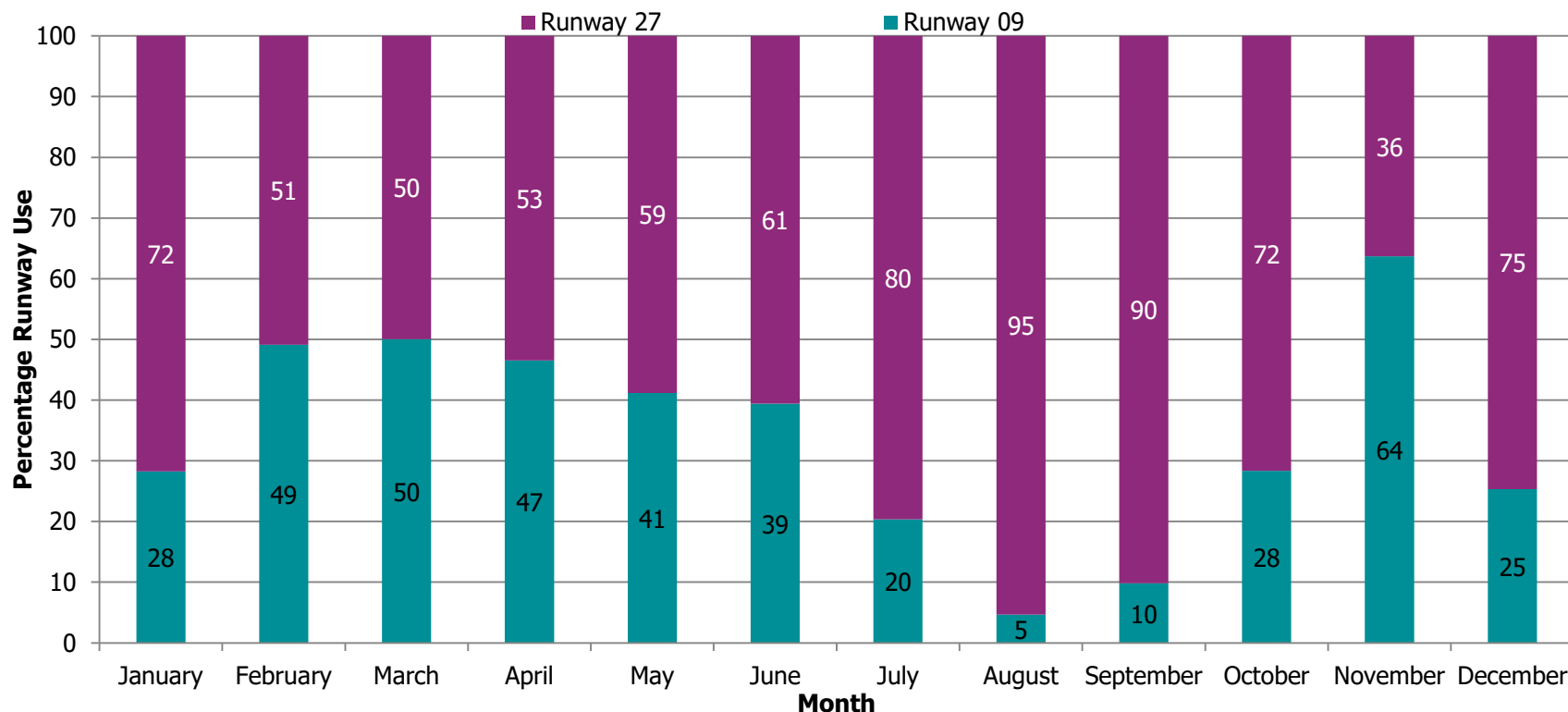
The number of aircraft movements during the night time quota period (23:30 to 06:00) from 2000 to 2018 is shown above. The number of night time aircraft movements for 2018 are down by 93% on the peak year of 2002 when there was a large night time cargo and mail operation at Liverpool John Lennon Airport.

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Runway Utilisation per Month 2018



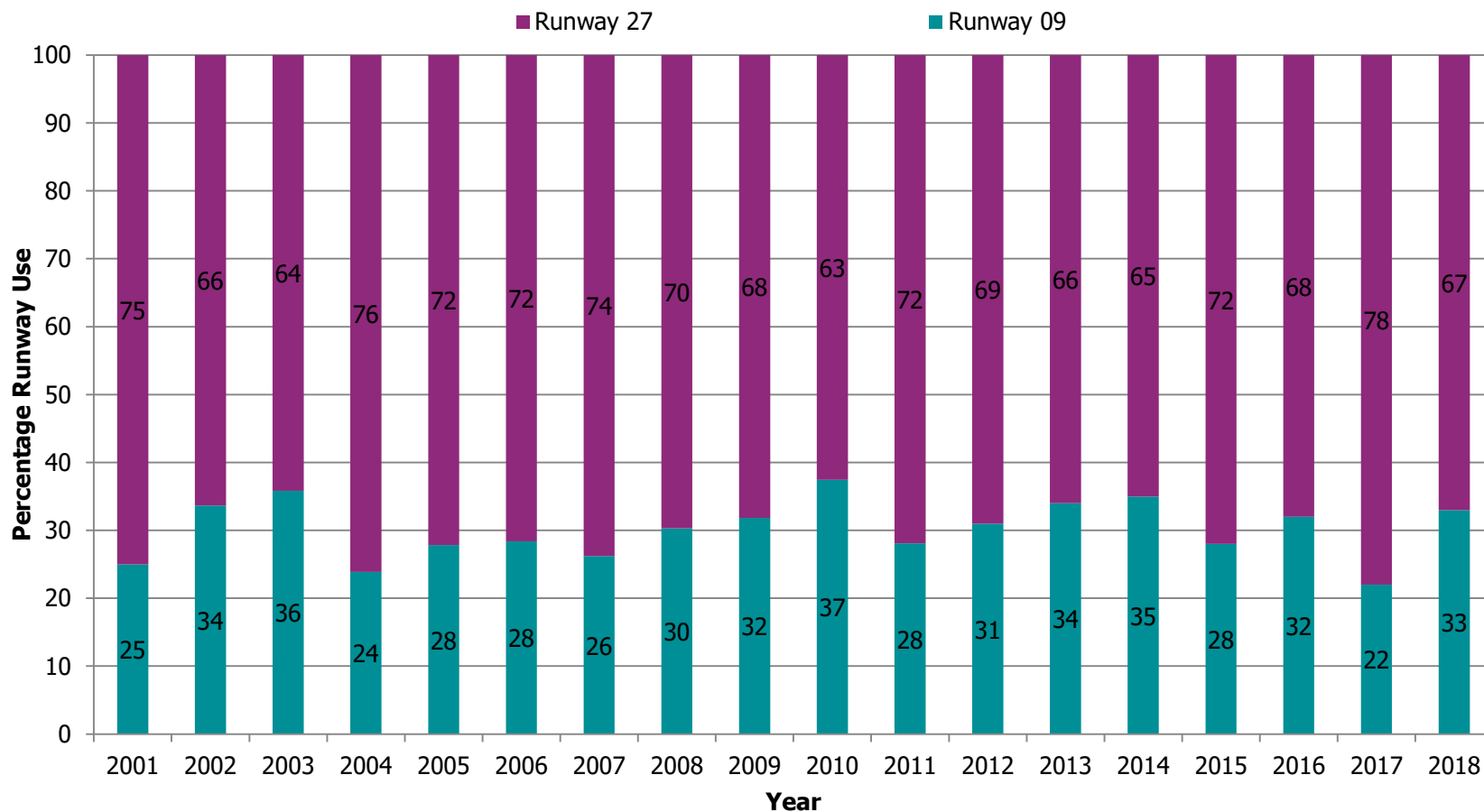
The overall percentage figure for 2018 were runway 09 = 33% and runway 27 = 67%. Runway 09 operations are aircraft arriving (over The Wirral Peninsula) and departing (over Hale Village) to the east. Runway 27 operations are aircraft arriving (over Hale Village) and departing (over the Wirral Peninsula) to the west.

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Runway Utilisation 2001 to 2018



The average for the 2001 to 2018 period shown are runway 09 = 30% and runway 27 = 70%.

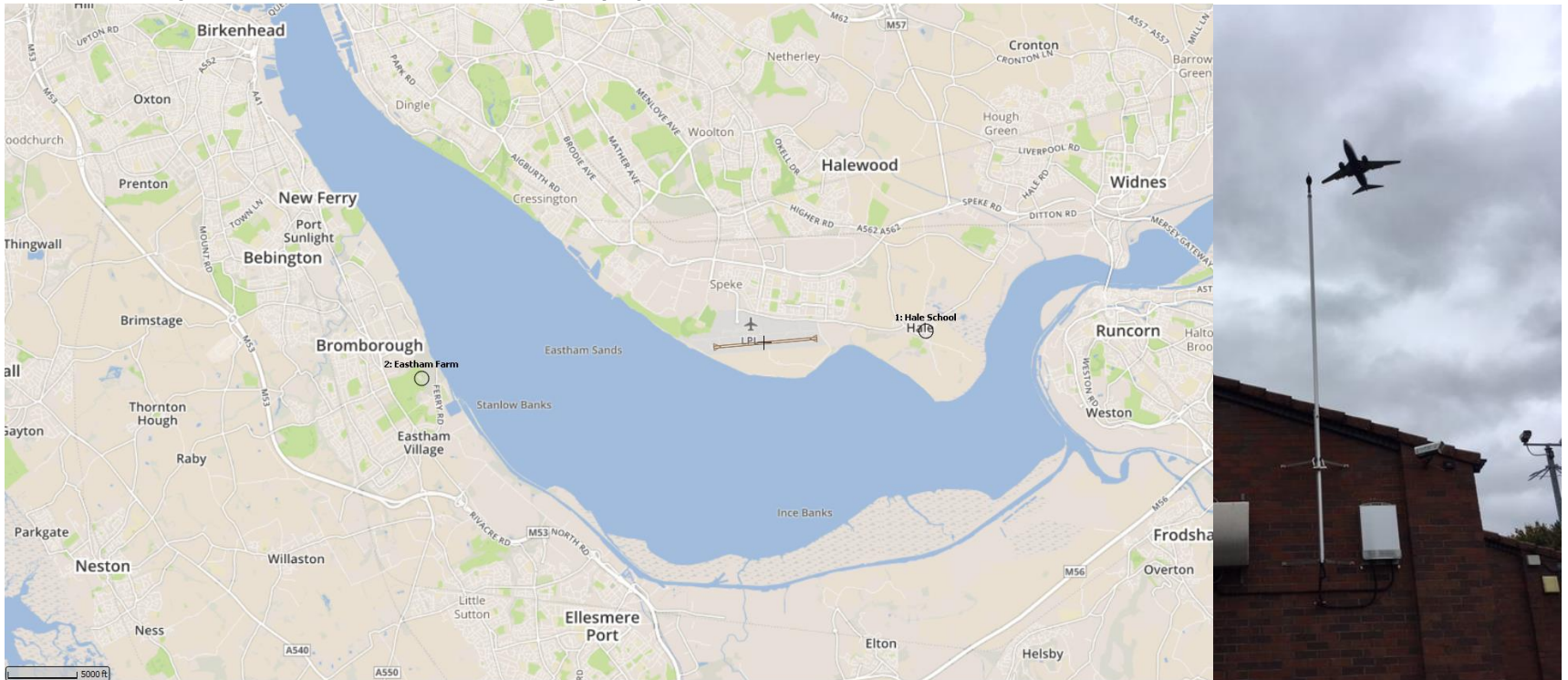
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Noise Monitoring

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. New Noise Monitoring equipment was installed in October 2018 at both locations.



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Average Event Annual Noise Levels for Eastham and Hale Noise Monitoring Terminals (NMT) 2018

		Runway 09						Runway 27					
		Arrivals (NMT 2 - Eastham)			Departures (NMT 1 - Hale)			Arrivals (NMT 1 - Hale)			Departures (NMT 2 - Eastham)		
Airline	Aircraft Type	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	ATR-75	62.2	82.4	74.0	62.6	73.0	65.6	74.9	89.9	83.0	NA	NA	NA
easyJet	Airbus A319	71.0	85.2	76.7	68.0	81.9	72.7	76.7	91.1	84.2	65.5	78.9	69.7
easyJet	Airbus A320	71.0	85.2	76.8	69.2	83.5	73.9	76.7	91.3	84.3	65.6	79.0	69.8
Wizz Air	Airbus A320	68.8	82.6	73.7	73.1	88.0	78.9	75.5	90.1	82.7	64.2	77.1	67.9
Ryanair	Boeing 737-800	71.2	85.4	77.1	73.4	88.4	79.0	77.6	92.1	85.1	65.4	78.5	69.3
Blue	Boeing 737-700	70.7	85.8	76.1	72.2	88.5	73.4	76.2	90.4	83.5	64.7	77.6	68.7
Blue	Boeing 737-800	71.1	85.6	76.9	75.6	90.5	81.6	77.9	92.5	85.5	64.2	77.2	67.3

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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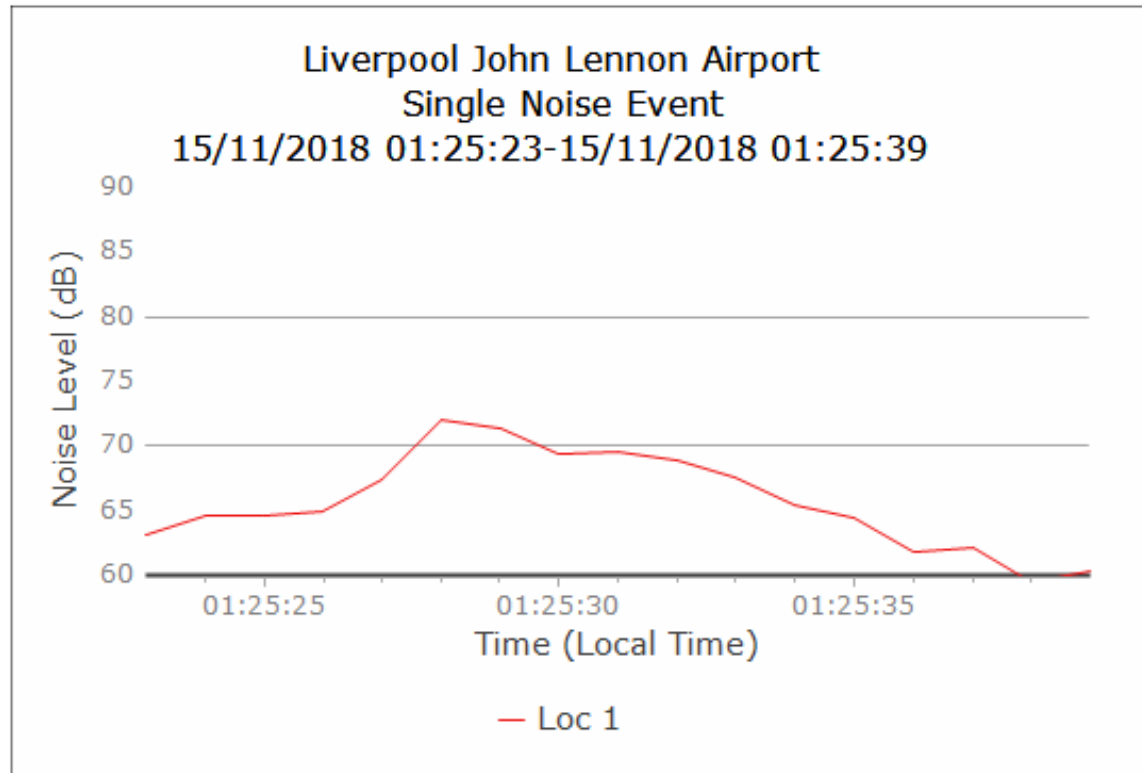
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Noise Event Report

Flight Details

Flight Number FRF300
Tail Number HATAG
Beacon Code 7220
Aircraft Type SF34
A/D Flag D
Runway Name 09
Origin EGGP
Destination EPRZ
Actual Time 15/11/2018
15/11/2018
01:25:08
Flight No FRF300



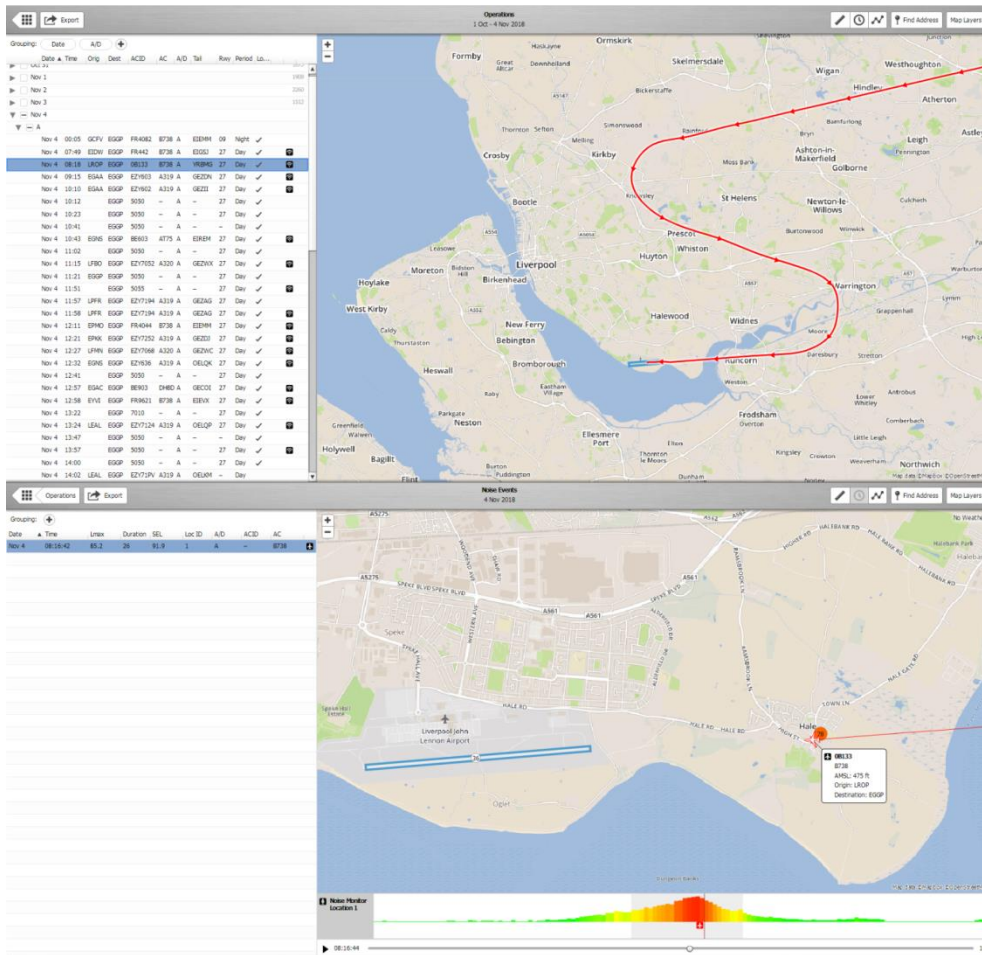
Example of a Noise Event Report form the Noise Monitoring System (NMT 1) for a Ryanair Boeing 737-800 departure on runway 09.

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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.

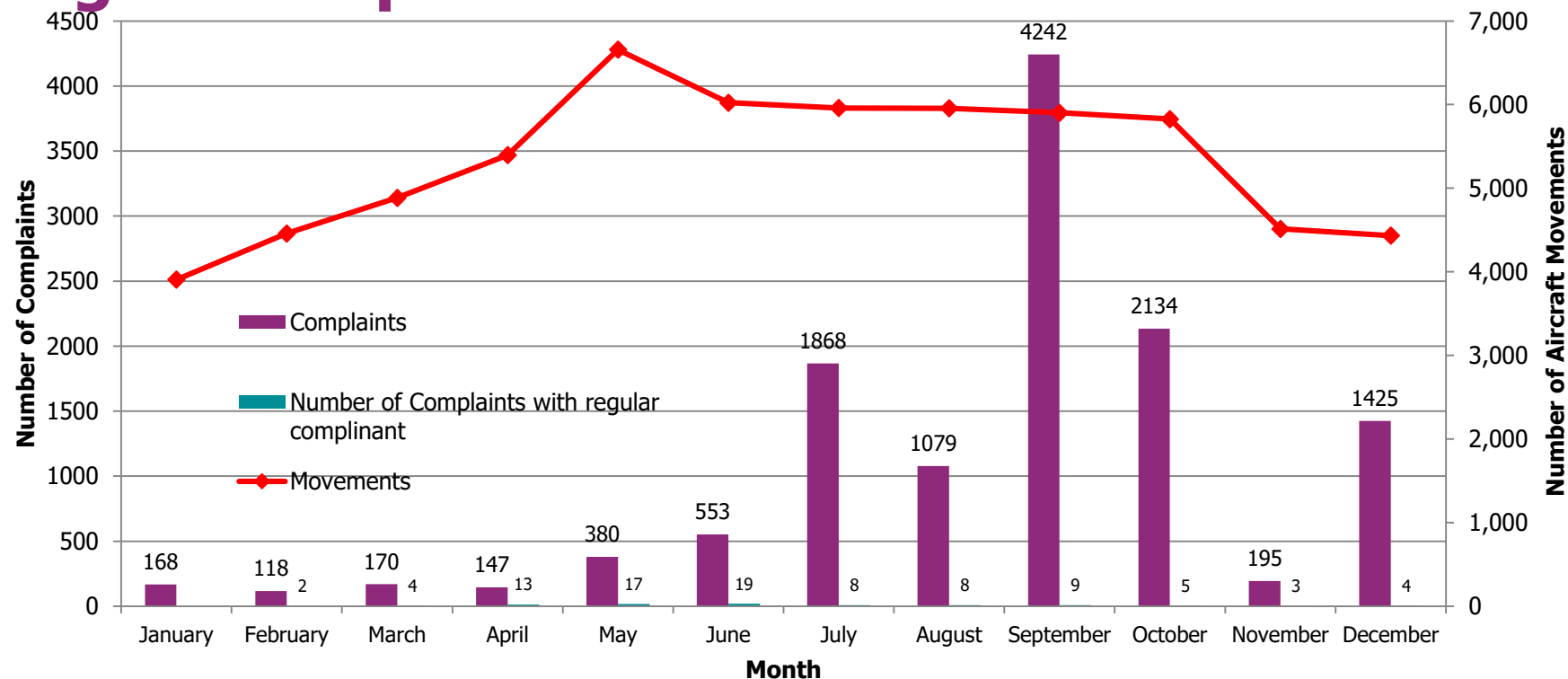
The information required from the caller includes a description of their concerns, the date, time and location of the event and their contact details. This information is used to investigate the complaint using the Noise Monitoring and Track Keeping System which coordinates Radar aircraft specific information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

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Number of Complaints and Total Aircraft Movements per Month in 2018 with & without regular complainant



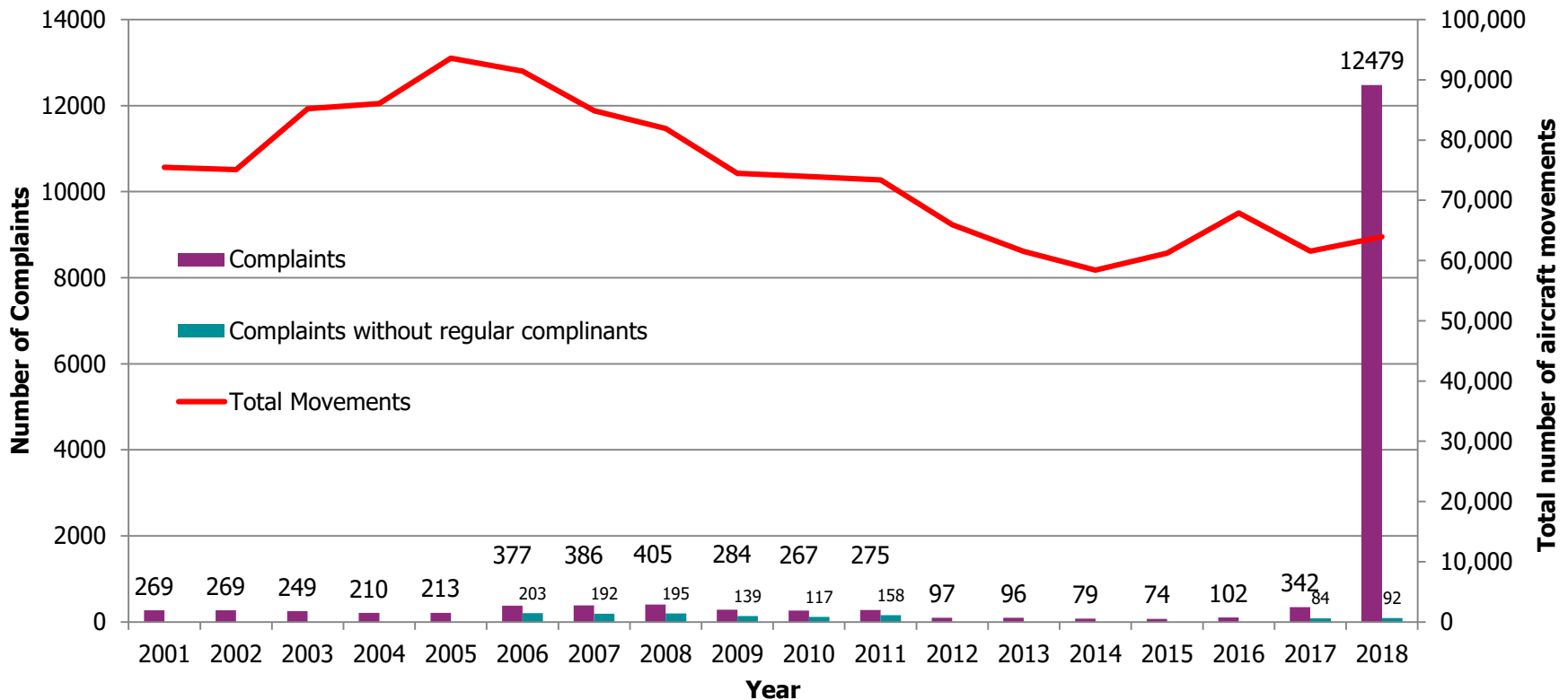
During 2018 12,387 of the 12,479 complaints were made by one individual. Generally the number of complaints increase during the summer when there are more aircraft movements but this is not always the case as in 2016 where other factors can have a bearing on the number of noise complaints and where they originate from that are received by the Airport.

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Number of Complaints and Total Aircraft Movements 2001 to 2018



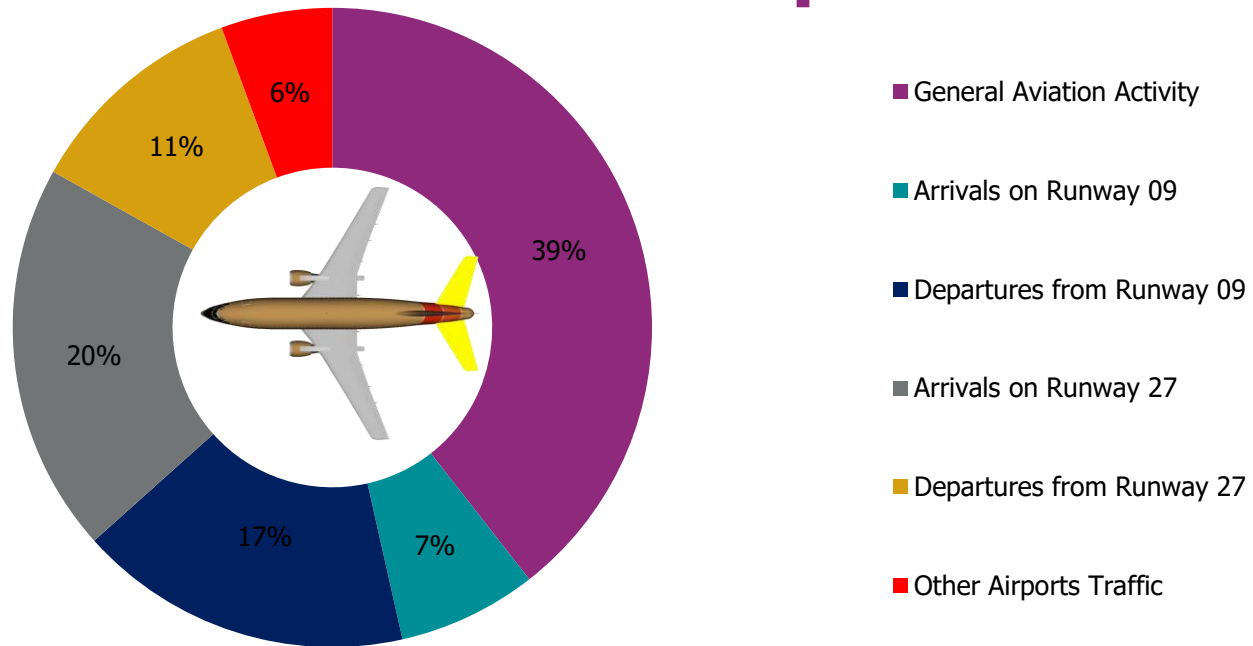
2018 shows a peak number of noise complaints since 2001. The absolute number of noise complaints is not a good indicator of actual noise exposure, nor should it be the determining factor in how or what steps can be taken to mitigate noise impacts.

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Activity which Caused Noise Complaints in 2018



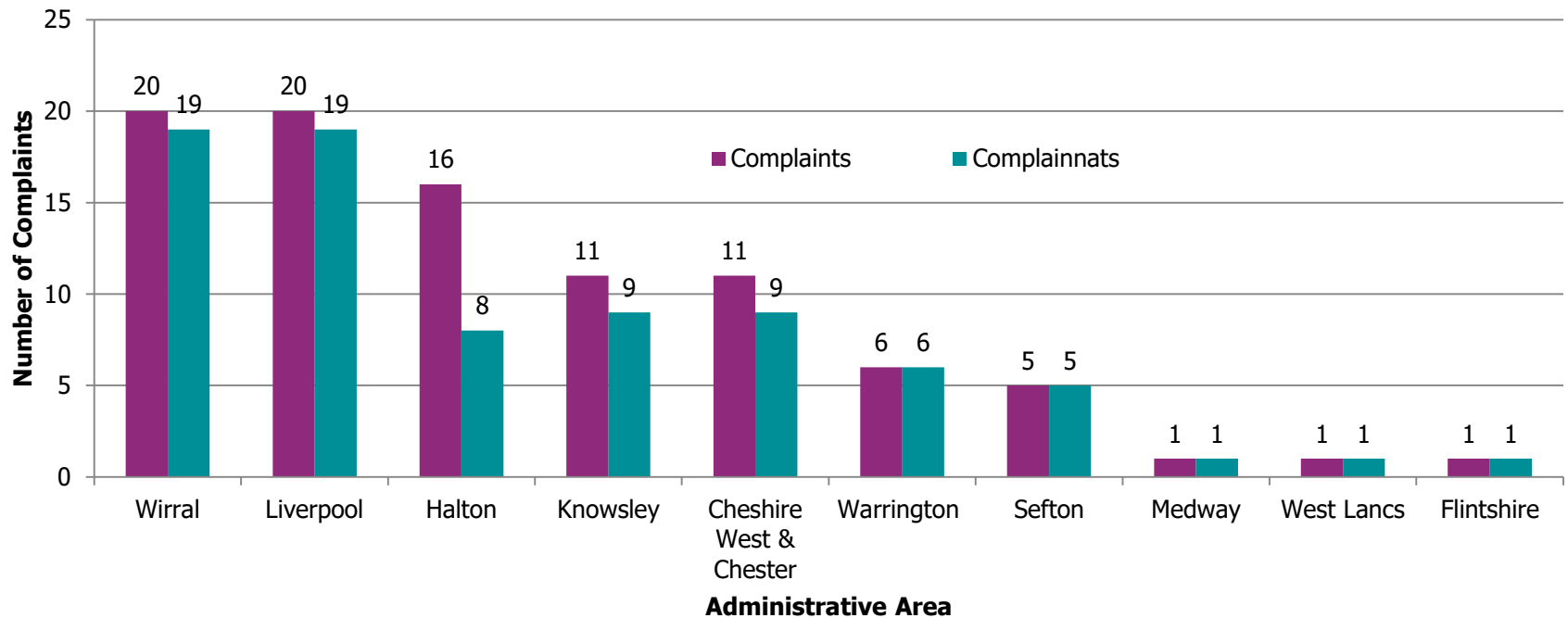
During 2018 30% of complaints were generated by aircraft arriving on runway 09 over the Wirral Peninsula. 22% of complaints were generated by arrivals on runway 27 over Warrington, Runcorn and Hale Village. 22% of complaints were generated by departures from runway 27 over the Wirral Peninsula. Just 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 2018



The chart illustrates the number of complaints received from each Local Authority Area and the number of complainants who made the complaints in 2018. The chart does not include a complainant in Warrington who made 12,387 complaints in 2018. Without the regular complaint 20% each of complaints were received from Liverpool & Wirral residents with 16 % coming from Halton, 11% each came from Cheshire West & Chester & Knowsley residents. Warrington had 6 %, Sefton 5%, with Flintshire, West Lancs. & Medway all having 1%.

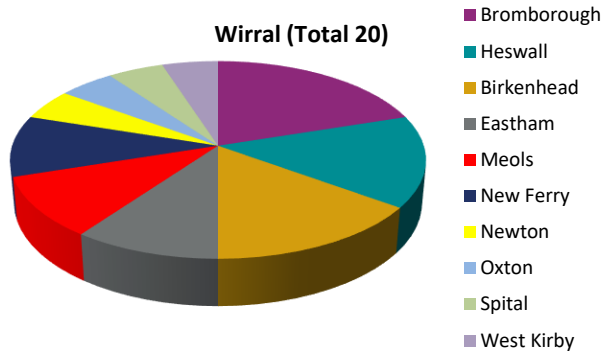
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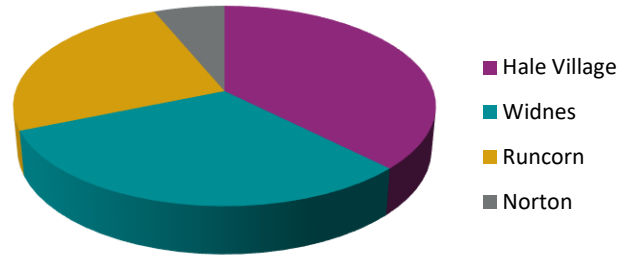
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Number of Complaints Received from each Area of the Administrative Areas in 2018

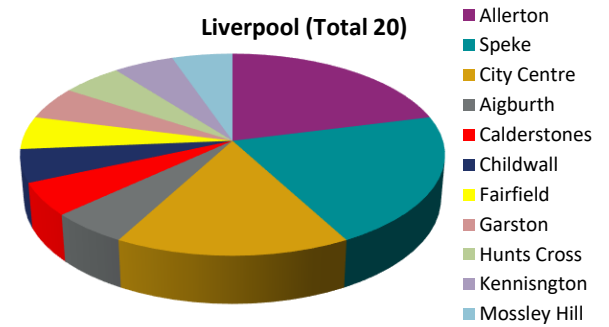
Wirral (Total 20)



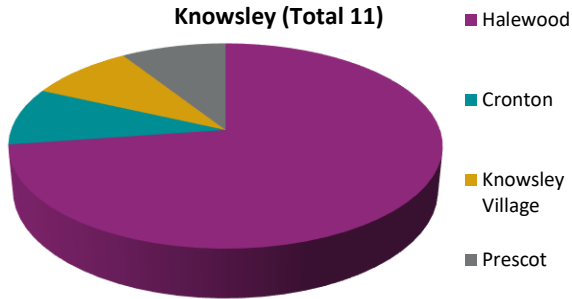
Halton (Total 16)



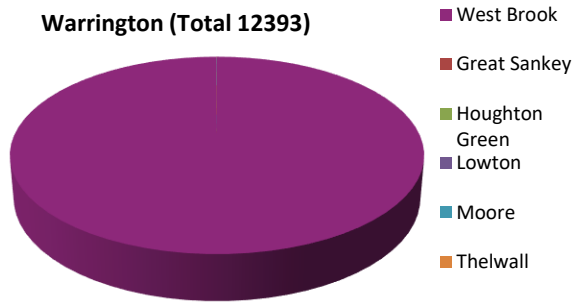
Liverpool (Total 20)



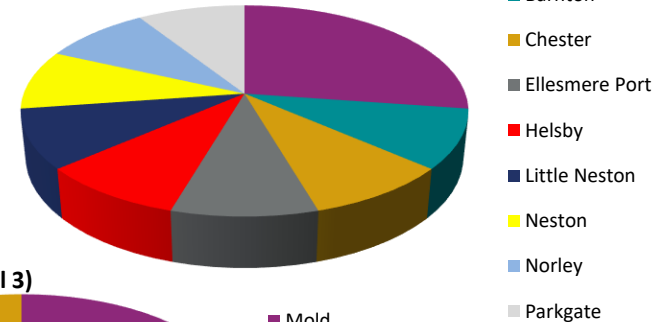
Knowsley (Total 11)



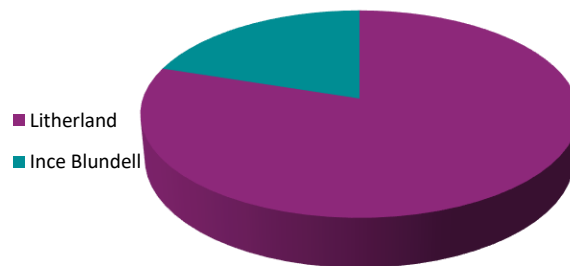
Warrington (Total 12393)



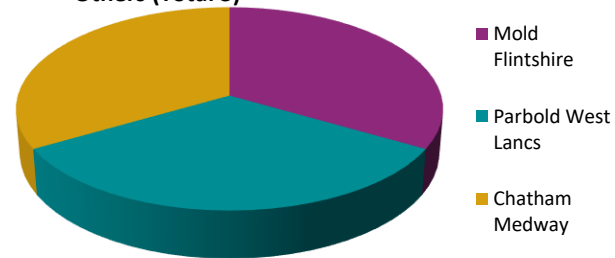
Cheshire West & Chester (Total 11)



Sefton (Total 5)



Others (Total 3)



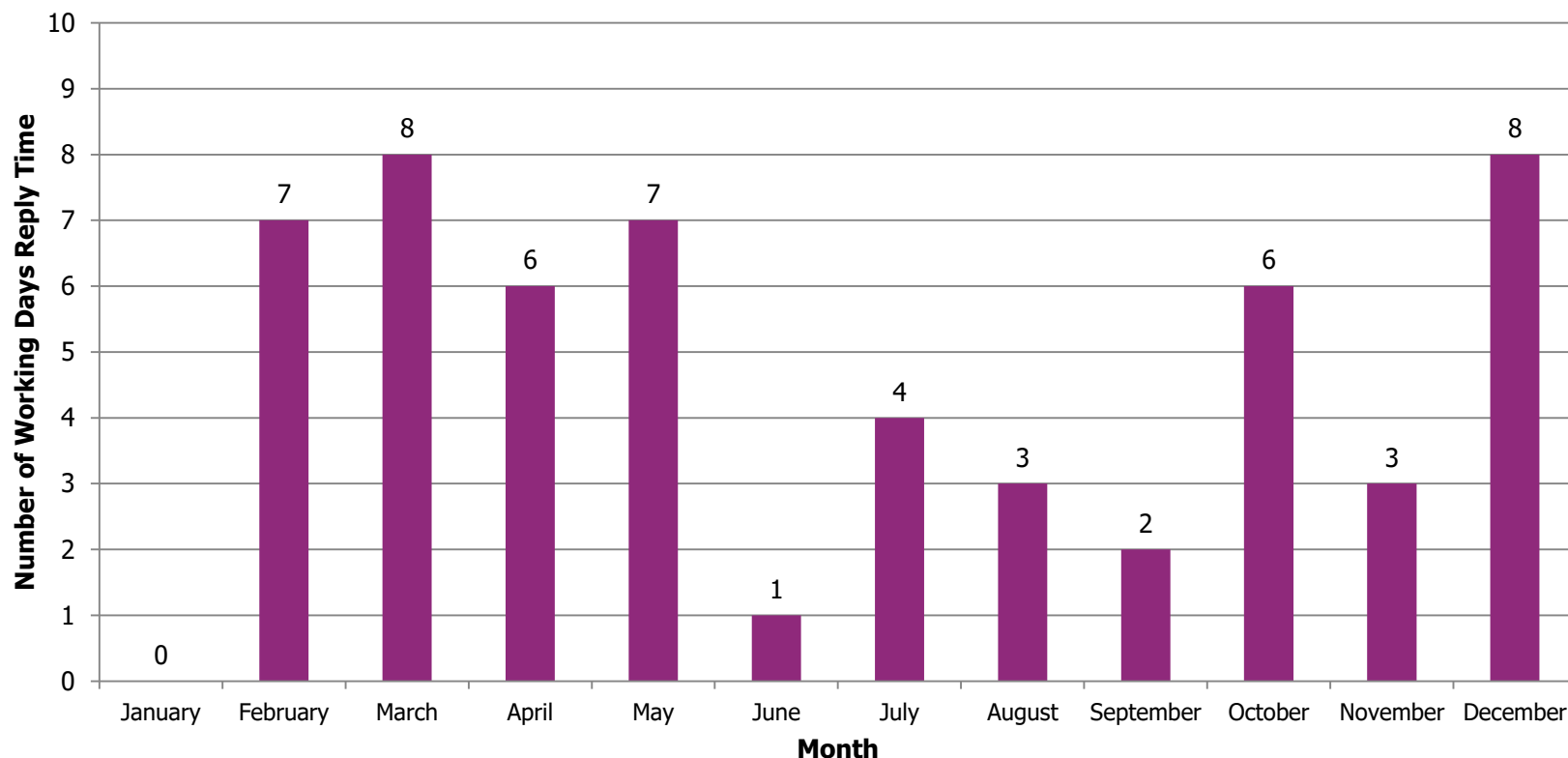
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Average response time for Noise Complaints are Received by the Airport in 2018



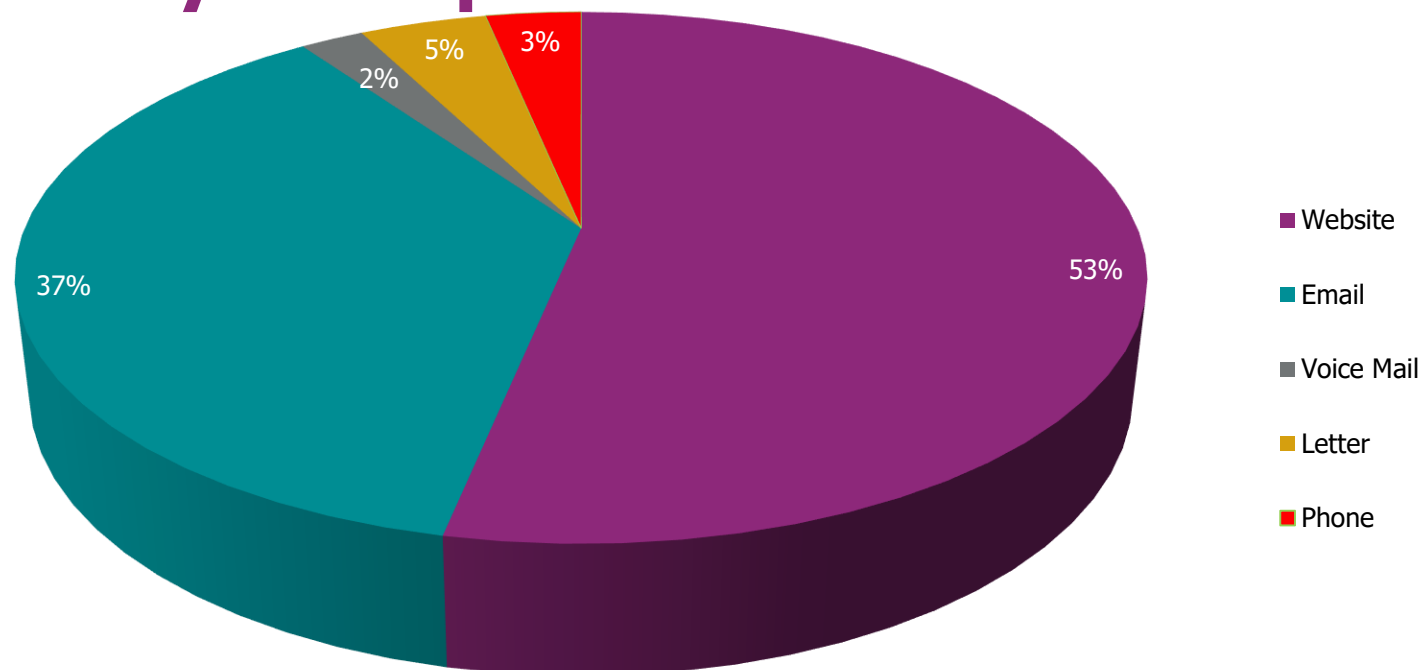
The Airport aims to respond to all noise complaints within 14 working days. During 2018 100% of all noise complaints were responded to within 14 working days.

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Method by which the Noise Complaints are Received by the Airport in 2018



The chart illustrates the method by which noise complaints were received as a percentage in 2018. Complaints can be made using the following options:

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

Voice Mail via: 0151 907 1745

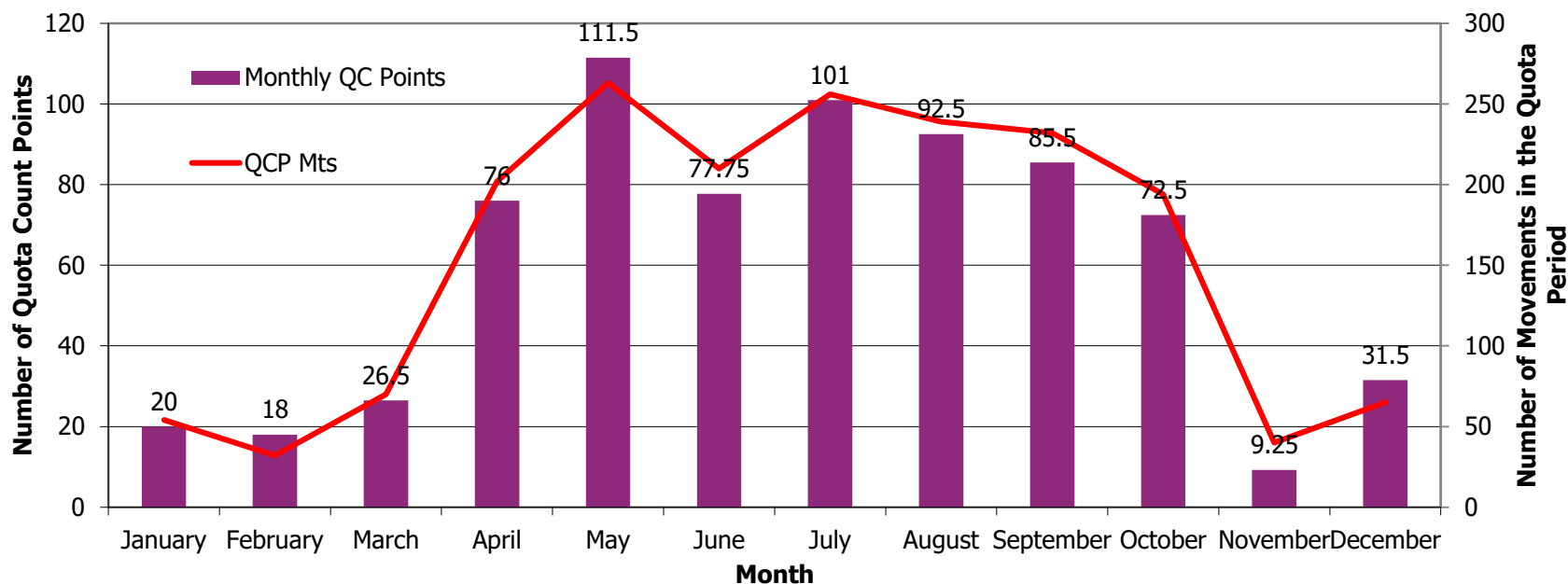
Email via: environment@liverpoolairport.com

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

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Quota Count Points and Quota Count Period Movements in 2018



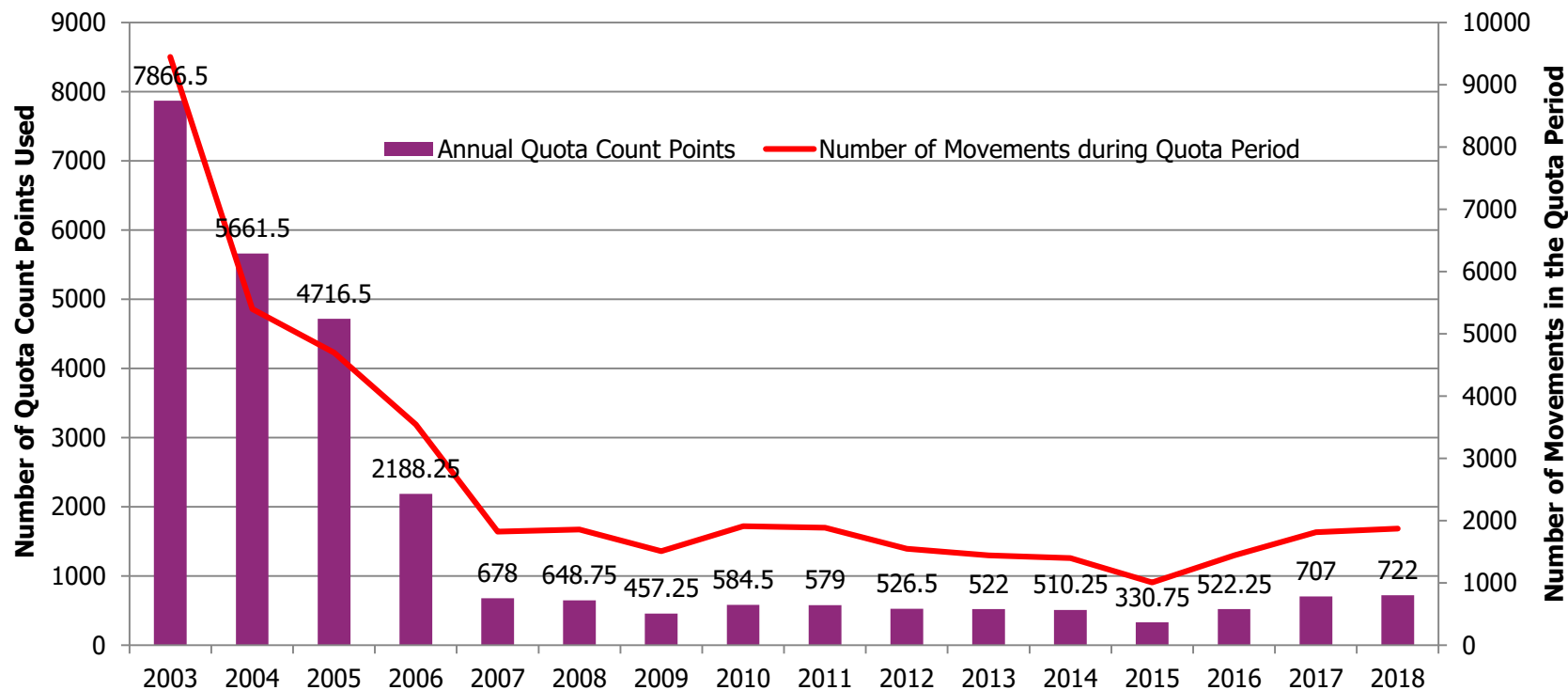
The Liverpool John Lennon Airport Quota Count Scheme is based upon the night restrictions developed by the Government for Heathrow, Gatwick and Stansted Airports. The scheme classifies aircraft according to the noise they generate during arrival and departure. The restrictions apply to a specified "noise quota" period (23:30 to 06:00 hours) during which aircraft movements are restricted by noise quota. Under the QCS, aircraft are grouped into QC bands between QC 0.125 to QC 16 from quieter modern aircraft to noisy larger aircraft respectively. Some of the very quietest types are classified as exempt and have a QC value of zero and no restriction applies.

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Quota Count Points and Quota Count Period Movements from 2003 to 2018

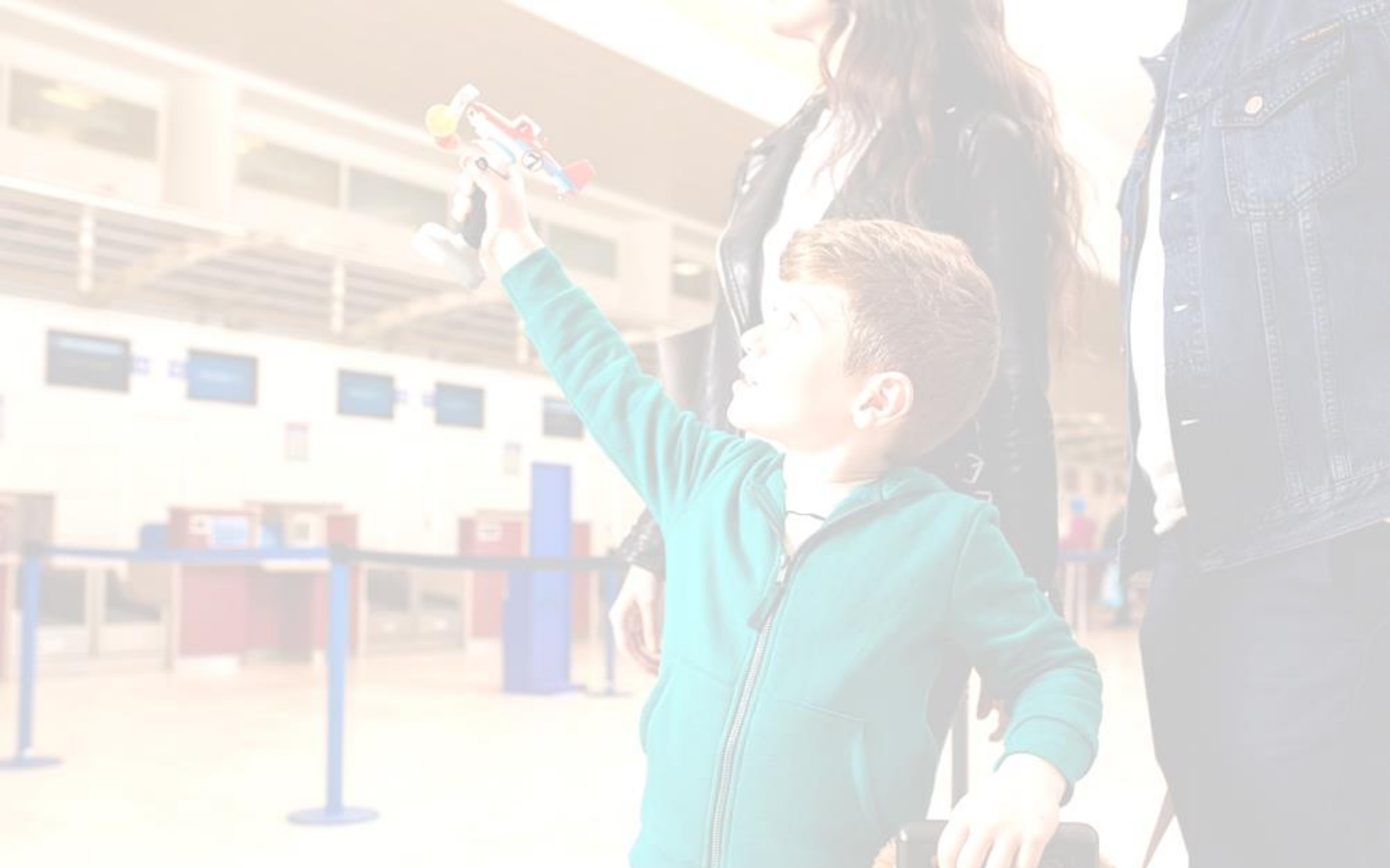


The Airport started to record Quota Count Movements in November 2002. The first full year of Quota Count Movements was 2003 which had the most use of Quota Count Points and Movements. Since 2007 the amount of Night time aircraft movements fell after the withdrawal of the night time cargo and freight operations. These operations used older noisier aircraft such as the Hawker Siddeley HS 748 and the Lockheed L-188 Electra.

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