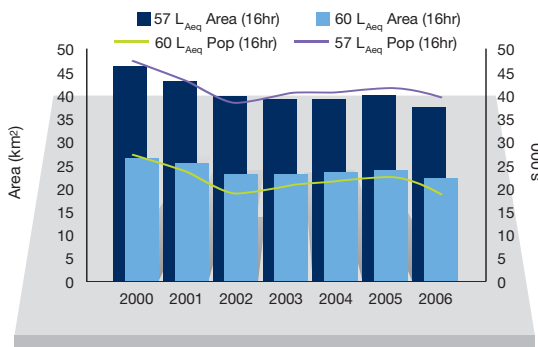


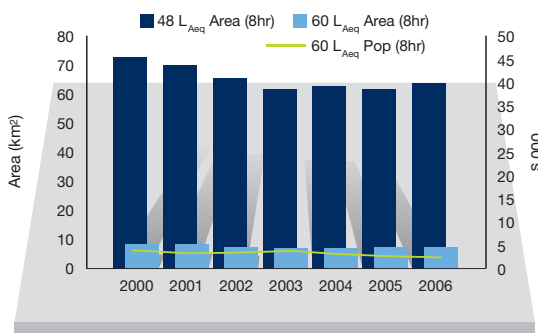
Noise Report 2006

Objective: "We will limit and reduce where possible, the number of people affected by noise as a result of the Airport's operation and development."

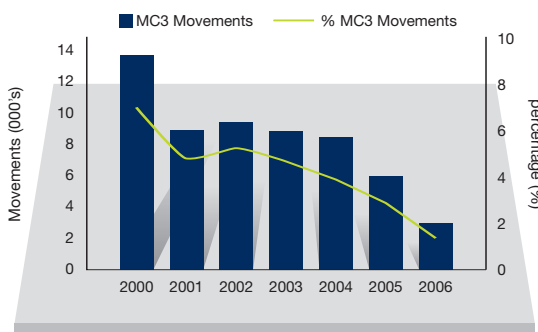
Our Environment Plan to 2030 sets out our policies and targets for controlling environmental impacts associated with the Airport's activities. This report presents progress against those targets and actions.



Day time noise



Night time noise



Noisy aircraft

Noise

Actual aircraft movements can be run through a computer model to produce a noise contour – the area within which aircraft noise levels exceed a given level.

Manchester Airport has published the area contained within the 60 L_{Aeq} daytime (16 hour) and night time (8 hour) contours as a key indicator of aircraft noise impact since the opening of the Second Runway in 2001.

We are required through the Planning Conditions and legal agreements associated with the Second Runway project, to maintain the size of those contours lower than those of 1992.

Marginally compliant aircraft

The International Civil Aviation Organisation (ICAO) defines aircraft noise categories known as 'Chapters.' The Chapter of an aircraft is based upon noise measurements taken at the time of its noise certification, taking account of its size and the number of engines.

The noisiest category of aircraft, Chapter 2, has been banned from operating in Europe since 2002. Since 1977, all jet, and large non-jet, aircraft have been built to meet ICAO Chapter 3 standards, although stricter Chapter 4 standards are now in place for aircraft certified after 2006.

Some older, noisier aircraft types whilst meeting Chapter 3 requirements, only just comply with the standard and are significantly noisier than most modern aircraft. These have become known as 'Marginally Compliant aircraft' (MC3). The definition of marginal compliance was formalised by the EU in 2002 as being a cumulative margin of not more than 5 decibels upon Chapter 3 standards.



The area of the 60 L_{Aeq} average 16 hour day and 8 hour night noise contours will remain lower than 33.6 km² and 13 km² respectively.



The area of the 2006 16 hour day 60 L_{Aeq} contour is 22.2 km². The 8 hour night 60 L_{Aeq} contours is 7.0 km².



The number of Marginally Compliant Chapter 3 movements will remain no greater than those in 2006.



In 2006 there were 3052 Marginally Compliant Chapter 3 operations at Manchester, 1.3% of total ATMs.

Track keeping

Departing aircraft are required to stay within defined corridors, called Preferred Noise Routes (PNRs). Wherever possible these are kept away from the most densely populated areas. We closely monitor airlines' compliance within these routes.

Working closely with our airline and Air Traffic Control partners we have progressively reduced the number of aircraft operating outside of the PNRs to less than 2% of departures. In 2006, we celebrated the achievement of 61 airlines having achieved our annual target of 95% 'On track'.

2006 Actions and Progress

Night noise policy

During 2006, after extensive consultation, we completed our 5 yearly review of the Airport's Night Noise Policy. In it we set out our approach to controlling and reporting upon night noise up to Winter 2011.

- Night movements will not exceed 7% of the Airport's total movements.
- QC point and movement limits have been fixed for a further 5 years.
- QC16 and QC8 aircraft types will not be permitted to operate between 23:00 and 07:00.
- QC4 aircraft will not be scheduled to take off at night.
- Increased financial penalties will apply to departing aircraft exceeding new lower maximum noise levels.
- Strict controls on engine testing at night.

Continuous descent approach

Immediately prior to touchdown, landing aircraft are required to follow a very narrow approach path. This means that in comparison with departing aircraft, a relatively small number of people may be frequently overflowed. One of the ways in which we are able to combat this disturbance is through the adoption of Continuous Descent Approach (CDA) procedures. CDA is an operating technique that minimises both noise levels and fuel use by ensuring that the aircraft descends steadily towards the runway using idle thrust, rather than a standard descent in steps.

During 2006 we conducted trials for aircraft to adopt a continuous descent approach (CDA) at night. These have proved successful and from March 2007 will be a requirement for all landings at night.

Focus for 2007

The main areas of work in 2007 will include the following:

- Improve the ways in which we communicate and report aircraft noise performance.
- Review our daytime noise penalties.
- We will produce noise contours and an associated noise action plan as part of the European Environmental Noise Directive. Initial L_{den} and L_{night} contours will be prepared for 2006. L_{den} is similar to L_{Aeq} in that it describes a notional continuous noise level over a given time period, but takes greater account of the distribution of traffic throughout the day by weighting the evening and night periods. We will report the area of the contour and the number of people living within it.
- Implement CDA requirement 22:00 to 06:00.
- 2007 "Skyliner" awards event will take place. Celebrating and promoting excellence in track keeping with our airline service partners.



Our target is for 95% of departures to fly within the PNR.



In 2006, over 98% of aircraft monitored achieved the required standard. 61 airlines were awarded "Skyliner" Awards for excellence in track-keeping.

2006